14.472 Public Finance II
Topic VI_b: In-kind transfers

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In-kind transfers

- Health insurance: Medicare and Medicaid
- Nutrition: e.g. Food stamps, School lunch, WIC
- Housing: e.g. Section 8 vouchers
- Education: public primary / secondary and post secondary; financial aid for post-secondary
- Job training assistance
- In US, government spending on in-kind health and education programs alone is more than 12% of GDP (Currie and Gahvari, 2008).
### Table 1: Public Expenditures on Four In-Kind Programs, Selected OECD Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Health %GDP 2002</th>
<th>Housing %GDP 2001</th>
<th>Child Care %GDP 2003</th>
<th>Education %GDP 2003</th>
<th>Active Labor Market %GDP 2001</th>
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<td>Australia</td>
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<td>0.4</td>
<td>4.7</td>
<td>0.1</td>
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<td>0.2</td>
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<tr>
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<td>1.6</td>
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<tr>
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<td>1.2</td>
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<tr>
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<td>0.4</td>
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<td>Norway</td>
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<tr>
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<td>United States</td>
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</table>

Source: Currie and Gahvari (2008)
Road Map

- Today: Brief discussion of economic rationales for in-kind transfers
- Subsequently: How can we empirically value in-kind transfers?
Basic economics says cash dominates in-kind

- Cash superior in terms of recipient utility, since in-kind constraints recipient behavior
- So why ever have in-kind transfers?

Costs of in-kind vs. cash:

- In kind may have higher administrative costs - e.g. public housing vs cash
  - but see corruption / theft issues in developing countries
- Government has efficiency value in producing it?

Several rationales for why benefits of in-kind may exceed cash
Potential rationales for in-kind transfers:

- **Paternalism**
  - Stronger: Individual consumption choices fail to maximize own utility
  - Weaker: Agency problems within family - family doesn't maximize child well being

- **Merit goods (Musgrave 1959)**
  - Want to encourage consumption of certain types of goods
    - Society cares about certain consumption goods for poor over and above effect on poor's utility (e.g. healthcare, food)
  - Recall Kaplow critique of non-individualistic social welfare functions

- "**Consumption externalities"**
  - Interdependent preferences - my utility depends on your consumption
  - Preserves individualistic social welfare function
  - How distinguish empirically from merit goods?
Potential rationale for in-kind transfers (con’t)

- "Commodity specific egalitarianism" (Tobin 1970)
  - Income inequality tolerated but want basic food, medical services, housing needs met
  - Can be individualistic or non individualistic

- Political economy (easier to “sell” this form of redistribution)
  - perhaps because of paternalism, merit goods, consumption externalities and/or commodity-specific egalitarianism

- Market failures
  - e.g. Insurance may be valued at more than cost and may not be provided by unregulated market (market failures like adverse selection)
  - e.g. liquidity constraints may interference with efficient allocation of elementary school education (can’t borrow against future human capital)
[Will Discuss] Price / pecuniary effects (Coate et al. 1994)

[Will Discuss] Screening or self-targeting (Nichols and Zeckhauser 1982)
Cash transfers increase demand for normal goods, which increases their price.

In kind transfers similarly increase demand but also increase supply which lowers prices:
- e.g. if provide food in kind, this increases supply of food
- relative to cash transfers, in-kind transfers can therefore be price reducing
- because of supply effect, can be more effective potentially than cash transfer for a given government expenditure
Cunha, De Giorgi and Jayachandran (forthcoming) "Price Effects of Cash Versus In-Kind Transfers"

Re-examine a 2003 RCT in rural Mexico that randomly assigned 200 villages to receive either boxes of food (trucked into the village), equivalently valued cash transfers, or no transfers

- Original purpose: study impacts on food consumption and malnutrition
- Very nice example of re-purposing an empirical setting (we should do more of this!)

Find evidence of pecuniary effect: food prices significantly lower under in-kind transfers compared to cash transfers

- Relative to control, in kind transfers reduced food prices by 4 percent, cash transfers had a positive but negligible effect on prices
- Price effects larger in remote villages (bigger supply side effect)
Construction of public housing

- Desmond (2016 "Evicted") claims national association of realtors lobbied for vouchers over public housing because of concerns that public housing would reduce rental prices
- "In policy circles, vouchers were known as a 'public private partnership'. In real estate circles, they were known as 'a win'.'
- Any evidence from construction (or destruction) of public housing?

