

Public Goods in Everyday Life

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A GDAE Teaching Module on Social and Environmental Issues in Economics



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“The history of civilization is a history of public goods... The more complex the civilization the greater the number of public goods that needed to be provided. Ours is far and away the most complex civilization humanity has ever developed. So its need for public goods – and goods with public goods aspects, such as education and health – is extraordinarily large. The institutions that have historically provided public goods are states. But it is unclear whether today’s states can – or will be allowed to – provide the goods we now demand.”¹

-Martin Wolf, *Financial Times*

¹ Martin Wolf, “The World’s Hunger for Public Goods”, *Financial Times*, January 24, 2012.



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1. INTRODUCTION

This teaching module offers a framework for understanding “public goods” as a concept in economics and as real-world goods and services. The framework draws on and builds forward from “historical school” public economics theory, which has been lost to mainstream economics teaching. In the approach presented here, concepts are empirically-based and contemporary. Pivotal ideas are connected to 21st century real-world evidence and challenges. The module provides a pragmatic understanding of public goods, enabling students with or without a background in economics to consider and appreciate public goods in the context of their daily lives. The module is suitable for use in courses in economics, sociology, political science, public law, social history and related fields.

1.1 Teaching Objectives:

- Students will arrive at a clear idea of the nature, source and construction of public goods from a functional economic systems perspective.
- Students will comprehend the impact of public goods on their daily lives.
- Students will be able to use pivotal public goods concepts to think about ways to address real-world collective needs and public policy.

The module is designed as a teaching tool for classroom use. It contains five classroom sessions with optional sub-sections. Appendices contain an optional student exercise, and a brief history of the development of the concept of public goods in economics. The module and its sub-sections can be adopted in whole or in part.

The format is designed to be interactive and accessible, with diagrams, text boxes, discussion questions and illustrations to help students grasp concepts and applications. It is interlaced with exercises that take students from identifying public goods in their daily lives to a capstone challenge asking students to apply what they have learned to real-world issues.

2. SESSION 1: WHAT ARE PUBLIC GOODS?

2.1 Defining Public Goods

The topic of this module is “public goods” - both in concept and concretely in daily life. Public goods are “...things [that] do not lend themselves to [private] production, purchase and sale. They must be provided for everyone if they are to be provided for anyone, and they must be paid for collectively or they cannot be had at all.”² This definition, by John K. Galbraith, is similar but not identical to other definitions that are put forward in economic theory.

Definitions matter, as you will see; if health care, libraries, schools, roadways, and drinking water are considered to be public goods they will be produced by governments. If they are considered to

² John Kenneth Galbraith, *The Affluent Society*, 1958, p 111.

be private goods, they will be produced by private, for-profit actors and made available through markets. This means that those who can pay the price will have access to these things, and those who cannot pay will not get them. We will look at some other ways of defining public goods, and consider the consequences of using different definitions.

Public goods are produced by public sector agents – government agencies, public authorities, public universities, etc. – not by businesses, civil society, NGOs, households or individuals. Goods produced by such entities that may be enjoyed by the public can be called “social goods” but they are not public goods. The distinguishing characteristics of public goods are that they *are created through collective choice (voting)* and are *paid for collectively (public financing)*.

Public goods:

1. Are created to meet identified societal needs. (Why).
2. Are produced by collective choice and shared costs. (How).

Public goods are produced to *meet societal needs*

From a functional perspective, public goods are created to serve a *public purpose*. That fundamental purpose is to *meet the unmet needs of a society*:

- To create society-wide benefits deemed essential by a polity (i.e. a form of civil government) for its functioning, improvement or survival –
 - making basic necessities accessible to all regardless of ability to pay;
 - creating assets or opportunities to aid, improve or benefit the society in general.
- To solve socially or technologically complex common-need problems.
- To enable private production to operate effectively for the society.

Public goods meet a multitude of needs and pervade our lives. They include clean air, clean water, police and fire protection, street lights, emergency call service, disaster relief, a legal system, food and drug safety, research and development to mitigate climate change, children’s playgrounds and bank deposit insurance. These are but a few of the scores of goods and services that we use or benefit from every day.

2.2 Types of Public Goods

Government produces an enormous variety of public goods, which can be grouped into categories. Categorizing public goods is an art, not a science. We will use the following categories of public goods:

- products
- services
- benefits
- standards
- rights

The chart below organizes examples of public goods into these over-arching categories. (Note: there are many more public goods; the ones in the right-hand column are merely illustrative.)

Public Goods		
<i>Category</i>	<i>Explanation</i>	<i>A few examples</i>
Products	tangible products	street lighting; sidewalks; roads; clean water; parks; playgrounds; currency; GPS satellites & communications infrastructure; nautical navigation markers; bridges; dams; canals; airports; shipping ports; etc.
Services	intangible products	GPS, weather forecasting; emergency call service; disaster response/relief; education; food safety inspections; patent system; enterprise and socioeconomic data collection and dissemination; copyright protection and copyright enforcement; innovation through basic R&D investments; legal / judicial system; infrastructure maintenance and repair; etc.
Benefits	economic insurance and other protections	unemployment insurance; old age, survivors and disability insurance; pension insurance; bank deposit insurance, etc.
Standards	operating rules & regulations that afford protections & other benefits	air quality standards; water quality standards; drug safety standards; product safety standards; emissions regulations; food nutritional labeling; workplace safety protections; banking regulation; food safety; etc.
Rights	legally enforceable entitlements	free speech, property ownership and protection, legal representation, non-discrimination

Additional Resources

- **Optional Student Discussion:** Think of more examples of public goods that meet each of the societal needs listed on page 5 above.
- **More Examples of Public Goods:** See many more examples of public goods at the [Public Goods Post](#).
- **Video:** Students watch “[The Bus is Cool](#)”.

2.3 The Invisibility of Public Goods

Invisibility is a key characteristic of many public goods. Here are some of the things that public goods accomplish, but that are invisible or unrecognized:

- food poisonings avoided;
- epidemics that don't arise or spread;
- plane crashes that don't occur (each day, in the US alone, there are 60,000 safe plane landings with 2.6 million passengers);
- car crash injuries and deaths that don't occur;
- savings that are not lost because bank accounts have been publicly insured.

What could be done about the invisibility problem?

Student Exercise: “Communicating About Public Goods”

Pick an existing but “invisible” public good (product, service, benefit, standard or right).

Think of ideas for vocabulary and messaging: how would you enable people to “see” – become more aware of – that public good and to understand their role in preserving it?

What is the message –

- The concept?
- The wording?

How would it be possible to reach people with your message?

- What methods, means, technologies?
- Who would do the messaging?

3. SESSION 2: SOME CHARACTERISTICS OF PUBLIC GOODS

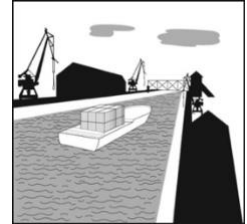
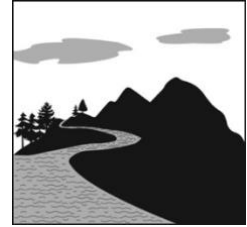
3.1 Public Goods vs Natural Goods

Public goods are created by human effort, as contrasted with “natural goods.” Air, water and land are *natural* goods. Air is a natural good; *clean* air is a public good. Land is a natural good; *national parks* are public goods. Some public goods (like standards, regulations and land preservation) are created to *protect* and *preserve* natural goods or to make essential resources, like water and air, available or suitable for human consumption.

Student Exercise: Distinguishing Natural Goods and Public Goods

Definitions to use in this exercise:

- **Natural goods:** resources that are found in the environment and in the natural world and are not produced by humankind.
- **Public goods:** services and products created by human action that preserve and protect natural goods or make essential resources, like water and air, available or suitable for human consumption or other uses.



Student Exercise Instructor Notes

This exercise is intended to help students distinguish between resources that are found in nature versus those that are produced by human actions. Based on the explanation given, students will distinguish between natural goods and public goods listed in the table below. Questions are provided for a class discussion following the exercise. A homework reading assignment provides an example to illustrate the interplay between public goods and natural goods.

In the table below put a checkmark to indicate which category each item falls into based on the definition given above.



