



Cooking in A Closet: Supply and Demand on a Submarine

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ESSENTIAL QUESTION:

How do the concepts of economics apply to everyday life?

GUIDING QUESTIONS:

What is choice?

What is cost?

What is supply and demand?

What is scarcity?

How can scarcity affect a group of people?

OBJECTIVES:

At the end of the lesson students will be able to define choice, cost, supply, demand, and scarcity. They will be able to apply the terms in an economic sense to a historical event.

LESSON OVERVIEW:

Students will read an excerpt from the oral history interview with a submarine veteran conducted by the Arkansas Inland Maritime Museum. They will learn about economic concepts, such as supply and demand, and will relate these concepts to the interview excerpt.

NCSS THEMATIC STANDARDS:

VII. Production, Distribution, and Consumption

VIII. Science, Technology, and Society

ARKANSAS CURRICULUM FRAMEWORKS:

Grades 5-8 Social Studies (Revised 2000): PDC 1.4; PDC 1.5; PDC 1.6

TIME FRAME: 1 class period

MATERIALS:

Copies of the oral history transcript and worksheet for each student.

1 can of Spam

TEACHER BACKGROUND INFORMATION:

Supply and demand is one of the most basic concepts of economics. It is used/confronted on a daily basis by societies, governments, and individuals across the world. According to the Investopedia, "Supply and demand is perhaps one of the most fundamental concepts of economics and it is the backbone of a market economy. [Demand](#) refers to how much (quantity)

of a product or service is desired by buyers. The quantity demanded is the amount of a product people are willing to buy at a certain price; the relationship between price and quantity demanded is known as the demand relationship. [Supply](#) represents how much the market can offer. The quantity supplied refers to the amount of a certain good producers are willing to supply when receiving a certain price. The correlation between price and how much of a good or service is supplied to the market is known as the supply relationship. Price, therefore, is a reflection of supply and demand.”

When the market cannot supply enough goods to meet demand, scarcity develops. In a business environment, this often means that the price we pay for goods increases. For the students in the classroom, this means that they might have to settle for a replacement item or do without the item completely. Scarcity can affect the population—it can cause hardship and lower morale for one group (those needing the item) and increase wealth for another (those having the item).

Students must learn about supply, demand, and scarcity because they will often be confronted with the issue. They can notice the economic concept when they go shopping with their parents or when they decide what to eat for lunch in the cafeteria. To illustrate the concept to the students, they will read an excerpt from an oral history transcript that shows a submarine cook dealing with supply, demand, and scarcity. The situation illustrated might not be what the students expect to learn from, but by teaching the concepts from a different perspective, the students will learn to apply economics to their other studies and their everyday life.

OPENING:

Start the class by asking students to name what they had for breakfast that morning (not everyone in the class will need to answer). Next ask the students if they would want to eat that food for every meal of every day. How about their favorite food—how many times could they eat a meal before they started to get tired of it? (You can mention eating lots of turkey after the holidays or sandwiches on a camping trip). Hold up a can of Spam and tell the class that you know of a group of people who ate old canned Spam for nearly an entire month for every single meal of every day. Ask the students to think about how they might feel in this situation (angry, bored, sick, etc.). Write their responses on the board.

ACTIVITIES:

After writing their responses on the board, hand out copies of the oral history transcript and reading guide/worksheet. Give the students time to read the transcript and answer the questions in the oral history transcript and critical thinking section of the worksheet individually. Then let them discuss their answers with a partner or in groups.

Next come back together as a class to discuss the basic economic concepts of supply, demand, scarcity, cost, and choice. As a class, define the terms and fill-in-the blanks in the economic section of the reading guide.

CONCLUSION:

Review the oral history interview and the economic concepts as they relate to this story. Remind the students that they can recognize these concepts in their everyday life as they shop with their parents or decide what to eat in the lunch line.

ASSESSMENT:

The assessment for this lesson is the worksheet.

REFERENCES:

Internet Sites

- Arkansas Inland Maritime Museum—<http://www.aimm.museum.html>
- Overview: The Model of Supply and Demand—
<http://ingrimayne.com/econ/DemandSupply/OverviewSD.html>.
- Investopedia—<http://www.investopedia.com/university/economics/economics3.asp>.
- Supply and Demand Webquest—<http://william-king.www.drexel.edu/top/prin/txt/SDch/Ch3ToC.html>.



