UN3902: Economics of Public Policy Seminar
Week 4: Externalities and Public Goods II

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Outline

Public Goods (Gruber chapter 7)

State and Local Government Expenditures (Gruber chapter 10)

Data!

Outline

Public Goods: Trash Collection in Beirut, Lebanon

- Why don't people pay to have their neighbor's trash collected?
  - No one wants to pay, but everyone wants someone else to pay.
  - Private trash collection, financed by a voluntary fee paid by neighborhood residents, faces the classic free rider problem.
  - Goods that suffer from this free rider problem are known in economics as public goods.

Public Goods: A taxonomy

- Pure public goods: Goods that are perfectly non-rival in consumption and are non-excludable.
  1. Non-rival in consumption: One individual's consumption of a good does not affect another's opportunity to consume the good.
  2. Non-excludable: Individuals cannot deny each other the opportunity to consume a good.
- Impure public goods: Goods that satisfy the two public good conditions (non-rival in consumption and non-excludable) to some extent but not fully.

Defining Pure and Impure Public Goods

		Is the Good Rival in Consumption?	
		Yes	**No**
Is the Good Excludable?	**Yes**	PRIVATE GOOD (ice cream)	IMPURE PUBLIC GOOD (Streaming)
	No	IMPURE PUBLIC GOOD (Crowded sidewalk)	PURE PUBLIC GOOD (National defense)

Optimal Provision of Public Goods: Introduction

- How much of the public good should society provide?
- Markets will not provide the correct amount.
- To answer this question, start by reconsidering the market for a private good like ice cream cones.
- Ben and Jerry have different tastes for ice cream (ic) relative to the other good (c). How does the market aggregate their preferences?
- Quick hint: To make the model easier to use, assume that the other good is a numeraire good, a good for which the price is set at $1. This makes the absolute and relative price of the ice cream equal.

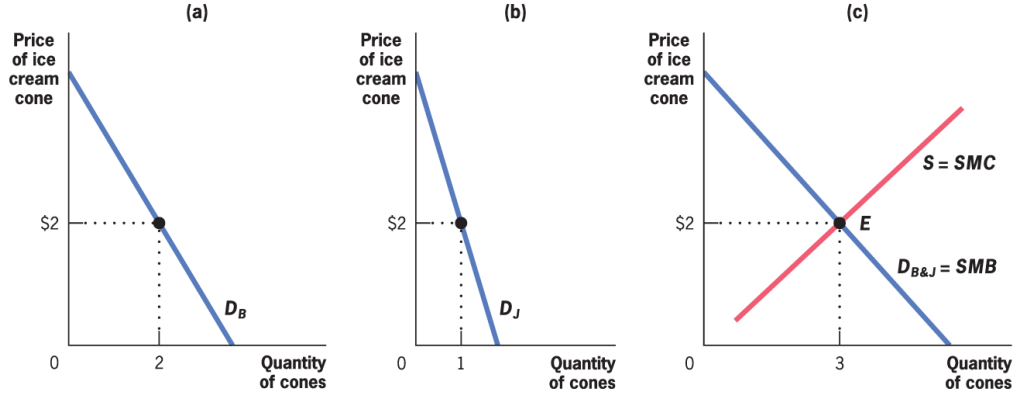
Optimal Provision of Private Goods

- Ben and Jerry demand different quantities of the good at each price.
- The optimality condition for the consumption of private goods is written as:

$$\frac{MU_{ic}^{B}}{MU_{c}^{B}} = MRS_{ic,c}^{B} = MRS_{ic,c}^{J} = \frac{P_{ic}}{P_{c}} = P_{ic}$$

- Equilibrium on the supply side requires $MC_{ic} = P_{ic}$.
- Therefore, in equilibrium $MRS_{ic,c}^{B} = MRS_{ic,c}^{J} = MC_{ic}$.
- The marginal cost of production equals the marginal benefit.

Horizontal Summation in Private Goods Market



To find the social demand curve, add quantity at each price and sum horizontally.

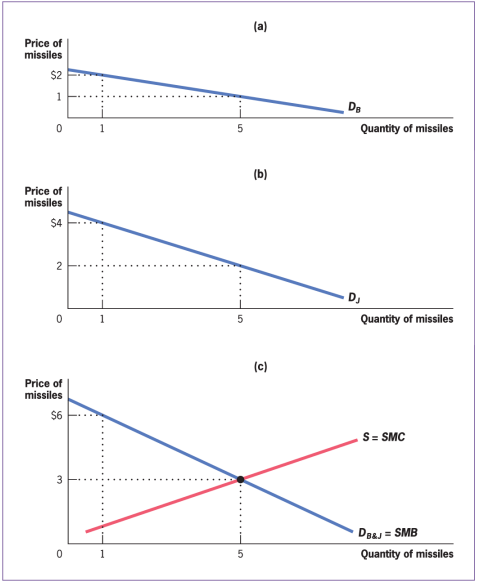
Optimal Provision of Public Goods

- For *public* goods, such as missiles (m), Ben's consumption of missiles doesn't reduce Jerry's consumption.
- Therefore, the social-efficiency-maximizing quantity sets

$$MRS^B_{m,c} + MRS^J_{m,c} = MC_m$$

- Social efficiency is maximized when marginal cost is set equal to the sum of the marginal rates of substitution rather than each individual's marginal rate of substitution.

