MODULE 11
PUBLIC GOODS AND EXTERNALITIES

Decisions made by firms and individuals in a market often have a spillover effect on other people, whether it be for good (like your neighbor's sweet-smelling cookies), or for the bad (the smelly paper plant that opened up a mile away).

One of the characteristics of any good or service is its "public" or "private"-ness. Goods can be public or private, or anything in between. What does this mean? It's probably not what you think. It doesn't primarily mean who provides the product. In other words, a good is not private because it is provided by private businesses. A good is not public because it is provided by the government. Rather, private/public is more a description of how these goods are consumed.

All of us consume private goods and public goods. There are three basic cases:

1) A private good is one for which the consumer pays all the costs and receives all the benefits. If you buy an apple to eat, no one gets to share any part of the apple that you eat.

2) A public good is one where one person's consumption doesn't prevent anyone else from consuming it too. National defense is the classic example—everyone gets the benefits of it.

3) In between public and private goods are externality goods (or semipublic goods). In some cases, benefits go beyond the individuals who consumed the externality good. One example is health expenditures. People in a community at large benefit when others get vaccinated against disease, since people won't be infected by people who are vaccinated.

National defense is a public good because it benefits everyone in the nation

Externalities

Markets offer an efficient way to put buyers and sellers together to determine the quantity of goods which will be produced, the price that will be charged. The principle that voluntary exchange benefits both buyers and sellers is a fundamental building block of the economic way of thinking. But the efficiency of markets depends on the assumption that only the buyer and seller are affected by the transaction. What happens when a voluntary exchange affects a third party who is neither the buyer nor the seller?

When a market does not operate efficiently, the result is called market failure. Markets usually work best when there are no unintended side effects, but that's not always the case. Sometimes people share in the benefits of others' production or consumption. For example, when you get the flu shot, your neighbors benefit also by not getting the disease from you. They benefit from a side effect of your consumption. Or, you can be negatively impacted by the decisions of others. If your neighbor doesn't mow their lawn or maintain their home, that hurts the value of your home. In this situation, non-intervention is not the best policy.

Externalities can be negative or positive. If you hate country music, then having it waft into your house every night would be a **negative externality**. If you love country music, then what amounts to a series of free concerts would be a **positive externality**.

The Definition of a Public Good

To understand the defining characteristics of a public good, first consider an ordinary private good, like a piece of pizza. A piece of pizza can be bought and sold easily because it is a separate and identifiable item. However, public goods are not separate and identifiable in this way.

Instead, public goods have two defining characteristics: they are non-excludable and non-competitive.

1) The first characteristic, that a public good is **non-excludable**, means that it is costly or impossible to exclude someone from using the good. If Larry buys a private good like a piece of pizza, then he can exclude others, like Lorna, from eating that pizza. However, if national defense is being provided, then it includes everyone. Even if you strongly disagree with America's defense policies or with the level of defense spending, the national defense still protects you. You cannot choose to be unprotected, and national defense cannot protect everyone else and exclude you.

2) The second main characteristic of a public good, that it is **non-competitive**, means that when one person uses the public good, another can also use it. With a private good like pizza, if Max is eating the pizza then Michelle cannot also eat it, that is, the two people are competitors in consumption. With a public good like national defense, Max's consumption of national defense does not reduce the amount left for Michelle, so they are non-competitive in this area.