

More on Targeting

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Basic Concepts of Targeting

- Gains from targeting
 - Targeting helps improving cost-effectiveness by channeling resources for a target group
 - To equalize quality or provide enriched quality to demand-constraint households.
 - For example
 - For SSN, demand can be infinite (for cash) or up to saturation (in-kind) which implies a need for targeting
 - For some services, such as basic health and education, the goal may be universal access, but targeting of fees or of promotion may be needed.
 - To channel public resources where finance is mixed public/private – e.g. to decide for whom to offer subsidies for health insurance, or to whom to offer fee waivers;

Key concepts of Poverty

- Poverty measurement
 - **The number of poor people** - count how many people live in households with per capita income below the poverty line
 - **The poverty headcount ratio (or poverty rate)** – fraction of the population which lives below the poverty line
 - **The budget needed to eradicate poverty (know as Poverty Gap)** – sum of the household poverty gap
 - **The poverty gap index** – average distance separating poor households from the poverty line
 - **The poverty severity index** – inequality among the poor

Key concepts of targeting

- Poverty headcount and Poverty Gap
- Cost of the program
- Coverage of the program
- Leakage of the program
- Share of benefits going to the poor
- Impact on poverty and inequality outcomes

Question

Known Data of the country		
(1) Population	10,000	Persons
(2) Poverty line	1,000	\$
(3) Poverty headcount	20%	of population
(4) Average poverty gap of the population	6%	
(5) Leakage rate	15%	of non poor
(6) Undercoverage	20%	of poor
(7) Administrative costs	20,000	\$
(8) Targeting cost	10	\$ per targeted person
(9) Number of poor	2,000	Persons
(10) Budget needed to cover gap	600,000	CU

Scenario	#1	#2a
	No Leakage	
	Uniform benefit	Perfectly targeted
Program budget	600,000	600,000
Program caseload		
Administrative cost		
Targeting cost (10\$)		
Net Budget: without costs		
Benefit level		
Average poverty gap of the poor	300	300
Share of the benefit level and the average poverty gap of the poor		

Solution

Scenario	#1	#2a
	<i>No Leakage</i>	
	Uniform benefit	Perfectly targeted
Program budget	600,000	600,000
Program caseload	10,000	2,000
Administrative cost		
Targeting cost		
Net Budget: without costs		
Benefit level		
Average poverty gap of the poor	300	300
Share of the benefit level and the average poverty gap of the poor		

Solution

Scenario	#1	#2a
	<i>No Leakage</i>	
	Uniform benefit	Perfectly targeted
Program budget	600,000	600,000
Program caseload	10,000	2,000
Administrative cost	20,000	20,000
Targeting cost		
Net Budget: without costs		
Benefit level		
Average poverty gap of the poor	300	300
Share of the benefit level and the average poverty gap of the poor		

Solution

Scenario	#1	#2a
	<i>No Leakage</i>	
	Uniform benefit	Perfectly targeted
Program budget	600,000	600,000
Program caseload	10,000	2,000
Administrative cost	20,000	20,000
Targeting cost	0	20,000
Net Budget: without costs		
Benefit level		
Average poverty gap of the poor	300	300
Share of the benefit level and the average poverty gap of the poor		

Solution

Scenario	#1	#2a
	<i>No Leakage</i>	
	Uniform benefit	Perfectly targeted
Program budget	600,000	600,000
Program caseload	10,000	2,000
Administrative cost	20,000	20,000
Targeting cost	0	20,000
Net Budget: without costs	580,000	560,000
Benefit level		
Average poverty gap of the poor	300	300
Share of the benefit level and the average poverty gap of the poor		

Solution

Scenario	#1	#2a
	<i>No Leakage</i>	
	Uniform benefit	Perfectly targeted
Program budget	600,000	600,000
Program caseload	10,000	2,000
Administrative cost	20,000	20,000
Targeting cost	0	20,000
Net Budget: without costs	580,000	560,000
Benefit level	58	280
Average poverty gap of the poor	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%

