

# The essential characteristics of public goods economics essay



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Q2. Discuss the essential characteristics of public goods and carefully explain the problems/issues posed for public policy by such goods.

The provision of public goods is a topic that has been often discussed and yet the theory of public choice, the economic analysis to these choices and actions of individuals is still somewhat argued. The main purpose of this essay will be to identify and discuss the main characteristics of public goods and explain the possible problems/issues faced by such goods for public policy. Public goods can be described as “ a characteristic of an existing phenomenon with a domain of impact containing at least two actual persons, such that the amount of characteristic encountered by any individual in the domain is the entire amount of that characteristic” (Fred Folvary, 1994, pge 12).

However a more precise technical definition of a public good, and a definition that is used quite frequently by economists, is Samuelson’s definition, which states that a “ public good is a good that, once produced for some consumers, can be consumed by additional consumers at no additional cost” (Stephen Shmanske, 1991, pge 3).

There are two main characteristics that define public goods; the first one is non-excludability, which means it’s not possible to exclude anyone from enjoying the benefits of a public good, or from defraying its costs (positive or negative externalities). Neither can anyone willingly exclude himself from their remit. In the provision of a good it is “ not optimal to restrict its consumption to particular individuals and impossible to charge for” (Maurice

Peston, 1972, pge 12). Once the good is non-excludable, no one has the property rights to that particular good and so everyone can consume it.

The second one is non-rivalry which is when a good benefits all, including those who do not contribute to the actual production of the good and the incentive here is that they do not value the public good so they would not have to contribute towards the production through their own demand for the good. If a good is provided for some, it's also available to the rest in equal amounts without someone having to lose out and so in theory it's impossible to prevent any individual from the relevant benefits of the good. This principle as stated by economist Paul Samuelson in 1954 "one man's consumption does not reduce some other man's consumption" (Charles K. Rowley and Friedrich Schneider, 2003, pg 457).

However a former economics author John G. Head argued that "the issues of non-rivalry and non-excludability should be kept separate" (Stephen Shmanske, 1991, pge 7).

A perfect example of this is the national defence; once the government decide to spend billions and billions of pounds on the national defence, everyone who lives within the nation, illegal or not, will enjoy the freedom of being protected and homeland security irrelevance of the level of defence they require and how much they value it. Most products are usually scarce and once there consumed, they're usually gone and not available to others.

In comparison, public goods are accessible to growing numbers of people with a marginal cost of production of the good at zero. Further examples of

public goods are a view of a mountain, clean air, radio waves and the police force.

It can be said that public goods are an extreme form of externalities. The concept here lies in the fact that does the public good generate positive (e. g. R&D) or negative externalities (e. g. pollution). The issue here is that people carry out actions which can either harm or benefit the society, this is the non-excludable part. Those who suffer from e. g. pollution cannot charge polluters a fee, and those who are benefactors of the positive externality can't be charged for enjoying the consumption. Classic economists such as David Hume and Adam Smith argued that " government intervention is needed to supply goods and services characterized by collective benefits. If left to the spontaneous action of individuals or organizations, these goods would not be adequately provided" (Charles K. Rowley and Friedrich Schneider, 2003, pg 457). In any case the Government is supposed to correct this market inefficiency by intervening.

However it could be said that public goods can create negative affects as well as disutility.

This is because non-excludability and non-rivalry can create market inefficiencies in relation to the allocation of these goods.

The key issue raised here and something many economists have argued about is that non-rivalry and non-excludability have been linked to market failure. For example " non-excludability has been linked to the free-rider problem whereas non-rival aspect has been linked to the demand revelation problem" (Stephen Shmanske, 1991, pge 17). The Free rider problem occurs <https://assignbuster.com/the-essential-characteristics-of-public-goods-economics-essay/>

when people benefit from a service without having to pay for it or contribute anything towards the good without decreasing the amount available to others. The danger here lies in the fact that as everyone can free ride, no one has the incentive to produce the good and so the question of dependency arises, as each individual is waiting for the other to produce the good. Due to this, the good which the society benefits from could be underprovided or not provided at all in a free market system. This is somewhat controversial as free riding can only be considered to be an economic problem when it leads to either no production or under production of a public good and therefore to Pareto inefficiency.

For example in the United Kingdom the National Health Service (NHS) is mainly provided publicly by the state and financed by general taxation. Healthcare has many characteristics of a normal public good and the marginal cost of treating an extra patient is relatively small. Everyone has benefited from free public healthcare whether they are a tax payer or not.

However this has led to the free rider problem because it is impossible to exclude anyone from consuming healthcare being a tax payer or not. Those who do not contribute will continue to receive free healthcare and excluding them will only make it very expensive and unpopular. Furthermore this can cause an imbalance between demanders and suppliers.

Demand revelation refers to “ a remarkably ingenious public choice mechanism that provides each participant with an incentive to reveal his true preferences” (Edward H. Clarke, 1980, page 19). The issue with demand revelation is if everyone’s consuming the same good, how do we know how

much of the good the person wants? Therefore whether a public good is being produced in the public sector or private sector, the problem of demand revelation always exists. Demand revelation causes people to make give false information as they are trying to maximise their own welfare, which leads to inefficiency and causes burden on the society as there could be misallocation of funds.

As society cannot reveal their true preferences this leads to market failure as they lack inaccurate and incomplete information about the price, quality and other aspects of the good provided.

As economist Samuelson argues that “ with public goods, there is only one level of output and consumers are willing to pay different prices for each level according to their preference. Therefore, the market demand for a public good is found by vertically adding all the individual demand curves. For each potential level of public good output, the market demand reveals the total amount that consumers are willing to pay. An efficient allocation would then require producing the public good as long as society’s total willingness to pay for it is greater than the marginal cost of the good. The condition states that an allocation will be efficient if the sum of the marginal benefits from the public goods equals the marginal cost of providing it” (Charles K. Rowley and Friedrich Schneider, 2003, pg 458).

The first solution to the free rider problem could be through coercion and general taxation. In order to eliminate the free rider problem, payments for public goods can be made compulsory. This usually takes place through government intervention, whereby taxes are collected on a regular basis for

the good being charged. If everyone is forced to pay, then and only then will the public good be funded and so free riding will be eliminated. Though it could be said that some people may be worse off, as the good will no longer be provided free of charge. Nonetheless, coercion by force is considered to be the sole possible solution to the public good problem

The second solution is through the “ Coase Theorem” which was named after the famous economist Ronald Coase. He proposed a mechanism by which benefactors of a public good bargain with each other to produce an efficient result. This was based on the fact that at least one of the party’s has property rights of the good and there are no transaction costs.

He believed that if transaction costs were low, it would be easier for those who benefit from the public good to find each other and so provide an adequate level of production.

In conclusion, I have reviewed the problem of public goods involved with public policy and possible solutions involved. To a large extent the interest in the public good debate has been due to the claim that the market cannot, or cannot adequately, supply public goods efficiently without the free-rider problem. With everything being said, I do believe the problem of public goods is a subject for political analysis and government intervention would be needed to solve it.