

Module 2

Foundational Principles of Analytical Policy Evaluation 1

Kerry Krutilla, PhD

Professor of Public Policy

School of Public and Environmental Affairs

Indiana University

Bloomington Indiana U.S.

krutilla@Indiana.edu

Module Overview: Foundational Principles of Analytical Policy Evaluation

1. Adopt a **neutral perspective** about the merits of a decision at the start

2. Distinguish **normative from positive**

3. Encourage **transparency and sound documentation**

5. Evaluate decision-making effects from a well-defined reference point (or **baseline**)

4. Carefully **define the policy problem**, and consider **relevant solutions and alternatives**

6. **Consider opportunity cost**

Principle 1. Adopt a neutral perspective in advance about the merits of a decision

Analytical decision-making (ADM) is agnostic in advance about the correct decision.

Corollary stance on evidence #1: evidence is comprehensively searched, and evidence that might not support the proposed decision actively sought out.

Example: should congestion fees be used to manage traffic on particularly congested urban roadways in Brazil? **ADM** approach comprehensively reviews the research literature and surveys experts to answer this question.

Contrast: Conventional Decision-making (**CDM**). A strong predisposition for a particular policy or action. Corollary stance on evidence: “Advocacy argument” based on the “anecdotal” method – selectively sifting (or “cherry picking”) evidence to support the predisposed view.

Principle 1. Adopt a neutral perspective in advance about the merits of a decision

Corollary stance on evidence #2: ADM recognizes that observed correlations may or may not reflect causal relationships.

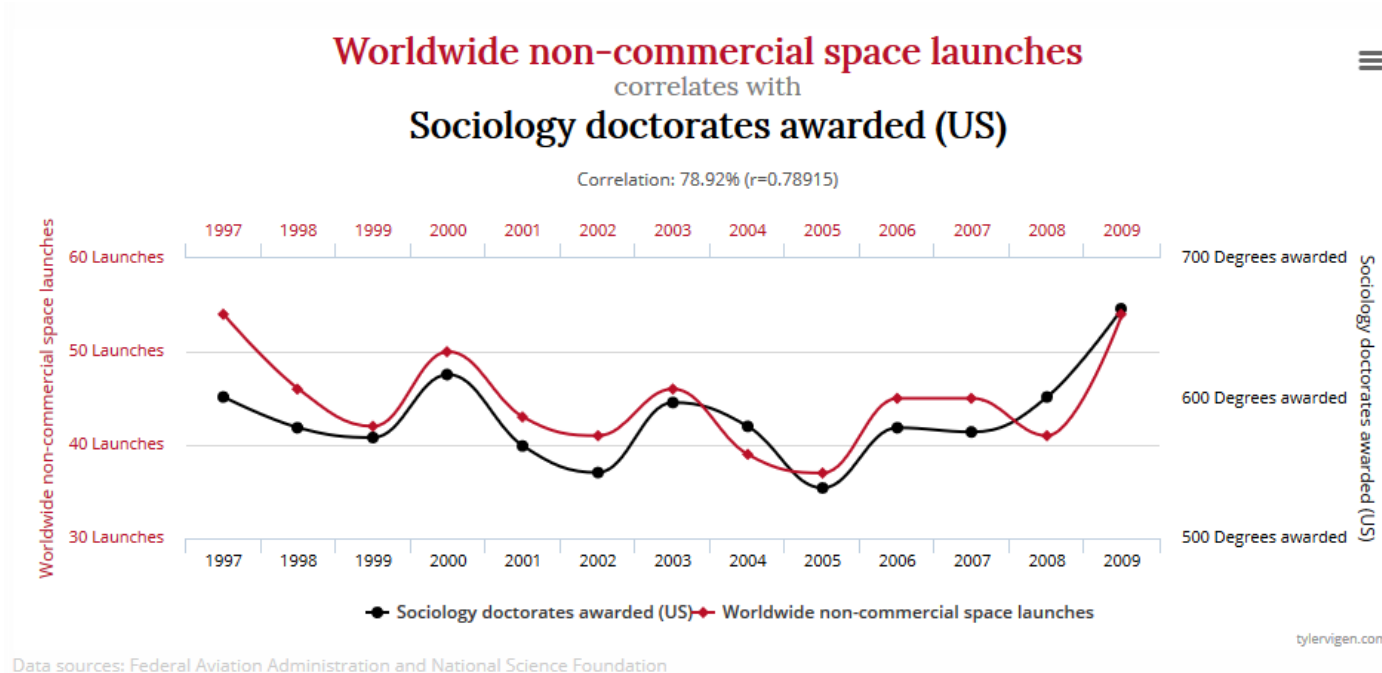
Example correlations:

