



# Supply and Demand Using Fever, 1793

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Springdale School District

## Lesson Description

Using excerpts from the book, *Fever 1793*, students will identify the market, graph the supply and demand for that market, and identify the supply or demand determinant that caused the change in the equilibrium price.

## Grade 5 and 7

### Concepts

- **Economic Factors:** fundamental information that influences businesses in our economy such as competition, incentives, supply, demand, governmental policy, labor costs, taxes
- **Supply:** The amount of a good or service that producers are willing and able to offer for sale at each possible price during a given period of time. Normally, as the price of a good or service rises (or falls), the quantity supplied of the good or service rises (or falls).
- **Demand:** The quantity of a good or service that buyers are willing and able to buy at all possible prices during a period of time.
- **Determinants of Demand:** Factors other than the price of a good or service that change (shift) the demand schedule, causing consumers to buy more or less at every price. Factors include income, number of consumers, preferences and prices of related goods.
- **Determinants of Supply:** Factors other than the price of a good or service that change (shift) the supply schedule, causing producers to supply more or less at every price. Factors include number of producers, production costs, and technology and productivity.

### Standards

#### *Arkansas Economics Standards*

- E.1.7.7 Discuss the effects of war and conflict on the economy of the United States from the colonial period to the early 1800s, including government printing of money, inflation, scarcity of resources, and smuggling.

#### *Arkansas English Language Arts Standards*

- 7.RC.4.RF: Demonstrate reading comprehension of age and grade-appropriate texts by speaking or writing.

**Objectives**

Students will be able to

- determine whether supply or demand is affected by a given scenario.
- identify the supply or demand determinant and analyze the affect it has on the market.
- graph the shift in supply or demand.

**Time required**

45 - 60 minutes

**Materials required**

- Fever, 1793
- Activity 1 (enough copies so that each student or pair of students has a set of cards)
- Activity 2 (one per student)
- Activity 3 (enough copies so that each student has one scenario and cut apart)
- Activity 4 Assessment

**Procedure**

1. Show the excerpt from Good Morning America about the 2014 Velveeta Shortage: <http://abcnews.go.com/GMA/video/kraft-velveeta-cheese-shortage-super-bowl-party-time-21458816>. Ask the students what they think might happen to the market for Velveeta cheese. (*People will buy Velveeta now for their super bowl party in a few weeks, rather than take the chance there won't be any.*)
2. Share that many things affect the equilibrium price of goods and services. Ask the students what they think happened to the market for tea once news of the Boston Tea Party got out. (*Stores were unable to get tea for their shelves.*)
3. Define the Determinants of Demand and share the following examples (or personal ones) or explanations of each one.
  - a. Consumer tastes and preferences – Businesses use advertising to affect a consumer's preference for a product. The more a product is favored by consumers the higher the demand and vice versa.
  - b. Consumer income/wealth – When just starting her career, Mary purchased Hamburger Helper as a regular part of her groceries shopping. As she received promotions and salary increases, she purchased less hamburger helper and more steak.
  - c. Prices of related goods – hotdogs and hotdog buns. If the cost of hot dogs decrease the demand for buns would likely increase.
  - d. Consumer expectations of the future – Consumers will wait to buy something if they think the price will go down in the future. If they know milk will be on sale next week, they might wait to buy it at the lower price.
  - e. The number of buyers in the market – As the number of buyers in a market increases so does

demand and vice versa.

4. Define the Determinants of Supply and share the following examples (or personal ones) or explanations of each one.
  - a. Productivity/Technology – improvements in either of these would increase supply and vice versa. Hurricane Katrina shut down 8 oil refineries, essentially cutting gasoline production in Louisiana in half causing a decrease in the supply of gasoline.
  - b. Prices of resources used – an increase in the cost of inputs would decrease supply and vice versa. If the cost of flour increases, the baker will buy less flour and produce fewer cookies.
  - c. Government policies – can affect the cost of inputs. For example: new legislation increases the amount of oil to be held in reserve for emergencies from 15% to 25%. This increases the cost of producing gasoline and lowers the amount produced.
  - d. Producer expectations about the future – If the producer expects a product to become more popular, for example lemonade in a heat wave, they will stock pile the product until the expected event and vice versa.
  - e. The number of sellers – As the number of sellers in a market increase so does supply and vice versa.
5. Distribute Activities 1 & 2 Ask: In this scenario, which is affected – supply or demand? (*demand*) Why? (*Change in consumer tastes/preferences and/or change in the number of buyers*) Does it increase or decrease? (*increase*) Will the demand curve shift to the left or right? (*right*) How does that affect price? (*increases*) Have the students hold up the appropriate cards. (*Demand Increases, Price Increases*)
6. Have the students complete Activity 2. (Answers on Slides at the end of the lesson)
  - a. Slide 6 Answers: supply, change in the number of sellers, increase, right, decrease. Cards: Supply Increases, Price Decreases
  - b. Slide 8 Answers: demand, decrease, left, decrease Cards: Demand Decreases, Price Decreases
  - c. Slide 10 Answers: supply, decrease, left, increase Cards: Supply Decreases, Price Increases

### Closure

Review the Determinants of Demand and Supply and have students give an example of one of the determinants.

### Assessment

Distribute a scenario from Activity 3 (one per student) and Activity 4.  
Have students complete Activity 4.