Items	a public good	a natural good
Ocean		
City streets		
Rivers		
Canals		
Disaster relief		
Redwood trees		
National parks		
Clean air		
Currency system		
A river that catches fire		
A river whose water has been cleaned up		
GPS		
Oil and gas reservoirs underground		
Thermal energy		
Streetlights		
Lighthouse		
Minerals in the ground		
Interstate highway		
Aquifers		
Regulations to preserve the water in aquifers		

Class Discussion

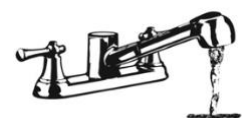
Think about a situation or case in your hometown that illustrates the idea of public goods and natural goods and the role of both in your personal life.

- What are some examples of public goods protecting natural goods?
- What are some examples of failure to protect natural goods? What could be done by citizens, through government, to protect them?
 - Explain the reasoning behind your thinking.

Below is a reading that illustrates the interplay of public goods and natural goods. The story narrates how a natural good – water – is preserved, maintained and made available to supply a basic need in our daily lives. In this example the public goods are both the potable (drinkable) water that is produced *and* the infrastructure that is used to produce it and deliver it to the public.

Homework Reading Assignment:

- [“How New York Gets Its Water,”](#) *New York Times*



Questions to Think About:

- New York City’s water comes from a “municipal” water agency, meaning that it is owned and operated by the public (government). However, in other cities and towns, water is often supplied by private companies that are regulated by the government. How does a community or a city decide whether to have its potable water produced by a private for-profit business or by a government agency?
- Municipal water agencies charge fees to the households that receive their water. Households pay monthly water bills. So, financing is not simply paid by taxes. However, it is possible that municipal water agencies in some towns and cities do not charge their customers “full freight” – the true, total cost of providing potable water. Plus, there are many costs for providing potable water that are paid for collectively, like promulgation and enforcement of water quality standards by the federal Environmental Protection Agency and state environmental protection agencies. Can you think of any other costs of providing potable water that are paid for collectively?

3.2. Public Goods Vary Over Time and by Place

Public goods vary over time and by place. They typically evolve from market to non-market production, so they vary over time. For example, residential fire service was once a business run for profit; schools were available only to those who could pay, and street lighting was purchased by wealthy pedestrians from lamp carriers.

Public goods also vary by place: things that are public goods in one country may not be so in another. Health care for all has long been a public good in many European countries, Canada and elsewhere, but not in the U.S. Education is “free” for all in many countries, but in some countries parents must pay individually for their children to be educated.

3.3. Education: “The Socialization of an Industry”

Professor David A. Moss at the Harvard Business School has pointed out that the creation of public education in the United States in the 19th century “represented a radical development at the time, the virtual socialization of an industry.”

In an interview published in *Harvard Magazine*³, Professor Moss explained that in the mid-19th century there was a “strong push...for free public education at the state level (financed by taxes rather than private tuition charges.) This represented a radical development at the time, the virtual socialization of an industry. It was enormously controversial. Ultimately, though, the rise of public education



³ David Moss, quoted in *Harvard Magazine*, “Can America Compete?”, Sept.-Oct. 2012, p 42.

constituted a powerful competitive advantage because it moved the United States far ahead of most other countries in terms of education and human capital development.”

Class Discussion

Think about public goods in your country and in other countries, now and in the past.

1. What are some other things that are now public goods in your country but once were not?
2. Can you think of some things that are public goods in your country but not in others?

Student Exercise Instructor Notes

This exercise is meant to be an interactive class discussion. Students should be encouraged to think globally when answering the questions above. The exercise is meant to help students comprehend how public goods are creations of social forces in different countries at different times. Students will think not only about their country but also other countries and cultures around the world.

3.4 Public Goods vs “the Commons”

Public goods are not the same as “the commons”. Resources and amenities that are open to all, such as the oceans and the atmosphere, are sometimes referred to as “the commons”. While these resources are natural goods, there is an important relationship to public goods: the legal structure that *protects* the commons is a public good. This includes, for example, laws that prohibit dumping of pollutants into the oceans or atmosphere.

4. SESSION 3: HOW ARE PUBLIC GOODS CREATED AND PAID FOR?

4.1 Introduction

You can go to a store or order online and buy a toaster or an electric drill or some shoes but you can't go to a store or go online and buy some clean air or food safety.

How do you get clean air? Safe foods? Public parks? Bridges? Freeways? Weather forecasting? Disaster relief? Emergency call service? public beaches?

Things can be provided by either the market system or the public economy system (or by you or your family personally, like when you make a toy robot, knit a sweater or cook dinner, or when

your sister drives you to school; but that’s another story – about the “core economy”⁴).

The market system – for-profit businesses – produces lots of things we use every day like clothing and tooth brushes and meals at restaurants. But other things can’t be produced the by market system because in that system each producing company must make a profit in order to survive. Clean air, disaster relief and weather forecasting infrastructure are examples of products and services that businesses can’t make a profit from if those products are to be provided to everyone.

Some products and services can only be produced collectively. But, someone must produce them and someone must pay for their production. So who produces them, and how are they paid for?

We can answer these questions by following the leads given to us by 19th and early 20th century thinkers about public goods and the public economy, and by looking at the works of Marc Wuyts, John K. Galbraith and others. (See Appendix 2).

And we can also look to more recent guidance:

“Is Health Care a Right?”

That was the title of a 2017 essay by Atul Gawande⁵. It’s a thought-provoking article, with a number of crucial nuggets. Gawande points out that some feel that people have a right to health care. But he then poses the question “Do people have a *right* to trash pickup?” This gets to his central message: “the key point [is] that these necessities can be provided only through collective effort and shared cost.”

**“these necessities
can be provided only
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cost.”**

Public administration scholars Stewart Ranson and John Stewart have argued that public goods and services “are provided following a collective choice and financed by collective funds.”⁶ Indeed, empirically, those are the two chief forces, in addition to public purpose, that drive the production of public goods.

**Public goods are created by human effort
through collective action.
The costs are shared by everybody in the polity.**

⁴ Economist Neva Goodwin originated the term “core economy” to refer to the productive activities of households and communities.

⁵ Gawande, 2017, pp 48-55.

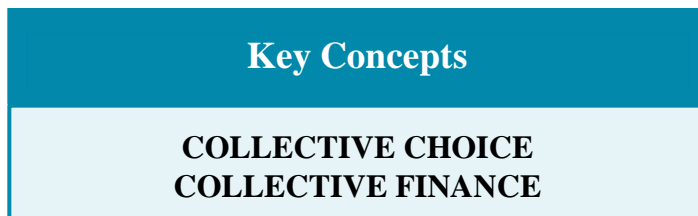
⁶ Ranson and Stewart, 1994, p. 55.

In Summary

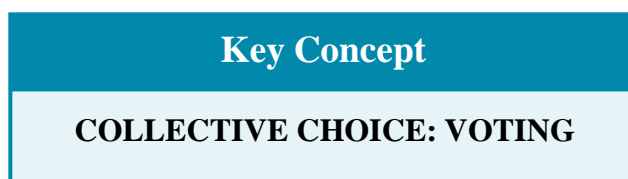
Public goods are:

- created through collective choice (voting by members of a polity);
- paid for collectively (via taxes or other public finance methods);
- supplied without charge (or below cost⁷) to recipients.

In the next two sections we will look more closely at the concepts of collective choice and collective finance.



4.2 Collective Choice



In democratic nation-states⁸, collective choice through the election process is the generator of public products. Public products are not created in response to market “demand.” Instead, a variety of products – goods, services, benefits, protections, standards – originate from the complex decision-making dynamics of collective choice and collective financing, in contrast to the “supply and demand” dynamic of the market environment.

Collective choice is not merely an “aggregation” of individual choices. In 2002 public management scholar John Alford added an important clarification that “collective choice is a mediated process because it is articulated through the channels of representative government.” His elaboration on the mediated nature of this process gives a sense of the *profound complexity* of the public sector:

This collective choice is not simply an aggregation of the preferences of individual citizens. Such an aggregation would be very difficult to achieve because each citizen has different wants and aspirations. Collective choices, therefore, are necessarily the outcome of political interaction and deliberation, in which citizens or their representatives engage with each other in advocacy, debate, and negotiation. Sometimes these processes manage to reconcile conflicts or identify

⁷ See definition of “prices that are not economically significant” in NIPA handbook: Bureau of Economic Analysis, *Concepts and Methods of the U.S. National Income and Product Accounts*, November 2017.

