

A Unified Welfare Analysis of Government Policies (2019)

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Motivation

- Main question: what government expenditures are most effective at improving social well-being?
- Empirical literature estimating causal effects of government policies frequently features welfare analysis
 - Method of analysis varies, making it difficult to compare policies
- Existing attempts at a standard approach, e.g. social cost-benefit analysis, may be uninformative
 - Policy delivering Pareto improvement can have lower BCR than policy that does not
 - Adjusting for “deadweight cost of taxation” may undermine idea that incidence matters
- Bridging divide between academic research and public policy

Approach

- Government spends dp_j on policy j - the MVPF is given by aggregate willingness to pay for the policy divided by net cost to the government

$$MVPF_j = \frac{\sum_i WTP_i^j}{G_j} = \frac{WTP^j}{Net\ Cost}$$

- Measure shadow price to the government of delivering welfare
- Policies can be compared through impact on social welfare per dollar of government expenditure from budget-neutral policy change
 - Policy change increases social welfare iff

$$\bar{\eta}_1 MVPF_1 > \bar{\eta}_2 MVPF_2$$

where $\bar{\eta}_j$ is the average social marginal utility ($\eta_i = \psi_i \lambda_i$)

- Remember that η_j is tied to welfare weights and thus social preferences

Methods and Data

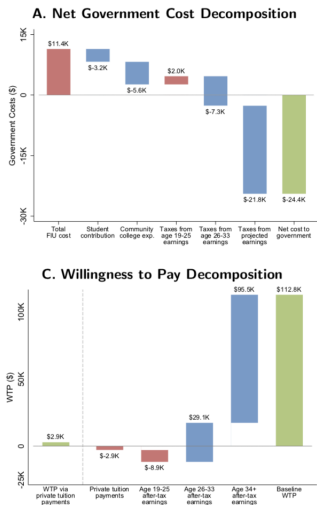
- Authors draw on empirical papers to estimate MVPF for 133 policies
 - Policies span social insurance, education, taxes and cash transfers, and in-kind transfers, while also targeting different groups
- Estimation: recall

$$MVPF_j = \frac{WTP^j}{C_j + FE_j}$$

- Net cost is sum of mechanical cost and fiscal externalities, and the latter includes (long run) impact of policy on government budget, including through behavioral responses
 - Envelope theorem is used to infer beneficiaries' WTP^j
- Focus on broad patterns in data instead of individual policies

Example: MVPF for Admission to FIU

FIGURE I: WTP and Cost Components for Admission to Florida International University



- Broad patterns
 - Relatively high MVPFs for investments in the health and education of children (across all age groups)
 - Relatively low MVPFs policies that focus on adults, provide job training for children, or target disabled people
- Relation to previous theories
 - Optimal redistribution and taxation (Mirrlees 1971; 1976)
 - Tax and transfers vs. in-kind expenditures (Atkinson and Stiglitz 1976; Hylland and Zeckhauser 1981)
 - Tagging (Akerlof 1978; Weinzierl 2011)
 - Market imperfections in insurance markets, e.g. adverse selection (Akerlof 1970)
 - Optimal subsidies (Stantcheva 2017; Bovenberg and Jacobs 2005)

Conclusion

- Useful framework, especially when evaluating menu of policy options that target same group, i.e. $\bar{\eta}_i \approx \bar{\eta}_j$
 - Broad patterns in data can be used to frame policy agenda
- Concerns
 - Confidence intervals and precision of estimates
 - Relevance in data-constrained developing country contexts
 - External validity of individual studies
 - Mitigated by using multiple papers for same policy?
 - Publication bias
 - Framework relies on 'small' policy changes
 - Often presented with policies that target different groups
 - Normative concerns are important, which makes choice of η significant
 - Welfare increasing policy \nrightarrow socially desirable policy