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Offsetting Costs of a Carbon Tax on Low-Income Households

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Terry M. Dinan
Senior Advisor

This presentation provides information published in *Offsetting a Carbon Tax's Costs on Low-Income Households*, CBO Working Paper 2012-16 (November 2012), www.cbo.gov/publication/43713

Overview

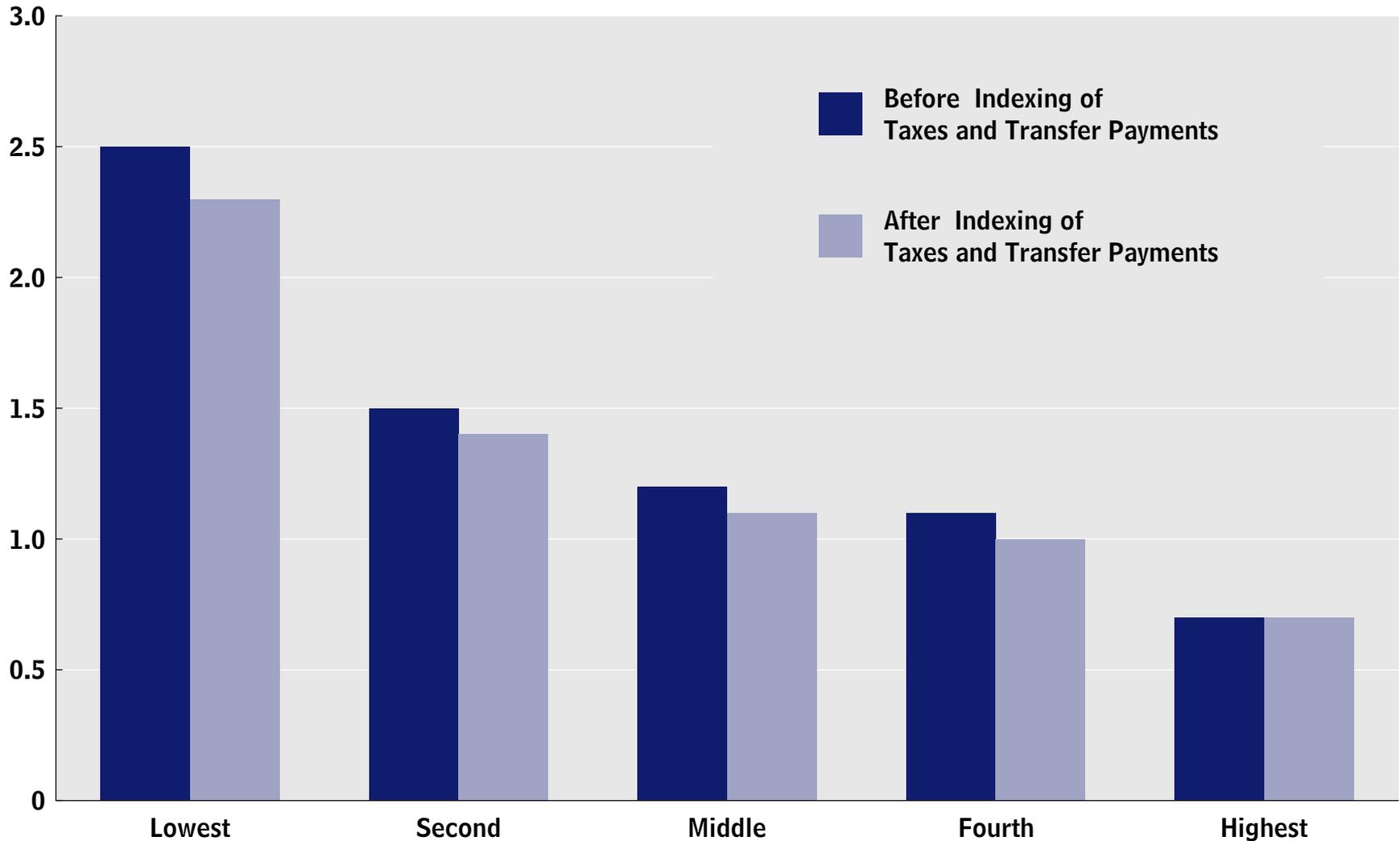
- Carbon tax tends to impose disproportionate burdens on low-income households
- Policymakers could use tax revenue in multiple ways
- Paper compares options with respect to
 - Targeting of low-income households
 - Ease of administration
 - Implications for economy-wide costs
- Individual options entail trade-offs between minimizing economy-wide costs and protecting low-income households
- Policymakers could achieve multiple objectives by using a combination of options