⁸ We use the term “nation-state” rather than “nation” in order to denote the connection to the concepts of “polity” and “sovereign,” discussed in Section 5.

convergent interests, but often they do not. When they don't the political process follows some procedure, usually enshrined in a constitution, for arriving at authoritative determination...⁹

Collective choice is achieved through a process with the following attributes¹⁰:

- it is carried out via a procedure established by a polity;
- it represents aggregated individual preferences (values, needs and wants);
- it is expressed following a process of argumentation, disputation and contention;
- it is intermediated by elected representatives (except for referenda, which are aggregated but un-intermediated).

4.3. Collective Financing

Key Concept

COLLECTIVE FINANCE

Standard economics courses teach how individual buyers “maximize their utility” and individually pay for things they want. And individual payment *is* fundamental to the market not only in theory; it's also true in reality. Importantly, in the real-world market economy, access to products and services is contingent on ability to pay.

In the market economy access to products and services is contingent on ability to pay.

In contrast, in the public economy system the cost of production is shared: financing must be collective in order for the system to work. Public goods are paid from the aggregate wealth of the polity (*the civil government*). This how we “share costs”. Paying “collectively” means that there has to be some sort of financing system. Public goods financing systems include taxes, public bonds and money creation.¹¹ Public goods are not paid for at the point of receipt or usage. Sometimes there are fees, for example for national park entry, but the fees do not cover the full cost of providing that product or service.

⁹ Alford, 2002, p. 339.

¹⁰ Ranson and Stewart, 1989, 1994; Sen 2017; Gutmann 1987; Musgrave in Desmarais-Tremblay, 2013, 2017; Alford 2002.

¹¹ Even though taxes are conventionally considered the source of revenue for government financing, Modern Monetary Theory (MMT) holds that taxes technically do not “pay for” government services and products, but rather that money creation by government precedes payment of taxes. However, it is not necessary to delve into the intricacies of MMT for purposes here.

Public goods are created to meet a need, not to produce revenue or profit. Fees, if any, do not – and are not supposed to – cover the full cost of production. In the technical terminology of the Bureau of Economic Analysis, public goods are “supplied for free or at prices that are not economically significant.”¹² The UK’s National Health Service, an example of a public good, is said to be “free at the point of delivery” or “free at the point of use”.

Public goods are paid from the aggregate wealth of the polity.

Non-market production is *systemically not* intended to yield income or profit. Imposing a goal of revenue-raising to cover the costs of production not only displaces public purpose, it also destabilizes and disables the system and ultimately renders it incapable of meeting collective needs. Simply put, you can’t impose revenue-raising as a goal and still expect the system to work for everyone.¹³

Class Discussion

Paying for Streets: Should cities and towns charge for each use of a street?

An article in *The Economist* (June 23, 2018) talked about how public transit is “ailing” in many cities. The article discusses various options for people to get around in cities such as public transportation, personal cars, cycling and app-based ride-hailing services.

Whatever type of transportation exists, it must be paid for. And in all cases, transportation in cities and towns relies on the existence of streets (or rails in the case of subway systems).

After considering ways to reduce congestion and pollution, the *Economist* article states: “It would be much better to charge for each use of a road, with higher prices for busy ones.”

Homework Reading Assignment:

- Read “[Off the rails: How to stop the decline of public transport in rich countries](#),” *The Economist*, June 23, 2018.

Questions to Think About:

1. How are streets paid for in your city or town?
2. Do you agree or disagree with *The Economist* that it would be better for people to pay for streets each time they use one? Why?
3. What are the advantages and disadvantages of *collective financing vs individual payment* for essential things everyone needs and that we use every day?

¹² See definition of “prices that are not economically significant” in NIPA handbook: Bureau of Economic Analysis, *Concepts and Methods of the U.S. National Income and Product Accounts*, November 2017.

¹³ Any fees that may be paid by users are not, or should not be, intended to cover the costs of production. The only justification to make revenue-raising a goal is to raise money to cross-subsidize the supply of other public goods.

Privatization and contracting out

Although public goods are paid for through collective financing, public services and products are sometimes *delivered* by market actors (firms).

This has particularly been the case over the last 30 years through privatization or contracting-out. But it is crucial to recognize that even when public goods delivery is contracted out, it is still paid for by taxes or other collective financing methods. Contractors are not getting paid by users; they are operating at public expense. And even when public systems (like trains) are “privatized” there are usually still public subsidies that enable the for-profit firms to retain their profitability at public expense.

4.4 Optional Section: Public Sector Efficiency

Efficiencies of the public system

Research has shown that public sector delivery of public goods is often more efficient and less costly than delivery by private-for-profit contractors or privatized services.

Some of the reasons for these public sector advantages include:

- less costly financing;
- information efficiency;
- single provider efficiency.

For information about the relative costs and efficiencies of public and private delivery, see:

- David Hall and Tue Anh Nguyen, “[Economic Benefits of Public Services](#)” in Real World Economics Review Issue No. 84, 19 June 2018.
- Paul Chassy and Scott Amey, [Bad Business: Billions of Taxpayer Dollars Wasted on Hiring Contractors](#); Project on Government Oversight, September 2011.

False Economies

Studies show that privatization or contracting out to private corporations often costs more than direct government provision. See Hall and Nguyen, “[Economic Benefits of Public Services](#)” and Chassy and Amey, [Bad Business: Billions of Taxpayer Dollars Wasted on Hiring Contractors](#)

5. SESSION 4: PUBLIC GOODS AND DEMOCRACY



5.1 Rule of Law



If you make up a game, you make up rules. Everybody has to agree to abide by the rules or they cannot play. Likewise, driving a car has rules. Driving is a privilege, not a right. You have to know the rules and abide by them in order to get, or keep, a driver's license. Most countries today are organized to operate by rules and standards; these are called laws. Laws are how public goods are created.

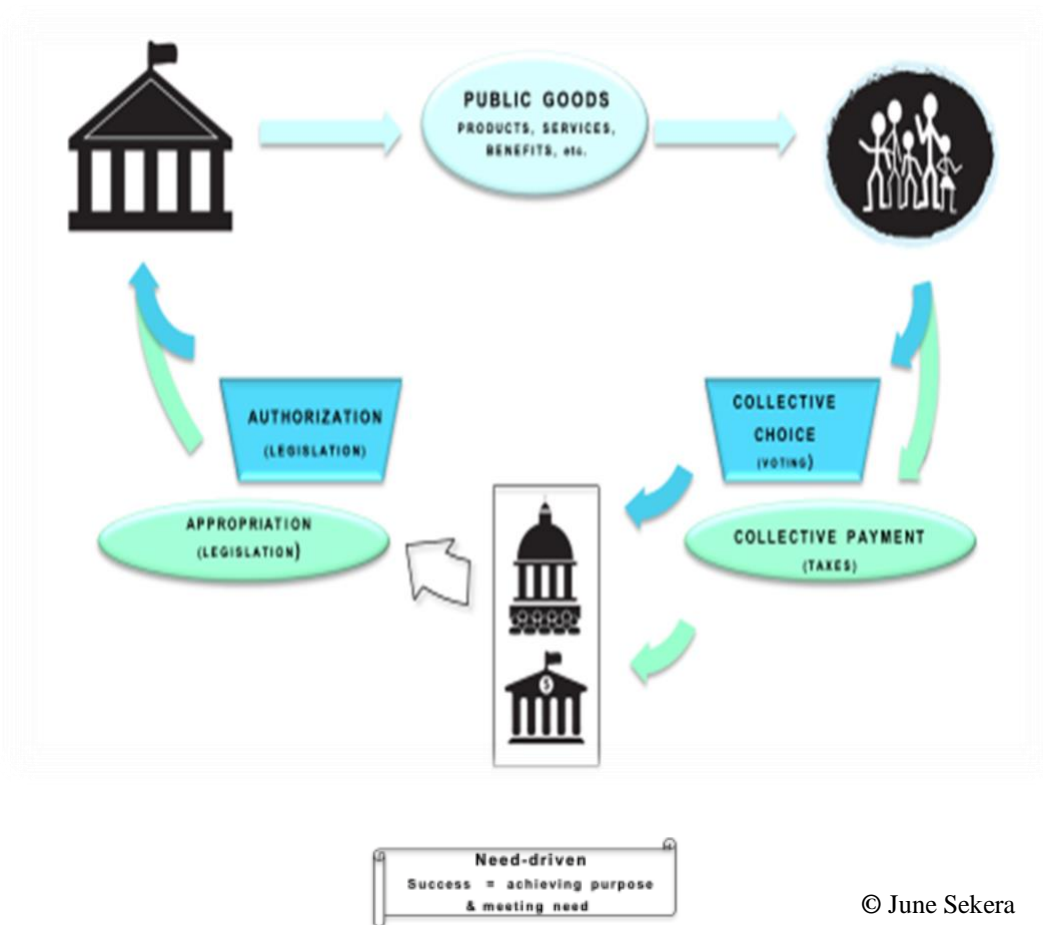
In the United States, for example, creating public goods requires action by both Congress, which writes and passes "bills," and by the president, who has to sign each bill in order for it to become a law. Laws create not only rights, rules and standards; they also are the means by which products and services are created. Public parks, food safety, Air Traffic Control, GPS – everything government creates and produces comes from passing a law. Laws are used to both *authorize* the production of public services and products, and to *fund* their production. In this system, all citizens are able – at some remove – to have input into what laws – and hence what public goods – are created.

