

14.472 Public Finance II

Topic IV: Choice of Instrument

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Social Insurance Takes Many Forms

- Publicly provided (uniform) program
 - Medicare Parts A and B
 - Unemployment Insurance
 - Social Security Disability Insurance, Old Age Assistance
- Mandated employer-provided provision: Worker's Compensation
- Publicly subsidized and regulated, privately provided
 - Medicare Part D (prescription drugs)
 - Health Insurance Exchanges under ACA
- Private option to compete with publicly provided insurance
 - Medicare Advantage

Choice of Instrument Question

- Conditional on intervention
 - What form should intervention take (Normative)
 - Consequences of different instruments (Positive)
- Vastly understudied
 - Conceptual and empirical work needed
- Until very recently:
 - Level and tilt of optimal UI benefit (very narrow; conditional on public provision of UI in a particular form)
 - Mandated employer benefits vs. public provision (Summers 1989; Gruber 1994)
- Increasing attention to “choice of instrument” given proliferation of (private) instruments
 - Will discuss some of what we have learned
 - But huge scope for more work here, both within sectors where work is underway and in other sectors

Example: Three Models for National Health Insurance

- **Top up:** Publicly provided uniform benefit, individuals allowed to top up with private plan
 - Traditional Medicare (Hospital and Doctor's insurance) + private Medigap;
 - UK, French, Canadian health insurance
- **No top up:** Publicly provided uniform benefit; if want anything else must buy everything (including inframarginal) on private market
 - Medicaid
 - public schools vs private schools
- **Voucher:** Publicly provided uniform benefit, individuals allowed to “opt out” to private plan that provides basic + more
 - Traditional Medicare vs. Medicare Advantage
 - German health insurance system
 - Variant: Health Insurance Exchanges (State and Federal) under ACA - no “public option”

- Three models: What do We Know?

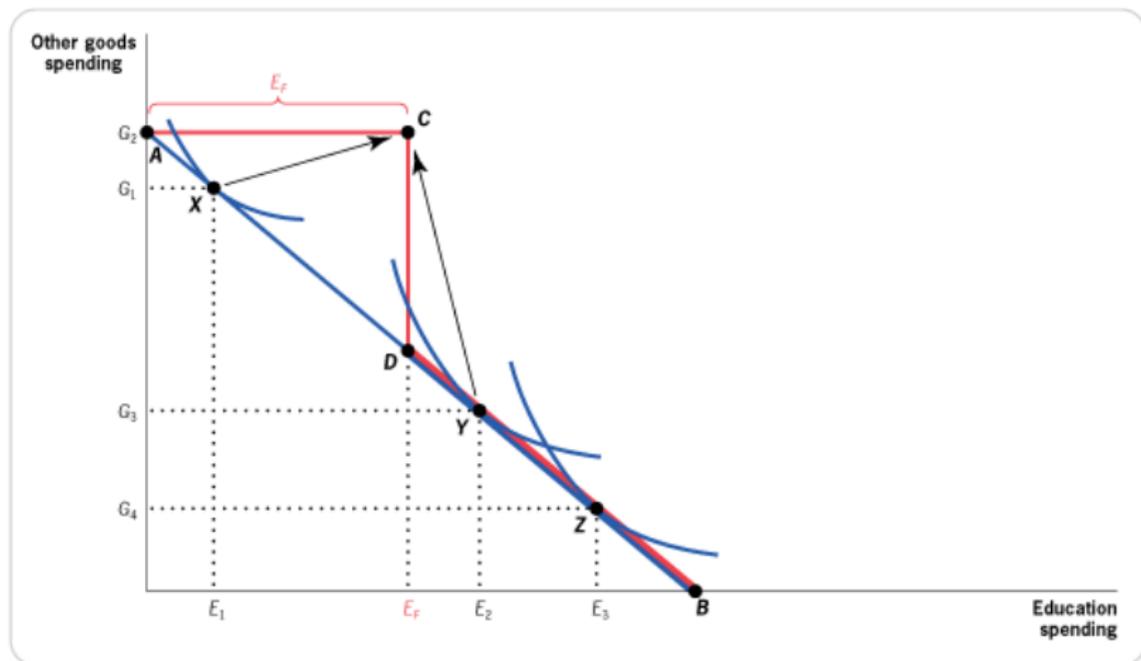
Top up: Fiscal Externalities

- **Top up:** Publicly provided uniform benefit, individuals allowed to top up with private plan
- Covering complements / copays and deductibles (Medigap; France)
 - Cabral and Mahoney (2019): Medigap exerts negative fiscal externality on public insurance
- Covering substitutes / Private insurance to get a better surgeon / shorter wait (UK)
 - Conjecture: Positive fiscal externality