Findings of Burden on Low-Income Households

- Most studies find low-income households bear a disproportionate burden, but results vary depending on whether:
 - Tax causes higher consumer prices or lower returns to workers and investors
 - Costs measured relative to annual income or alternative metrics, such as annual consumption
- Accurately measuring burden is complicated by data problems
 - No good measure of “lifetime income”
 - Unexplained consumption by lower-income households
- Automatic indexing of tax system and transfers lessens cost for some households

Estimated Cost of a \$28 Tax per Ton of Carbon Dioxide, by Income Quintile

(Percentage of after-tax income)



Options Considered to Offset Costs

■ Broad-Based Compensation

- Reduce Income Tax Rates
- Provide Income Tax Rebates
- Provide Payroll Tax Rebates
- Provide Incentives for Energy-Saving Investments

■ Targeted Compensation

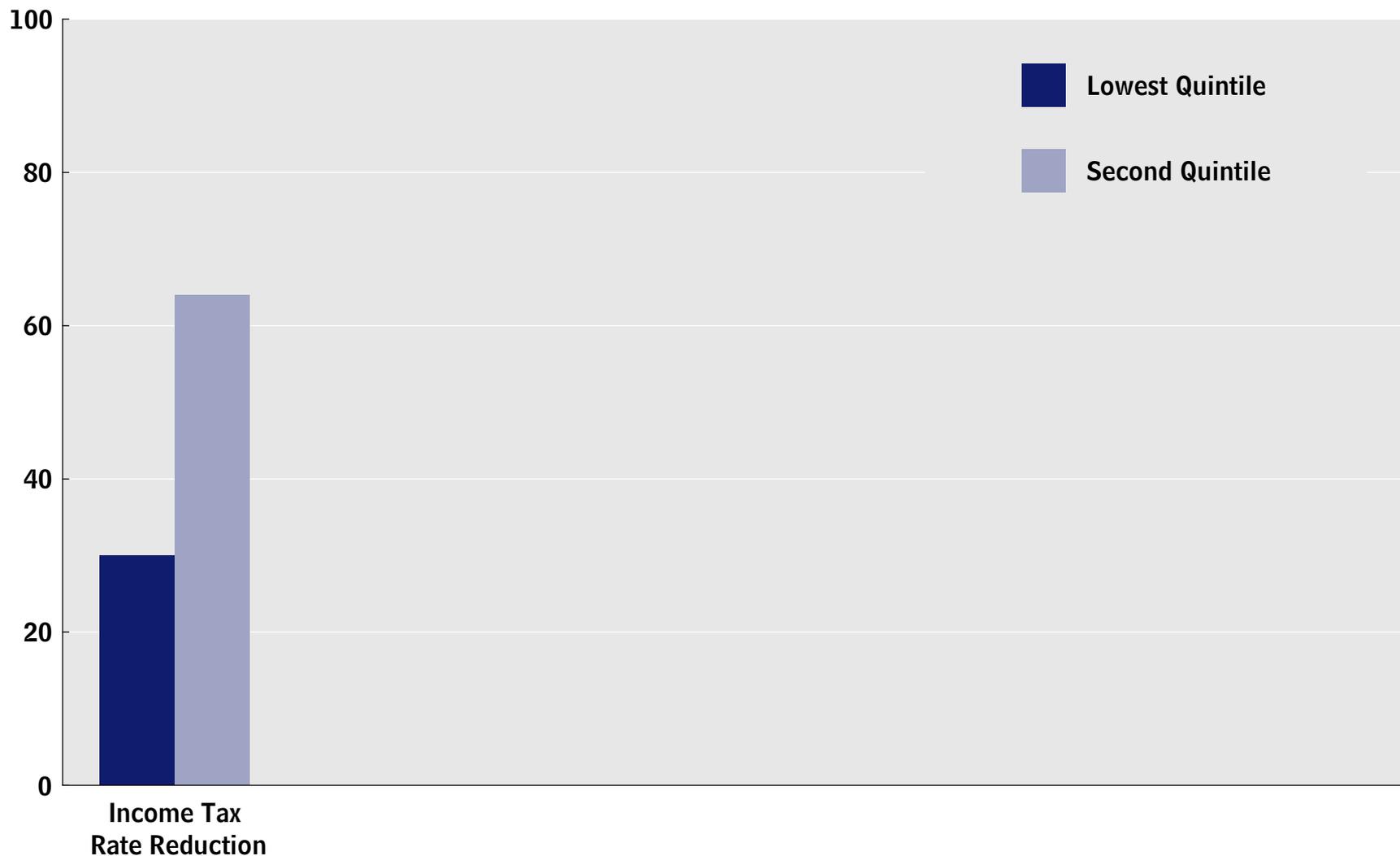
- Expand EITC
- Make Fixed Payments to SNAP Recipients
- Increase LIHEAP