Vertical Summation in Public Goods Market



Outline

Private Provision of Public Goods: Private-Sector Underprovision

- The market does not produce the efficient amount of public goods because of the free rider problem.
- Free rider problem: When an investment has a personal cost but a common benefit, individuals will underinvest.
- Since Ben's consumption of missiles also benefits Jerry, Jerry may not want to pay (or vice versa).
- This results in the private market producing an inefficiently low quantity of the good.

APPLICATION: The Free Rider Problem in Practice 1

- The free rider problem is one of the most powerful concepts in all of economics.
- Provision of Fire Services:
- Until 2013, fire services in Victoria, Australia, were financed by a tax on fire insurance policies. Individuals who did not insure still received services.
- In 2013, Victoria moved to financing fire services through property taxes in order to address this issue.

APPLICATION: The Free Rider Problem in Practice 2

- Public Art Institutions:
- Museums that do not charge for admission face a significant free rider problem.
- The Metropolitan Museum of Art in New York had a “recommended” donation instead of an admission fee, so only 17% paid the full charge.
- To address this, the Met has started charging admission to out-of-town visitors.

APPLICATION: The Free Rider Problem in Practice 3

- Online information sharing:
- In 2018, Dropbox, an online file hosting service, had 500 million users but only 12 million users paying for the service.
- In March of 2019, Dropbox limited the number of devices linked to an account to three and started charging many individuals and businesses a $9.99/month subscription fee.
- Since then, an additional 2.3 million users have started paying for the service.

Can Private Providers Overcome the Free Rider Problem?

- The free rider problem does not lead to a complete absence of private provision of public goods.
- When private suppliers are given the ability to overcome the problem of non-excludability, they can produce the efficient quantity of the good.
- The private sector can in some cases combat the free rider problem to provide public goods by charging user fees that are proportional to their valuation of the public good.

APPLICATION: Business Improvement Districts 1

- Clean, safe sidewalks are public goods.
- Cities attempt to provide them through street repair and police work, financed with tax revenue.
- But New York City's Times Square in the 1980s was a failure:
- "Dirty, dangerous, decrepit, and increasingly derelict"
- In 1992, a group of private firms formed a "Business Improvement District" to improve the area themselves.

APPLICATION: Business Improvement Districts 2

- How did this BID work?
- A (BID) is a legal entity that privately provides local services and funds these services with fees charged to local businesses.
- How do BIDs overcome the free rider problem?
- NYC law allows BIDs to levy fees on all local businesses as long as 60% of businesses agree to join.
- In the Times Square case, 84% of local businesses agreed to pay fees to fund the BID's services.

APPLICATION: Business Improvement Districts 3

- Resounding success:
- Crime has dropped significantly.
- The area is cleaner and more attractive.
- Business and tourism are booming.
- Success of BIDs depends on the legal underpinnings: Can members charge fees to encourage payment?
- The BID entity overcame the public goods problem by overcoming the non-excludable assumption. They received government permission to (potentially) charge, via a tax, all consumers.

When Is Private Provision Likely to Overcome the Free Rider Problem?

- Markets can, to some extent, overcome the free rider problem when some individuals have a higher demand for a public good than others.
  - Suppose Ben cares much more about fireworks than Jerry. Ben may be willing to pay for the fireworks, even though Jerry will also benefit.
  - Ben will want to buy a lot of fireworks for himself ($MRS^B = MC_f$)
  - And the efficiency loss isn't too big ($MRS^B \approx MRS^B + MRS^J$)

Altruism and Social Capital

- Private markets provide public goods when people are altruistic.
- Altruistic: When individuals value the benefits and costs to others in making their consumption choices.
  - Many laboratory experiments provide evidence for altruism and show that people contribute to public goods.
- Social capital: The value of altruistic and communal behavior in society.
  - The quantity of social capital depends on how much people of the same community affected by the public good can “trust” each other and are therefore willing to chance their personal investment of time and effort into paying for the public good without any formal guarantee of reciprocity from other community members.

Warm Glow

- People might simply feel good about contributing to public goods or charity.
- Warm glow model: A model of the public goods provision in which individuals care about both the total amount of the public good and their particular contributions as well.
- Different from altruism because people don't care about just the amount of the public good.

Learn by Doing: Practice Question 1

- Which of these does NOT reduce the problem of underprovision of public goods?
- business improvement districts
- government intervention
- social capital
- vertical summation

Learn by Doing: Practice Question 1 (Answer)

- Which of these does NOT reduce the problem of underprovision of public goods?
- business improvement districts
- government intervention
- social capital
- vertical summation (correct answer)

Outline

Public Provision of Public Goods

- Even with private provision, there is a role for government provision of public goods.
- Under private provision, not everyone contributes to the good, even though everyone benefits.
- Government provision potentially solves the problem of noncontributors.
- Nonetheless, there are several challenges to government provision.