Demand



Demand



Demand

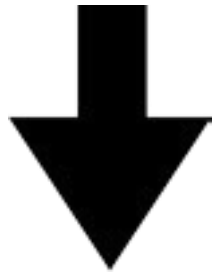


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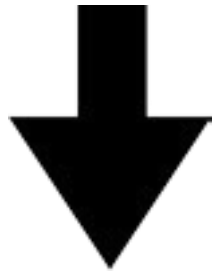
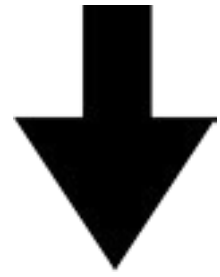


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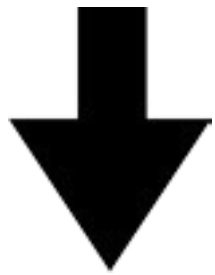
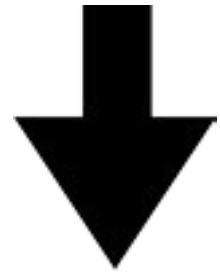




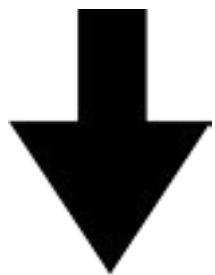
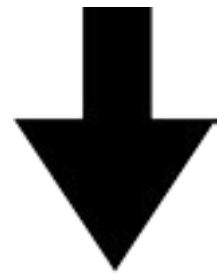
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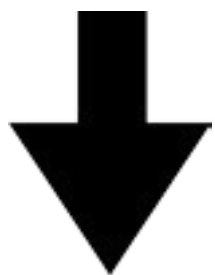
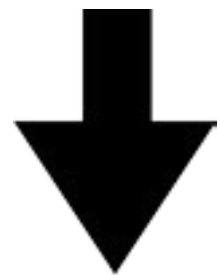
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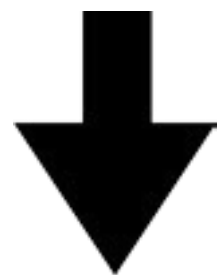
Demand



Demand



Demand





Supply



Supply



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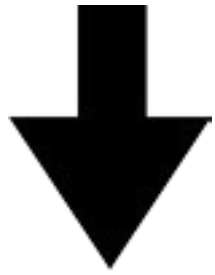


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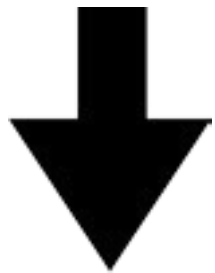
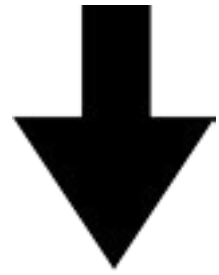


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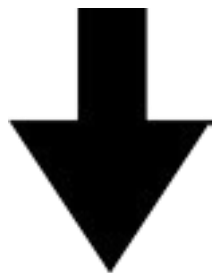
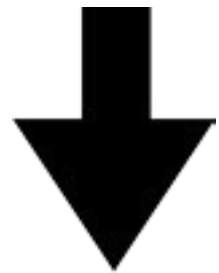




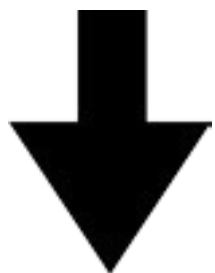
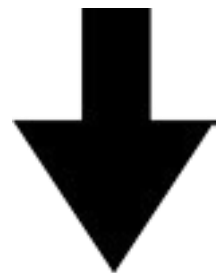
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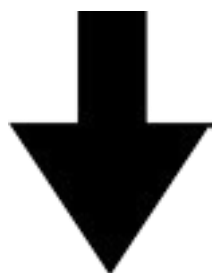
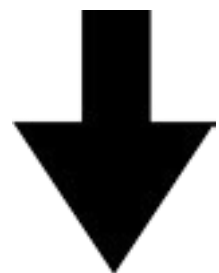
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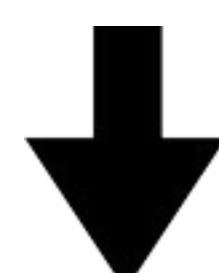
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Price



Price



Price



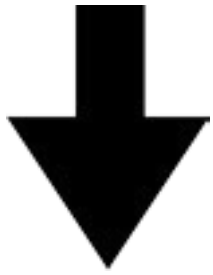
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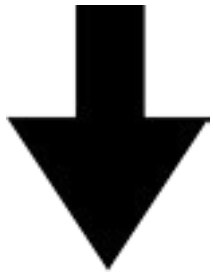
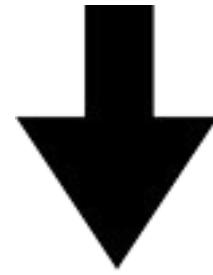
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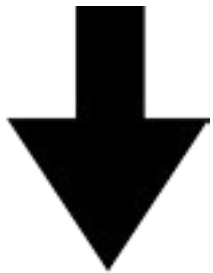
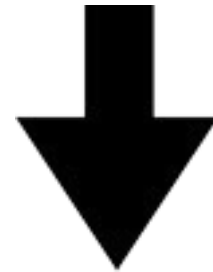




