

**PLS 540 – Environmental Policy and Management**  
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**Topics: Evaluative Criteria**

- **Some Basic Terms and Concepts**
  - *Criteria* are what we use to guide decision making and compare alternatives
    - *Goals*: formally and broadly worded statements about what we desire
    - *Objectives*: more focused and concretely worded statements about end states, usually with a time dimension and a client population specified
    - *Criteria*: specific statements about dimensions of the objectives that will be used to evaluate alternative policies and programs
    - *Measures*: tangible, if not quantifiable operational definitions of the evaluative criteria. Each criterion should have multiple measures associated with it.
  - Establishing Evaluative Criteria
    - Define and establish acceptable and useful criteria. The role of the analyst includes helping the decisionmaker clarify what is sought and define objectives so that alternatives can be designed
      - In practice, decisionmakers may not want to establish clear criteria so they establish purposely-vague criteria.
      - Analysts may also be frustrated when politicians are unwilling to discard multiple, conflicting objectives
    - Defining criteria is a learn by doing exercise. By interacting with clients, and working through the analysis, new criteria are discovered as old criteria are examined
  
- **Common Evaluative Criteria**
  - Strong arguments can be made for always including efficiency as a substantive value in policy analysis.
    - However, there are values other than *Pareto efficiency*
  - *Effectiveness*
    - Effectiveness refers to the likelihood that a policy or program will achieve stated goals and objectives or demonstrated that it achieved them
    - Problem is that many policies and programs have multiple, competing goals and objectives and some may be achieved at the expense of others
  - Costs & benefits as a measure of *efficiency*
    - Evaluating costs and benefits is central to policy analysis
      - *Benefit-cost analysis* is the systematic analysis of the value of the benefits and costs of an alternative. It is a way to compare the efficiency of alternative courses of action that may have different goals and objectives. The ratio of benefits to costs is a measure of efficiency. In general, you would not proceed unless the ratio of benefits to costs is greater than 1.
      - *Cost-effectiveness analysis* is tool for finding the alternative that accomplishes the specified goal at the lowest cost.

- *Opportunity cost*: the resources diverted from other uses to make a given policy or program possible. In other words, the difference between the value of goods and services in a proposed project and their value if they were used in some alternative way. They include monetarizable and nonmonetarizable and tangible and intangible costs
- *Intangible costs or benefits*: those that cannot be measured in recognized units (pain and suffering, loss of confidence)
- *Tangible costs and benefits*: those that can be measured in some type of recognizable unit – they can be counted
- *Monetarizable costs and benefits*: they can be counted in monetary – dollar – terms since their value can be judged in the marketplace
- *Direct costs*: resources that must be committed to implement a policy or program. This includes borrowing costs, one time fixed costs, borrowing costs, and operating and maintenance costs
- *Indirect costs*: the costs associated with impacts or consequences of a policy or program.
  - For example, building a new parking garage has costs in materials and operation and maintenance (direct cost). After its construction it might also increase traffic in surrounding neighborhoods (indirect cost)
  - In practice, it is not always easy to distinguish between direct and indirect costs. A key is what was the legislative intent of the policy or program
- *Sunk costs*: they are costs associated with resources already built or paid for (If you propose expanding a bridge, you don't include the cost of the bridge already built)
- *Shadow prices*: a method of establishing costs/benefits when market prices are unavailable or distorted. You can establish the price by looking at another context that is viewed as competitive.
- *Discount rates*: a rate estimated to calculate the time preference for money so that analysts can determine future values in today's dollars. Key feature is that a dollar today is worth more than getting a dollar tomorrow
- *Standing* refers to who is to be considered when costs and benefits are computed. In other words, who has a right to be included in the set of individuals or groups whose changes in utility or welfare are counted.
  - Determining boundaries of a cost-benefit analysis often influences the results
  - It is really a contextual decision and when there is doubt, you should do the analysis in a variety of ways with different definitions on standing
- *Marginal analysis*
  - *Fixed costs*: do not vary with the scale of the public action, at least in the short run (capital costs like purchasing a new garbage truck)
  - *Variable costs*: vary with the level of output (to collect more solid waste requires more labor and possibly new trucks and other equipment)
  - *Average costs*: simply the total costs divided by the total output (\$350 per ton of garbage collected)
  - *Marginal cost*: is the cost incurred to produce an additional unit of output (cost of collecting 1,100 tons of garbage compared to 1,099)