No top up: Crowd Out

- **No top up:** Publicly provided uniform benefit; if want anything else must buy everything (including inframarginal) on private market
 - Examples: Medicaid; public schools vs private schools
- Analysis
 - Benefit: government provided basic level of insurance. People can opt out and buy more if want.
 - Concern: if buy insurance (or care directly) have to pay all the inframarginal costs that would have been covered by public insurance
 - Inefficiency arises because WTP on margin for more of good may exceed cost but cannot purchase that without paying for inframarginal

Crowd out: Peltzman 1973



Public Education Spending Crowds Out Private Spending • When the government introduces free public education in the amount of E_F , the budget constraint changes from AB to ACDB. This leads families such as X to increase the amount of education they obtain from E_1 to E_F and families such as Z to maintain their educational spending of E_3 . Families such as Y, however, reduce their educational spending from E_2 to E_F .

Crowd out

- In health insurance:
 - Medicaid and private acute health insurance: Cutler and Gruber (1996)
 - Medicaid and private long-term care insurance: Brown and Finkelstein (2008)
- Key is that cannot pay on margin for incremental amount of good
 - vs voucher system (Medicare Advantage)

Vouchers

- Publicly provided uniform benefit, individuals allowed to “opt out” to private plan that provides basic + more
 - Example: Traditional Medicare vs. Medicare Advantage; German system
 - Variant: Health Insurance Exchanges (State and Federal) under ACA - no “public option”
- Analysis
 - Key benefit: internalize externality
 - Key issue: risk adjustment / adverse selection

Outline of Unit

- 1 Public Provision vs. Private Provision
 - 1 Theory - Hart, Shliefer, Vishny (QJE 1997)
 - 2 (Limited) Evidence - prisons; education; health care, other.....
- 2 Public Provision vs. Mandated Employer Provided Benefits
 - 1 Summers (1989) on benefits-tax linkage ("benefits tax")
 - 2 (Limited) Evidence - Gruber (194) on mandated maternity benefits

Part I: Public vs. Private Provision

Public vs. Private Provision

- Hart, Shleifer, Vishney (HSV) “The Proper Scope of Government: Theory and An Application to Prisons” (QJE 1997)
 - Consider the provision of services “in house” (i.e. public provision) vs “contracted out” (private provision)
 - Examples: defense procurement, garbage collection, police, armed forces, education, health care, prisons...
 - Emphasize distinctions that arise because of incomplete contracts and who is allocated residual control rights
- Key distinction between public and private provision: allocation of residual control rights to government or private manager
- Model sketch
 - Benevolent bureaucrat or politician G
 - A facility - public or private - is run by a single manager M.
 - M can invest effort in improving quality (at some cost) or reducing cost (with adverse effect on quality)
 - Incomplete contracts: Neither cost nor quality innovations are contractible ex ante. Both require approval of owner of asset (i.e. person with residual control rights) which is G for public provision and M for private provision.

- Consequences of public vs private provision
- Public: G retains residual control rights
 - M needs approval of G for cost or quality investments and can (Nash) bargain for some share of surplus (e.g. via higher wages).
 - Because M gets only a fraction of returns, under invests in both quality improvement and cost reduction relative to first best
- Private: M retains residual control rights
 - Does not need approval from G for cost reduction and does not internalize adverse impact on quality - therefore over-invests in cost reduction relative to first best
 - Bargains with G for higher price before investing in quality improvement and presumably only gets a fraction of returns so suboptimally low quality improvement relative to first best
- Conclusion: neither achieves first best and empirical question which is preferable