Private Responses to Public Provision: The Problem of Crowd-Out

- Crowd-out: As the government provides more of a public good, the private sector will provide less.
- In full crowd-out, government intervention accomplishes nothing because an increase of 5 units provided by the government results in a decrease of 5 units provided privately.
- Full crowd-out is rare. Partial crowd-out is much more common and can occur in two different cases:
  - When noncontributors to the public good are taxed to finance provision of the good
  - When individuals derive utility from their own contribution as well as from the total amount of public good

Contributors Versus Noncontributors

- Government provision is financed by payments by private individuals.
- By forcing noncontributors to contribute to the fund for public provision, the government can increase total public goods provision.
- Noncontributors will be forced to increase their expenditures on the goods.
- Contributors will experience an increase in effective wealth, which has a positive income effect on their purchase of the private good, so government intervention will not fully crowd out their spending.

Warm Glow and the Evidence on Crowd-Out

- If you get utility from your particular contributions for any reason (warm glow), then an increase in government contributions will not fully crowd out your giving.
  - If you only care about how much you give, government contributions have no effect on your giving.
- Existing evidence on crowd-out is quite mixed.
  - Studies assessing how individual contributions respond to government spending suggest a very small crowd-out.
  - These studies suffer from many bias problems.
  - Laboratory experiments suggest that crowd-out is large.
  - There is no consensus on the size of crowd-out.

EVIDENCE: Measuring Crowd-Out 1

- The evidence on crowd-out is mixed.
- Kingma (1989) looked at how contributions varied as local governments contributed different amounts to public radio.
- The study found that for every $1 increase in government funding for public radio, private contributions fell by 13.5 cents.
- Bias: Areas with high government contribution could be high income or have a high taste for radio.

EVIDENCE: Measuring Crowd-Out 2

- Laboratory evidence seems more convincing.
- In another study, individuals contributed tokens to a public good. On average, participants contributed 2.78 tokens.
- The game was then changed so that a 2-token tax on every player was contributed to the public good.
- Without warm glow effects, players should have reduced their contributions by 2 tokens.
- However, each player cut his or her contributions by only 1.43 tokens.
- Unclear how well this result generalizes outside of the lab, however.

The Right Mix of Public and Private

- One extreme is provision entirely by the public sector.
- The other extreme is subsidized or mandated private provision, with the government providing incentives.
- Contracting out: An approach through which the government retains responsibility for providing a good or service but hires private-sector firms to actually provide the good or service.
- Two problems with contracting out:
- The private sector's incentives may not align with public goals, leading to lower public costs but worse outcomes along other dimensions that policy makers may care about.
- Bidding in contracting out is often far from competitive.

APPLICATION: The Good Side of Contracting Out

- Contracting out public goods to private companies may or may not work to deliver public goods efficiently.
- Commonwealth Care
- The state contracted five different private MCOs to provide all of the poorest residents' medical needs.
- The state used a bidding mechanism in which new enrollees were auto-assigned to the MCO that provided the lowest cost bid to the state.
- This led to aggressive bidding, resulting in costs rising by only 3.7% from 2007 through 2013.
- In the same period, premiums for employer-sponsored insurance in Massachusetts rose by 30%.

APPLICATION: The Bad Side of Contracting Out

- Private Prisons
  - Roughly 10% cheaper, but this was achieved by paying lower wages to prison guards.
  - This resulted in lower-quality guards and higher instances of violence.
- Halfway houses
  - New Jersey's halfway houses offer assistance to newly released inmates to ease the transition back into society.
  - Because they are cheaper, there has been increased use in halfway houses as an alternative to jailing prisoners.
  - This has led to poor conditions in the houses, as violence and drug use have increased due to low levels of supervision.

APPLICATION: The Bad Side of Contracting Out

- Competitive bidding prone to an important problem: contractors themselves measure savings and quality
- New York City hired McKinsey to create a plan to curtail violence at Riker's Island. McKinsey reported that its plan had reduced violence by 70%, though violence had in fact increased by 50%. McKinsey had supposedly rigged the results.
- Wackenhut is a primary security contractor at weapons plants in the United States. In running drills to test security at weapons plants, Wackenhut "attackers" told Wackenhut "defenders" which targets would be attacked, making the defense teams appear to perform remarkably well.

APPLICATION: The Bad Side of Contracting Out

- Cost-cutting, a benefit of private contracting, can adversely affect quality.
  - A study in Stockholm, Sweden found that while private ambulances took less time to reach patients, they were associated with higher mortality, likely attributable to cost cutting that decreased the quality of the staff.
- Emergency situations limit competitive bidding
  - In the rush to provide Covid-related supplies, U.S. and U.K. governments awarded contracts to companies with government ties, that had no experience in the medical field, or that had previously been accused of fraud.
  - Many argue that in emergency situations, the government should move toward direct provision.