Broad-Based Option: Proportional Reduction in Income Tax Rates

- Large share of households in lowest quintiles would receive some benefit, but amount would be small
- Bulk of reductions would go to tax-payers in highest income tax brackets
- Would be easy to administer
- Could potentially reduce the economy-wide cost of carbon tax
 - Increase after-tax returns to working and investing
 - Decrease distortions in spending caused by tax preferences

Share of Low-Income Households Likely to Benefit From Alternative Policy Options

(Percentage of households)

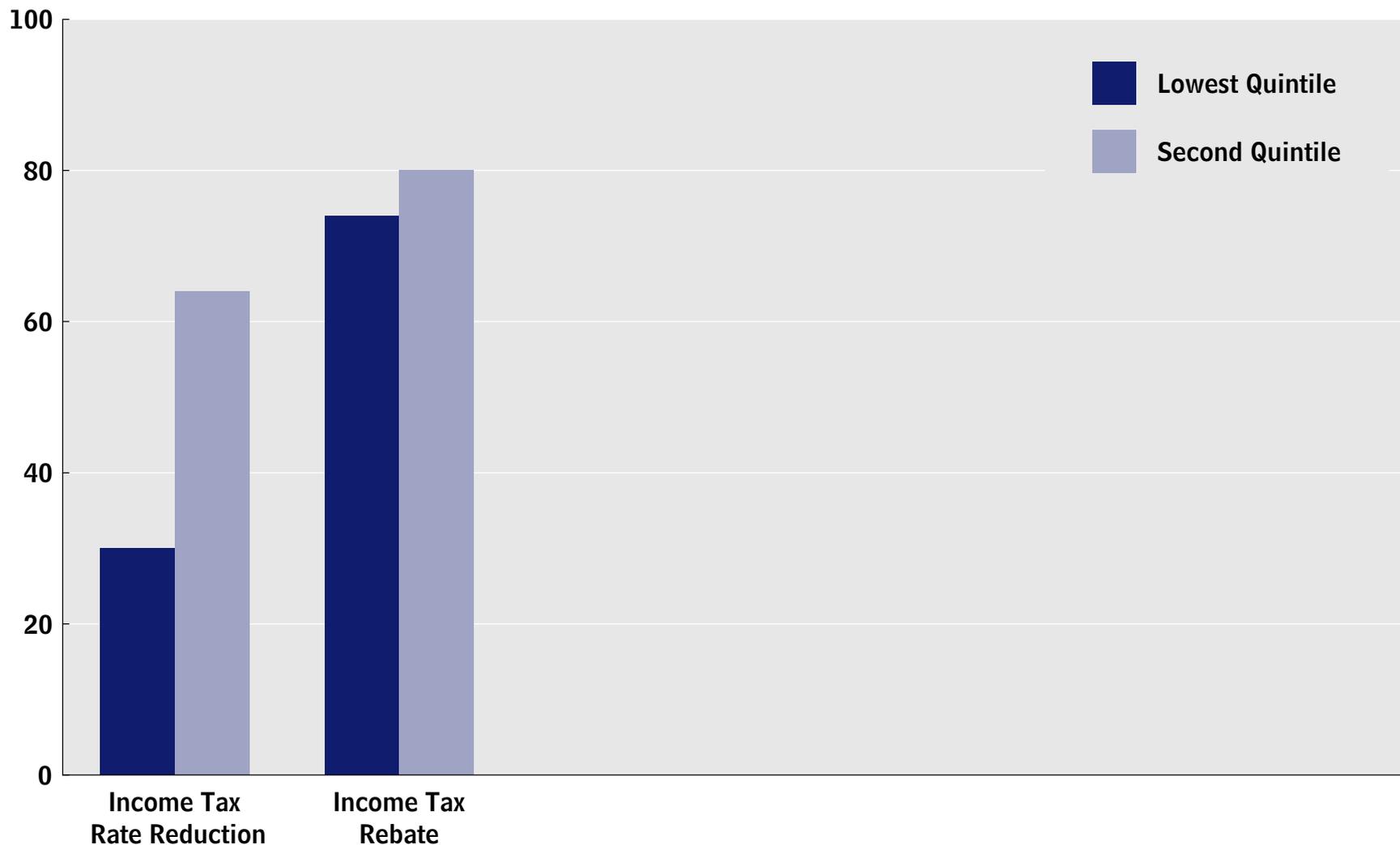


Broad-Based Option: Income Tax Rebate

- Refundable rebate would benefit much larger share of low-income households than reduction in tax rate
- Fixed rebate would be progressive; especially if it phased out at higher incomes
- Administering could be relatively costly
 - Challenging to get households with no tax liability to file
 - May not reach some of most vulnerable households
- Unlike reduction in income tax rates, rebates would provide no added incentive to work or invest

Share of Low-Income Households Likely to Benefit From Alternative Policy Options

(Percentage of households)

