Public good

HS 156_Economics of Health & Education

Public Goods

- A public good is nonexclusive and nonrival
 - Nonexclusive: no one can be excluded from its benefits
 - Nonrival: consumption by one does not preclude consumption by others
- Many goods provided by the government have public good aspects to them
- There are no pure public goods; national defense is the closest example

Public Goods

- A private good is only supplied to the individual who bought it
- Once a pure public good is supplied to one individual, it is simultaneously supplied to all
- In the case of a public good, the social benefit of a public good (its demand curve) is the sum of the individual benefits (value on the vertical axis)
- To create market demand,
 - private goods: sum demand curves horizontally
 - public goods: sum demand curves vertically

The Market Value of a Public Good



A public good is enjoyed by many people without diminishing in value

Individual A's demand is vertically summed with...

Individual B's demand to equal...

Market demand for a public good

Excludability and the Costs of Pricing

- The public/private good differentiation is seldom clear-cut
- Some economists prefer to classify goods according to their degree of rivalry and excludability

Degree of Rivalry in Consumption Rival NonRival Apple Encoded radio broadcast broadcast Fish in ocean General R&D

Informational Problems

- Perfectly competitive markets assume perfect information
- In the real world, buyers and sellers do not usually have equal information, and imperfect information can be a cause of a market failure
- An adverse selection problem is a problem that occurs when buyers and sellers have different amounts of information about the good for sale

Informational Problems

- Signaling may offset information problems
 - Signaling refers to an action taken by an informed party that reveals information to an uninformed party that offsets the false signal that caused the adverse selection in the first place
- Selling a used car may provide a false signal to the buyer that the car is a lemon
- The false signal can be offset by a warranty

Policies to Deal with Informational Problems

- Regulate the market and see that individuals provide the correct information
- License individuals in the market and require them to provide full information about the good being sold
- Allow markets to develop to provide information that people need and will buy

Policies to Deal with Informational Problems

Application: Licensing of Doctors

- Medical care is an example of imperfect information, patients usually don't have a way of knowing if a doctor is capable
- Current practice is to require medical licenses to establish a minimum level of competency
- Another option is to provide the public with information on:
 - Grades in medical school
 - Success rate for various procedures
 - Charges and fees
 - References

The role of governments in economics

- Governments have two economic functions:
- 1. Enforce property rights and provide legitimate means for the redistribution of income and wealth.

- 2. Non-market allocation of resources when markets fail.
- 3. Markets are said to 'fail' when they allocate resources inefficiently, so that too much of some goods, and too few of others, are produced.

The economic theory of government

- Economists look at most decisions as maximizing decisions in some way.
- **Politicians**: Rational politicians maximize getting their policies enacted, given the fact that they face opposition. They find compromise solutions to get at least some of what they want. This can be efficient if voters are rational and informed.
- Bureaucrats: Economists assume that rational bureaucrats act to maximize their budgets and job security.
- **Voters:** Economists assume voters are rational and informed, but that it is rational for voters to be ignorant of any issue that has no bearing on their income. Therefore, voters may be *rationally ignorant*.

- It is argued by economists that with rational voter ignorance and special interest groups pursuing their own agendae, then public goods can be over provided..ie. Inefficiency exists in public good provision.
- Two theories of government:
- **Public interest theory:** Voters are rational and informed, and refuse to vote for outcomes that can be improved upon. Outcomes in this theory are efficient. (Analogous to perfect competition)
- **Public Choice theory:** Voters are rationally ignorant. Special interests vote their own interests. Bureaucrats maximize their budgets and job security. Public outcomes are inefficient.

 Government provision of public goods may be large and growing for two basic reasons.

• Voter preference: If the income elasticity of public goods is greater than 1, then, as the economy grows, demand for public goods will grow faster than the economy.

• Overprovision: Inefficient public over provision can occur because of the workings of government as described above.

Government Failures and Market Failures

- All real-world markets in some way fail
- Market failures should not automatically call for government intervention because governments fail, too
- Government failure occurs when the government intervention in the market to improve the market failure actually makes the situation worse

Reasons for Government Failures

- 1. Government doesn't have an incentive to correct the problem
- 2. Government doesn't have enough information to deal with the problem
- 3. Intervention in markets is almost always more complicated than it initially seems
- 4. The bureaucratic nature of government intervention does not allow fine-tuning
- 5. Government intervention leads to more government intervention

- Three <u>sources of market failure</u> are <u>externalities</u>, <u>public</u> <u>goods</u>, and <u>imperfect information</u>
- An externality is the effect of a decision on a third party that is not taken into account by the decision maker
 - <u>Positive externalities</u> provide third-party benefits and markets for these goods produce too little for too great a price
 - Negative externalities impose third-party costs, and markets produce too much for too low a price

- Economists generally prefer incentive-based programs, such as a tax on the producer of a good with a negative externality, because incentive-based programs are more efficient than direct regulation or voluntary solutions
- Voluntary solutions are difficult to maintain because people have an incentive to be free riders
- An optimal policy is one in which the marginal benefit of the undertaking equals its marginal cost

- Public goods are nonexclusive and nonrival
- Theoretically the market value of a public good can be calculated by summing the value that each individual places on every quantity
- Adverse selection occurs when buyers or sellers withhold information causing the market for the good to disappear
- Licensure and full disclosure are solutions to the information problem

- Government failure, in which intervention worsens the problem, occurs because:
 - Governments don't have incentives and/or information to correct the problem
 - Intervention is more complicated than it initially seems
 - The bureaucratic nature of government precludes fine-tuning
 - Government intervention leads to more government intervention