Measuring the Costs and Benefits of Public Goods 1

- Optimal public good provision requires being able to measure both the benefits and the costs of providing public goods. In practice, this is quite difficult.
- Consider the case of a highway. Cost includes wages and materials.
- What if, without this highway project, half of the workers on the project would be unemployed?
- How can the government take into account that it is not only paying wages but also providing a new job opportunity for these workers?

Measuring the Costs and Benefits of Public Goods 2

- The benefits of highway construction are also difficult to measure.
- What is the value of the time saved for commuters due to reduced traffic jams?
- And what is the value to society of the reduced number of deaths if the highway is improved?
- These difficult questions are addressed by the field of cost-benefit analysis, which provides a framework for measuring the costs and benefits of public projects.

How Can We Measure Preferences for Public Good?

- Three challenges in measuring preferences for public goods.
- Preference revelation: People may not want to reveal their true valuation because the government might charge them more for the good if they say that they value it highly.
- Preference knowledge: People may not know what their valuation is.
- Preference aggregation: How can the government combine the preferences of millions of citizens?
- These problems are addressed by the field of political economy, the study of how governments go about making public policy decisions, such as the appropriate level of public goods.

Learn by Doing: Practice Question 2

- Which of these are issues in finding the optimal level of public provision of public goods?
- measuring preferences
- measuring costs
- noncontributors
- I & II only
- I & III only
- II & III only
- I, II, & III

Learn by Doing: Practice Question 2 (Answer)

- Which of these are issues in finding the optimal level of public provision of public goods?
- measuring preferences
- measuring costs
- noncontributors
- I & II only (correct answer)
- I & III only
- II & III only
- I, II, & III

Outline

Conclusion

- A major function of governments at all levels is the provision of public goods.
- Sometimes the private sector can provide public goods but usually not the optimal amount.
- Government intervention can potentially increase efficiency.
- Success of intervention depends on the:
- Ability of government to measure costs and benefits.
- Ability to implement optimal plan.

Outline

Public Goods (Gruber chapter 7)

State and Local Government Expenditures (Gruber chapter 10)

Data!

Outline

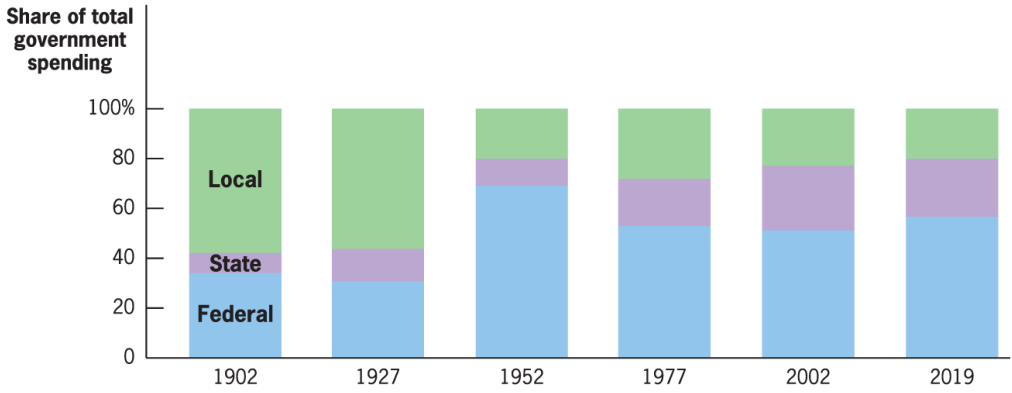
Fiscal Federalism

- The United States has a federal system, dividing activity between a national government and state and local governments.
- Education, for example, is often provided by state governments.
- Optimal fiscal federalism: The question of which activities should take place at which level of government and who should pay for them.

Fiscal Federalism in the United States and Abroad 1

- The distribution of government spending has changed dramatically over time in the United States.
- 1902: The federal government accounted for about 34% of total government spending.
- 2019: The federal government accounted for about 57% of total government spending.
- Local and state spending has declined considerably.
- Much state and local spending is now supported by intergovernmental grants.
- Intergovernmental grants: Payments from one level of government to another.

State and Local Spending in the United States, 1902–2019



Fiscal Federalism in the United States and Abroad 2

- Three primary factors are behind the change in the composition of government spending.
- The Sixteenth Amendment, which allowed the federal government to levy income taxes on citizens
- New Deal programs of the 1930s in response to the Great Depression
- The introduction of social insurance and welfare programs

Spending and Revenue of State and Local Governments 1

- The types of spending done by state and local governments differ dramatically from those of the U.S. federal government.
- State and local governments spend the majority of revenue on education, followed by health care and transportation.
- The federal government spends the majority of revenue on health care, Social Security, and national defense.