Applications - some examples

- Use public funds to finance private schools (vouchers):
 - Greater incentives for cost reductions (perhaps too great)?
 - Might underinvest in quality (e.g. hire less expensive teachers' aides vs high quality teachers)
 - Incentive to cream skim against expensive to educate children (e.g. special ed)
- Private vs. public hospitals
 - Greater incentives for cost reductions (perhaps too great)?
 - Underinvest in quality of care?
 - Incentive to cream skim against expensive to treat patients
- Prisons.
 - HSV application - qualitative discussion (no empirical work per se)
 - Question: Is 'quality shirking' undesirable in case of prisons? What is role of prisons? (incapacitate; deter; deliver justice)

- Potential argument for public sector provision from “preference for universality” / everyone getting served. Concern that private providers cream skimming off expensive consumers
 - Special ed kids
 - Very sick patients
 - Postal service delivery in rural areas
- Could give private sector incentives or mandates to service these populations but with incomplete contracts and private sector overly incentivized on cost reductions relative to first best, expect gaming here
- Two sides of same coin: exactly what makes private sector appealing (high powered incentives to reduce costs as residual claimant) raises concerns about quality shirking - nature of service provided or types of customers served
- Non-profits as the Great White Hope?
 - Might they be as high-powered / rapacious in terms of incentives to reduce costs but less so on quality - i.e. quality enters their objective function in addition to profits?

Public vs Private Provision - Other considerations

- HSV emphasize efficiency considerations of public vs private when there are incomplete contracts
- Another potential efficiency consideration: more competition when privatized?
 - HSV argue (how convincingly?) that can have competition through government-owned firms and no competition through private monopoly
- Non-benevolent principles (politicians / bureaucrats or CEOs)
 - Private benefits to principles from residual control rights
 - Privatization of public enterprises raise costs to politicians of influencing them
 - Citizen discontent or tight budgets will force politicians to privatize
 - analogy to private sector: shareholders disciplining private managers

Empirical work

- Key point: Huge scope for more work
- Will briefly discuss some work out there:
 - “Testing” HSV: Levin and Tadelis (2010); Banerjee et al. (2017)
 - (even more briefly) Some other comparisons of public vs private
 - private vs public provision of prisons
 - for profit vs public (or non profit) post secondary education
 - private vs public provision of health insurance (Part D; exchanges; Medicare Advantage)

- “Contracting for government services: theory and evidence from US cities” (Journal of Industrial Economics, 2010)
- “Make or buy” decision of cities
 - street cleaning, garbage collection, fire departments, parks and recreation etc
 - Produce in house or contract with private sector firms?
- Tradeoff:
 - in house (public provision) suffers from productive inefficiency due to weak incentives of employees
 - but low contracting costs
 - private contracting produces productive efficiency (performance contracts / requirements)
 - but costs of writing, monitoring and enforcing performance standards
- Politically motivated city administrator may care more about quality (or public sector employment) than about costs

Evidence from Cities (con't)

- Data

- International City / County Management Association (ICMA) data
 - public service provision (in house vs private contract) for 1,000 cities and a range of services (street cleaning, parks and recreation, emergency etc).
- Census and other data on city demographics, form of governance, political leanings etc
- Survey of city managers to measure 'performance contracting difficulty' across 29 services (cool!)
 - Key theoretical prediction that performance contracting difficulty will reduce privatization probability

- Key cross-sectional findings:

- Services for which it is harder to write and administer performance contracts are less likely to be privatized (and especially in larger cities)
- Services ranked lower in terms of residential sensitivity to quality are more likely to be privatized
- Political effects: cities run by an appointed manager (vs elected mayor) are more likely to contract for service provision

- “The Role of Competition in Effective Outsourcing: Subsidized Food Distribution in Indonesia”
- Large-scale subsidized rice program (“Raskin”) serving 17.5 million low income households
 - Subsidy is about 4% of household consumption
 - National program, but “last mile” delivery from central distribution point handled by local governments
 - Concerns about theft (missing rice), markups (forced payment above intended copay),
 - May not be malfeasance - divert to more deserving; higher copays to cover transport costs etc
 - Concerns about poor quality rice (mold, pests)
- Non contractible elements of service delivery as in HSV: quality, theft, delivery costs, etc

Experimental design (across 572 locations)