- Marginal costs usually decline with additional output, but not always (e.g., at some point you will need to buy a new truck)
- Rule of marginality states that output should be produced to the point where marginal cost equals marginal revenue
- *Law of diminishing or increasing returns*: Eventually you will reach a point where each new unit of cost contributes less benefit than the preceding unit (diminishing) or each new unit of cost contributes more benefit than the preceding unit (increasing).
  - These occur in the short run where levels of some inputs are fixed
- *Economies and diseconomies of scale*: Larger size causes decreased marginal costs (economies of scale) and larger size causes increasing marginal costs
  - Occur in the long run where levels of all variables can be increased or decreased
- Pitfalls when dealing with costs and benefits
  - Ignoring costs all together or counting only a portion of total program costs or benefits
  - Ignoring costs and benefits if they fall to people or governments outside the client's concern
  - Is a dollar of cost or benefit equal regardless of its origin or impact? In other words, should a dollar of impact on one group be compared equally with a dollar of impact on another group – aggregation problem
  - Focusing on monetarizable costs and ignoring those that are harder to measure
- *Human dignity*: Equity of opportunity and floors on consumption
  - A good society must have mechanisms to limit the extent to which one person's choices interfere with the choices of others.
  - In order to participate in markets, one must have something to exchange. Most would consider a Pareto efficient allocation that results in premature deaths of people to be inappropriate
  - One approach is to increase the number of people with some minimum endowment with public policies intended to provide remedial education, job training, physical rehabilitation, preventing discrimination on the basis of factors that are not relevant to job performance, direct provision of money or in-kind services
  - Once everyone reaches some minimum level of consumption, preservation of human dignity does not necessarily call for further redistribution to increase equality
    - Level is not fixed because society's collective assessment of what constitutes dignified survival reflects the aggregate wealth in society
  - There are also situations where people are incapable of rationally exercising choice – children and the mentally impaired
  - When redistributing wealth, keep in mind that it is like transferring water with a "leaky bucket." If you try to transfer a little you will lose a little but if you try to transfer a lot, you will lose a lot.
- *Equity*: refers to the distribution of goods and services among individual members or subgroups of a society. It involves questions of who benefits and who pays.
  - At least two different meanings – one focuses on the fairness of the process and the other on the distribution of the results
  - The basic premise is that people should be treated similarly except when there is good reason that they should be treated with differentiation

- Legislation and court descriptions delineate some subgroups that should be treated differently
  - Often big tradeoffs between efficiency and programs such that in many cases programs that prove to be efficient prove to be very inequitable
  - *Vertical equity*: those who are different should be treated differently. Accordingly, those with greater wealth should pay higher taxes so that everyone gives up the same amount of utility.
  - *Horizontal equity*: those in similar circumstances should be treated alike. The principle is very important when analyzing the provision of public goods and services.
  - *Redistributional equity*: is concerned with structuring program activities around differential abilities to pay. Important considerations here are the equality of the process as well as the results. It is important to remember that an efficient program is not necessarily a fair program.
  - *Fiscal equivalence* holds that those who benefit from a service should bear the burden of financing it. Thus, those who derive greater benefits are expected to pay more
  - *Transitional equity*: issues arise when a new policy, plan, or regulation creates different, perhaps unfair, situations for specific individuals or classes of individuals. A common problem when imposing new land use regulations.
  - *Intergenerational equity*: questions arise when proposed policies and programs appear to have long run costs or benefits. In other words, actions today may have impacts on subsequent generations of voters or taxpayers.
  - *Fiscal federalism questions*: important questions surround the role that local government is expected to play in matters of social equity. If a local government and its population are poor, should they be expected to pay to provide services to the poor?
- **Instrumental Values**
- Unlike substantive values of efficiency, equity, and human dignity, instrumental values reflect the fact that public policy directly results from politics rather than philosophy and the consequences of policy can be better predicted by these and similar substantive values
  - *Technical feasibility*
    - Criteria measure whether policy or program outcomes achieve their purpose. They address the basic question of whether the alternative will work in practice.
    - *Effectiveness* focuses on whether the proposed policy or program will have or has had its intended effect.
      - Most direct method of estimating is looking at how the policy or program has functioned elsewhere. Key is to be sure that the context is similar to the one where it will be implemented
    - *Adequacy* measures how far toward a solution we can proceed with the resources available. Even an effective program may fall short of its objectives or solve only part of a larger problem

