Public Economics

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6 Central & Local Government

6.1 Tiebout Model

Tiebout's insight was that the factors missing from the market for public goods were **shopping and competition**.

The situation would be different when public goods are provided at the local level by cities and towns.

- Competition will naturally arise because individuals can vote with their feet: if they don't like the level or quality of public goods, they can move away.
- The threat of exit can induce efficiency in local public goods production.

6.1.1 Settings

Suppose there are $2N$ families with identical income Y and 2 towns with N homes each. Town 1 and 2 supply level G_1, G_2 of local public schools. And there are 2 types of families:

- N families with kids, with utility $U^K(C, G)$, value both private consumption C and school quality G.
- N elderly families, with utility $U^E(C)$, value only private consumption C.

Allocation of families across towns is a Tiebout Equilibrium iff:

1. In each town, G is decided by median voter and financed equally by town residents with budget constraint $Y = C + \frac{G}{N}$.

    - If majority in town is elderly then $G = 0$.
    - If majority is families with kids, then $G = G^*$ that maximizes $U^K(Y - \frac{G}{N}, G)$.

2. No any pair of families wants to exchange locations across towns.

6.1.2 Tiebout Theorem

Tiebout Theorem Part I

In equilibrium, families will *sort* themselves in towns according to their *taste* for public good.

Tiebout Theorem Part II

In each town, the level of local public good is *efficient*.

Conclusion

1. Local government don't do any redistribution: individuals receive in local public goods exactly what they are paying in taxes (= benefit principle of taxation; Tiebout sorting).

2. Individuals can choose (through their location choice) their preferred mix of public goods and taxes.

3. Competition between local governmenets forces them to provide local public good efficiently.

6.1.3 Issues with Tiebout Model

The Tiebout model is so idealized that some required assumptions may not hold in reality.

1. Individuals can move without any cost across towns.

2. Individuals have perfect information on the benefits and taxes paid in each town.

3. There must be enough towns so that individuals can sort themselves into groups with similar preferences for public goods.

4. No externalities or spillovers of public goods across towns.

   - If with spillover across towns, public goods will be under provided in Tiebout model.

5. Local governments can charge "poll" taxes, i.e., *equal* payments per person. In reality, local taxes depend on property, consumption, income, etc.

6.1.4 Key Consequence of Tiebout Model

It might be hard for a local government to redistribute from rich to poor, since migration is allowed.

If local distribution is high,

- Poor will flock to the city providing welfare benefits, and

- Rich will flee to other cities to avoid paying for redistribution, then

- $\implies$ Local redistribution program will break down.

Therefore, redistribution program works better if implemented at a higher level, since migration is then more costly. At local level, tax-benefit linkage to avoid migration is needed. Tax-benefit linkage refers to the relationship between the taxes people pay and the government goods and services they get in return.

6.2 Intergovernmental Grants

Higher-level government can redistribute across lower levels of government through intergovernmental grants, and lower levels of governemnt provide grants to redistribute across communities and incentivize communities to spend on public goods. Three main forms of grants are:

1. Matching grant: the amount of which is tied to the amount of public good spending by the community.
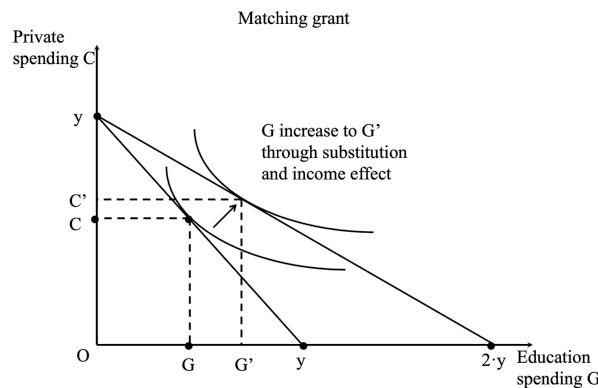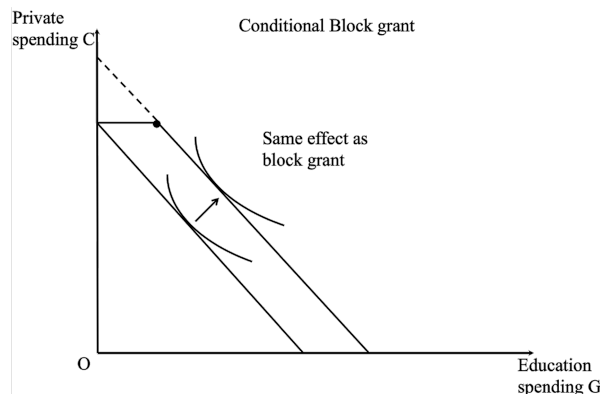