Here is how it works: public goods are created by citizens voting for representatives who, in turn, make decisions about how government monies, raised collectively, will be used. These "elected funders" make day-to-day decisions about what and whether to fund and produce. But in the end, the citizenry has the power, through democratic processes, to appoint and dismiss those elected funders. The maxim that elected representatives "work for us" is more than just rhetoric.

This process is an economic production system.

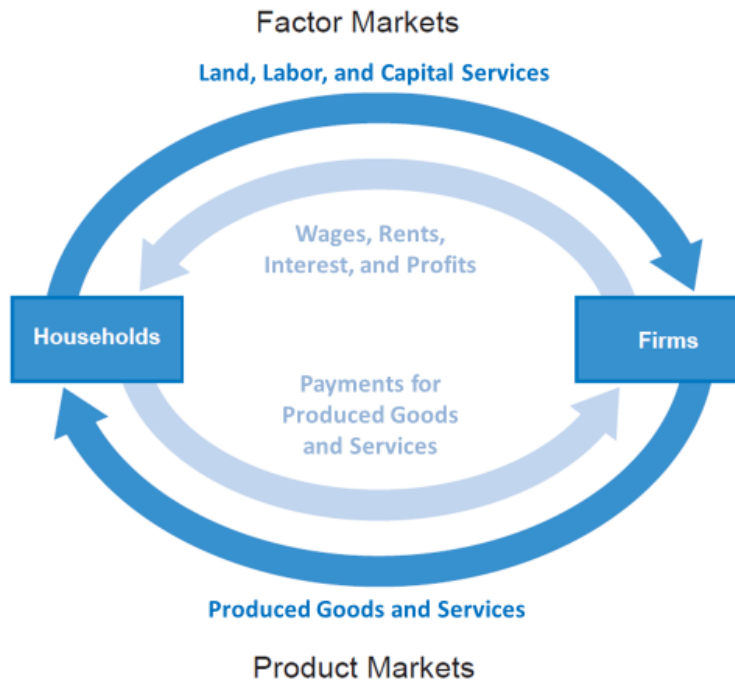
Here's a diagram of how this collective action production system works:

Figure 1. Public Goods Production – System Dynamics



In the public production system diagram above, notice how collective choice and collective payment both come from the people and lead to “legislation,” which is created by the elected representatives (symbolized by the state house and treasury in the bottom center of the diagram). “Legislation” is another word for “laws.” And, notice that legislation is required in order for a government agency (represented by the building on the left side of the diagram) to produce public goods. Once those public goods are produced, they go to “the people” – who both authorized their creation and receive them. But – notice that the people don’t pay the agency directly. They have *already* paid through their taxes.

Figure 2. Circular Flow Diagram for the Basic Neoclassical Model



The public production system (shown in Figure 1) is very different from the standard circular flow diagram of “the economy”¹⁴ in standard economics (Figure 2). In this model, all decisions are made by individuals and the only two agents are individuals (in households) and firms.

The public economy diagram (Figure 1) raises a question about how that system operates: How do “the people” get the power to authorize and pay for collective production?

To answer that, we need to look at the concepts of “the polity” and “sovereignty,” which are discussed mostly in political science today, but which are closely related to the economics discussions that took place 100-plus years ago to understand the nature of the public economy.

5.2 The Polity and Sovereignty

While 20th century economics teaches that government action is legitimate only in cases of “market failure,” the reality is that government precedes the market both historically and conceptually. Governments existed before capitalism and before any theory of markets. Moreover, laws and public services must exist in order for markets to function at all.

As still taught in most universities today, economics is an elaboration of concepts about markets birthed hundreds of years ago, in an age of mercantilism and monarchies. Forms of societal

¹⁴ “The Circular Flow Diagram for the Basic Neoclassical Model,” *Principles of Economics in Context*; N. Goodwin et.al. 2014, p 62.

organization have since evolved – most notably with the modern development of democratic nation-states. In effect, society enables markets, not the other way around. One economist who made this point was Karl Polanyi.¹⁵ But 20th century conventional economics did not keep up with this insight.

A question remains: how does a society get the ability and power to act, to produce?

In theory – and in reality – groups of people can, and do, organize themselves to jointly produce things they need and want. The “group of people” is the “polity.” And the ability to jointly produce things stems from the “sovereign” authority of the polity.

Polity

A polity is an organized body of people that is constituted to mobilize resources and take action. In today’s world, a polity is generally a nation-state or one of its subordinate authorities, such as a province, county, city or town.¹⁶ Sociologist John W. Meyer defined polity as a “system of creating value through the collective conferral of authority”.¹⁷

There is not much discussion of the polity in economics; only a few economists have addressed the concept. One is David M. Winch, who in his essay: “Political Economy and the Economic Polity,”¹⁸ says:

“The society is a polity and its dominant theme and purpose today is organization of our economic affairs. I call it the economic polity.”

The concept of a polity and sovereignty are closely connected.

Sovereignty

Historically, the sovereign was a monarch or some other type of autocratic ruler whose power stemmed from hereditary right. Now the idea of sovereignty is broader: it applies to the many forms of government found in the world today.

What’s important here is the basic concept of sovereignty as the root source of societal power; it applies to *all* forms of governmental organization: democracies, autocracies, oligarchies, republics, monarchies, or any other.

¹⁵ Polanyi, 1944.

¹⁶ There are also efforts today to formally recognize the nationhood of Indigenous peoples and associated institutions of self-governance.

¹⁷ Meyer, 1980.

¹⁸ Winch, 1977.

A polity is an organized body of people that is constituted to mobilize resources and take action.

The majority of countries today are organized as democracies. Although some democracies are “backsliding”,¹⁹ according to a report on *The Global State of Democracy, 2017*²⁰ about 68% of the world’s countries, home to 62% of the world’s population, are electoral democracies with “genuinely contested elections”²¹.

In modern nation-states, sovereignty is the power to create, change and enforce legal obligation (Jacobson 2011, Moore 2014). In effect, in democratic nation-states, sovereignty is collective, and the government is the agent of the polity.

So, in sum – in a democracy – sovereignty is collective and “we are the government”.

“We Are the Government”

In 1945 Mary Elting wrote a book designed for elementary school students with the title *We Are the Government*. In it she wrote²²:

“For many centuries government all over the world worked pretty much like a one-way radio. A few individuals told everybody else what to do, and there wasn’t any apparatus that allowed people to talk back. But when the Constitution was written, it gave the people of this country a voice in their government”.

She then recounts the many ways in which democracy has fallen short of the ideal. But she concludes:

“A democratic government has many complications, but that is not the important thing about it. People and plants and animals are complicated too. The most important thing is that they are alive – that is, they can grow and change. Only dead things stay the same. A really democratic government is one that is alive – one that can change and grow.”

