

From Public to Private – Non-excludable, Non-rival Goods

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SUBJECT(S): Economics

GRADE LEVEL(S): 9, 10, 11, 12

≡ OVERVIEW:

During this lesson, students will learn about public and private goods. First, students are introduced to the economic terms rivalry and excludability, classifying examples of each. Next, students will think about public goods through the article “Raising the Bar: The Role of ‘Social Information’ in Charitable Giving.” Finally, based on their reading, students will create business plans for one specific public good: namely, public radio.

≡ NBEA STANDARD(S):

- Economics, II. Economic Systems
- Economics, VII. The Role Of Government

≡ RELATED ARTICLES:

- [“Insights from the Fall of Aleppo”](#)
- [“GDP: The Rock Star of Economic Indicators”](#)

Objectives/Purposes: The purpose of this lesson is for students to understand *public goods*, and distinguish them from other goods.

- Students will be able to define *rivalry* and *excludability* from an economic perspective.
- Students will be able distinguish *public goods* as *non-rival* and *non-excludable*.
- Students will think about the difficulties businesses face when dealing with public goods.

Knowledge@Wharton Article: [“Raising the Bar: The Role of ‘Social Information’ in Charitable Giving”](#)

Other Resources/Materials:

For Teachers:

- Internet Access (Outside of the Classroom)
- Printer/Copier
- Access to Chalkboard/Whiteboard
- [Worksheet 1](#)

For Students:

- Pen

Activity:

The lesson is divided into four parts: (1) Introduction, (2) Guided Reading, (3) Exploration Activity, and finally (4) Closing

1. Introduction (10-15 mins)

Start this lesson by giving each student a copy of [Worksheet 1](#). Ask students to fill out the first column of the worksheet, deciding whether each item is or is not a *public good*. Have students fill this out based solely on their existing knowledge and assumptions.

After students have filled out the worksheet, ask them to share their answers. Going down the list, make a tally of how many students labeled each item a public good. Pick two or three items with the largest tally (i.e. items chosen by the *most* students as public goods) and ask students to explain their rationale. What makes these public goods?

Next, tell students that economists define public goods in a very specific way. The definition has two parts. The first part deals with something called *rivalry*. Something is rival when one person using it prevents another person from using it. Emphasize that rivalry is a spectrum. Some things are more rival than others. (e.g. Almost any food item is a rival good. Once someone swallows their food, others are prevented from consuming it. On the other hand, music is less rival. Multiple people can listen at the same time.) Ask students to fill out the second column of Worksheet 1, this time labeling the two MOST rival goods, and the two LEAST rival goods. Again, have students share out their answers. Keep a tally on the board to see if students agree or disagree with one another.

Next, introduce students to the second part of “public goods”—*excludability*. In economics, products can be “excludable” or “non-excludable.” A good is excludable when you can prevent people who haven’t paid from using it. (e.g. A lighthouse is a good example of a non-excludable good.) Again, remind students that excludability exists on a spectrum. Some goods are more excludable than others. Ask students to fill out the third column of Worksheet 1, this time labeling the two MOST excludable goods, and the two LEAST excludable goods. Again, have students share out their answers. Keep a tally on the board to see if students agree or disagree with one another.

After going through this exercise, have students fill out column 4 on the worksheet, labeling goods that are BOTH *non-rival* and *non-excludable*. These are, by economists’ definitions, public goods. How does economics’ definition of public good compare to students’ original thoughts about public goods?

2. Guided Reading (5-10 mins)

Next, have students read through the first few sections of the article [“Raising the Bar: The Role of ‘Social Information’ in Charitable Giving.”](#) As they read, encourage students to think about radio as a public good. How does it fit the definition? How does it not?

3. Exploration Activity (10-15 mins)

With the remaining time, have the students break into small groups (3-5 students). Each group will be in charge of their own local radio station. Groups will have 5-10 minutes to create a business plan for their station, which they will share with the class. Each group should be ready to answer three questions:

1) Is radio non-rival?

- 2) Is radio non-excludable?
- 3) How will your radio station make a profit?

Have each group share out with the class.

4. Closing (1-5 mins)

At the end of this lesson, repeat the definition of public goods. A public good is non-rival and non-excludable. Non-rival goods can be used by more than one person. Non-excludable goods cannot easily be kept from non-paying consumers.

Tying It All Together:

Assessment & Extension

The group activity can be used to assess students' understanding of rivalry and excludability. It is extremely important that students understand both terms exist on a continuum. When students think in black-and-white terms, the concepts become much more difficult to understand — primarily because few goods are perfectly rival or perfectly excludable.

Practice Outside of the Classroom:

Ask the students to look for examples of non-excludable and non-rival goods in their own neighborhoods. Are there any truly “public” goods? If so, who provides them? This can spur a constructive discussion about the difference between private interests and the role of government.

What Worked and What I Would Do Differently

In all of my classes, students were quick to point out exceptions to the rule. For example, if one student suggested that a phone booth was non-rival, another student would point out that only one person could use it at a time. If another student suggested that a park was non-excludable, a second student would point out that you can fence in a park.

Instead of dismissing these dissenting opinions, use them to emphasize that rival and excludable exist on a continuum. Moreover, encourage students to realize that we can take steps to make non-rival goods *more* rival. Similarly, we can take steps to make non-excludable goods *more excludable*.