Diamond and McQuade (JPE forthcoming) Study Low Income Housing Tax Credit

- Funds multifamily housing developments for projects that will meet low income occupancy requirements
- Find positive externalities on low income neighborhoods: increases house prices, lowers crime, and attracts racially and income diverse populations
- In high income neighborhoods it causes house price declines and attracts lower income households
Screening: Nichols and Zeckhauser 1982

- Basic idea: Tradeoff between productive efficiency and targeting efficiency
  - Design of optimal second best transfer policy may involve sacrifice of productive efficiency
- Want to redistribute based on an unobserved characteristic (e.g. ability). Key insight:
  - If demand for specific goods is correlated with unobserved characteristic, can transfer more efficiently by sacrificing productive efficiency
    - Exploit single crossing feature: people of different ability have different marginal utility (disutility) from specific goods
- Example: in kind vs cash transfers
  - General economic view: cash dominates (allow people to optimize unconstrained).
  - But N-Z argue that in kind vs cash can improve self-targeting if increases cost of participation more for high ability than intended recipients (low ability)
In-Kind Transfers to Deter Imposters

- Two types: Intended recipients (B) and potential imposters (A). Type not observed.
- There is a pure income tax-transfer scheme in place in which if pre-tax income is restricted to a certain level, receive a cash transfer. Assume B receives transfer, A does not.
- Assume that optimal tax transfer scheme has not fully equalized mu of income (B’s is still higher so would like to do more transfers but if so would violate IC constraint). Binding IC constraint: A indiff btwn pretending to be B and not...
- Given his transfer income, B chooses to purchase optimal amt X*(B) of good X.

Figure 2. In-Kind Transfers to Deter Imposters
- Were A to shirk and receive same income as B, he would buy only X*(A) worth of X.
- Figure shows A’s utility as a function of X consumed if he masquerades as B and gets the transfer intended for B.
In-Kind Transfers to Deter Imposters

• Key point: when shirking and claiming to be B type, A’s optimal consumption of X is less than B’s

• Now imagine we convert part of the cash transfer to in kind provision of X

• Setting amt provided below X*(A) has no effect (relative to cash)

• As we raise the amount provided above X*(A), A suffers increasing losses if he masquerades as B, and B suffers no loss so long as X < X*(B)

• So at a minimum would want to set amt of X provided at X*(B). Providing X*(B) in lieu of cash: B (intended recipient) is no worse off; A is no worse off if he doesn’t masquerade. Moreover...

Figure 2. In-Kind Transfers to Deter Imposters

If A does masquerade he has lower utility than with cash redistribution (see picture) thus creating opportunity to do more redistribution (before A was indifferent btwn masquerading and not now strictly prefers not to)
In-Kind Transfers to Deter Imposters

- Have just argued that can increase redistribution (which wanted to do given binding IC constraint) by providing \( X^*(B) \) in kind in lieu of cash.

- Key point: In general, will be optimal to transfer an amt \( X \) larger than \( X^*(B) \).

- Intuition: envelope thm: marginal increase in \( X \) above \( X^*(B) \) has only second order welfare loss to B but first order welfare loss to A if masquerades.

- Optimal in kind transfer scheme forces B to consume “too much” \( X \).

- Sacrificing productive efficiency to increase targeting efficiency!
Aside I: Interaction with optimal income tax theory (471)

- In-kind transfers can improve the efficiency of the income tax system via impacts on labor supply.
- Relates to literature on benefits of commodity taxation in presence of optimal income tax.
  - Atkinson-Stiglitz (1976): differential commodity taxes are sub-optimal for redistribution in presence of optimal non-linear income taxes.
  - Saez (2002): differential commodity taxes useful for redistribution if consumption patterns provide additional information about ability (correlated preference heterogeneity).
  - Currie and Gahvari (2008 JEL) provide more discussion.
Aside II: NZ and Ordeals