- Control (status quo): local government picks up and distributes rice
- Bidding treatment: private individuals or firms can bid for right to become official distributor
 - public meeting to describe procurement process and advertise opportunity to bid
 - committee formed at public meeting to oversee bidding process and monitor outcome
 - current distributor (village head / local government staff member) allowed to bid
- Bidding with enhanced competition: if don't get 3 bids within deadline, extend deadline for 10 days
- Information only treatment: bidding treatment provides transparency on process so information treatment has the public meeting to provide some transparency

Results

- Offering localities opportunity to privatize (ie.. bidding treatment) increases efficiency with no detectable declines in quality
 - 37 percent lower transportation costs compared to information placebo
 - But no decline in household payments (markups)
- Encouraging sufficient competition (i.e. bidding with enhanced competition) was critical to ensure efficiency gains were translated into lower markups
- Data suggest process was frequently blocked (didn't run the bidding process or didn't give it to the winner)
 - Implies that privatization gains might be higher if not blocked, but that elite capture can mitigate gains from privatization

Another application: prisons

- Recall HSV motivating example was private vs public provision of prisons
- Very little empirical work on prisons
 - US has 5% of world population, 25% of its prisoners
 - 10% of US prisoners in private prisons; higher share in some other countries
- Mukherjee (2017) “Impact of Private Prison Contracting on Inmate Time Served and Recidivism”
 - private prisons are paid per diem for occupied beds → incentive to fill beds
 - staggered timing of private prison exit and entry in Mississippi
 - Finds private prison increases length of time served (via increased use of conduct violations) but no evidence of lower recidivism post release
- More work on prisons would be great!

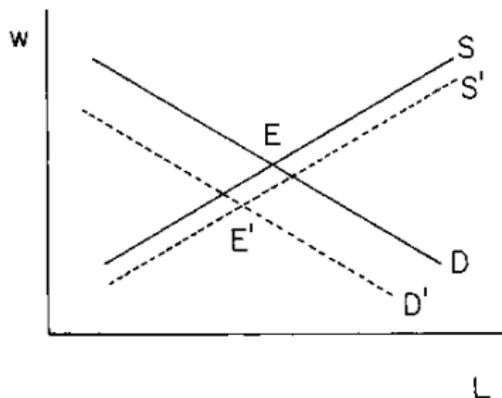
Non-profits vs for profits: application to education

- Can non profits achieve for profit efficiency gains on costs without sacrificing quality (as in HSV)?
- Demming, Goldin and Katz (JEP 2012) “The For-Profit Postsecondary School Sector: Nimble Critters or Agile Predators?”
 - Recent growth in for profit post-secondary education
 - For profits have taken a large burden of increased enrollment in higher education off of public sector.
 - Expanded supply of skilled workers in era of tight state budgets
 - Provide services to underserved, non traditional, and disadvantaged population, including shorter degree programs
 - But charge higher tuition and fees than public sector alternatives and students more likely to end up unemployed and with substantial debt
 - High student default rate on student loans increases costs to taxpayer
- {Also a literature on non-profit vs for-profit health care providers}

Part II: Benefits-Tax Linkage

Public provision vs. Mandated Employer Provided Benefits

- Summers (1989 AER P&P) “Some Simple Economics of Mandated Benefits”
- Thinks about choice of publicly providing a good (e.g. health insurance, pension etc) vs mandating that employers provide it to their employees
- Efficiency cost of public provision is the DWL of taxation needed to finance the good
- Key claim of paper: Employer mandates are more efficient than public provision
 - Efficiency cost of mandated employer benefit is LESS than DWL of taxation required to publicly provide benefit
- Idea: Efficiency cost of mandate is equivalent to the distortionary cost of a tax where the tax rate is the employer cost of providing the benefit minus the employee valuation of the benefit
 - Therefore as long as employee valuation is non negative [and employer cost not higher than public provision cost] efficiency cost of mandate is lower



- Imagine mandating a benefit (e.g. health insurance) at cost to employer of \$1.00 per employee hour
- Labor demand shifts down by cost of provision (\$1)
- What happens to Labor Supply?
 - Shifts out by amount = value of benefits
- New equilibrium: low L , low w , but in general L reduced by less than if just \$1.00 of tax

Summers (1989)

- Case I: Mandated benefits worthless to employees
 - From employer and employee perspective, just like a tax on labor
 - Cost is same DWL as pure tax (same wedge)
- Case II: Valuation of mandated benefit arbitrarily close to \$1.00
 - No change in employment
 - No change in employer total costs or employee utility
 - Full incidence on wages
- Case III: More than full valuation
 - Is this possible?