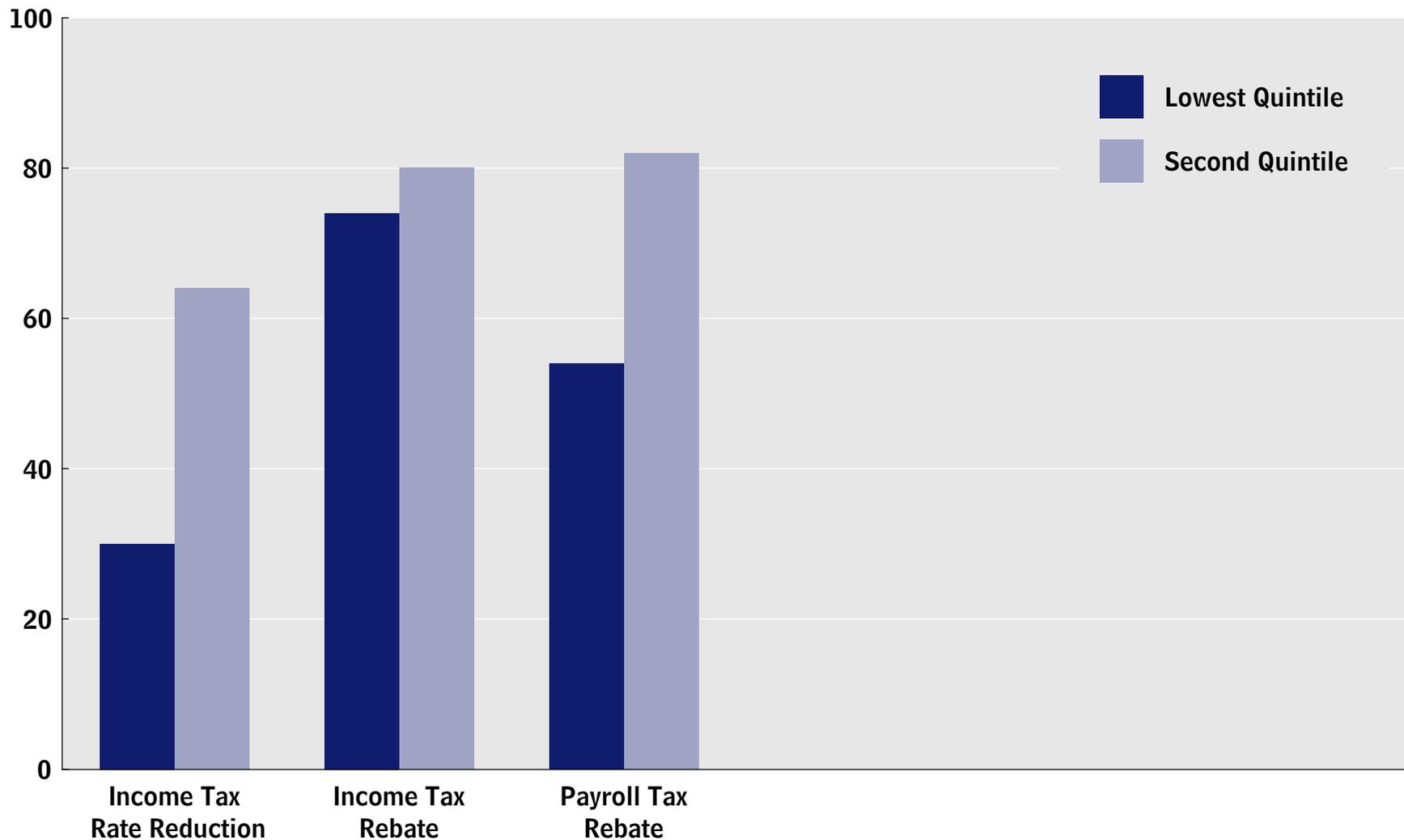


Broad-Based Option: Payroll Tax Rebate

- Fixed amount of earnings could be exempt from Social Security and Medicare taxes, e.g., Metcalf proposed first \$3,660 be exempt = \$560 maximum rebate
- Rebates progressive for those who receive maximum amount
 - Unequal treatment for similar households with different numbers of workers
- Nearly half of lowest income households have no earnings so would receive no rebate
- Administering payroll tax complicated by fact that some workers hold multiple jobs
- Could provide modest incentive for people to join workforce; no additional incentive to work for those already employed

Share of Low-Income Households Likely to Benefit From Alternative Policy Options

(Percentage of households)



Broad-Based Option: Tax Incentives for Energy Saving Investments

- Could increase cost of reducing emissions by favoring certain investments
- Would favor higher-income households