Spending and Revenue of State and Local Governments 2

- State and local governments rely on multiple sources of revenues.
- State governments use sales and income taxes primarily.
- Local governments use property taxes heavily. They make up about half of local government revenue.
- Property tax: The tax on land and any buildings on it, such as commercial businesses or residential homes.

Spending and Revenue of State and Local Governments 3

Expenditures and revenues vary greatly across states.

		State	$ / Capita
Spending	**Education**	Wyoming	5,389 (high)
		Michigan	3,015 (median)
		Idaho	1,995 (low)
Spending	**Health Care**	DC	11,944 (high)
		Missouri	8,107 (median)
		Utah	5,982 (low)
Taxes	**Income Tax**	New York	2,877 (high)
		Missouri	1,037 (median)
		AK/SD/FL/NV/WY/WA/TX	0 (low)
Taxes	**Sales Tax**	Washington	2,476 (high)
		Wyoming	1,116 (median)
		DC/DE/OR/MT/NH	0 (low)

Fiscal Federalism Abroad 1

	Spending %	Revenue %
Greece	7.0	3.0
Portugal	13.3	10.1
France	19.8	16.5
Norway	34.1	16.5
United States	43.3	47.9
Denmark	64.5	26.7
OECD average	**31.1**	**19.5**

Compared to subnational governments of other nations, U.S. state and local governments account for a relatively large portion of total government activity.

Fiscal Federalism Abroad 2

- Higher levels of centralization exist in many countries because subnational governments have no power to tax citizens.
- Many countries engage in fiscal equalization.
- Fiscal equalization: Policies by which the national government distributes grants to subnational governments in an effort to equalize differences in wealth.
- In many other countries, the central government redistributes a much larger share of revenues to subnational governments.

Outline

Optimal Fiscal Federalism: The Tiebout Hypothesis

- What determines how much and how efficiently local governments provide public goods?
- The private market provides the optimal amount of private goods.
- Why does the market do so well for private goods but not public goods?
- Tiebout's insight: *Shopping* and *competition* are missing from the market for public goods.

The Tiebout Model: Shopping and Competition

- There is neither shopping nor competition for public goods provided by the federal government.
- But when public goods are provided at the local level, competition arises.
- Individuals can *"vote with their feet."*
- This threat of exit can induce efficiency in local public goods production.
- Under certain conditions, public goods provision at the local level will be *fully efficient*.

Optimal Fiscal Federalism: The Tiebout Model

- Competition across towns can lead to the optimal provision of public goods.
- Towns determine public good levels and tax rates.
- People move freely across towns, picking their preferred locality.
- People with similar tastes end up together, paying the same amount in taxes and receiving the same public goods.
- There is no free riding because everyone pays the same amount in each town.

Problems with Tiebout Competition

- The Tiebout model requires a number of assumptions that may not hold in reality.
- People are perfectly mobile.
- People have full information on taxes and benefits.
- People must be able to choose among a range of towns that might match their taste for public goods.
- The provision of some public goods requires sufficient scale or size.
- There must be enough towns so that individuals can sort themselves into groups with similar preferences for public goods.

Problems with Tiebout Financing: Taxation

- The Tiebout model requires equal financing of the public good among all residents.
- Lump-sum tax: A fixed taxation amount independent of a person's income, consumption of goods and services, or wealth.
- Lump-sum taxes are often infeasible/unfair, so taxes are income or wealth based.
- But then the more affluent citizens pay more than those that are less affluent, so the less affluent may chase those that are more affluent.
- Everyone wants to live in towns with people who are richer than they are so that they can free ride on their neighbors' higher tax payments.

Problems with Tiebout Financing: Zoning

- To keep less affluent people from chasing more affluent people, towns enact zoning.
- Zoning: Restrictions that towns place on the use of real estate.
- Zoning regulation establishes, for example, minimum lot sizes.
- Zoning regulations protect the tax base of wealthy towns by pricing low-income people out of the housing market.

Problems with the Tiebout Model: No Externalities/Spillovers

- The Tiebout model assumes that public goods have effects only in a given town and that the effects do not spill over into neighboring towns.
- Many local public goods have similar externality or spillover features: police, public works, education.
- If there are spillovers, then low-tax, low-benefit municipalities can free ride off high-tax, high-benefit ones.

Evidence on the Tiebout Model: Resident Similarity Across Areas

- Tiebout competition works through sorting.
- A testable implication: When people have more choice of local community, the tastes for public goods will be more similar among town residents than when people do not have many choices.
- Comparing larger and smaller metropolitan areas (with more and less choice), this seems to be true.

Evidence on the Tiebout Model: Capitalization of Fiscal Differences into House Prices

- People not only vote with their feet; they also vote with their pocketbook in the form of house prices.
- House price capitalization: Incorporation into the price of a house the costs (including local property taxes) and benefits (including local public goods) of living in the house.
- Areas with relatively generous public goods (given taxes) should have higher house prices.

