



# Preparing a budget for a project

ICOM 5047

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# Why is a budget important?

- The main purpose of a budget is to answer your sponsor or your boss **what will your project cost** for you to complete the project you outline.
- Sometimes your sponsor may provide upper limits to the cost of the project and you have to accommodate your resources and project scope accordingly – do not overcommit.
- Sometimes funds for projects are allocated based on a bid - competitive
- Budgets are negotiable in many cases but be realistic in what can be negotiated.

# Proposal evaluation

Two main components of proposal evaluation

- Quality

- What is offered to accomplish? (Specs, expertise, fullfills requirements or need)
- Is it technically feasible within the constraints?

- Cost

- Is it within the economic constraints?
  - compared to competition when bidding;
  - marketability – development cost vs. Expected market -> cost per unit when in the market)
- Is it realistic?

Weights of these components in proposal evaluation may vary from sponsor to sponsor

# Budget

- A combination of art and science
- A great deal of decision-making is based on money matters
- Allocate resources for the project to be finished satisfactorily (human resources, technical resources, management, administrative and other indirect costs, profit when applicable, etc.)
- Most accurate estimate of expenditures to avoid (minimize) surprises
- Based on the work breakdown structure

# Budget

- Resources: dedicated to the project
  - Material, a computer or software that will be **solely** used for the project, otherwise depreciation or administration (indirect costs)
  - Human: based on time dedicated to project. Unit value based on qualifications, expertise, specific knowledge, responsibility (competitive labor market, e.g. Puerto Rico)  
[http://swz.salary.com/salarywizard/layouthtmls/swzl\\_narrowbrief\\_SM04.html](http://swz.salary.com/salarywizard/layouthtmls/swzl_narrowbrief_SM04.html))

# Budget

- Resources: dedicated to the project (cont)
  - Indirect costs: utilities, information, clerical, administration, etc.
  - Assets when available and applicable:
    - Resources available to your project already (e.g. specialized software or hardware)
    - Other sponsors, family or personal funds – specially important when searching venture capital.

# Budget

- Human Resources:
  - Search for a job description as accurate as possible, e.g. IT – Computers Hardware, Engineer I
  - Per hour cost =  $\text{yearly salary} / 2080$
  - Account for benefits, e.g. Social Security, disability, healthcare, pension, bonuses, etc

# Budget

- Materials:
  - Include only those that will be purchased and used exclusively for the project (e.g. hardware components, a computer with touchscreen that is part of the prototype)



# Budget

- **Indirect costs** represent the expenses of doing business that are not readily identified with a particular grant, contract, project function or activity, but are necessary for the general operation of the organization and the conduct of activities it performs. In theory, costs like heat, light, accounting and personnel might be charged directly if little meters could record minutes in a cross-cutting manner. Practical difficulties preclude such an approach. Therefore, cost allocation plans or indirect cost rates are used to distribute those costs to benefiting revenue sources.

# Budget

- Indirect costs computed as a percentage of Modified total direct costs (MTDC)
- MTDC: Total direct costs excluding equipment, capital expenditures, rental costs, etc. (e.g. of rates and specifications of Indirect costs  
<http://cid.uprm.edu/Doc/ORE/ICFBI.pdf>)
- When for-profit business indirect costs or factor includes profit.