Known Data of the country
(1) Population
(2) Poverty line
(3) Poverty headcount
(4) Average poverty gap of the population
(5) Leakage rate
(6) Undercoverage
(7) Administrative costs
(8) Targeting cost
(9) Number of poor
(10) Budget needed to cover gap

Scenario	#2b
	With Leakage and Undercoverage
	Not perfectly targeted
Program budget	600,000
Program caseload	
Administrative cost	
Targeting cost (10\$)	
Net Budget: without costs	
Benefit level	
Average poverty gap of the poor	300
Share of the benefit level and the average poverty gap of the poor	

Solution

Scenario	#1	#2a	#2b
	<i>No Leakage</i>		With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800
Administrative cost	20,000	20,000	
Targeting cost	0	20,000	
Net Budget: without costs	580,000	560,000	
Benefit level	58	280	
Average poverty gap of the poor	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	

Solution

Scenario	#1	#2a	#2b
	<i>No Leakage</i>		With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800
Administrative cost	20,000	20,000	20,000
Targeting cost	0	20,000	
Net Budget: without costs	580,000	560,000	
Benefit level	58	280	
Average poverty gap of the poor	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	

Solution

Scenario	#1	#2a	#2b
	<i>No Leakage</i>		With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800
Administrative cost	20,000	20,000	20,000
Targeting cost	0	20,000	28,000
Net Budget: without costs	580,000	560,000	
Benefit level	58	280	
Average poverty gap of the poor	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	

Solution

Scenario	#1	#2a	#2b
	<i>No Leakage</i>		With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800
Administrative cost	20,000	20,000	20,000
Targeting cost	0	20,000	28,000
Net Budget: without costs	580,000	560,000	552,000
Benefit level	58	280	
Average poverty gap of the poor	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	

Solution

Scenario	#1	#2a	#2b
	<i>No Leakage</i>		With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800
Administrative cost	20,000	20,000	20,000
Targeting cost	0	20,000	28,000
Net Budget: without costs	580,000	560,000	552,000
Benefit level	58	280	197
Average poverty gap of the poor	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	66%

Solution

Scenario	#1	#2	#3	#4
	No Leakage		With Leakage and Undercoverage	With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800	4,700
Administrative cost	20,000	20,000	20,000	20,000
Targeting cost	0	20,000	28,000	47,000
Net Budget: without costs	580,000	560,000	552,000	533,000
Benefit level	58	280	197	
Average poverty gap of the poor	300	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	66%	

Solution

Scenario	#1	#2	#3	#4
	No Leakage		With Leakage and Undercoverage	With Leakage and Undercoverage
	Uniform benefit	Perfectly targeted	Not perfectly targeted	Not perfectly targeted
Program budget	600,000	600,000	600,000	600,000
Program caseload	10,000	2,000	2,800	4,700
Administrative cost	20,000	20,000	20,000	20,000
Targeting cost	0	20,000	28,000	47,000
Net Budget: without costs	580,000	560,000	552,000	533,000
Benefit level	58	280	197	113
Average poverty gap of the poor	300	300	300	300
Share of the benefit level and the average poverty gap of the poor	19%	93%	66%	38%

Who benefits from social protection?

How to evaluate the distributional impacts of SP?

- Social protection objective is to alter the distribution of income or well-being by transferring resources among the population. For example:
 - Pension programs transfer income from working age adults to the elderly;
 - Unemployment insurance transfers income from the employed to the unemployed;
 - Minimum income grants transfer income from the non-poor to the poor.
 - Child development or assistance with job searches, the intention is to alter the income distribution in the future.

How to evaluate the distributional impacts of SP?

- Moreover each SP program has a specific target population.
 - So are they adequately served?
 - Are the benefits reaching the right population?
 - Is the program achieving its objectives and being effective?
 - Is the program generating the desired distributional impacts?
 - Is the program effective to reduce poverty and inequality?
 - Some programs are not designed for such objective but policymakers may be happier with a program that also reduces poverty among the population of interest.

How to evaluate the distributional impacts of SP?

- But in general, reducing poverty is a key goal of social safety nets (social assistance) programs.
 - Evaluation of SSN impact on the income distribution is primary.
- What is the SP Programs' Impact on Poverty?
- What is the SP Programs' Impact on Inequality?