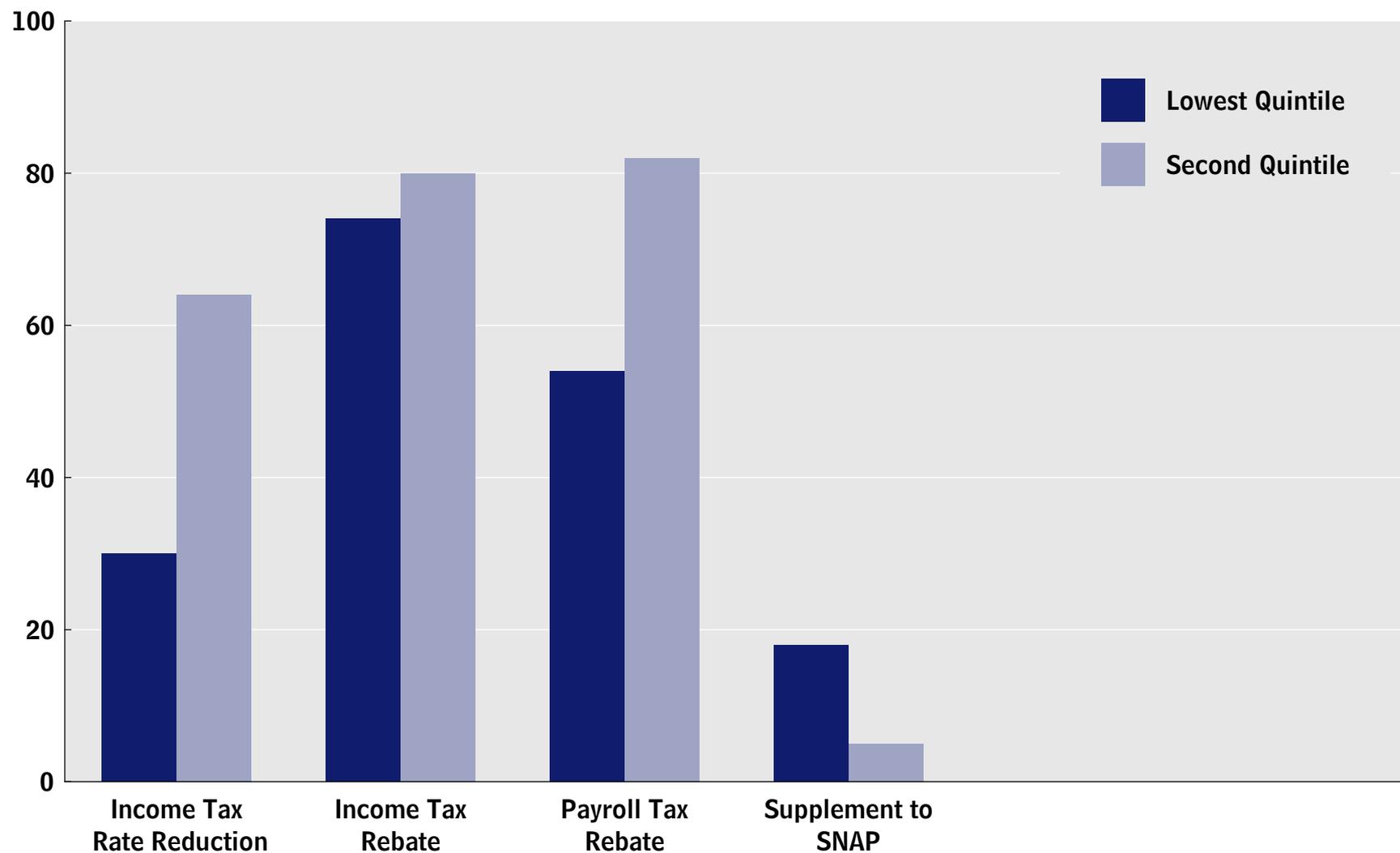
Income (Thousands of dollars)	Percentage of Total Tax Returns	Percentage Claiming Credits
Less than 15	27.2	0.1
15 to 30	21.4	1.0
30 to 50	18.0	3.2
50 to 100	21.7	6.6
100 to 200	8.7	8.9
More than 200	3.0	6.9

Targeted Option: Supplement to SNAP

- Fixed payment to households eligible for SNAP (less than 130 percent of poverty guideline)
- All payments directed at low-income households; Could reach households less likely to file income taxes or to have earnings
- Administrative costs could be minimal if paid through same electronic benefit transfer system
- Would not provide any additional incentives to work or invest

Share of Low-Income Households Likely to Benefit From Alternative Policy Options

(Percentage of households)