Evidence on the Tiebout Model: California's Proposition 13 (1)

- California's Proposition 13 became law in 1978.
- Set the maximum amount of any tax on property at 1% of the "full cash value."
- Full cash value: Value as of 1976, with annual increases of 2% at most.
- Reduced property taxes immensely in some areas, little change in others.

Evidence on the Tiebout Model: California's Proposition 13 (2)

- Each $1 of property tax reduction increased house values by about $7, about equal to the PDV of a permanent $1 tax cut.
- In principle, the fall in property taxes would result in a future reduction in public goods and services, which would lower home values. This occurred in San Jose, where the public school system declared bankruptcy.
- The fact that house prices rose by almost the present discounted value of the taxes suggests that Californians did not think that they would lose many valuable public goods and services when taxes fell. This was the case in areas such as San Francisco.

Optimal Fiscal Federalism 1

- The Tiebout model implies that three factors should determine local public good provision:

1. Tax-benefit linkages: The relationship between taxes paid and government goods and services received.
   - Goods with strong tax-benefit linkages should be provided locally.
2. Cross-municipality spillovers: If local public goods have large spillover effects on other communities, the goods will be underprovided by any locality.
3. Economies of scale: Public goods with large economies of scale are not efficiently provided by many competing local jurisdictions.

Optimal Fiscal Federalism 2

- The Tiebout model predicts that local spending should focus on broad-based programs with few externalities and relatively low economies of scale. Local communities should play a limited role in providing public goods that are redistributive, have large spillovers, and have large economies of scale.
- If taxes and benefits are linked and there are no spillovers or economies of scale, then local public good provision is close to optimal.

Outline

Redistribution Across Communities 1

- Enormous inequality in revenue across municipalities:
- Carlisle, MA, raises $23,617 per student while Lakeville, MA, raises $9,347.
- Should we care about the inequality?
- If Tiebout is right, then this reflects optimal sorting and financing. If a town has low revenues or low spending, it is because residents chose to provide a low level of public goods. This is efficient given that their tastes and redistribution should not occur.

Redistribution Across Communities 2

- Should we care about the inequality?
- If Tiebout does not perfectly reflect reality, redistribution from high-revenue, high-spending communities to low-revenue, low-spending communities is supported for two reasons:

1. People may not be able to “vote with their feet.”
2. Externalities may be present.

APPLICATION: Barriers to Tiebout and the "Great Divergence" (1)

- In 2016, the top 20 cities in the United States had average earnings that were almost 50% more than that of all remaining U.S. cities.
- Economists have always assumed that the market would resolve differences in economic opportunities across areas through personal mobility.
- In his book *The Great Divergence*, Enrico Moretti argues that this is not happening due to strong forces of agglomeration in the new knowledge economy.
- The arrival of talented workers in an area raises the economic returns for other talented workers in that area.
- Moretti found that everyone, not just technology workers, do better in these highly educated cities.

APPLICATION: Barriers to Tiebout and the “Great Divergence” (2)

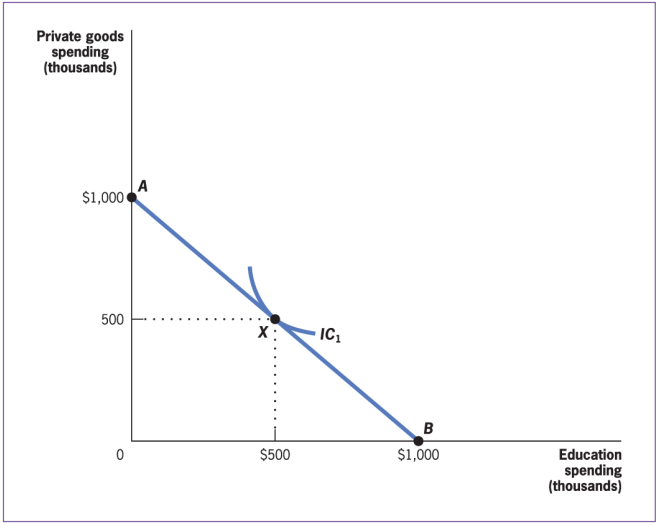
- If anyone can easily point out the places where riches are made, why doesn’t everyone just move there?
- These cities have the highest cost of living due to high demand and low supply.
- Zoning restrictions prevent the quantity of housing supplied from increasing.
- These constraints on local building stop the U.S. economy from functioning efficiently.
- One study estimates that millions of workers are “missing” from the most productive cities in the economy, and the U.S. economy is 14% smaller as a result.

Tools of Redistribution: Grants

- The main tool of redistribution is intergovernmental grants-cash transfers from one level of government to another.
- Grants are a large and growing share of federal spending and come in multiple forms, with different implications.
- Matching grant: A grant the amount of which is tied to the amount of spending by the local community.
- Block grant: A grant of some fixed amount with no mandate on how it is to be spent.
- Conditional block grant: A grant of some fixed amount with a mandate that the money be spent in a particular way.