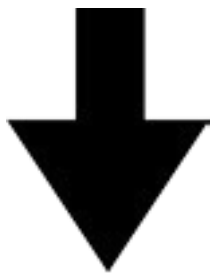
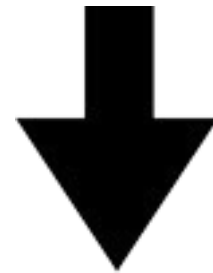
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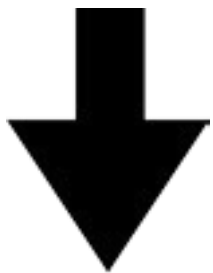
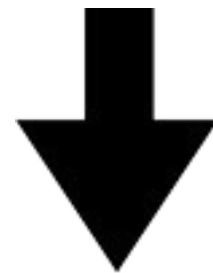
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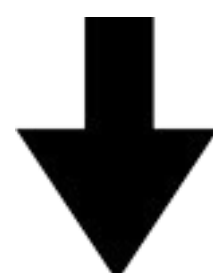
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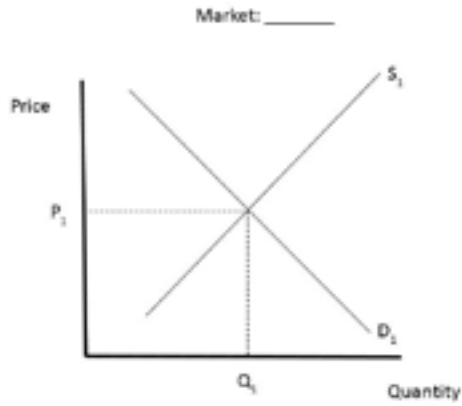


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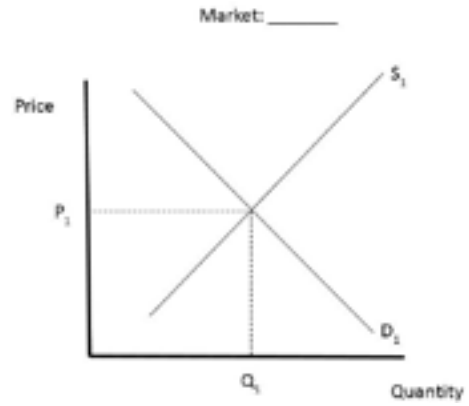


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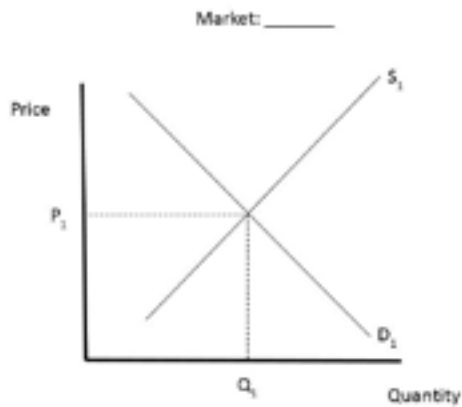
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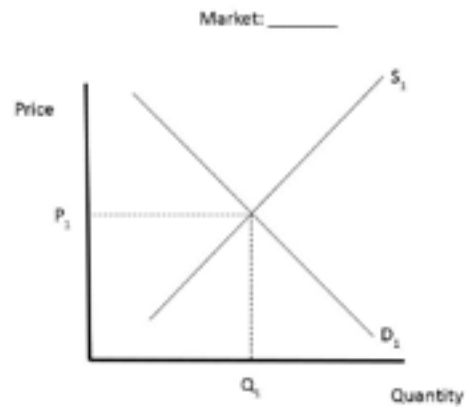
2.



3.



4.



1. In the beginning of the book, Philadelphia had been experiencing a drought for six weeks. Because of this, many of the crops were dying. How would this affect the market for vegetables?

2. Yellow fever caused the death of many workers, how would this affect the market for labor?

3. With few laborers left at the docks, coffee beans were left to rot on the docks. How would this affect the market for coffee?

4. Rumors that a fever had killed 64 people near the docks, caused many consumers to travel to Mattie's end of High Street to shop for dry goods. How did this affect the market for dry goods?

5. The wealthy citizens began to leave Philadelphia as yellow fever spread. How would this affect the market for transportation?

6. Many travelers chose to stay the night at one of Pembroke's many hotels. With the outbreak of yellow fever in Philadelphia, the Pembroke City Council refused to allow anyone who might have yellow fever to enter the city limits. How would this affect the market for hotel rooms?