Excerpt from Oral History Interview Transcript

Interviewee: Maurice Barksdale, USS *Razorback* Crewman 1961-1963

Interviewer: Greg Stitz, AIMM Curator and Director of Education

Interview Date: September 2006

Greg Stitz: So, what was an average day like, cooking on a submarine?

Maurice Barksdale: An average day on a submarine was like this. There were three Cooks. One Cook cooked all day, a 24-hour period. One guy baked all night and one guy relieved the second cook on the third day. So I would get up in the morning about 4:00, 0400, and cook breakfast. As soon as I got through with breakfast, I cooked the noon meal. As soon as I got through with the noon meal, I prepared snacks for the mid-afternoon, what's called mid-afternoon rations. Then I would cook the evening meal and then I prepared "Mid-rats."¹

Then I would be relieved by the Night baker who would cook all the breads, cakes, pies, rolls and everything that would be needed for the basic three meals for the next day.

So it was basically 12 to 14 straight hours of working, of non-stop working because as soon as you got through one meal, you had to prepare for the next meal.

It was real interesting, because we would take all of the fresh good we could when we went to sea when we left San Diego, Yokosuka, or Pearl Harbor. But the fresh good would run out after about three weeks. So you could forget about tomatoes, vegetables, all that. So then it was a matter of cooking with dehydrated food, vegetables, everything.

¹ "Midnight Rations," usually cold cuts, sliced cheeses and condiments to allow crewmember to make their own sandwiches.

Now we did have a frozen meat locker, but everything else was basically dehydrated, including milk, eggs, everything.

It was a 14-hour day of hard work, but it was always fun, because most of the guys, although they were eating every three or four hours during the course of the day, would want to come in and get snacks. It was always our feeling as submarine Cooks, that we owed it to the guys; that anytime you wanted something to eat, you could come in and get it. That was just our deal.

Now, I'll tell you one interesting experience that happened when we were at sea between Pearl Harbor and San Diego. Our fresh meat locker refrigerator system went out. We had to throw all of the meat overboard, and all of our vegetables that we had down there in the cooler which is right outside the other locker. And the funny thing about it was, while we're throwing that meat over the side, there were sharks, because it was bloody—as red as your shirt—it was bloody. There were sharks up the kazoo while we were throwing that meat overboard, eating the meat.

Well, we still stayed at sea for another month. The only meat we had on board was Spam—old, green cans of Spam. On these cans were stamped information like this, "Guam- 1943" and "Saipan- 1944", so that meat was from World War II. So, for breakfast, lunch and supper we had to do some kind of variation of a Spam order. Guys told me when we finally got back to shore that if they ever saw any Spam again on USS *Razorback* they were going to throw all the Cooks over the side [laughing]. I'll tell you another funny story—I still do not allow Spam in my house to this day.

Name: _____

Date: _____

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Reading Guide and Worksheet

Oral History Transcript Reading Guide

How many cooks were onboard *Razorback*?

What kind of food did the submariners eat?

How long did the fresh food normally last?

What happened to the meat and vegetables on the submarine in the story told by Maurice Barksdale?

How did the submariners react to the lack of variety in their meals?

How would you have felt?

Critical Thinking Questions

When submarine cooks purchase food for the boat they have a budget (set money limit) they must work with. They cannot spend more than the budget allows, but also they cannot spend too much under that amount (for example, if the budget says they can only spend \$100, they would get in trouble for spending \$105 and also for spending only \$80). Why do you think this is true? (*Hint: Think about how you would feel if you had to eat the same thing every day or if you were stuck out in the ocean without enough food. Would you be very happy to be there?*)

The freezers on the submarine were very important to the cooks and their ability to provide for the crew. Can you think of any other technology (like appliances) that would have been important to the cooks or the crew? What other technologies would make the job difficult for the cooks if lost or damaged?

Economics Worksheet

Define the Following Terms:

Choice = _____

Supply = _____

Demand = _____

Cost = _____

Scarcity = _____

Fill In The Blank:

The cooks on USS Razorback lost their _____ of food and could not meet the _____ of the submariners. During the month without food, they experienced _____. When the cook goes shopping for more food while in port, he must make a difficult _____ between different items based on their _____ and the needs of the crew.

