



LECTURE TWELVE - PART FOUR

Benefit-Cost Analysis

- Should government undertake the project?
- What is its proper size or scope?



The Benefits and Costs

- **Benefits:** Come from the reduction in damage to the land in the valley in the event of a flood.
- **Costs:** The loss of satisfaction associated with the accompanying decline in the production of private goods or some other public good.
- **Costs can usually be measured simply by the cost of building the project!**

The Decision Rule

- **Build:** If the benefits from the project exceed its costs, we should build the project.
- **Don't Build:** If the costs exceed the benefits, we should not.

Benefit-Cost Analysis

- Can indicate much more than just whether a public project is worth building.
- It can also help government choose among the best competing alternatives.

(1) Plan	(2) Total annual cost of project	(3) Marginal cost	(4) Total annual benefit (reduction in damage)	(5) Marginal benefit	(6) Net benefit or (4)-(2)
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Without protection	\$ 0		\$ 0		\$ 0
A: Levees	3,000	\$ 3,000	6,000	\$ 6,000	3,000
B: Small reservoir	10,000	7,000	16,000	10,000	6,000
C: Medium reservoir	18,000	12,000	25,000	7,000	
D: Large reservoir	30,000		32,000		2,000

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**Pause the presentation now if
you want to do this exercise.**

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Without protection	\$ 0		\$ 0		\$ 0
A: Levees	3,000	\$ 3,000	6,000	10,000	3,000
B: Small reservoir	10,000	7,000	16,000	9,000	6,000
C: Medium reservoir	18,000	8,000	25,000	7,000	7,000
D: Large reservoir	30,000	12,000	32,000		2,000



Question
Which project should we choose?

**Pause the presentation now if
you want to do this exercise.**

Answer: Compare the marginal cost and the marginal benefit associated with each plan.

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B: Small reservoir	10,000	7,000	16,000	10,000	6,000
C: Medium reservoir	18,000	8,000	25,000	7,000	7,000
D: Large reservoir	30,000	12,000	32,000	2,000	2,000

Benefit-Cost Analysis



- Shatter the simplistic notion that the best way to make government more efficient is to always reduce government spending
- **Key Point:** Efficient government does not necessarily mean minimizing public spending.
- Use tools like **benefit-cost analysis** to efficiently allocate resources between the private and public sectors until no **net benefits** can be had from further re-allocations of resources.