- Nichols and Zeckhauser analysis also suggests may be optimal to have “ordeals” in transfer programs: i.e. pure deadweight cost e.g.
  - Tedious administrative procedures; stigma; etc
- May enhance target efficiency if benefits from transfers vary across potential recipients
  - Suppose intended get 100 utils from transfer
  - Suppose imposters get 10 utils
  - Then ordeal that imposes an 11 util loss in order to qualify for the transfer would be an effective screening device
- Example: make people on Medicaid (which pays for long term care) get care in nursing home rather than in home
  - People tend to prefer home care
  - Nh care is more expensive
  - Nevertheless, may be a good screen for those who would buy private insurance in absence of public program…
- Will return to and consider some opposing theories and empirical evidence when we get to take-up
Aside III: NZ and Empirical Opportunities

Theory:
- Nichols and Zeckhauser vs. "Behavioral Economics"

Empirical question: are screens screening out the “right” people?
- Application I: In-kind vs cash transfers (will discuss now)
- Application II: "Ordeals" / Take-up of benefits (next lecture)
Screening using cash vs in-kind transfers

- Lieber and Lockwood (2017) "Targeting with in-kind transfers: evidence from Medicaid home care"
  - Another nice example of repurposing a previously done RCT!
- Consider a choice between in-kind and cash benefits.
  - Budget that can be allocated on a cash benefit and a subsidy to some good.
  - Analyze the welfare impacts of a budget-neutral shift toward in-kind benefits that increases the subsidy rate while decreasing the cash benefit to make it budget neutral
- Use framework to analyze costs and benefit of in-kind vs cash
Basic tradeoff: cash is more valuable but in kind may be better at targeting transfers to higher-marginal utility states

Cost of in kind: moral hazard
- Subsidy to good distorts consumption of good above efficient point (where WTP = SMC)

Potential benefits of in-kind: targeting
- Across individuals: unobserved value of formal care (e.g. cost of informal care; unobserved nature of health condition)
- (new focus of theirs) Within individuals across states: health not verifiable; by making the transfer in kind, may be better able to target poor health states
  - This applies to in kind transfers of insurance
  - e.g. don’t pay lump sum for hip replacement bc want to target people who actually need it.
Application: Medicaid home care

- Medicaid home care expenditures are large and growing fast.
- Is in-kind preferable to cash?
- Framework guides empirical objects needed
Application: Medicaid home care

- Price elasticity of demand for home care (determines magnitude of moral hazard)
  - Estimate using RCT from Cash and Counseling experiments - randomized into either traditional in-kind home care benefit or near-cash
  - Find substantial moral hazard: home care consumption doubles with in-kind vs cash.

- Heterogeneity in demand for formal care within eligibility population
  - Look at distribution of formal care consumption among eligibles. Find substantial residual variation conditional on even rich observables.
  - Suggests tagged cash benefits would not have great targeting properties (a lot of residual heterogeneity)

- Examine targeting of in-kind provision by looking at covariance between benefits paid out and proxies for marginal utility (e.g. health)
  - Find in-kind sharply concentrates benefits on small fraction of benefit-eligible states in which people are sicker, have worse informal care options, and have greater demand for formal care
Substantial moral hazard - in kind provision significantly reduces value of benefits (vs cash)

But substantial improved targeting - in kind provision concentrates benefits on high marginal utility states of the world

On net: in kind benefits are much less valuable to recipients but cash leaves much of the risk uninsured (can’t target the high marginal utility states)

"Under a wide range of assumptions within a standard model, the targeting benefit of in-kind provision exceeds the distortion cost"
Economic rationales for in-kind transfers: remarkably little empirical evidence

- Better at screening than cash?
  - Very very limited empirical evidence (Lieber and Lockwood 2017 as only example I know?)
  - Pretty amazing given how often it’s talked about!

- Pecuniary effects - supply side effect on local prices
  - Cunha, De Giorgi and Jayachandran (forthcoming) and Diamond and McQuade (forthcoming) are the only examples I know
  - Could one look at the building (or tearing down) of housing projects in the US?

- In-kind valued more or less than cash?
  - How to empirically value in-kind transfers?
  - Will look at in health insurance (Medicaid) context after the next lecture on takeup