7. Many people became sick with yellow fever. How would this affect the market for health care?

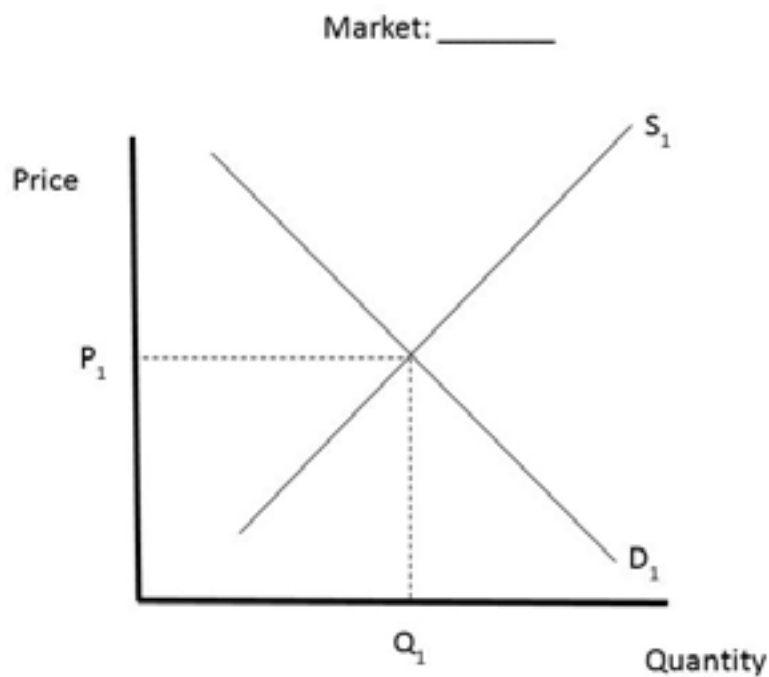
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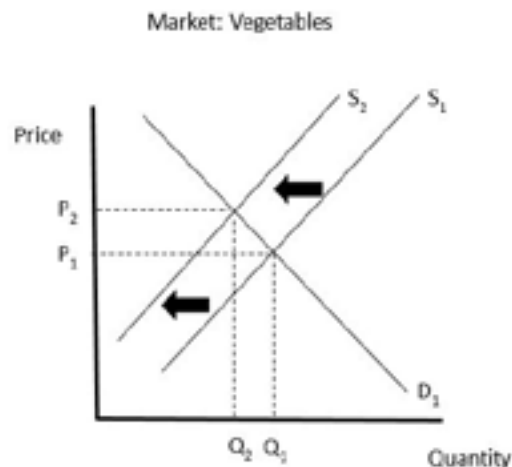
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1. In this scenario, which is affected – supply or demand? Why?
2. Does it increase or decrease?
3. Will the curve shift to the left or right?
4. How does that affect price?
5. Using the graph, illustrate what happens.



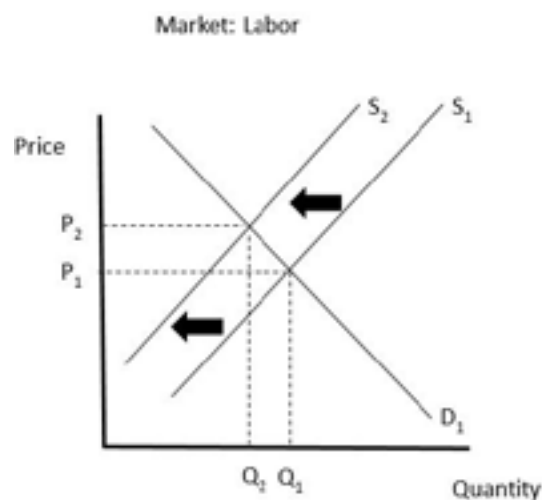
1. Scenario: In the beginning of the book, Philadelphia had been experiencing a drought for six weeks. Because of this, many of the crops were dying. How would this affect the market for vegetables?

1. Supply – prices of resources used
2. Decrease
3. Left
4. Increases



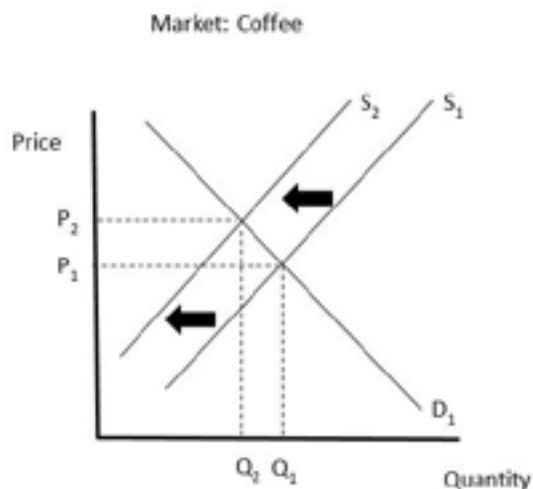
2. Scenario: Yellow fever caused the death of many workers, how would this affect the market for labor?

1. Supply – The number of sellers
2. Decrease
3. Left
4. Increases



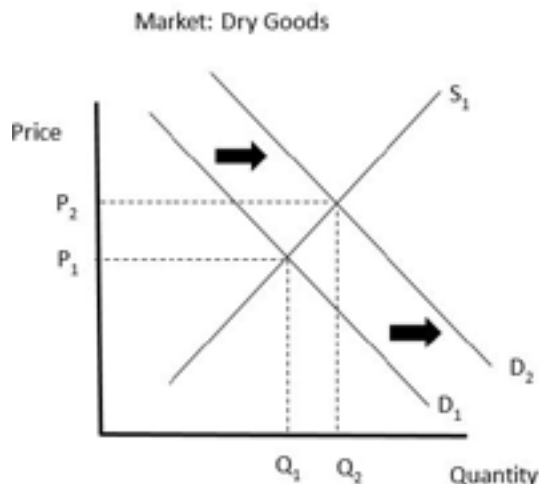
3. Scenario: With few laborers left at the docks, coffee beans were left to rot on the docks. How would this affect the market for coffee?

1. Supply – Productivity/Technology
2. Decrease
3. Left
4. Increases



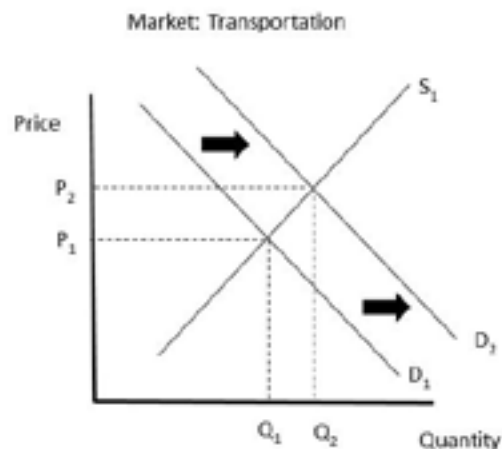
4. Scenario: Rumors that a fever had killed 64 people near the docks, caused many consumers to travel to Mattie’s end of High Street to shop for dry goods. How did this affect the market for dry goods?