The majority of countries today are organized as democracies. About 68% of the world’s countries, home to 62% of the world’s population, are electoral democracies with “genuinely contested elections.”

¹⁹ V-Dem Institute, “*Democracy for All? V-Dem Annual Democracy Report 2018*”; https://www.v-dem.net/media/filer_public/3f/19/3f19efc9-e25f-4356-b159-b5c0ec894115/v-dem_democracy_report_2018.pdf

²⁰ International Institute for Democracy and Electoral Assistance <https://www.idea.int/gsod/>

²¹ Mélida Jiménez, *Washington Post*, November 15 2017, “Is Democracy in a Worldwide Decline? Nope.” https://www.washingtonpost.com/news/monkey-cage/wp/2017/11/15/is-democracy-in-a-worldwide-decline-we-measured-it-heres-what-we-found/?utm_term=.643158c624e4.

²² Mary Elting, *We Are the Government*; Doubleday & Co., 1945. The quotes are from an updated version of the book in 1967, p 91.

Class Discussion

Look at the diagram of “Public Goods Production” (Figure 1). It’s a picture of the system by which public goods are created in a democracy. Public products, services, benefits, etc. are authorized and paid for by the people (via voting and taxes), and produced by a public agency. Then notice how Mary Elting (above) contrasts a “dead” democratic government versus an “alive” one.

Discussion Questions

- How do citizens express voice in a democracy that is “alive”?
- How would a democratic government become “dead”?

Optional Class Discussion: Outsourcing Sovereignty

In writing about the widespread privatization and outsourcing of government, Paul Verkuil said that this movement amounts to the “outsourcing of sovereignty.”²³

What do you think he meant by that, and whose sovereignty was being outsourced?

“Public Bads?”

Not every law is viewed as “good” (in the moral sense) by everyone. Some legislative actions produce what some people would see as “bad.” Deneulin and Townsend (2006) raised and addressed this issue:

“[H]ow is the common good generated or nurtured and how can we ensure that the common life of a community is good and not bad?...We emphasize here that there is no guarantee that participation in common action will generate something genuinely good. It might lead to bringing into power a government which might use nuclear weapons or which introduces unjust structures such as those of Apartheid. Human actions are always fallible because they are human. However the ‘possibility of moral evil inherent in man’s constitution’ does not nullify the claim that the good for each of us is found and sustained in relationships, whether at the level of the community of the family, village, country or world, and the public policy ought to recognize and nurture them if it is not to undermine the human well-being.”²⁴

²³ Verkuil, 2007.

²⁴ Deneulin and Townsend, 2006.

Here are some other distinguishing characteristics of public goods:

Public goods are measurable. They are goods, services and benefits that can be identified and that produce results that can be assessed or measured. They are not merely ideas, “interests” or “values”.²⁵

Public Goods and “Social Goods”

Public goods are produced by the public sector agents of the polity – government agencies, public authorities, public universities, etc. – not by businesses, civil society, NGO's, households or individuals. Goods produced by such entities that may be enjoyed by the public can be called “social goods” but they are not public goods. The distinguishing characteristics of public goods are that they are *created through collective choice by the polity (voting) and are paid for collectively (public financing)*.

5.3 Optional Section: Public Goods, Energy and Climate Change

Change is coming in our collective energy future. But what will that change look like? What products, services and innovations will be developed to supply solutions? Who will decide?

A recent article²⁶ in a scholarly scientific journal about energy describes the dilemma that countries are beginning to face: the competition for public resources between *energy transformation* and climate impact *mitigation*. A competition is beginning for resources for both courses of action. This is a competition for resources (money, talent, energy) between the need for *mitigation* of climate change and its impacts and, on the other hand, *transformation* to a new energy future. These are two paths. They are not really alternatives; both challenges will have to be taken up to one extent or another. The real question is about the relative amounts of money, talent, effort and energy to put into each.

The problems can't be solved merely by individuals buying things (the market system). Societies will have to take collective action. Nation-states will have to take action. Climate impact mitigation and energy transformation both have to be addressed.

Class Discussion

What are examples of public goods that could address these climate-related needs?

²⁵ The characteristic of measurability is connected to assessing or measuring the achievement of public purpose, a crucial topic, but one that is beyond the scope of this module.

²⁶ Day, John W., et al, 2018

Readings:

- “The Energy Pillars of Society”²⁷
https://econpapers.repec.org/article/sprbioerq/v_3a3_3ay_3a2018_3ai_3a1_3ad_3a10.1007_5fs41247-018-0035-6.htm
- “The Need for a New Public Administration”²⁸
<http://www.paecon.net/PAEReview/issue84/Galbraith84.pdf>
- “Our Energy Future” Our Energy Future, Part 1 and Our Energy Future, Part 2. *Public Goods Post*, April & May, 2018 <https://www.publicgoodspost.org/>.

“Global Public Goods”?

Issues like pollution and climate change mitigation are international in scope. Some say that “global public goods” are the answer. But a question this raises is: How can there be “global public goods” to address such concerns when no one has global sovereignty?²⁹

6. SESSION 5: CAPSTONE EXERCISE**6.1 Public Goods and Grand Challenges**

The following is a list of *some* of the challenges that are confronting us:

- Mitigating impacts of climate change, like increased flooding and wildfires, and displaced populations due to climate disasters.
- Need for energy transformation: creating energy-efficient renewable sources that are affordable by and accessible to all.
- Food waste and simultaneous food insecurity.
- Loss of potable water in an increasing number of communities.
- Need for transport that is energy-efficient, affordable and accessible to all.
- Higher education – universal access.
- Health care – universal access.
- Precarious (gig) employment and “worklessness.”
- Ensuring the “right to repair”.
- Other grand challenges identified by students or instructor

²⁷ Day, John W., et al, 2018.

²⁸ Galbraith, 2018.

²⁹ To be sure, international organizations exist, many affiliated with the United Nations. However, they have no claims to sovereignty and, according to a report in *The Economist*, international regulating organizations, such as the International Maritime Organization which has responsibility for limiting emissions from shipping, are populated by private firms with self-interest, are “clubs that represent producer interests,” and conduct their meetings in secrecy. “Agency Problems,” *The Economist*, Nov. 24, 2018, p 15.

Student Exercise

1. Identify a challenge (either from the list above or another grand challenge).
2. Describe the problem and state the societal need.
3. Propose an outcome goal (what would be different – what would things be like – if the problem were fixed and the need were met?)
4. Propose your idea for legislation to correct the problem or meet the grand challenge you picked. (Limit your description to a paragraph or no more than one page.)
5. Which category(ies) of public goods does your solution fall into: is it a service, a product, a benefit, a standard, a right?
 - What benefits, if any, does your solution confer, and upon whom?
 - What obligations, if any, does your solution impose, and on whom?
6. Bonus points:
 - Describe how results would be measured – i.e., metrics or assessment criteria.
 - What words or phrase would you use to “message” to the public about your proposed solution?



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8. APPENDIX 1

Optional Student Exercise: A Day in Your Life

We use public goods every day, but often don't realize it.

Instructor Notes

This exercise is set up in two parts - an opening discussion and a homework reading assignment.

Part 1 is designed as an interactive discussion. Students will think about a typical day for them and the various goods and services they might use during the course of the day. Using the prompts provided, students will identify the goods and services that they use “for free” and the ones that they pay for with each use. Class discussion will follow.

Part 2 is a homework reading assignment to follow the classroom discussion and has follow-up questions for discussion at the beginning of class on the following day.

Exercise 1 (Part 1):

Each day we wake up and go through our morning routine, checking our phones, having our beverage of choice. Between our morning routine and the time we go to bed we perform a myriad tasks at home, at work and at play. Most of us go about our day using products and services that help us navigate our day smoothly, without giving any thought to how they come to exist or how we get them. In this exercise you will explore a typical day for you and the various goods and services that you use during the course of a day. Use the prompts below to identify some goods and services that you use “for free” and ones that you pay to use.

