

PLS 304 – Introduction to Public Policy Analysis
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Topic: Problem Definition

▪ **Defining Problems**

- Focusing on problems is important
 - Problem solving is a critical task of managers, planners, and policy analysts
 - Decisionmakers are often unclear about what they want and the job of a good analyst is to clarify matters
 - Defining problems is one way that analysts can influence decision making
 - Problems are the raw material of policy
 - Understanding how they are defined, organized, compared, and ranked is vital to understanding how policy is made, implemented/administered, or evaluated
 - All too often the way people understand issues/problems overwhelms, discourages, and confuses them
 - Verifying that a problem does exist and redefining vaguely stated problems are a key step in the policy analysis process
 - The task of the analyst is to move from a general problem concept to specific measures of the problem so that alternatives can be devised and evaluated
- *Problem definition* is a medium through which we discover what we realistically want and how we may go about obtaining it
 - We don't discover a problem "out there" - we make a choice about how we want to formulate a problem
- A *problem* requires a cognitive judgment that the situation is alterable
 - Problems are situations
 - Discrepancy between "what is" and "what ought to be"
 - It is not a problem if government can't do anything about it
- Your perspective on a problem is likely to depend on your education, background, training, experiences, etc.
 - This background is also likely to lead you to favor certain policy options. For example, water quality problems may be viewed by:
 - Economists in terms of market failures/incentives/externalities
 - Engineers may see the problem in terms of poor planning and design, technical design flaws, etc.
 - Biologist may focus on impacts to wildlife
 - Educator may view the problem in terms of poor public education
 - Political scientist/public administrator may view it as an institutional design problem
 - Planner may view as a growth management problem
- Big difference between defining policy problems in objective versus subjective terms
 - Most, if not all, policy problems are socially constructed
 - Nature and causes of policy problems are often defined in ways that yield political advantage for one group over another

- Selective perception/strategically define problems to lead to predefined policy problems
- Different goals, policies, objectives, and solutions often imply different definitions (interpretations) of a problem or even different problems
- Patton and Sawicki (1993) suggest several steps in defining potential problems
 - Think about the problem
 - We usually know more about it than we realize
 - Delineate the boundaries of the problem
 - Location, length of time it has existed, historical events that shaped it, its connection to other problem
 - Develop a fact base
 - Use multiple data sources when possible
 - Facts needed should flow from the problem statement
 - List of goals and objectives
 - Difference between what is and what ought to be
 - How do you know when you reduced or eliminated the problem
 - Acceptable solutions will depend on your goals and objectives
 - Identify the policy envelope
 - Policy envelope is the range of variables considered in the problem – it will affect the alternatives examined
 - May be described by client or be a product of the analysis
 - Display the potential costs & benefits
 - Think about what each actor gains and loses by resolving the problem
 - It may help to reframe the problem in ways that lead to win-win or win-no lose solutions – see Bardwell reading on problem framing
 - Review the problem statement
 - Has it been stated in a way that allows for action
 - Have you left yourself alternatives or have you really just defined a solution
- Patton and Sawicki (1993) describe several methods policy analysts can use to help define problems
 - Back-of-the-envelope calculations to estimate the size of the problem
 - Sit and think about the key dimensions of the problem and find some basic facts to help estimate parameters
 - Check the logic behind how numbers are calculated or whether there is a built in bias
 - Quick decision analysis to identify key attributes of the problem
 - Can construct a decision tree to look at options and consequences of actions
 - Creative operational definitions to reduce conceptual ambiguity
 - Expressing problem statement in measurable terms is referred to as creating an *operational definition*
 - Say it with numbers if you can – it reduces ambiguity
 - Use quantitative analysis in combination with qualitative analysis when possible
 - Watch for “fractional measurement” – sometimes a measure only conveys part of the meaning of the original concept

- Watch for faulty indirect measures and spillover effects
- Ecological fallacy – generalizing from one measurement unit to another (e.g., census data)
- A valid operational definition will
 - State the concept in unambiguous terms
 - Give attention to qualitative as well as quantitative measures
 - Take into account spillovers to other entities (positive or negative)
 - Use primary data when possible
 - Use data collected for the unit of analysis under study
 - Draw conclusions only warranted by the analysis
 - Avoid speculating about individual characteristics from group data
 - Develop policy aimed at real social and political units
- Political analysis so that you don't ignore nonquantitative factors
 - Examining political issues in the process of identifying and analyzing alternatives to policy problems distinguishes policy analysis from other forms of systematic analysis
 - Whenever possible, political factors should be part of the problem definition, criteria selection, and alternatives generation, evaluation, and display
 - Analysts must look at political issues as an integral part of the policy process, learn terminology to communicate about these factors, and use consistent methods to report on them
 - A strict quantitative analysis will still have to be grounded in the client and decisionmaker values, goals, and objectives
 - Answering the following questions will help clarify political problems – it also helps with Bardwell's problem framing
 - Actors: Who is concerned about the issue
 - Motivations: What are the motives, needs, desires, goals, and objectives of the actors
 - Beliefs: What does each actor believe about the problem
 - Resources: what do the actors have that can be used to get what is wanted
 - Sites: where decisions will be made, by whom, when?
 - Patton and Sawicki (1993) offer the following advice
 - Determine whether the obvious problem is only a symptom of a larger controversy
 - Make sure you look at underlying issues and related problems as well as tradeoffs between problems
 - Check your sources of information for accuracy
 - Take advantage of internal review and check with other analysts
- Issue-paper to help decide whether further study is justified
 - In essence, it is a feasibility study about whether or not to do "researched analysis"
 - It is done with existing data and information
 - It goes beyond back of the envelope calculations