- *Economic and financial possibility*
  - Measure first what the programs cost and what they produce in terms of benefits. Costs and benefits can be direct/indirect, tangible/intangible, short/long term, quantifiable/nonquantifiable
  - Analysts and decisionmakers prefer “hard” analysis and information that can be communicated in quantitative terms
  - If all costs and benefits are monetarizable then alternatives can be compared in terms of the economic feasibility (e.g., comparing rates of return) or the ratio of benefits to costs can be compared.
  - *Effectiveness* is measured in dichotomous terms. A program is effective or it isn’t. Accordingly, you may search for the cheapest effective alternative but that is not necessarily the most efficient alternative.
    - *Cost-effectiveness* is appropriate when the goal is to accomplish some task at minimum cost. It seeks to identify alternatives that achieve the objectives but minimizes cost. Any additional benefits beyond those required to accomplish the task are not relevant. Only needs to monetarize costs not benefits
  - *Efficiency* is measured in economic terms and focuses on ensuring that the benefits to be gained in the use of resources (costs) are maximized. For example, dollars cost/unit of output.
    - *Cost/benefit analysis* is a common tool for measuring efficiency.
  - *Profitability* is the difference between monetarized revenues and monetarized costs to government.
- *Administrative operability*
  - Criteria measure how possible it is to actually implement the proposed policy or program within the political, social, and administrative context
    - Is the existing administrative system capable of implementing the proposed policy or program?
    - How much control will the implementor have in terms of how it is implemented?
    - What other individuals, agencies or programs must be relied upon?
    - Are there alternative ways to implement the program that are likely to be more effective?
    - We will cover this criteria in more detail in a later set of readings
  - *Authority*: does the implementing agency have the legal authority to implement a policy and turn it into a new program
  - *Institutional commitment* from both above and below is important. What is the disposition of implementers.
  - *Capability and organizational support*: does the agency possess the resources (staff, expertise, experience, and \$) necessary to implement the policy or program

- *Political feasibility/viability*
  - Measure policy or program outcomes in terms of their impact on relevant power groups such as decisionmakers, legislators, administrators, citizen coalitions, neighborhood groups, unions, and other political alliances. The central question is whether one or more alternatives will be or can be made to be acceptable to relevant groups.
  - Public policies cannot contribute to substantive values unless they are adopted and implemented successfully
  - Political criteria deal with the beliefs and motivations of actors
  - Distributional consequences will also impact political feasibility
    - How is the “pork” distributed”?
    - Policies requiring less direct public expenditure are, all else being equal, tend to get greater political support
    - Expenditure levels often serve as proxies for the level of effort since the substantive effects of policies are often hard to predict or measure
  - *Acceptability*: refers to both the determination of whether a policy is acceptable to actors in the political process and to the determination of whether clients and other actors are receptive to new policies
  - *Appropriateness* is related to acceptability in that it addresses the issue of whether policy objectives mesh with the values of the community or society
  - *Responsiveness* is related to acceptability and appropriateness and involves the target group’s perception of whether the policy or program will meet its needs
  - *Legal* criteria can be considered within the category of political criteria since laws can be made and changed through political action
  - *Equity* can be a political criteria when differential impacts are important to the public or decisionmakers
    - Can examine the distribution of costs and benefits by residential location, income, race/ethnicity, age, sex, family status, home ownership status, and current versus future generations