1. Think about a typical day in your life from the time you wake up until you go to bed:

What services or products do you use every day that you don't pay for when you receive or use them? Think about this in contrast with things you pay for directly. An example of the latter is your smartphone. That's a private product. Examples of the former are GPS, which your phone relies on, and the streets you use to get to school. What are some other services and products that you use pretty much every day but *don't pay for when you use or get them*? Jot down a list (4 – 5) of these types of goods and services.

2. If you did not pay each time you got or used those products or services as you went through your day, this raises some questions:

How were they paid for? And who produced them for you?

Exercise 1 (Part 2) - Homework Assignment:

The following reading and video assignments, and related questions, form the basis for the opening class discussion on the following day. The questions build on your answers to Part 1 of the exercise. The readings are selected to help advance your thinking on public goods in your daily lives.

Reading & Video

- **A Day in Your Life** – <http://governmentisgood.com/articles.php?aid=1&p=1>
- **Government’s role in Fostering Technological Innovation**
<http://www.publicgoodspost.org/wp-content/uploads/2016/02/Government-and-Innovation.pdf>
- **Government – Investor, Risk-Taker, Innovator**
https://www.ted.com/talks/mariana_mazzucato_government_investor_risk_taker_innovator

Class Discussion (Part 2 Questions):

1. Are there any changes or additions you would make to the description of your own typical day after reading “A Day in Your Life”?
2. If a product or service you use the most every day is produced by government – did that realization take you by surprise?

9. APPENDIX 2

9.1 The Mid-20th Century Definition of Public Goods

The contemporary textbook definition of public goods was formulated by economist Paul Samuelson in the 1950’s and is abstract. It pertains to *ascribed inherent characteristics* of particular “goods” (meaning products and services). It does not address pragmatic questions such as how those goods are produced.

This theory holds that public goods are:

- **Non-rivalrous** – consumption of the good by one individual does not reduce availability of the good for consumption by others; and
- **Non-excludable** – goods that are difficult or impossible to keep nonpayers from consuming.

In standard economics, which utilizes this definition, public goods are seen as a “problem” because their ascribed qualities of “non-rivalry” and “non-excludability” imply that they are generally not amenable to market production. They therefore represent “market failure”. Typical examples of public goods given in textbooks are national defense, a lighthouse, a fireworks show.

Samuelson's formulation borrowed from the work of previous economists, particularly that of Richard Musgrave. But it was an aberration from the line of thinking about public goods, and the relationship between the State and markets, that had been developing in mid- and late-19th century European economics, now often called the "historical school". (More on this shortly). A key feature of Samuelson's formulation was that it could be mathematically modeled, in line with the sweeping trend of mathematicising economics in the mid-20th century.³⁰ However, the formulation that emerged from Samuelson's construct was so restrictive that it was difficult to find any product or service it applied to in the real world; it had little practical utility.³¹

For example, consider the following questions that the standard definition doesn't answer:

- Should Amazon replace public libraries?
- Should NASA sell naming rights for its rockets?
- Should motorists pay for each use of a street?
"Yes" or "No" and why?

Some think the answer to each of these questions is "yes".

Should Amazon replace public libraries?

- In summer 2018 *Forbes* posted an article by an economist who argued that libraries no longer served a purpose and did not deserve public support. According to a reporter, the economist "suggested that Amazon replace libraries with its own retail outlets, and claimed that most Americans would prefer a free-market option."³²

Should NASA sell naming rights for its rockets?

- The *Washington Post* published an article (Sept. 10, 2018) on "Why NASA's next rockets might say Budweiser on the side." The NASA administrator who took over in 2018 proposed selling naming rights to our rockets because of reduced public funding.

Should motorists pay for each use of a street?

- An article in *The Economist* (June 23, 2018) talked about how public transit is "ailing" in many cities. The article discusses various options for people to get around in cities such as public transportation, personal cars, cycling and app-based ride-hailing services. After considering ways to reduce congestion and pollution, the *Economist* article states: "It would be much better to charge for each use of a road, with higher prices for busy ones."

³⁰ Philip Mirowski, *More Heat Than Light; Economics as Social Physics, Physics as Nature's Economics*, Cambridge University Press; 1989; Clive Beed and Owen Kane, "What Is the Critique of the Mathematization of Economics?", *Kyklos*, Vol. 44, 1991, pp 581-612.

³¹ Meghnad Desai, "Public Goods: A Historical Perspective", in *Concepts: Rethinking Public, Global and Good*, 2003.

³² Eric Klinenberg, "Why Libraries Still Matter," *New York Times*, Sept. 9, 2018. Klinenberg notes that *Forbes* deleted the article from its website after receiving overwhelmingly negative comments.

Products and services like free-access public libraries and public roadways are public goods in most countries. Yet, the private market system could provide libraries, toll roads or rockets that charge customers for each ride.

- *On what basis is it determined which system should produce which things?*
- *Who makes that determination?*
- *How are public products paid for?*

In economics today, there is no empirically-based conceptual model for answering these questions. The textbook economics definition of public goods does not provide it.

As we've noted, in the current, standard definition, public goods are defined in terms of *ascribed inherent characteristics* of the goods and services themselves. Below, we briefly summarize an alternative perspective in which public goods are seen as arising out of actions to address a perceived public need. But first, let's consider some commentary on the standard definition.

9.2 Critiques of the Standard Definition

The concept of public goods has been of limited interest in economics for several decades. Those who have paid attention to it have been mainly those on the economic/political right who challenge the Samuelson definition as too supportive of a role for government. For example, numerous libertarian essays and websites question whether public goods – according to the standard definition – actually exist. These sources argue that if public goods do exist, they can and should be provided by the market, not government.

Some examples of these critiques:

- “[M]any of the goods government actually does produce do not correspond to the economist’s definition of public goods, so the theory does a poor job of explaining the government’s actual role in the economy...The theory is promulgated by the state-supported education system, giving educators, as employees of this state-supported industry, an incentive to promote the theory of public goods.”³³
- “There is a presumption in some circles that the identification of an externality or a public good presents a prima facie case for government intervention. Tyler Cowen has assembled a group of articles that challenge this view by arguing that the market, broadly construed,

“Samuelson’s austere simplification produced a rarefied concept, a **mythical beast**, without any counterpart in, and therefore without any applicability to, the real world.”

³³ Randall G. Holcombe, “A Theory of the Theory of Public Goods”, *Review of Austrian Economics* 10, No. 1, 1997.

can handle many problems of public goods and externalities that are normally considered the province of the state.”³⁴

- “In everyday life, there are probably no goods that resemble the pure public goods of economic theory.”³⁵
- “Samuelson’s classic formulation provoked a number of critics...whose chief concern was that Samuelson’s austere simplification produced a rarefied concept, **a mythical beast**, without any counterpart in, and therefore without any applicability to, the real world.”³⁶ [Emphasis added.]

Because the Samuelson definition is so narrow and constricting, one can indeed demonstrate that the standard textbook examples of Samuelsonian public goods have been or may be produced by the private market: ships have paid for lighthouse services; Disneyworld produces fireworks. Even clean air has been purchased individually—by the wealthy in Beijing.³⁷

The terms “**public goods**,” “**public good**” and “**public interest**” are often used interchangeably, without definition and without clarity. “**Public good**” and “**public interest**” are ethical or moral concepts; they are value judgements that vary according to the judge. The term “**public goods**” refers, instead, to products, services and other outputs of production.

9.3 Pluralist Commentary

Samuelson’s definition has had the effect of downplaying public goods among pluralist economists. In contrast to extensive commentary from the libertarian world, little attention has been devoted to this topic by heterodox or pluralist economists currently.

In the past, a few have challenged the Samuelson definition and some have called for a new one.

- Gerhard Colm, a prominent economist from the German Public Economics school and an official in the New Deal Roosevelt administration, challenged Samuelson’s definition almost as soon it was published in the 1950’s. Finding it “not a...fruitful approach” and

³⁴ Hal R. Varian, “Markets for public goods?”, *Critical Review: A Journal of Politics and Society*; Vol. 7, Issue 4, 1993.

³⁵ Gunning, James Patrick, “Public Choice, Public Goods, and Constitutions”; constitution.org, May 3, 1997.