What is the SP Programs' Impact on Poverty?

Three key features

- Coverage: How large is the program compared to the poverty rate of the country?
 - A program that reaches 3% of population in a country if 15-20% poverty rate may not generate large impacts on poverty
- Targeting: Are program beneficiaries Poor?
 - a program will have a greater poverty impact if its benefits are, in fact, received mostly by the poor.
- Program benefit's size or generosity: How large is the benefit compared to household well-being?
 - One penny to the poorest person in a will not have much impact on poverty because it is a small amount of money.

Which program is more efficient on poverty reduction?

- The Minister of Social Affairs asked you to provide evidences whether its three social safety nets programs are reaching their objectives, that is, Government wants to know if its SSN programs are benefiting the poor and generating the desired impact on poverty
 - A Benefit-incidence analysis (BIA) helps you to measure whether the SSN programs are allocating its resources on the desired population, and whether programs are adequate.

Which program is more efficient on poverty reduction?

- Question 1:

For these 3 programs, identify the one that is more likely to have a large impact on poverty?

You must describe first which of the three programs are more efficient to generate impact on poverty and explain why? Keep in mind that this analysis will help the Minister to reform its programs to improve cost-effectiveness.

Which program is more efficient on poverty reduction?

- We must use standard techniques/indicators to assess program performance
- We must rely only on the existent Household Surveys information
- Household surveys may have limited information on benefits from SP programs

Which program is more efficient on poverty reduction?

	Coverage
(U or C)Cash transfer programs	
Program A	4%
Program B	20%
Program C	20%

Coverage: proportion of beneficiaries in each population group

Which program is more efficient on poverty reduction?

	Coverage	Leakage of beneficiaires
(U or C)Cash transfer programs		
Program A	4%	41%
Program B	20%	83%
Program C	20%	51%

Leakage: share of individuals that receive transfer and are not among the poor

Which program is more efficient on poverty reduction?

	Coverage	Leakage of beneficiaires	Targeting accuracy
(U or C)Cash transfer programs			
Program A	4%	41%	75%
Program B	20%	83%	27%
Program C	20%	51%	45%

Targeting accuracy: Share of transfers received by the poor

Which program is more efficient on poverty reduction?

(U or C)Cash transfer programs	Coverage	Leakage of beneficiaires	Targeting accuracy	Generosity
Program A	4%	41%	75%	29%
Program B	20%	83%	27%	12%
Program C	20%	51%	45%	26%

Generosity: the value of the transfers received by the poor divided by the total consumption or income of the poor

Which program is more efficient on poverty reduction?

(U or C)Cash transfer programs	Coverage	Leakage of beneficiaires	Targeting accuracy	Generosity	Poverty Impact
Program A	4%	41%	75%	29%	2%
Program B	20%	83%	27%	12%	5%
Program C	20%	51%	45%	26%	8%

Poverty impact: the simulated impact of discontinuing a program or combination of programs on poverty headcount

Which program is more efficient on poverty reduction?

(U or C)Cash transfer programs	Coverage	Leakage of beneficiaires	Targeting accuracy	Generosity	Poverty Impact	Cost-Benefit
Program A	4%	41%	75%	29%	2%	0.88
Program B	20%	83%	27%	12%	5%	0.47
Program C	20%	51%	45%	26%	8%	0.51