1. Block grant: A grant of some fixed amount with no mandate on how it is to be spent.
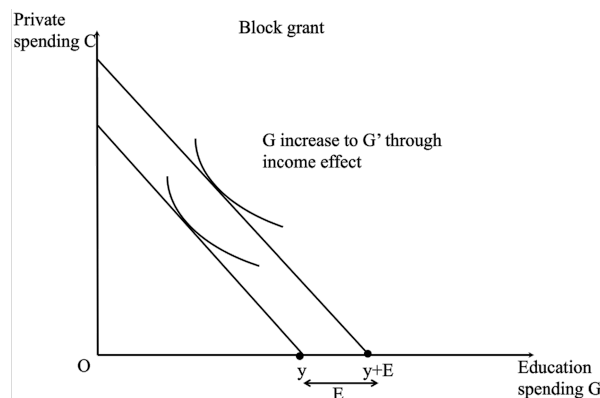
1. Conditional block grant: A grant of some fixed amount with a mandate that the money be spent in a particular way

   - In some cases, the outcome is the same as unconditional one.
   - In other cases, corner solution may be obtained.

6.3 Policy Experimentation

6.3.1 Basics

Primary form of experimentation is *experimentation points* ( ). Before deciding whether a new policy should be implemented nationwide, the central government first tries out the policy regionally in a limited number of sites, possibly repeating the experiment in several waves. (   )

The central government generally announces and introduces policy experiments by publishing general guidelines. Such documents are issued by the ministries and commissions that lead the experiments, sometimes co-signed by others.The local government of each experimentation site typically responds to the central government documents by publishing a local experimentation action plan, laying out logistical and implementation details for the experiment.

The central government usually directly assigns certain regions as sites for experiments, but sometimes also solicits local governments that would be willing to participate. Typically, the central government chooses experimentation sites at the province level. And then the provincial governments further delegate the experimentation to specific prefectural cities or counties within their jurisdictions.

A subset of the policy experiments is clustered in "experimental zones" ( ). These are regions selected by the central government and given broad discretionary powers to try out various new policy bundles. Once a policy experiment is determined to be successful, certain experimentation points are

set as "demonstrational zones" (   ). Their experience in implementing the new policy will be actively promoted by the central government to the rest of the country (   ). Effective policies based on the experiments eventually are formalized by the central government and become national policies. In contrast, if a policy experiment fails to generate desirable, for various reasons, the policy experimentation quietly stops expanding beyond the initial implementation stage. And few failed policy experiments are explicitly revoked.

6.3.2 Representativeness

From the central government's perspective, a key criterion for experimentation site selection is its representativeness, which will determine the quality of knowledge one could extract from a policy experiment.

However, there is no clear evidence on the exact mechanisms behind the observed deviation from representativeness. Potential reasons are (more of correlation):

- Local officials have greater political incentives.

- Central and local officials have closer connections.

- A location is more stable economically, socially and politically.

Policy experiments are with high visibility, high political reward, and explicit monitoring by the central government. They may induce additional efforts by local government officials, who are incentivized to make the policies appear successful at the experimentation stage.

6.3.3 Cautions: Alternative Experimentation Objectives

- More complex learning-related objectives

  The central government has other objectives in addition to learning about the true underlying treatment effects, such as persuading other agents who might hold different priors.

- Experimentation sites' own welfare and stability

  Especially when the direction of the experimentation outcome is unclear. Thus, the central government tend to select synthetically.

- Political connection objectives

  Higher trust and higher cooperation; better knowledge of local officials' ability.

- Lastly and importantly: policy learning is by nature extremely difficult.