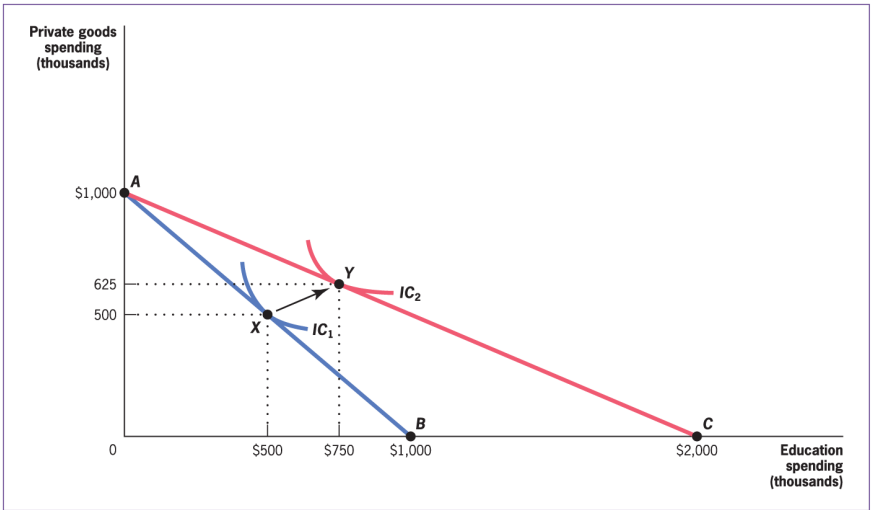
A Town's Choice Between Education and Private Goods

Consider a community's budget constraint AB and spending at point X.



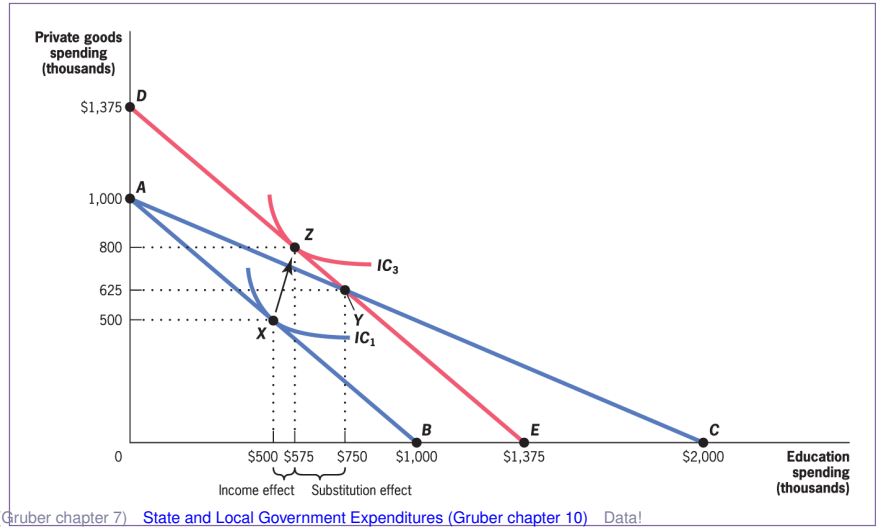
Matching Grants

A matching grant reduces the cost of education by 1/2. Budget constraint pivots from AB to AC and increases spending to point Y. Both income and substitution effects.



Block Grant

A block grant shifts budget constraint from AB to DE and increases spending to point Z. Only income effect occurs.



Implications of Different Grant Types

- Different grant types affect incentives in different ways.
- Matching grants rotate out the budget constraint, acting like a subsidy.
- Helps with externalities since they are targeted.
- Block grants shift out the entire budget constraint, raising spending on all goods.
- Good for redistribution.

Redistribution in Action: School Finance Equalization 1

- School finance equalization: Laws that mandate redistribution of funds across communities in a state to ensure more equal financing of schools.
- Generally, studies conclude that spending equalization has led to an equalization in student outcomes.
- Finance equalization schemes differ across states:
- California redistributes effectively all revenues.
- New Jersey redistributes most revenue from towns with revenue above the 85th percentile.

Redistribution in Action: School Finance Equalization 2

- Different structures result in different tax prices.
- Tax price: For school equalization schemes, the amount of revenue a local district would have to raise in order to gain $1 more of spending.
- If half of revenue is redistributed, tax price is $2.
- If all revenue is redistributed, tax price is infinite.
- Evidence suggests that extreme equalization schemes with very high tax prices may lead to an overall reduction in per-pupil spending.

APPLICATION: School Finance Equalization and Property Tax Limitations in California

- If residents perceived that property taxes were “too high” in California, why did they wait until 1978 to lower them?
- Proposition 13 was actually a response to school finance equalization in California.
- Taxes no longer financed local school spending, just taxes rather than prices. Tax price became infinite.
- Voters were happy to limit property taxes once those taxes no longer brought them any benefit.