- Decrease in Pm2.5 in the United States; lower mortality from heart and pulmonary disease (positive correlation)
- The price of lemons rises in the winter in the United States; the price of oranges rises (positive correlation)
- GDP increases, and local production of television sets increase (positive correlation)
- Global carbon emissions increase; global temperatures rise (positive correlation)

ADM recognizes that no causal inference can be drawn from correlations without a conceptual framework/model and supporting evidence-based research.

Principle 1. Adopt a neutral perspective in advance about the merits of a decision

One possibility: correlation is “spurious”



What about observed correlation between decline in Pm2.5 in U.S. and health improvements over time?

Principle 1. Adopt a neutral perspective in advance about the merits of a decision

If correlation does reflect causality, ADM approach asks a number of questions.

- **Direction of causality?** Rising GDP and greater television production of a local manufacturer might be explained by:

GDP=> more disposable consumer income => more consumer product purchases (GDP => television sales) if television sets are domestically consumed;
or

greater television production => higher exports => greater GDP -- if television sets are sold abroad.

- **Possible feedback effects** (multi-directional causality): Example: the rise of carbon emissions and global temperatures.
- **Possible third factor driving both trends**. Example: The price of oranges rising and the price of lemons rising in the winter is mostly driven by declining temperatures.

Principle 1. Adopt a neutral perspective in advance about the merits of a decision

Whatever kind of causality is present, ADM approach asks **the degree to which other causal factors also explain the trend:**

Example: Economics research shows that only a very small amount of the current economic growth in the U.S is from tax cuts passed in December 2017.

Multiple regression is an analytic technique to help understand whether a corollary factor helps explain a trend, like rising GDP, the degree of the relationship.

Example: $GDP = a + b \text{ time} + c \text{ tax rate} + d \text{ interest rate} \text{ etc}$

Statistical estimates for the “a”, “b”, “c”, “d” parameters show **how much different factors influence GDP, all else constant.**

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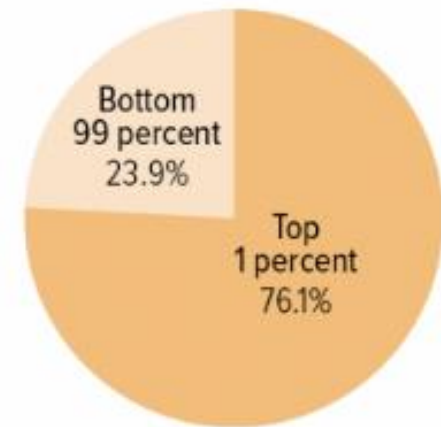
Contrast: CDM interpretes correlations to support preconceived views.

Correlations are used anecdotally to support preconceived viewpoints, regardless of degree of causality.

Example: Republicans claim that the tax cuts in December 2017 would benefit the middle class.

House Republican Tax Plan Overwhelmingly Tilted Toward Top 1%

Share of total federal tax cut by income group, 2017



Source: Table 4 from James R. Nunns, et al., "An Analysis of the House GOP Tax Plan," Tax Policy Center.

Principle 2. Distinguish between Normative and Positive

ADM recognize the difference between normative and positive.

- positive statements. Are descriptive. What will be the consequence on vehicle usage if a toll charge is raised?
- normative statements. Involve values. Should a toll on a particular road be raised?