1. Demand – the number of buyers
2. Increase
3. Right
4. Increases



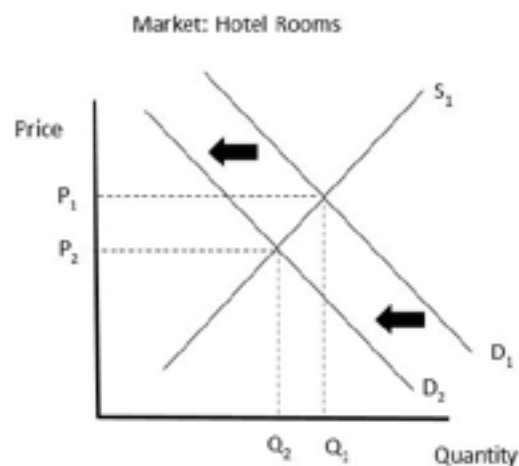
5. Scenario: The wealthy citizens began to leave Philadelphia as yellow fever spread. How would this affect the market for transportation?

1. Demand – consumer expectation of the future.
2. Increase
3. Right
4. Increases



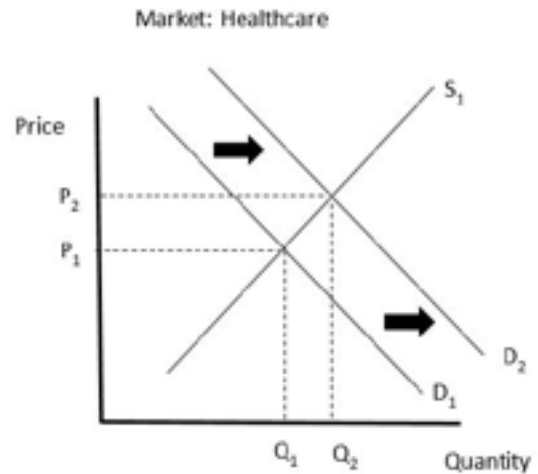
6. Scenario: Many travelers chose to stay the night at one of Pembroke’s many hotels. With the outbreak of yellow fever in Philadelphia, the Pembroke City Council refused to allow anyone who might have yellow fever to enter the city limits. How would this affect the market for hotel rooms?

1. Demand - change in the number of buyers
2. Decrease
3. Left
4. Decreases



7. Scenario: Many people became sick with yellow fever. How would this affect the market for health care?

1. Demand – Consumer tastes/preferences
2. Increases
3. Right
4. Increase



Fever 1793 by Laurie Halse Anderson

# Shifts in Supply and Demand

Scenarios from Fever 1793.



Fever 1793 by Laurie Halse Anderson

## Determinants of Demand

- ① Consumer tastes/preferences
- ① Consumer income/wealth
- ① Prices of related goods
- ① Consumer expectations of the future
- ① The number of buyers





Fever 1793 by Laurie Halse Anderson

## Determinants of Supply

- ① Productivity/Technology
- ① Prices of resources used
- ① Government policies
- ① Producer expectations about the future.
- ① The number of sellers