Another example: Social Security Old Age Benefits

- Public Pension
- Pay payroll taxes while you are working (capped / regressive)
- Receive pension benefits when retired
 - Benefit formula a function of taxes paid (progressive)
 - Benefits paid as an annuity (survival contingent stream of payments)
- Example of benefits-tax linkage
 - If people recognize that taxes paid today are for benefits tomorrow (and there was no redistribution and benefits were fully valued relative to cost) there would be no distortionary effect of the SS payroll tax
- Key question: Are workers aware of benefits-tax linkage in Social Security?
 - If not, payroll tax functions like a distortionary tax (no outward shift of labor supply)
 - One argument for “private accounts” is to make the tax-benefit linkage more salient

Another example: Rising health care costs

- Claim: rising health care costs are decreasing employment in US because employers provide (and pay employee premiums for) health insurance in US
 - Thus rising health care costs increase employer costs and decrease employment
 - Contrast often drawn to other countries where health insurance not provided by employer
 - Concern of decreased US competitiveness
- How would you analyze the claim: rising health care costs will decrease employment?

Some comments

- Paper is really not about mandated benefits so much as about benefit-tax linkage (“benefits tax”)
 - When there is a direct return (benefit) to the tax being paid
- Equity-efficiency tradeoff
 - The very thing that makes the benefit-tax linkage efficient may make it have poor redistributive properties
 - People with higher costs of e.g. health insurance pay more in the form of larger cut in wages
 - vs. public provision of health insurance which can redistribute from e.g. healthy to sick
- Labor market rigidities may impair ability to shift onto workers
 - Binding minimum wage, regulation against e.g. paying differently based on gender or age
- How provide benefits to those without jobs?
 - Separate public program for them would break link between benefit and employment → don't get shift out of labor supply

Some comments (con't)

- Perhaps the economics are not so simple:
 - e.g. What if firms have heterogeneous costs of provision (and perhaps higher than public provision?)

Little empirical evidence

- Seminal Gruber (1994 AER) paper on incidence of mandated maternity benefits
 - Health insurance must now cover maternity
 - Compares effects for groups with different expected costs (married women < 40 vs. older women or single men)
 - DD paper finds substantial decline in wages, little change in labor inputs
 - Consistent with “full shifting” by group
- Very little otherwise
 - Gruber (1997) and Saez et al. (2012) on incidence of payroll tax
 - Would be great to have more work
- Additional questions of interest:
 - How finely can/ does shifting happen (variation in costs within groups)?
 - Summers paper assumes rationale for government intervention and addresses question of form
 - But is there adverse selection into firms based on benefit provision?! Little / no work!

Summary

Choice of instrument

- Relatively unexplored question (relative to e.g. optimal level of benefits conditional on public provision)
- Increasingly active area of research with increase in private provision of traditionally public goods
 - Public pensions vs. “privatized” Social Security (e.g. Chile, Mexico)
 - Public schools vs “privatized” charter schools
 - Private provision of regulated / subsidized health insurance (MA, Medicare Part D, exchanges)
- Many questions regarding impacts of particular private market regulations and structure (traditionally IO - e.g. electricity, telecomm etc)
 - Cabral et al. (2018 AER) “Do Larger Health Insurance Subsidies Benefit Patients or Producers? Evidence from Medicare Advantage
- Key (largely) unanswered questions: costs and benefits of having private provision

Costs and benefits of private provision

- Surplus generated by private provision ($CS + PS - \text{cost of public funds}$)
 - Curto et al. (2021 JPE) “Can Health Insurance Competition Work? Evidence from Medicare Advantage”
 - Any work in education or pension space on this?
- Inside the black box of private provision: what are they doing differently?
 - Medicare Advantage?
 - In education / charter school literature?