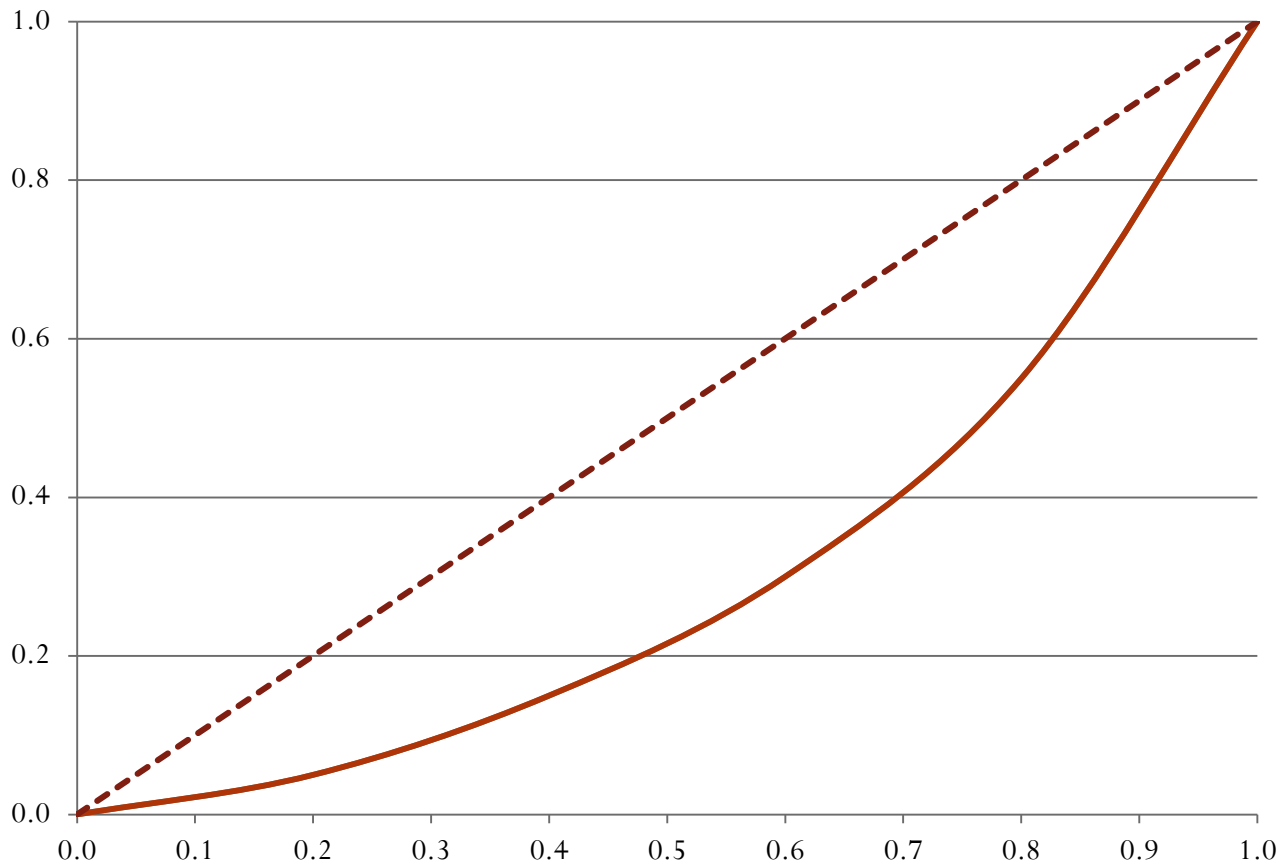
Cost-benefit: indicates the reduction in poverty gap obtained for each \$1 spent in the program.

Which program is more efficient on inequality reduction?

- Both poverty and inequality measures depend on the distribution of income, so all of the issues discussed in the previous section apply to evaluations of social protection's impact on inequality.
- The two main inequality measures we are looking at are:
 - The Gini coefficient
 - The concentration curve
 - That shows where beneficiaries or benefits are “concentrated” in the welfare distribution.