³⁶ Richard Cornes & Todd Sandler, “Are Public Goods Myths?”, *Journal of Theoretical Politics*, 6(3), 1994, p 369.

³⁷ In China in response to extreme air pollution, some schools have built domes over sports fields and wealthy parents choose schools based on air-filtration systems. “In China, Breathing Becomes a Childhood Risk”; *New York Times*; April 22, 2013.

more of a “mental experiment,” Colm³⁸ emphasized that Samuelson’s formulation did not answer the question of why some goods are produced by government and others are not. He concluded that “the usefulness of a theory should not be judged by the extent to which it lends itself to mathematical treatment but by its usefulness in solving the problems which confront us.”

- In “Rethinking Public, Global and Good”, Meghnad Desai argued that “Most public goods are excludable and have externalities but are genuinely beneficial to many people. They are also rivalrous in the sense that one has to choose among them as well as determine the quantity and quality of the provision of those chosen.” And he concluded that: the Samuelson formulation is “useless for policy purposes,” and summed up by saying that “The Samuelson fiction of pure nonexcludable goods is just that.”³⁹
- Kaul and Mendoza in “Advancing the Concept of Public Goods” noted that the existing definition does not offer clear categories of public and private, and point out that “goods often become private or public as a result of deliberate policy choices.”
- John K. Galbraith in 1958 told us that public goods are “...things [that] do not lend themselves to [private] production, purchase and sale. They must be provided for everyone if they are to be provided for anyone, and they must be paid for collectively or they cannot be had at all.”⁴⁰
- Of particular importance is the perspective of economist Marc Wuyts⁴¹. His central point is that public goods should not be defined in terms of supposed “inherent characteristics” of the products and services themselves, but rather that public goods are “socially defined and constructed” and “result from public action prompted by...perceived public needs.”

Public goods should not be defined in terms of supposed “inherent characteristics” of the products and services themselves, but rather, public goods “result from public action prompted by...perceived public needs.”

- Marc Wuyts, Development Economist

³⁸ Gerhard Colm, “Comments on Samuelson’s Theory of Public Finance,” *The Review of Economics and Statistics*, Vol 38, No. 4, Nov. 1956, pp 408-412.

³⁹ Meghnad Desai, “Public Goods: A Historical Perspective”, in *Concepts: Rethinking Public, Global and Good*, 2003.

⁴⁰ John Kenneth Galbraith, *The Affluent Society*, 1958, p 111.

⁴¹ Marc Wuyts, “Deprivation and Public Need” in *Development Policy and Public Action*, Wuyts, Mackintosh & Hewitt Eds. 1992, p 31. Wuyts is Emeritus Professor in Applied Quantitative Economics, International Institute of Social Studies of Erasmus University, Rotterdam, and Principal Research Associate, Economic and Social Research Foundation, Tanzania.

Economists Hugh Stretton and Lionel Orchard (1994⁴²) showed how the deficiencies in Samuelson's definition have enabled critics of government to use it to attack public provision of goods and services. Like Wuyts, they stress the socio/political origins of public goods: "The amount and kind of public goods have to be determined by political choice...Those choices are not likely to be improved by the use or the common misuses of public goods theory..."

9.4 Conclusion

In the environment of mainstream economics, public goods are pronounced "a problem" because they are not amenable to market production. Businesses can't or won't produce them because, for one thing, since they are theoretically "non-excludable," there is no way for a market-based business to capture the cost of producing them. The implication is that, since – by the textbook definition – the market can't or won't produce them, they are an economic negative, a representation of "market failure."

As we noted above, many products and services – libraries, schools, roadways, drinking water – are public goods in most countries. Yet, the private market system could provide them too. We return to the questions we raised earlier:

- ***On what basis is it determined which system should produce them?***
- ***How is that determination made?***
- ***How are public goods to be paid for?***

In standard economics, there is no empirically-based conceptual model for answering these questions. The present economics definition of public goods does not provide a valid empirically-testable basis.

The definition of public goods is not a trivial matter. Public non-market production makes up a major share of all economic activity among advanced democratic nations, ranging from a quarter to more than half of GDP.⁴³

⁴² Hugh Stretton and Lionel Orchard, *Public Goods; Public Enterprise, Public Choice: Theoretical Foundations of the Contemporary Attack on Government*; 1994.

⁴³ These figures are based on the two principal conventional ways in which government's contributions are portrayed in GDP calculations: expenditures and output. However, GDP undervalues government output, as has been widely documented.

Among European Union countries, government expenditures average 47% of GDP. And in nine European countries, government expenditures equal *half or more* of GDP. Belgium 53.9%; Denmark 54.8%; Greece 55.4%; France 57%; Italy 50.3%; Hungary 50%; Austria 51.6%; Finland 57%; Sweden 50.2%. http://ec.europa.eu/eurostat/statistics-explained/images/7/70/Total_general_government_expenditure_by_function%2C_2015_%28%25_of_GDP%29_03_032017.png. Government's share of GDP output, a different calculation that omits "transfer payments," shows government's share ranging from 12% to 26%. In seven European countries, government's share of GDP output is about one-quarter, even according to the faulty methodology of GDP accounting, which undervalues government's contribution. Government's share of total output for 2016 was at or nearly 25% in 7 countries: Sweden 26.1%; Denmark 25.4%; Finland 24%; Netherlands 24.7%; Norway 24.3%; France 23.6%, Belgium 23.6% <https://data.worldbank.org/indicator/NE.CON.GOV.T.ZS> From either standpoint – expenditures or output – government's share of economic activity is significant.

For an important summary of the range and impacts of government spending on public goods see the study by David Hall and Tue Anh Nguyen (2018) [“Economic Benefits of Public Services”](#).⁴⁴ The authors report that public sector activity, directly and indirectly, supports half the formal jobs in the world, and has a comparative advantage over private contractors in delivering public goods such as universal access to healthcare, affordable housing, and protecting the planet from climate change.

The topic of public goods is today relegated to the sidelines of economics; it is little discussed in classrooms. In textbooks, public goods are presented as a negative – a representation of “market failure.” Yet public goods are vital to well-being, to the functioning of the economy and ultimately for the survival of species, including humans, on the planet.

10. APPENDIX 3

10.1 Looking Back- A Brief History of Public Goods

As Martin Wolf wrote in the *Financial Times*,⁴⁵ societies have been producing public goods for millennia:

“The history of civilization is a history of public goods.”

-Martin Wolf, *Financial Times*

But the term “public goods” didn’t come into fashion until the last hundred years or so. And the textbook definition only appeared in the 1950’s.

It’s interesting to see how the use of the term “took off” after Samuelson put it in his widely-used 1950’s textbook, *Economics*. Here’s a Google Ngram that show usage over time:



⁴⁴ David Hall and Tue Anh Nguyen, [“Economic Benefits of Public Services”](#) in *Real World Economics Review* Issue No. 84, 19 June 2018.

⁴⁵ Martin Wolf, “The World’s Hunger for Public Goods,” *Financial Times*, January 4, 2012.

Regardless of its recent provenance, economics textbooks today present the definition of public goods as though it was long ago etched in stone, or is as irrefutable as the laws of physics. The texts don't describe how the definition was developed, or the considerations that went into it or the motivations behind it.

10.2 Where did the economics textbook definition of public goods come from?

Pre-20th century public goods: The “Historical School” and “German Public Economics”

Economics lost the concept of public goods as it was being developed in Europe in the late 19th and early 20th centuries.

“A framework of collective agency for common purposes”

“Public goods” as a concept in economics grew out of late 19th and early 20th century thinking about the economic foundations of the state, and efforts to understand the relationships between states and markets. Margit Cassel, Gustav Cassel, Emil Sax and Gerhard Colm were some of the leading thinkers. They theorized about collective choice as an economic mechanism and saw the state as “a framework of collective agency for common purposes” – a “mechanism” for producing the goods and services necessary to meet “collective needs” (Sturm 2010).⁴⁶

The concepts of “non-rivalry” and “non-excludability” were also being discussed at that time, and were embraced by economist Richard Musgrave, who brought these ideas with him when he emigrated from Germany to the United States in the early 20th century. But, unlike today's treatment of these terms, Musgrave theorized public goods within the context of a vital and essential role of government.