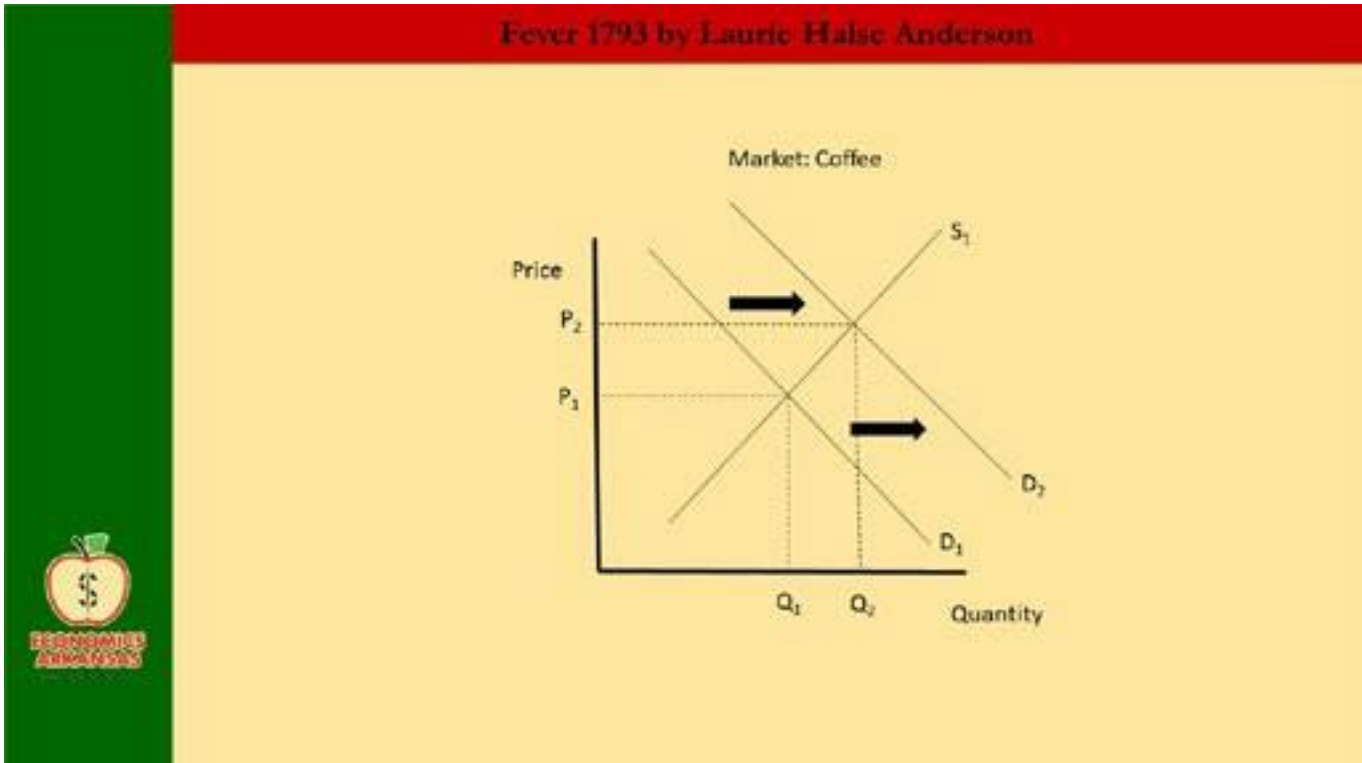


Fever 1793 by Laurie Halse Anderson

## Market: Coffee

Philadelphia doctors decide that coffee prevents people