ADM approach rests on a two part process:

(1) conduct a positive assessment to understand the best evidence for the effects of a proposed decision, e.g, conduct transportation study to forecast effect of raising tolls.

(2) make the decision (a normative value judgement) based on the best evidence.

Contrast: CDM approach does not clearly distinguish normative and positive views; disguises normative statements as positive statements (“statements of fact”).

Example: “The public wants more members of party X in parliament.”

Source: spokesman for party X.

Principle 3. Encourage Transparency and Sound Documentation

ADM premise: the consequences of alternative decisions should be transparent.
Gives clarity and accountability.

Example: Administrative Procedure Act (APA) in the United States.

- Prohibits federal government from issuing “capricious” regulations.
 - stakeholders who feel regulations are “capricious” can sue the federal government in court.
 - An administrative law judge can find that a regulation is “capricious,” violates the Administrative Procedures Act, and is therefore illegal.
- The APA also requires all proposed regulations from administrative agencies like the Environmental Protection Agency and the Department of Transportation be subject to a “public notice and comment period.”

Contrast: CDM privileges some stakeholders over others, abetted by non-transparency and informational asymmetry.

Principle 4: Carefully define the policy problem and relevant alternatives

ADM. Carefully defines the policy problem to be solved, and the largest set of relevant alternatives to consider in the decision-making.

Example: in addition to considering a project to build a new-terrain highway, ADM considers upgrading existing routes that could serve as a substitute.

Contrast. CDM considers only a favored policy proposal against the status quo “no action,” restricting possible choices.

Example: Only consider building the new highway now, against the option don't build the highway.

Principle 4: Carefully define the policy problem and relevant alternatives

ADM considers:

- Both “demand side” solutions (better traffic management) and “supply side solutions” (new highway construction).
- Maintenance investments as well as new construction.
- The timing of investments -- now or later.

Principle 5: Evaluate changes the decision-making is expected to make from a well-defined reference point (or baseline)

ADM: Reference point for a decision is the “state of the world” in the absence of the project. Example: impact of roadway expansion will depend on the transportation pattern that would exist if the roadway was not expanded.

ADM focuses on the incremental effect of the decision, measured as a change the decision makes from a well specified baseline.

Contrast: CDM often cites gross changes rather than incremental changes to support preconceived policy positions. Example: the employment effect of a new project.

Caveat: Because the state of the world in the absence of a decision is often hard to know, the decision can be made against several baselines. For example, the impact of costal zone management plans can be estimated based on low, medium, and high forecasts for coastal flooding as a result of different climate change scenarios

Principle 6: Consider the Opportunity Cost (OC) of Proposed Alternatives

- The opportunity cost (OC) is the true cost of a decision. It is measured as forgone value of the resources used to effect the decision in their next most highly-valued use.
- OC are inherent in a world of resource scarcity.
- Implication of OC: choose wisely. Achieving a particular organizational goal or policy objective means foregoing other alternatives.
- **ADM** considers the value of a decision against its “opportunity cost.”
- **CDM**. Often ignores opportunity costs.

Principle 6: Consider the Opportunity Cost (OC) of Proposed Alternatives

Example 1:

An important opportunity cost to home ownership is the forgone price of selling the home at its market price. If someone lives in a home rather than selling it, the value of the home must be worth more than its market price.

Implication: if a road is build through a neighborhood that forces landowners to involuntarily leave, the market price will understate the lost value (opportunity cost) of leaving the house.

Thus, policies that compensate evacuated residents at “fair market value” are not fully compensating residents for their opportunity costs.

Implication: Opportunity Costs are not necessarily, or even usually, the same as financial costs

Principle 6: Consider the Opportunity Cost (OC) of Proposed Alternatives

Example 2:

The opportunity cost of this course is not the price paid.

It is the value of the time of the instructor and all participants if they were doing something else which yielded the highest possible other value;

plus

the highest valued use of the capital, energy used, etc otherwise.

The market price of the course will closely approximate the opportunity cost of the supply side – instructor time plus facility building use -- but will not reflect the value of time lost by participants.

Review

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