Samuelson, however, rejected this earlier systemic thinking in his “pure” definition, which, according to the requirements of mainstream economics, had to be amenable to mathematical modeling. In 1983, Musgrave criticized Samuelson's approach as “somewhat of a scholastic exercise, of little help to improving the fiscal performance of the real world setting.” (Desmarais-Tremblay 2013, p 10).

What happened? The triumph of rational-choice, market-centric economics.

Starting in mid-20th century, as economic historian Roger Backhouse has shown,⁴⁷ there were “profound changes in economic theory” with the triumph of rational choice economics, which fostered a “remarkable and dramatic change in attitudes toward the role of the state in economic activity...a radical shift of worldview.” The rise of “free market” economics, along with the

⁴⁶ Richard Sturm “Public Goods’ before Samuelson: interwar *Finanzwissenschaft* and Musgrave's synthesis”; 2010, p 304.

⁴⁷ “The shift toward market solutions did not occur spontaneously; it was actively promoted by groups of economists committed to opposing socialism, making the case for free enterprise, and reviving the fortunes of liberalism. In the first stage, the most influential institution was, as the previous section has made clear, the RAND Corporation, which brought together the Cowles Commission, Princeton University, and many of the economists associated with the development of rational choice theory. RAND was a think tank set up by the U.S. Air Force at Santa Monica, California, to prevent the scientific and technical expertise that it had brought together during the Second World War from being dispersed. It was established in 1946 as a division of the Douglas Aircraft Company to undertake research on air warfare.” Roger E. Backhouse, “The Rise of Free Market Economics: Economists and the Role of the State since 1970,” *Hist. Polit. Econ.* 37, Suppl 1; 2005.

“ideology of rational choice” led to a belief that government action often creates perverse outcomes, which in turn produced a “climate of opinion” within economics “in which state action was seen as raising more problems than it solved.”⁴⁸

These profound changes in economic theory had major impacts on public policy-making.

Economist Michael Bernstein (2001)⁴⁹ has traced the evolution of economics from an academic field marginal to public policy into a powerhouse influencing and orienting government decision-making. Economists in the late 19th and early 20th centuries ardently sought to cultivate influence with elected and appointed officials to shape public policy and to contribute to “purposeful management” and “statecraft.”

By the mid-20th century, the concept of a “public economy” had been extinguished in favor of the idea that societies operate via markets, while, at the same time, the concept of “public goods” became constrained within the “market failure” paradigm and took on an essentially negative connotation.

So today, virtually no economics textbooks or literature mention the earlier corpus of economic literature and scholarship from which the concept of public goods evolved⁵⁰. Several generations of economics students have learned nothing about public goods beyond Samuelson’s narrow, abstract definition, hinged on market theory.

Impacts on the real world

The consequences have been dire. This is not the place to go into the impacts, which arguably include: students under onerous debt, the public justice system in jeopardy, families put in serious economic insecurity, workers at risk of ill-health and shorter lives, and the planet under increased threat of waves of famine, fires, floods, and social disruption.

Among those who have written about the real-world implications are: Toynbee and Walker, *Dismembered – How the Attack on the State Harms Us All* (2017); James K. Galbraith, *The Predator State -- How Conservatives Abandoned the Free Market and Why Liberals Should Too* (2008); Janine Wedel, *Unaccountable: How Elite Power Brokers Corrupt our Finances, Freedom and Security* (2014).

Back to the Future

A few economists have seen the need for re-thinking what public goods are and how they are supplied. These critiques were summarized above.

Especially important is the critique by development economist Marc Wuyts (1992). He explicitly rejected “orthodox economic theory” in which “public goods are defined solely with respect to the inherent characteristics of the goods and services concerned. He argued that, instead: public goods

⁴⁸ Roger E. Backhouse, op. cit.

⁴⁹ Michael Bernstein, *A Perilous Progress: Economists and Public Purpose in Twentieth-Century America*, 2001.

⁵⁰ This literature generally uses a term other than “public goods”. Musgrave talked about “social goods” and “merit wants”, for example.

are “socially defined and constructed” and “result from public action prompted by...perceived public needs.”

Wuyts’ insight is crucial: it is problematic that the *standard* definition rests on *ascribed inherent characteristics* of the goods and services themselves. The textbook formulation does not provide a framework for understanding the economic production of public goods. If education, libraries, roads, etc. can be produced by either the market system or government, why are they produced by the market in some countries and by the government in others?

To find a framework for answering this question, and others related to public goods, we must go back to the line of enquiry and thinking that was interrupted by mid-20th century rational choice, market-centric economics.

Let us explore how to recapture the ideas developed in the 19th and early 20th century, and also update them for 21st century needs.

Recovering lost concepts: Learning from the past to think about the future

The “Historical School of Economics”, sometimes called German Public Economics, strove to understand the economic foundations that would explain the state.

In particular, Gerhard Colm’s reasoning can be a source of pivotal insights concerning public goods. To begin with, we can look to his two guiding principles:

...the public sector should be dealt with as an *essentially economic* phenomenon, not as an extra-economic appendix to the market economy; and the state as the core of a modern public sector is an economic system with its *own* economic logic – it is an *essentially* non-market type of economic system whose proper analysis must neither explicitly nor implicitly be based on market price-theoretic reasoning.” (Emphases in original; Sturn 2010).

As Colm stressed in 1936,⁵¹ “The fundamental difference between these [market and public] economies must be explained before their interrelationship in modern economy can be understood.” He spells out those differences:

The modern economic system consists of two realms which are interwoven with each other: the private and the public realm. Production and services in the private sector of the economic system are rendered by *enterprises*, in the public sector by administrative *departments* and public *institutions* (for instance public schools.) The public realm is distinguished by the fact that it rests on authority... In the public sector services are ordered by the responsible organs of the state or the municipalities, by the parliament, the chief executive or whoever else may have the constitutional right or factual power to decide upon public activities.” [Emphases in original.]

⁵¹ Gerhard Colm, “Theory of Public Expenditures,” *The Annals of the American Academy of Political and Social Science*, Vol. 183, Government Finance in the Modern Economy (Jan., 1936), pp. 1-11.

Government as a Producer

Public goods are things that are produced -- both tangible and intangible things. They are produced by the collective system we call government. Governments are producers, and what they produce are public goods. Yet, mainstream economics does not see or explain government as a producer. Rather it generally sees “the state” as an intervenor in the market or a redistributor of wealth.

This was not always the case. Three-quarters of a century ago, economist Paul Studenski challenged this mainstream thinking. He found government to be a vital economic actor whose role was not merely to intervene or redistribute. Government was clearly and strongly a *producer*.

A professor of economics at New York University (1927-55), an authority on public finance and a widely-respected historian of national income accounting,⁵² Studenski explained government as an economic agent of the polity. He argued that “government is a productive, wealth-creating organization. It supplies direct utilities as well as aids to private production” (1939). He elaborated:

Under all forms of organized society, economic activity has required some collective effort in addition to the individual one, and this is still true of the modern society. ... In every type of political organization known in human history, from the most primitive to the most elaborate, government has had to furnish services satisfying important needs of the members of the society, help them to make a living, influence their productive processes and consumption habits, manage economic resources to these several ends, and generally function as the collective economic agent of the people.

Production consists in the creation of utilities. Government furnishes services and goods which satisfy the two tests of economic value -- namely, utility and scarcity. They satisfy human needs and must be economically used. Government is, therefore, engaged in production just as much as is private enterprise. Government employees are just as much producers as are private employees and entrepreneurs.

In democratic nation-states, production occurs through a system of authorization and financing that is distinctly different from that of the market.⁵³

But today, rather than seeing public goods as the products of the public economy system, as was the case in a previous era, public goods have been recast as representations of “market failure”. And today, we have no term in economics (or in public discourse), that encompasses all that government produces.

⁵² In *The Income of Nations* (1958), Studenski traced the history of national income accounting and competing historical conceptions of production. Descriptions of Studenski’s work can be found in Warren 2005 and Ogle 2000.

⁵³ See Gerhard Colm, “Theory of Public Expenditures,” *The Annals of the American Academy of Political and Social Science*, Vol. 183, Government Finance in the Modern Economy, Jan., 1936, pp. 1-11.