

Note on Identifying Costs and Benefits

Cost-benefit analyses is a way of answering the question, “Is this worth doing?” and “How will we know whether it was worth it when we’re done?” It assesses the value of a project by comparing its costs to measures of its performance, or more generally to the value of benefits it produces. The analysis requires accurate cost data (or at least reasonable and defensible estimates), as well as measures of benefits in comparable units of measurement (i.e. money, preferably but not necessarily only money).

Cost and benefit data can be obtained from operational records, direct observation, surveys, or group meetings at which those who perform the operations report and discuss costs and benefit assumptions. **Both one-time costs and benefits and ongoing costs and benefits should be investigated.**

Costs and benefits may also be direct and indirect, intended and unintended, as indicated in Table 1. The concepts will be discussed in the class lecture on this topic rather than in this brief summary paper.

Table 1: The scope of potential costs and benefits

Costs, Benefits/Impact	Direct Costs and Benefits	Indirect Costs and Benefits
Intended Costs		
Intended Benefits		
Unintended Costs		
Unintended Benefits		

Step 1. Understand Who the Beneficiaries/Stakeholders Will Be

You cannot understand costs and benefits until you understand all possible involved stakeholders, what costs they will assume and what benefits they will incur.

Stakeholders of Emergency Room Renovation project:

1. Personnel
2. Emergency room visitors
3. Visitor’s friends and family accompanying them
4. The hospital in which Emergency room is located
5. Insurance companies that work with the hospital
6. Cleaning people
7. The neighborhood in which Emergency room is located

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8. All the rest of the hospital (people from ER directed to different hospital departments after examination)
9. The municipal government interested in sustainable spaces, and better operation of the hospital.

Step 2. Understand the Current Business Processes (NEEDS ASSESSMENT) of Key Stakeholders Before You Can Understand Costs and Potential Benefits

You cannot do a cost-benefit analysis until you first understand the way the work process currently functions and at what costs. That is your baseline! In the case of green building, for example, how do the costs and benefits change as compared to traditional building for all major stakeholders involved.

So first get a good understanding of the current way of doing business.

Most times the measures for costs and benefits will not be known until the actual way that things are done now is known. **SO, START THERE!**

Needs of the stakeholders

1. Personnel - efficient circulation, infection control
2. Emergency room visitors - fast service, comfortable environment
3. Visitor's friends and family accompanying them - comforting space, fast service, comfortable waiting areas
4. The hospital in which Emergency room is located - infection control, efficient circulation
5. Insurance companies that work with the hospital - high client demand, great customer experience
6. Cleaning people - easy to clean surfaces, space that is easy to maintain
7. The neighborhood in which Emergency room is located - appealing exterior facade, landscaping
8. All the rest of the hospital (people from ER directed to different hospital departments after examination) - infection control, circulation, convenient adjacencies
9. The municipal government interested in sustainable spaces, and better operation of the hospital - great hospital experience makes the neighborhood or city more appealing for newcomers

Step 3. What Are the Costs that can be Measured?

Measure system costs. Working out the cost side of cost- benefit analysis requires careful attention to what cost information is relevant, what's available, and how it can

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be interpreted and used. Although it can seem like a straightforward task, a comprehensive cost analysis can be quite complex and demanding.

While it is not possible to present a comprehensive description of cost analysis here, the basic framework in Table 1 below provides a useful example for your work.

Definition of cost. A cost is something of value that is given up or exchanged for a particular reason.

Firstly, a key “cost” question is what are the costs of the current way of doing business and how will those costs compare with the proposed new way of doing business?

Costs might be as obvious as the financial outlay for some new equipment or as subtle as the extra time it takes a supervisor to explain new procedures to a staff member. An effective cost analysis takes into account who is involved in these exchanges, what they may be giving up (incurring costs), why they would be expected to do so, and what the organizational results might be.

B. Define benefits.

This comes second but largely occurs in conjunction with investigating costs.

Estimate a list of the expected benefits of developing the new way of doing business. Typical benefit categories include “faster,” “better,” and “cheaper.” So, the analysis should describe precisely how products or activities will be better in terms of the trade-off between costs and benefits (i.e. will benefits exceed costs by a greater amount than the normal way of doing business?)

The analysis should also include a statement of how each benefit will be measured to see if it has been achieved. Some measures will be relatively easy to describe in quantitative terms, especially those in the cheaper and faster categories. Others that we usually think of as qualitative (e.g. “client satisfaction”) can often be translated into measures through techniques known as monetization methods.

Keep in mind that we are always trying for the highest order of measures for costs and benefits according to the following rule:

- Monetary expressions of costs and benefits are most convincing
- When monetization is not possible, try for quantification
- If something is important and cannot be monetized or quantified, then capture it in qualitative description.

Table 1: Cost/Benefit Framework

1. Costs of the Current Way of Doing Business (i.e. cost inefficiencies and associated risks)		
<i>Type of Costs of Doing Business the Way it is Now</i>	Direct Cost	Indirect Cost
Personnel		
Equipment		
Supplies		
Utilities		
Contractual services		
Facility construction		
Failure to regulate		
Accident risks		
etc.		
3. Costs of Setting-Up the New Way of Doing Business		
<i>Type of Costs Associated with New Database Approach</i>	Direct Cost	Indirect Cost
Personnel		
Equipment		
Supplies		
Utilities		
Contractual services		
Facility construction		
etc.		
2. Benefits of the Suggested New Way of Doing Business		

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	Direct Benefits	Indirect Benefits
Better environment		
Improved health results		
More efficient energy use		
Lower cost of operation		
Lower life-cycle maintenance costs		
Enhanced productivity		
etc.		