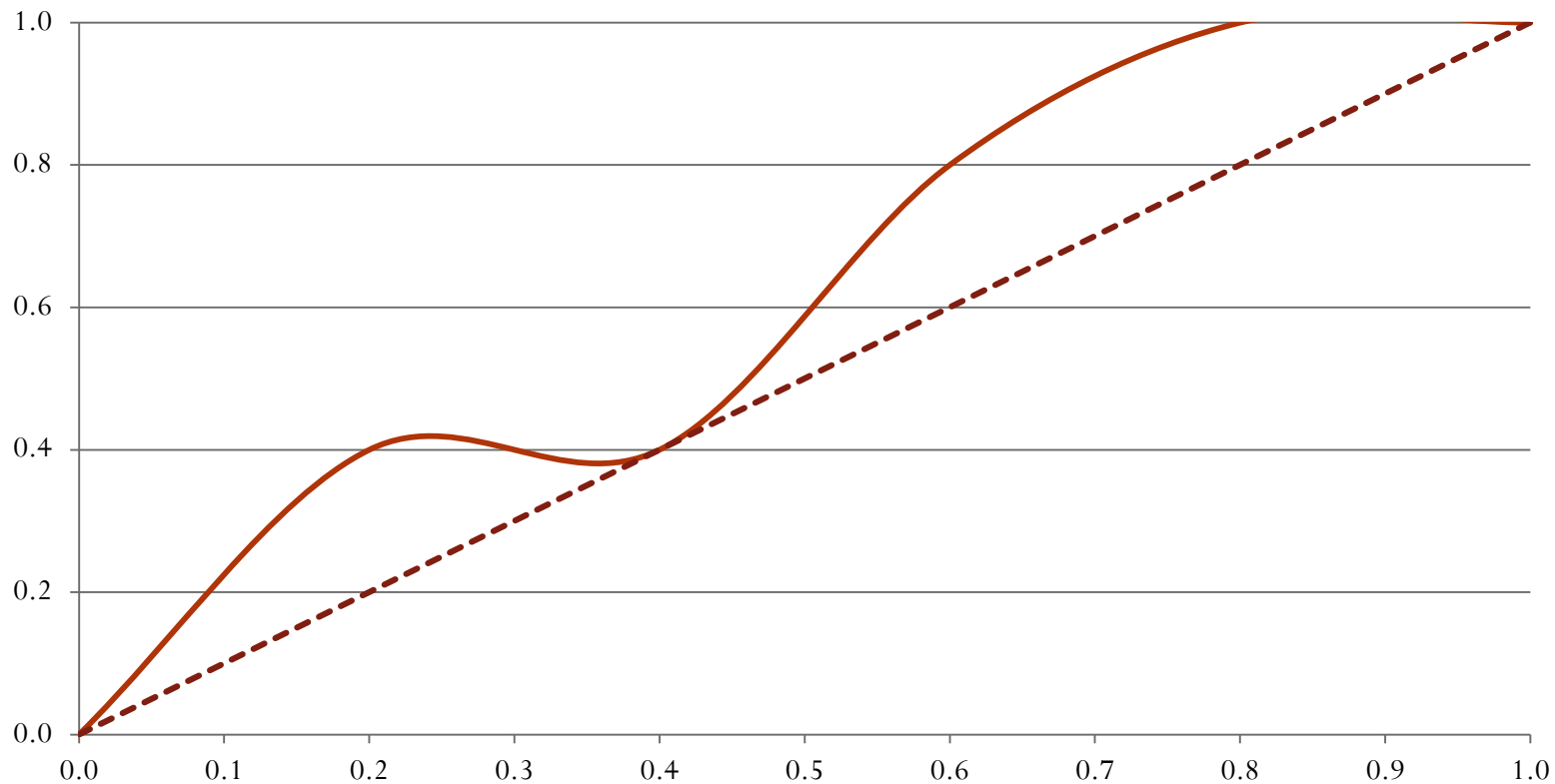
Which program is more efficient on inequality reduction?

Lorenz curve → Gini is the area between the dash-red line and the blue line



Which program is more efficient on inequality reduction?

Concentration curve → cumulative share of the population *still ordered by welfare* on the x-axis and the cumulative share of beneficiaries or benefits on the y-axis.



Which program is more efficient on inequality reduction?

- Question 2:

For the GMI and child allowance program, identify the one that is more likely to have a large impact on inequality?

Which program is more efficient on poverty reduction?

(U or C)Cash transfer programs	Coverage	Leakage of beneficiaires	Targeting accuracy	Generosity	Poverty Impact	Gini Impact
GMI	4%	41%	75%	29%	2%	4.1%
Child allowances	20%	83%	27%	12%	5%	2.5%

Gini impact: the simulated impact of discontinuing a program or combination of programs on Gini inequality

Which program is more efficient on poverty reduction?