Learn by Doing: Practice Question 2

- The town of Yellowseed chooses to purchase 50 units of transportation and 100 units of private goods. The state government decides to subsidize Yellowseed's transportation by providing 2 units of transportation for every 3 units of transportation purchased. Which of the following is true?
- Yellowseed will purchase fewer units of transportation and fewer units of private goods.
- Yellowseed will purchase fewer units of transportation and more units of private goods.
- Yellowseed will purchase more units of transportation and fewer units of private goods.
- Yellowseed will purchase more units of transportation and more units of private goods.

Learn by Doing: Practice Question 2 (Answer)

- The town of Yellowseed chooses to purchase 50 units of transportation and 100 units of private goods. The state government decides to subsidize Yellowseed's transportation by providing 2 units of transportation for every 3 units of transportation purchased. Which of the following is true?
- Yellowseed will purchase fewer units of transportation and fewer units of private goods.
- Yellowseed will purchase fewer units of transportation and more units of private goods.
- Yellowseed will purchase more units of transportation and fewer units of private goods.
- Yellowseed will purchase more units of transportation and more units of private goods. (correct answer)

Outline

Conclusion 1

- Central governments collect only part of total tax revenues and spend only part of total public spending.
- The United States places a large share of governmental responsibilities on its subnational governments relative to other developed countries.
- The Tiebout model suggests that the spending should be done locally when:
- Spending is on goods for which local preferences are relatively similar.
- Most residents can benefit from those goods.

Conclusion 2

- Higher levels of government may not believe the conclusions of the idealized Tiebout model.
- They will want to redistribute across lower levels of government.
- If the high-level government decides that it wants to redistribute across lower levels, it can do so through several different types of grants.
- Appropriate choice of grants depends on goal of government financing.

Outline

Public Goods (Gruber chapter 7)

State and Local Government Expenditures (Gruber chapter 10)

Data!

Data!

1. https://state-local-finance-data.taxpolicycenter.org/pages.cfm Urban Institute State and Local Finance Data.
2. https://www.osc.ny.gov/local-government/data New York State Local Government Data.

Urban Institute Data (1)

State and Local Finance Data

Exploring the Census of Governments

This tool provides easy access to state and local public finance data, primarily from the US Census Bureau's Census of Governments and its associated annual survey.

Explore state and local revenue, spending, and debt from 1977 through 2022. Pick the data you'd like to see, choose options to filter your search, and download your results.

GET STARTED

Urban Institute Data (2)

State and Local Finance Data

Exploring the Census of Governments

0 Intro — 1 Select Level — 2 Select State — 3 Select Series — 4 Select Years — 5 Select Units — 6 View Results

In 2017, the Census Bureau identified over 90,000 local governments. In addition to the federal government and the 50 state governments, the Census Bureau recognizes five basic types of local governments. Finances may be aggregated by each type of government, as well as combinations of multiple levels.

Select Level of Government

- (•) State and Local
- ( ) State
- ( ) Local
- ( ) County
- ( ) Municipal
- ( ) Township
- ( ) Special District
- ( ) School District

Finance information for each state (revenues, expenditures or debt) is aggregated for all state and subordinate levels of government. (That is, the sum of state, county, municipal, town, special district, and school district finances for the selected variable.) Because states differ in terms of which level of government collects each type of revenues or provides each service, meaningful comparisons across states are only possible at this level of aggregation.

NY State Data (1)

NY State Data (2)

Open Book New York

Search Millions of State and Local Government Financial Records

As the State's Chief Financial Officer, Comptroller DiNapoli believes New Yorkers deserve to know how their tax dollars are spent. Without transparency in government, there cannot be accountability. His open data initiatives are a commitment to this belief.

If you've ever wondered how much it costs to run your fire department or how much your city spends on education, you can easily track where money is going and how it's being reflected in the State's spending priorities using the Comptroller's Open Book New York.

Also see Additional Financial Information.

State Contracts

Search 260,000 contracts that State agencies have with businesses, not-for-profit organizations and other governmental entities in effect April 1, 2012, or later. Includes both contracts approved by the Office of the State Comptroller and those that don't require approval by the Office.

Search Contracts

NY State Data (3)

State Payments

Search payments made by the state since April 1, 2012, which now includes about 17,000 new payments each day, and contains the agency submitting the payment request, the payment recipient, the payment amount and the date the payment was made.

Search Payments

Also see Legislative Travel and Per Diem Expenses

Local Government Data

View and download detailed revenue, spending, debt, tax limits, balance sheets, and property tax cap information for 3,100 local governments.

Search Local Government Data

Also see **Fiscal Stress Monitoring System** and **Local Sales Tax Collections**

State Spending

Search by major spending categories for State agencies and some authorities. Provides information on budgetary activities such as payments, journal transfers, appropriated transfers, and so on.

Search Spending

Also see COVID-19 Relief Program Tracker

Public Authorities Data

View financial information for more than 500 State and local public authorities dating back to 2007.

Search Public Authorities Data

Also see State Public Authorities Dashboard