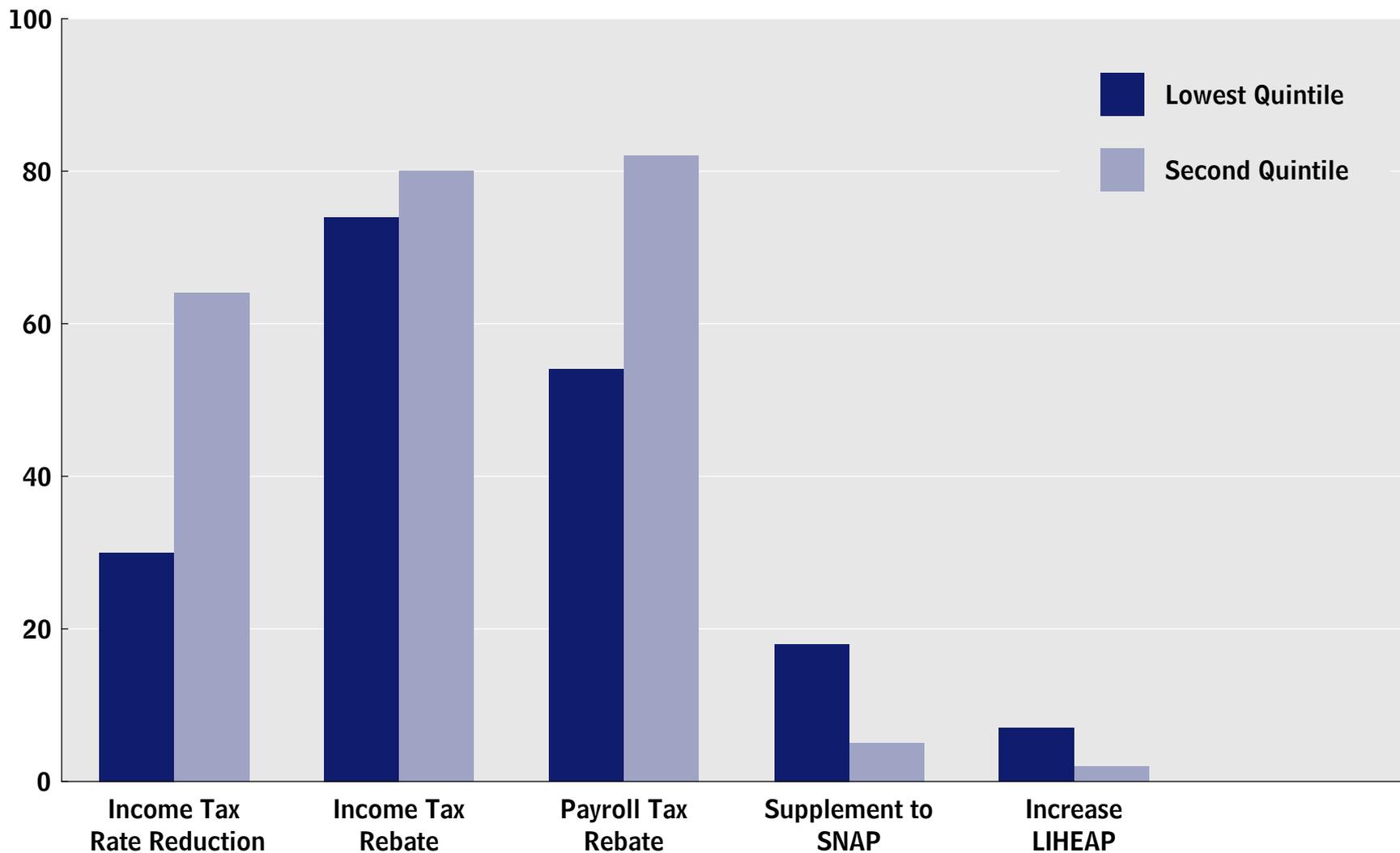


Targeted Option: Increased Funding for LIHEAP

- Households with income up to 150 percent of poverty guideline qualify for LIHEAP under current federal rules
- Fewer households receive LIHEAP than SNAP even though more are eligible for LIHEAP under federal rules
- Block grants limit federal funding. States can set lower income limits and eligibility varies among states
- Expanding program to cover all low-income households would entail significant increase in administrative costs
- Expanded LIHEAP would provide no additional incentive to work and invest and could provide some modest increase in incentives to use energy

Share of Low-Income Households Likely to Benefit From Alternative Policy Options

(Percentage of households)