- What can happen when you try to solve problems? It is important to remember that:
 - It can be *eliminated* entirely by the policy as it is implemented and no other problems emerge
 - It can be *reduced* to such a low level that there is no further need or demand for action
 - It can be *succeeded* by another problem that has less serious effects or can be solved more easily
 - It can be *exacerbated* by the policy and/or replaced by more difficult problems, with still other problems created in addition
 - Beware of the type III error
 - The probability of solving the wrong problem
- **Describing Problems**
 - The severity of the problem can be defined in terms of:
 - Crisis
 - Emergency vs. non-emergency
 - Novelty
 - Unprecedented vs. familiar
 - Incidence
 - Growing, stable, or declining
 - Social patterns: class, age, cohort, etc.
 - Characteristics of the problem population
 - Proximity
 - Personally relevant vs. general societal concern
 - Examine the causes of the problem
 - Intended vs. accidental
 - Blame can/can't be allocated
 - Simple vs. complex
 - Nature of the solution
 - Available vs. non-existent
 - Acceptable vs. objectionable
 - Affordable vs. Unaffordable
- **Problem Framing**
 - Perspective combines theories from conflict management and cognitive psychology
 - The argument is that environment problems (or other problems for that matter) need to be defined in terms of win-win or win-no lose solutions or at least make both good economic and environmental sense if they are able to find mutually acceptable solutions
 - Cognitive psychology suggests
 - At their best, people can handle only about 5 ± 2 different units of information or thoughts at a time
 - People selectively use information and rely on cognitive maps they have built through life experiences (see uses of history reading for similar arguments)

- Bias towards the familiar – you take problems and try to fit them into preexisting maps – you tend to do what you did before
- As a result, new problems tend to get cast like old ones and more effective options are overlooked
- Many public policy problems present a challenging arena for problem solving
 - They are complex, plagued with uncertainty, and extremely political
 - They often seem intractable because they are ill structured or “wicked” in that
 - They are complex
 - There are many ways of looking at the problem
 - There are many possible solutions rather than one solution
 - The problems are connected to other problems
 - The effects of solutions play out over different time frames
 - With each new resolution comes a new array of problems
 - The risks are and the consequences of our actions can be long-term and irreversible
 - There can be a path-dependent quality to policy solutions
 - Solving the problems often involves questions of “transscience”
 - Problems can be defined in the language of science but cannot be solved by science – some political or value judgments must be made
 - Making choices involves more than just finding a technical solution.
 - Choices reflect politics, values, and expectations as much as scientific facts
- Some claim that 90% of problem solving is spent
 - Solving the wrong problem
 - Stating the problem so that it cannot be solved
 - Solving a solution
 - Stating the problem too generally
 - Trying to get agreement on the solution before there is agreement on the problem
- Problem solving involves several stages
 - Building an understanding of the problem – the problem space
 - Establishing some initial criteria for the goal
 - Searching for solutions
 - Deciding among solutions
 - Evaluating progress – comparing initial goals to and monitoring the solution
 - Unfortunately most folks don’t spend enough time on the first step.
- Problem definition is important because
 - It implicitly embodies preconceptions and assumptions that influence how you approach the problem
 - It guides the strategies and actions taken to address the problem
 - A full examination of a problem can lead to quality solutions
 - Experts in a certain field often devote a large proportion of their problem-solving time to conceptualizing the problem and can figure out what is central to understanding it. Thus, they have a perspective that helps them foresee consequences, new problems, and the implications of solutions

- Novices have a difficult time sorting through information, determining what is important, and seeing how different parts fit together – they miss the big picture
- Problem framing focuses on how problems are defined and consciously examines different interpretations of that problem
 - Stave off solutions
 - Avoid jumping to conclusions without adequately examining the problem
 - Avoid the tendency to push for closure quickly and be biased towards finding quick solutions
 - Solution mindedness is often manifested in positional stances that create conflict
 - Conflicts often occur when people have already decided on a definition of a problem and established solution and the definitions and/or solutions are in conflict
 - It involves asking questions that explore different aspects of a problem
 - Limiting information
 - Peoples attention not information is the scarce resource
 - Don't overwhelm people's ability to understand and absorb information
 - Information needs to be managed carefully
 - Can shift conflict from problem to debating the merits of information
 - Choosing levels
 - Need to find the appropriate “universe of discourse”
 - Too large a scale and the problem seems unapproachable
 - Too small and it is easily dismissed
 - Be strategic and practical and seek the small wins – many environmental problems are the result of a series of small cumulative impacts and solving them will involve a long series of cumulative benefits
 - Need to reduce the problem to something that is manageable (5 ± 2 different units)
 - Factors to consider
 - Fit: your skills and abilities must be adequate to the task at hand
 - Linkages: how is the level you are working at part of a larger framework of scheme of things
 - Personalization: issues that relate directly to ones own circumstances and needs are difficult to ignore
 - Generating imagery
 - The ability to manage or effectively organize information comes in part with increased familiarity with an issue
 - Folks like a good story
 - Developing metacognition
 - Paradox is that developing familiarity with an issue improves your problem solving skills but it also increases the chances that you will use the wrong cognitive frames when addressing a new problem
 - You have to consciously monitor, watch, and guide your own problem-solving process – importance of reflective practice