

# Understanding Scarcity: An Introduction to Supply and Demand

**SUBMITTED BY:** Michael Ryan Moore, University of Pennsylvania, GSE

**SUBJECT(S):** Economics, Personal Finance

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

## ≡ OVERVIEW:

This lesson is an introduction to formal Economic theory. In this lesson, students will be introduced to the concepts of supply, demand and scarcity. Using the article “Falling Behind: Working Women in Germany Grapple with Limited Child-Care Options,” students will think about the relationship between scarce resources and individual decision making. As part of this lesson, students will be introduced to supply and demand curves.

## ≡ NBEA STANDARD(S):

- Economics, I. Allocation of Resources
- Personal Finance, I. Personal Decision Making

## ≡ RELATED ARTICLES:

- [“Why Germany Is the Driving Force in the Eurozone”](#)
- [“The Supply Chain: Who Knew that Every Oreo Makes a Journey?”](#)
- [“Inside the Bee Economy”](#)
- [“Exploring the Economics of Everyday Life”](#)

**Objectives/Purposes:** The purpose of this lesson is to introduce students to the basics of economic theory. By definition, economics is the study of choice under scarcity. Before moving on to more complex topics, students must firmly grasp the concept of scarcity and the relationship between scarcity and individual decisions.

- Students will be able to differentiate between *supply* and *demand*.
- Students will be able to define *scarcity*.
- Students will be able to explain the relationship between *supply*, *demand*, and *scarcity*.

**Knowledge@Wharton Article:** [“Falling Behind: Working Women in Germany Grapple with Limited Child-Care Options”](#)

### **Other Resources/Materials:**

For Teachers:

- Internet Access (Outside of the Classroom)
- Printer/Copier
- Access to Chalkboard/Whiteboard

For Students:

- Pen
- Paper

### **Tying It All Together:**

The lesson is divided into five parts: (1) Introduction, (2) Guided Reading, (3) Class Discussion, (4) Exploration Activity, and finally (5) Closing

#### *Introduction (5-10 mins)*

At the beginning of the lesson, the teacher should ask students about their experience with economics. By a show of hands, how many students have taken an economics class? By a show of hands, how many students know what supply and demand are? After a few of these probing questions, the teacher should ask the students to define supply and demand.

Once several students have answered, the teacher should ask students to think about the extremes of supply and demand. What happens when there is no demand for something? Can students think of a product that has extremely low demand? Could they make one up? How much would the students be willing to pay for these products?

Similarly, the teacher can ask about supply. What happens when supply is extremely high? What happens when it is extremely low? Through this line of questioning, the teacher can introduce the topic of scarcity. Scarcity, by definition, exists when supply is low. Again, the teacher can ask students to think of scarce goods.

### *Guided Reading (10-15 mins)*

After this short class discussion, students should read through the article [“Falling Behind: Working Women in Germany Grapple with Limited Child-Care Options.”](#) Prior to starting this activity, the teacher should provide students with a list of guiding questions: (1) In this article, what are the scarce resources? (2) How does scarcity affect people’s choices? The key take-away from this article is that time and labor are scarce resources. Families have to choose how to spend their limited time. In order to support their children, many families choose to work full time. As a result, they must look for child-care. However, child-care is also a scarce resource. What does this mean for parents? How do families balance multiple goals (earning money vs. raising a child) with limited resources (time)?

### *Class Discussion (5-10 mins)*

Once students have finished reading the article, the teacher should encourage students to share with one another. Teachers can begin by repeating the guiding questions. Throughout the discussion, the teacher should encourage students to think broadly about scarce resources (time, jobs, child-care, etc.).

Eventually, pick one of the student’s responses (e.g. child-care), for a demonstration. Create a simple graph with “Price” on the Y-axis and “Quantity” on the X-axis (Figure 1). Use probing questions to encourage the students to fill in the graph with supply and demand curves. For example, have students take on the role of a child-care provider. “How many hours would you work if you were paid \$10 per hour? \$30 per hour?” Next, ask students to take on the role of a parent. “How many hours would you hire a babysitter if it cost \$15 per hour? \$45 per hour?” Plot the students’ answers on the graph (Figure 2). *(Future lessons will discuss supply and demand in more depth. This activity is simply designed to encourage students to start thinking about how supply and demand affect choices).*

### *Exploration Activity (5-10 mins)*

After this group exercise, have students create their own supply and demand curves. First, give every student a pen and a piece of paper. Next, have each student draw the same X and Y axes as Figure 1. Ask students to take on the role of a company selling a product (e.g. cell phones). If people are willing to pay \$1 per phone, how many phones will you try to sell (i.e. what will you supply)? If people are willing to pay \$5 per phone, how many phones will you supply? If people are willing to pay \$200 per phone, how many phones will you sell? Have students mark their answers on their graphs. Next, ask students the same question from the buyers' perspective. If phones cost \$1, how many would you want/demand? If they cost \$5? If they cost \$200?

### *Closing (1-5 mins)*

As students finish their graphs, wrap up the lesson by reminding students that we will come back to these ideas of supply and demand over and over again. Be sure to reiterate the definition of scarcity (i.e. low supply).

### *Assessment & Extension*

During the lesson, almost every student's graph should look like Figure 2. Demand should decrease as price goes up. If some students' graphs differ (e.g. if demand *increases* with price) ask the class why this might be the case. Alternatively, if no students provide this example, ask the class more broadly. Will demand always decrease with price? Why or why not?

### **Practice Outside of the Classroom:**

Encourage students to look for examples of scarcity outside of the classroom. Which products and services are abundant? Which are hard to find? What distinguishes the two?

### **What Worked and What I Would Do Differently:**

If you can spare some extra time, I would increase the introduction. As I taught this lesson, students were happy to talk about their own experiences. Asking students, "What do you think of when you hear the term *economics*?" is a useful tool for encouraging students to bring their own experiences to the table.