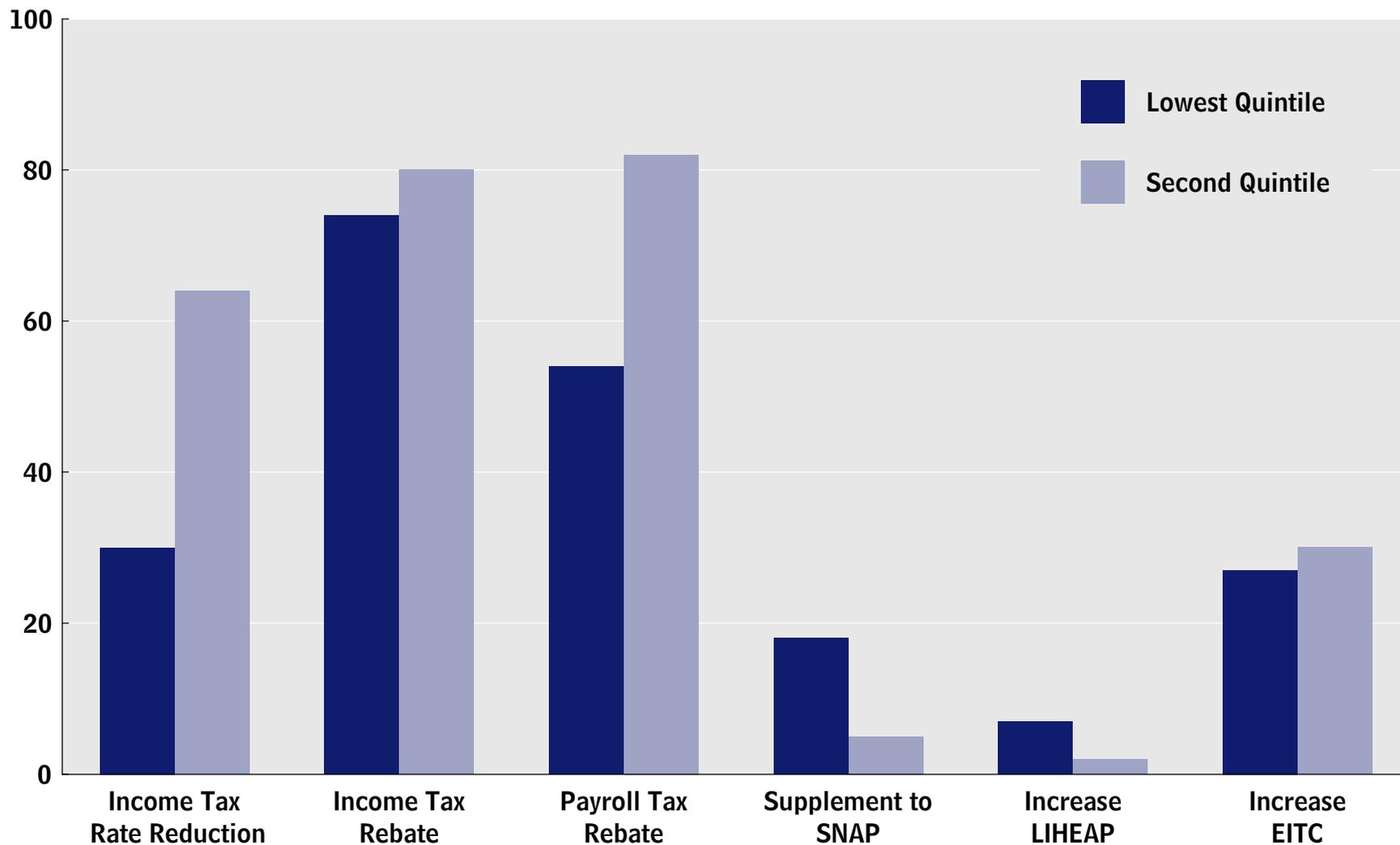


Targeted Option: Increase EITC Payments

- EITC is a refundable credit available to low-income households, primarily those with children
 - Only available for households with earnings
 - Childless workers receive smaller credits and face lower-income limits
- EITC payments are available to households with incomes higher than LIHEAP or SNAP
- Increasing EITC payments based on existing eligibility would be easy to implement
- Increased payments could increase incentives for households to enter workforce

Share of Low-Income Households Likely to Benefit From Alternative Policy Options

(Percentage of households)



Policy Options Entail Trade-Offs

	Targeting			Administration	Economic Efficiency		
	Percent of Households Covered ^a		Larger Proportional Benefits to Lower-Income Households?	Requires Significant Increase in Administrative Costs?	Increase Incentives to Work?	Increase Incentives to Invest?	Preserve Incentives to Reduce Emissions?
	Lowest Quintile	Second Quintile					
Broad Based Measures							
Income tax rate reduction	30	64	No	No	Yes	Yes	Yes
Income tax rebate	74	80	Yes	Yes, if fully refundable	No	No	Yes
Payroll tax rebate	54 ^b	82 ^b	Yes	No ^c	Small increase	No	Yes
Energy saving investment tax credit	n.a.	n.a.	No	No	No	No	Yes
Targeted Measures							
Fixed payments for SNAP-eligible households	18	5	Yes	No	No	No	Yes
LIHEAP	7	2	Yes	No, if current recipients ^d	No	No	No
Expand EITC	27	30	Yes	No	Small increase	No	Yes

a. Significant increase if credit was fully refundable, requiring outreach to households that would not otherwise file.

b. Preventing individuals with multiple jobs from receiving multiple rebates would considerably increase cost.