ECNS 432

CHAPTERS 1 AND 2

- What does it mean to compare individual to social CBA?
 - Individual CBA: only considering own benefits/costs
 - Social CBA: consider benefits/costs to everyone with standing in a society
 - ▼ Q. What type of economic concepts become important under social CBA?
 - Externalities
 - Public good provision
 - Other factors related to market failures

- Q. What are some difficulties in social CBA? (Consider the decision on whether a city should build a new waste management cite)
 - Disagreement about what impacts will occur if a project is implemented
 - O How do we monetarize difficult to measure benefits/costs?
 - x Q. What are some examples?
 - Human lives
 - How to make tradeoffs between the present and the future.
 - Deciding who has standing
 - What interest rate do we use to discount benefits/costs to present values?

- Who cares about CBA? (i.e. demand for CBA)
 - Gov't agencies
 - Often required for regulatory changes
 - Pilot projects are good examples
 - Courts
 - Use CBA to assess damages
 - E.g. Quantitative valuation of environmental impacts
 - o Pvt. Sector
 - × E.g. Measure their carbon footprint, emissions of carbon and other gasses, recycling efforts

- What about the costs of doing CBA?
 - Some are extremely costly
 - These costs need to be taken into consideration within the CBA
 - E.g. 1992 CBA conducted by EPA to reduce lead in gasoline cost \$1 million
 - O Ave. major CBA project by EPA in 80s was approx. \$700,000

Conceptual Foundations of CBA

- CBA can be thought of as providing a framework for measuring efficiency
- Q. What definition for efficiency do we use as economists?
- Ans. Pareto efficiency!
- Q. By this definition, would it be difficult to implement a policy that is Pareto efficient?
- Ans. Extremely difficult (impossible?)

Conceptual Foundations of CBA

- For practicality, we consider the link b/w positive net social benefits and Pareto efficiency:
 - o "If a policy has positive net benefits, then it is possible to find a set of transfers or "side payments", that makes at least one person better off without making anyone worse off."
- Q. What is our standard measure of benefits in economics?
 - WTP: amount those affected would be WTP for implementation of a project
 - Q. Are there examples where we would evaluate a project based on wtp < o??

Conceptual Foundations of CBA

- Q. What is our standard measure of costs in economics?
- Ans. Opportunity Cost
 - Projects require the use of resources that could be used to produce other things with value

Social Choice Mechanisms (from Kolstad)

- Positive net benefits indicate the potential for Pareto efficiency
- Economists have considered several social choice mechanisms to make decisions on whether or not to implement a policy
 - o 1.) Pareto Criterion: undertake a policy if it is Pareto efficient
 - Q. Why would this be difficult in practice?
 - x Ans. It only takes one "no" vote for policy to fail
 - o 2.) Potential Pareto Improvement: allow transfers of resources among individuals to increase the unanimity of opinion
 - ▼ Q. Why would this be difficult in practice?
 - 1.) Difficult to measure costs and benefits of each person

Social Choice Mechanisms

- o 2.) Administrative costs of making transfers could be very large!
- 3.) Requirement that everyone be fully compensated would create what type of incentive for people?
 - Overstate costs and understate benefits they expect to receive from the policy
- o 3.) Compensation Principle: Practical rule based on what is referred to as the Kaldor-Hicks criterion
 - * A policy should be adopted if and only if those who will gain *could* fully compensate those who will lose and still be better off.
- o 4.) Voting: Practical...doesn't require unanimity. Difficulty with voting will be shown in a following example.

Social Choice Mechanisms

[work decision rule example from Kolstad]

Issues Related to WTP in CBA

- 1.) Limitations of WTP as basis for social ordering
 - Ranking policies in terms of net benefits does not guarantee a *transitive social ordering* (e.g. if X>Y & Y>Z, then X>Z) of the policies
 - Q. If every individual has transitive preferences, does it follow that aggregation of their preferences always produces transitive social ordering?
 - o Ans. NO!

[work example from text]

Issues Related to WTP in CBA

- 2.) Dependence of WTP on Distribution of Wealth
 - WTP for a policy will tend to be higher the greater the wealth an individual has available
 - \times Thus, Σ WTP_i depends on levels of wealth
 - \times If social distribution of wealth changes, then Σ WTP_i would change
- 3.) Dependence of Net Benefits on Assumptions about Standing
 - Q. Whose WTP should we count?
 - Jurisdictional definitions of society
 - × City-level
 - State-level
 - × National-level
 - × Global-level

Issues Related to WTP in CBA

- Q. Who should be excluded?
 - × E.g. policies to reduce crime are costly to criminals...should they receive standing?
 - In practice, widely accepted legal sanctions help identify preferences that should not be given standing...is this a slippery slope?
- o Q. Include preferences of future generations?
 - ▼ Difficult to measure WTP of people not yet born
 - Can use current WTPs to predict future ones
 - Current generations may include future generations in their WTP...don't want to "double count."