from contracting yellow fever.





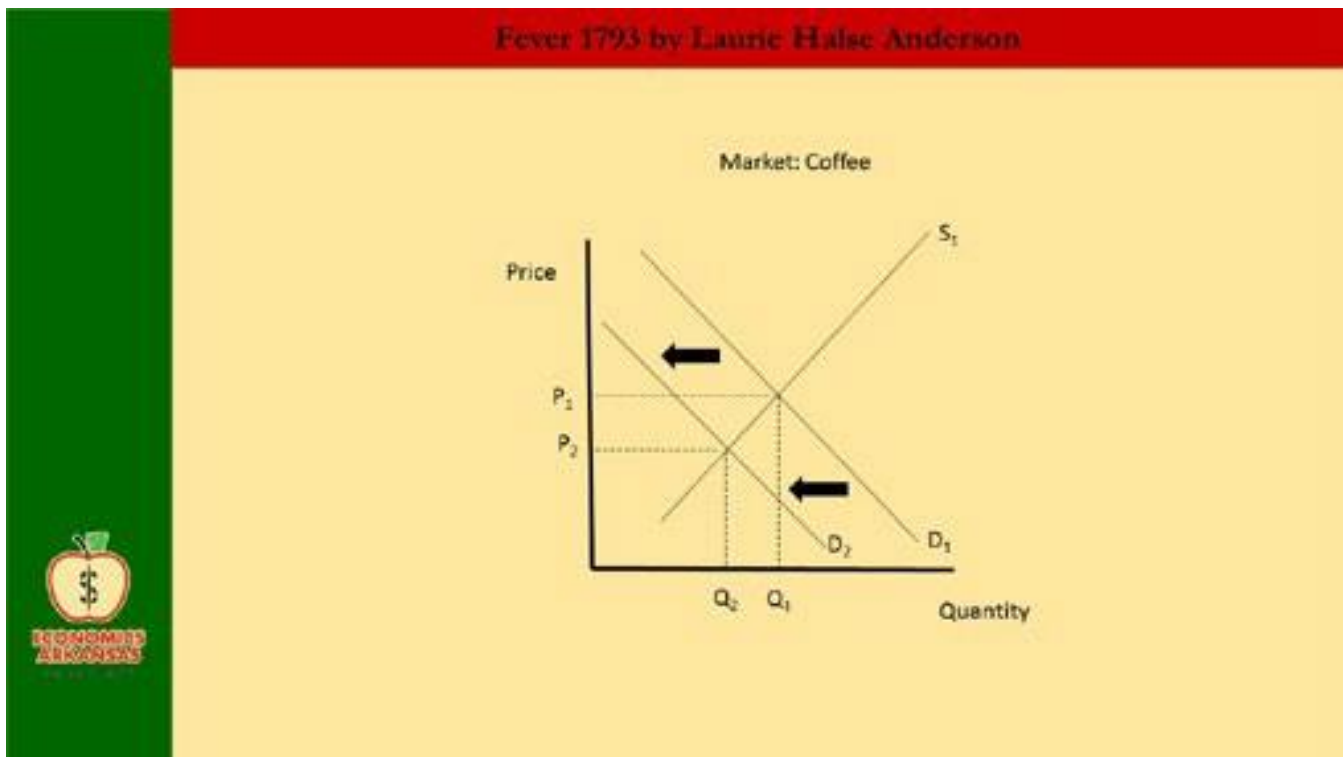
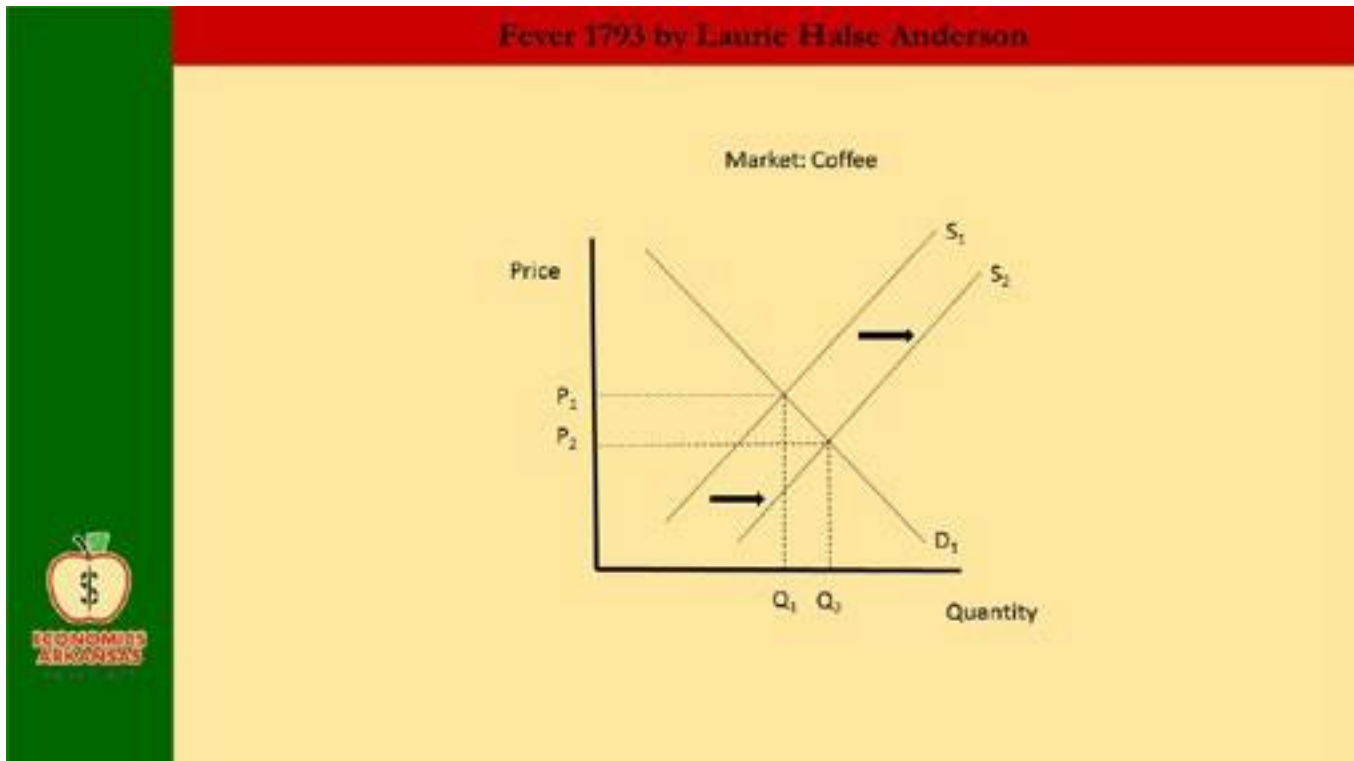
Fever 1793 by Laurie Halse Anderson