Name: ANSWER SHEET

Date: _____

Cooking in A Closet: Supply and Demand on a Submarine

Reading Guide and Worksheet

Oral History Transcript Reading Guide

How many cooks were onboard *Razorback*?

3

What kind of food did the submariners eat?

Fresh vegetables, meat, homemade breads, Spam, etc.

How long did the fresh food normally last?

3 weeks

What happened to the meat and vegetables on the submarine in the story told by Maurice Barksdale?

The meat locker went out and the meat in the freezer and vegetables in front of the freezer had to be thrown over the edge of the submarine. The food was eaten by the sharks and the crew had to eat World War II Spam for an entire month.

How did the submariners react to the lack of variety in their meals?

They were not happy. They were very tired of the Spam and later told the cooks that they would throw them over the edge if they saw Spam on the submarine again. The interviewee does not allow any Spam in his home even to this day.

How would you have felt?

Students' answers will vary.

Critical Thinking Questions

When submarine cooks purchase food for the boat they have a budget (set money limit) they must work with. They cannot spend more than the budget allows, but also they cannot spend too much under that amount (for example, if the budget says they can only spend \$100, they would get in trouble for spending \$105 and also for spending only \$80).

Why do you think this is true? (*Hint: Think about how you would feel if you had to eat the same thing every day or if you were stuck out in the ocean without enough food.*)

Would you be very happy to be there?)

Students should explain that the food helps keep the crew's morale high and keeps them happy while they are away from home working at sea.

The freezers on the submarine were very important to the cooks and their ability to provide for the crew. Can you think of any other technology (like appliances) that would have been important to the cooks or the crew? What other technologies would make the job difficult for the cooks if lost or damaged?

Students answers will vary, but possible answers include ovens/stoves, kitchen utensils, and other storage facilities.

Economics Worksheet

Define the Following Terms:

Choice = Picking between a number of options; An alternative
Supply = What you have
Demand = What people want
Cost = A price paid, in money or other forms
Scarcity = Not having enough of what people want

Fill In The Blank:

The cooks on USS Razorback lost their supply of food and could not meet the demand of the submariners. During the month without food, they experienced scarcity. When the cook goes shopping for more food while in port, he must make a difficult choice between different items based on their cost and the needs of the crew.

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Criteria	D	C	B	A
Accuracy	<ul style="list-style-type: none"> • The information is vague and unclear. • There is a complete lack of exactness and precision, indicating the text was not understood. 	<ul style="list-style-type: none"> • A moderate number of facts are stated to prove the accuracy of the text. • Meager amounts of exact and precise information are given. 	<ul style="list-style-type: none"> • The text is supported with accurate facts and quotes. • To a large degree, precise and exact information reflects comprehension. 	<ul style="list-style-type: none"> • A variety of quotes, facts, and references are made to prove accuracy of the text. • The work is precise, exact, and perfectly understood.
Clarity of Written Text	<ul style="list-style-type: none"> • The writing is difficult to comprehend and is wholly inadequate for what the writer is trying to express. • The text is difficult to read and very vague. 	<ul style="list-style-type: none"> • The writing is slightly muddled, lacking a clear use of words. • The reader has some difficulty following the text. 	<ul style="list-style-type: none"> • The writing is reasonably clear as most thoughts are described in a complete manner. • Nearly all of the text is comprehended with ease. 	<ul style="list-style-type: none"> • The writing is superb and crystal-clear; each word accurately describes the thoughts and intentions of the author. • The text is easy to follow and understand.
Logical Thought	<ul style="list-style-type: none"> • There is a failure to provide evidence that logical thought was used. • The information is insignificant and unclear, as there is a total lack of organizing thoughts and ideas into any form or categories. • There is little to no supporting evidence. 	<ul style="list-style-type: none"> • A moderate amount of logical thought is presented. • The reader can follow along, even though orderly categories are lacking in the structure. • The information is somewhat scattered. 	<ul style="list-style-type: none"> • A good deal of evidence that logic was used and that ideas were thought out carefully is provided. • The information can be followed with most categories clearly delineated. • There is supporting evidence. 	<ul style="list-style-type: none"> • A superb and noteworthy amount of evidence that logical thought was used is provided. • The information is concise, precise, clear, exact, and followed easily as the general categories are highly detailed. • Supporting details are used throughout.