Workshop 05
Step 6: Confront the Trade-offs, Address Uncertainty

EPA PCE 2024

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November 12, 2024

Introduction

- **Workshop #6:** Confronting Trade-offs and Addressing Uncertainty in Education Policy
- Explore the balance of competing alternatives in policy decisions
- Develop skills for managing uncertainties in policy outcomes

Understanding Trade-offs

- **Trade-offs**:
  → Balancing criteria due to limited resources and diverse goals
- Example: More funding for technology may reduce funds for arts programs
- Recognize **dominance**:
  → When one policy performs better across all criteria, trade-offs aren't necessary

Focus on Outcomes

- Avoid comparing **alternatives directly**—focus on **outcomes**
- Example: Instead of "trade off tutoring hours vs. hiring teachers," focus on:
  - → Expected improvements in academic achievement from tutoring vs. cost savings from fewer hires
- Compare outcomes based on **criteria**: cost-effectiveness, efficacy, equity
- Can you think of any issues regarding this approach?

Example: Dominance in Education Policy

- **Policy Alternatives** to improve graduation rates:
  - → **Alternative A1**: Mentorship for at-risk students
  - → **Alternative A2**: Expand financial aid
- A1 = 10% increase for $200/student;
- A2 = 12% increase for $500/student

What would be your conclusion here?

- A2 doesn't dominate A1; trade-offs needed between cost and effectiveness

Commensurability: Weighting Criteria

- Compare alternatives by **weighting importance** of criteria
- Use common units (e.g., dollars for cost-effectiveness) where possible
- **Limitations of monetary metrics**:
  - → Not all outcomes are easily valued in dollar terms (e.g., privacy, well-being)

Break-Even Analysis Revisited

- **Break-even analysis**: Determine financial viability and set benchmarks
- Helps solve commensurability issues
- Example: Counseling program must reduce dropout rates enough to justify costs

Constructing and Analyzing Trade-offs

- **Outcomes Matrix**: Visualize trade-offs across criteria
- Compare alternatives for:
  - → **Efficacy** (% improvement),
  - → **Cost per Student Improved**,
  - → **Operational Feasibility**,
  - → **Economic Impact**,
  - → **Political Acceptability**

Example Outcomes Matrix for Education Policy Alternatives

Policy Scenario	Efficacy (%)	Cost per Student	Operational Feasibility	Economic Impact	Political Acceptability
Mentorship Programs	5-7%	$200	High	Medium	High
Expanded Financial Aid	10-12%	$500	Medium	High	Medium
Enhanced Curricula	7-9%	$300	High	High	High
Technology Integration	8-10%	$250	Medium	High	Medium
Early Childhood Education Expansion	12-15%	$400	Medium	High	High

Rank-Ordering Alternatives

- When quantifying is challenging, **rank-order policies** by overall desirability
- Prioritize based on combined performance across criteria:

  → **Efficacy**, **Cost-effectiveness**, **Political Acceptability**

Addressing Uncertainty in Trade-offs

- **Uncertainty** complicates trade-offs
  - → External factors like economy, politics may impact outcomes
- Strategies:
  - → **Sensitivity Analysis**: Assess impact of key assumption changes
  - → **Scenario Planning**: Explore how different conditions affect outcomes
  - → **Robust Decision-Making**: Choose policies that perform well across scenarios

Practical Strategies

- **Convert Alternatives into Outcomes**: Measurable outcomes for comparison
- **Common Metrics**: Use shared metrics for clarity
- **Outcomes Matrix**: Compare alternatives systematically
- **Break-Even & Sensitivity Analyses**: Assess viability and robustness
- **Rank-Order Policies**: Prioritize effective and feasible options

Group Exercise

Exploring Trade-offs and Uncertainty

Duration: 20 minutes
Format: Group Discussion (PAP Groups)

Instructions:
Use your matrix and analyze trade-offs. Identify uncertainties impacting success.

Group Exercise

Guiding Questions:

- **Identify Trade-offs**:
  → What are the main benefits and costs? How do trade-offs impact different stakeholders?
- **Assess Uncertainty**:
  → What are key uncertainties? How could external changes influence effectiveness?
- **Mitigation Strategies**:
  → How can we reduce negative impacts? How to manage uncertainty effectively?
- **Evaluation Metrics**:
  → Which metrics will assess success? How do these metrics help in balancing trade-offs?

Outcome: Summarize your analysis, highlighting key trade-offs, uncertainties, and mitigation strategies.

Conclusion

- **Confronting trade-offs** is key in policy analysis
- Systematic evaluation and managing uncertainty improve recommendations
- Using tools like outcomes matrices, break-even, and sensitivity analysis supports credible and balanced decisions
- Effective trade-off analysis leads to **robust, sustainable education policies**