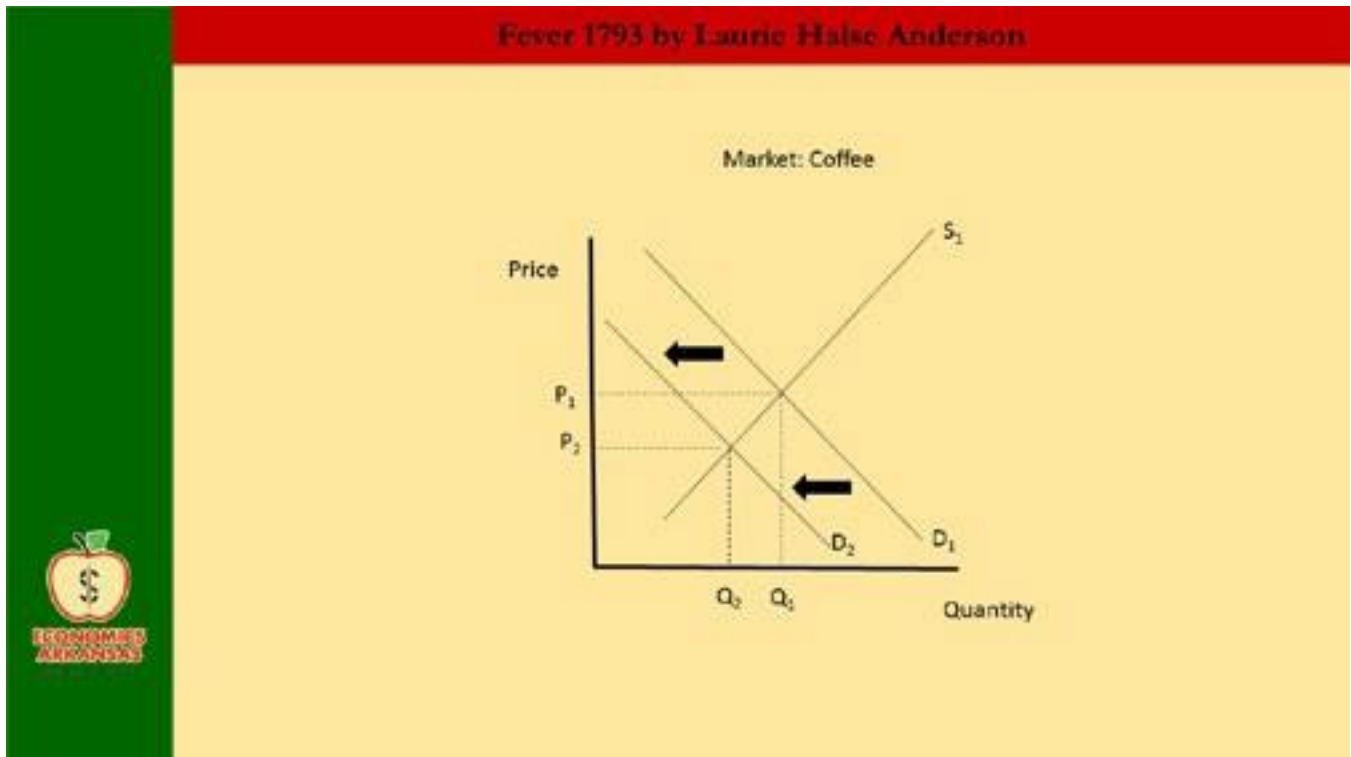
## Market: Coffee

Two new coffee houses open on the same street as Mattie's coffee house.

A black silhouette of a coffee cup with a handle, sitting on a saucer. Three wavy lines above the cup represent steam rising from it.





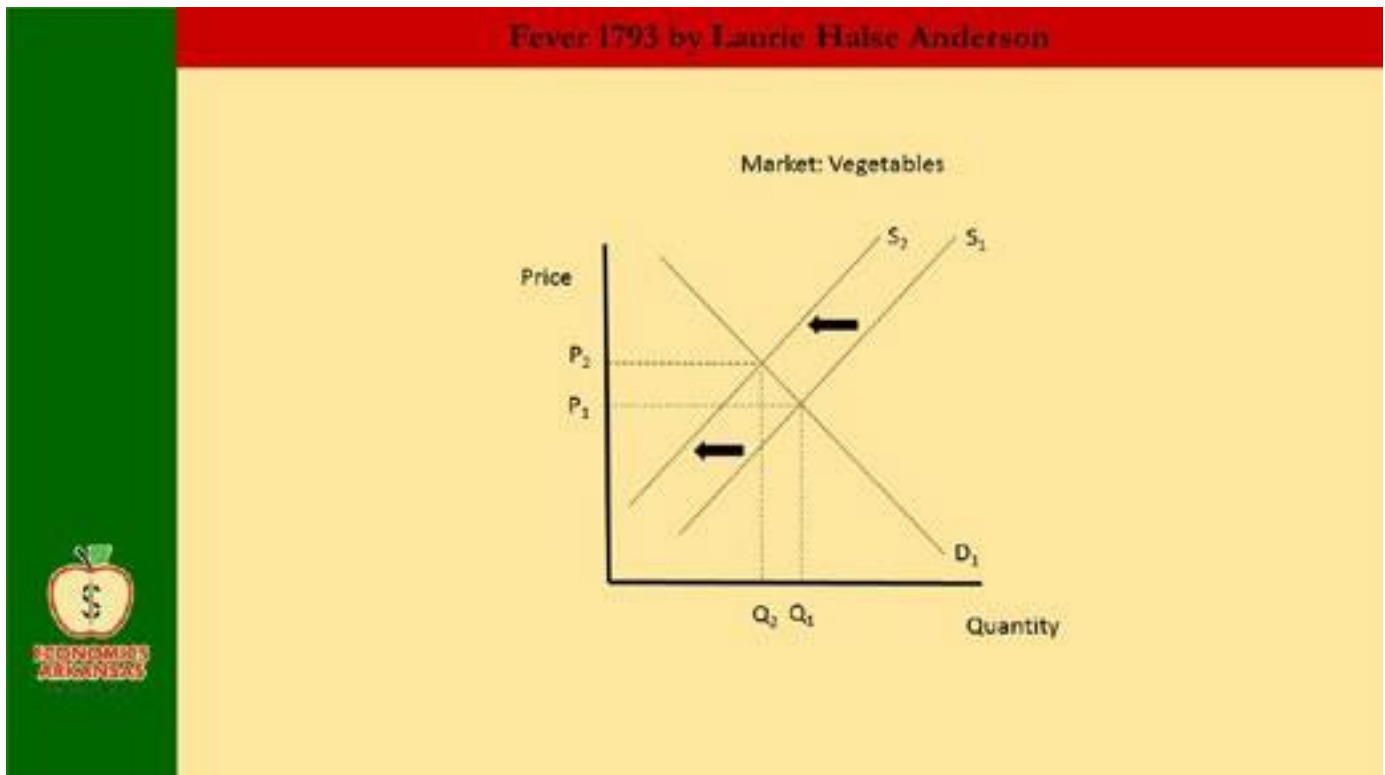


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## Market: Vegetables

Yellow fever breaks out in Philadelphia. Farmers refuse to bring produce to market for fear of contracting the disease.

ECONOMICS ARKANSAS



**Fever 1793 by Laurie Halse Anderson**

### Determinants of Demand

- ① Consumer tastes/ preferences
- ① Consumer income/wealth
- ① Prices of related goods
- ① Consumer expectations of the future
- ① The number of buyers

### Determinants of Supply

- ① Productivity/Technology
- ① Prices of resources used
- ① Government policies
- ① Producer expectations about the future.
- ① The number of sellers