Distribution Materials for Experiments with Economic Principles

Theodore Bergstrom,
University of California Santa Barbara

John H. Miller,
Carnegie Mellon University

November 3, 1999

Experiment 1

Supply and Demand: The Apple Market

Personal Information Sheets

We have prepared six different types of personal information sheets, labeled A, B, C, D, E, and F. You should photocopy enough copies so that each student gets one sheet. To ensure that you distribute nearly equal numbers of each type of personal information sheets, we suggest that you make up "six-packs" of these sheets, containing one sheet of each of the six types. Distribute as many complete six-packs as you can and then pass out the top sheets from the last six-pack until everyone has a sheet. Make a note of the number of six-packs and the type of the last sheet you distribute.

Sales Contracts

You will also need a stack of sales contracts, which can be photocopied from the originals included here. You should have about three sales contracts for each student in the class. (These are printed three contracts to a page, so the pages should be cut in three before class.) If you make extras, they will not go to waste, since the same kind of sales contracts can be used in other experiments.

The Apple Market

Personal Information Sheet

Please hand this sheet in at the end of the session.

Session 1

In this trading session you are an *Apple Demander*. Your *Buyer Value* is \$40. If you buy a bushel of apples for price \$$P$, your profit is \$$40 - P$. If you don't buy any apples, your profit is \$0.

If you bought apples, record the price you paid and the profit you made in the table below. If you did not buy any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($= \$40 - P$)		

....

Session 2

In this trading session, you are an *Apple Supplier*. Your *Seller Cost* is \$30. If you sell a bushel of apples for price \$$P$, your profit is \$$P - 30$. If you don't sell any apples, your profit is \$0.

If you sold apples, record the price and the profit you made in the table below. If you did not sell any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Received			
Profit ($= P - \$30$)			

The Apple Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this trading session you are an *Apple Demander*. Your *Buyer Value* is \$20. If you buy a bushel of apples for price \$$P$, your profit is \$$20 - P$. If you don't buy any apples, your profit is \$0.

If you bought apples, record the price you paid and the profit you made in the table below. If you did not buy any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= \$20−P)		

....

Session 2

In this trading session, you are an *Apple Supplier*. Your *Seller Cost* is \$10. If you sell a bushel of apples for price \$$P$, your profit is \$$P - 10$. If you don't sell any apples, your profit is \$0.

If you sold apples, record the price and the profit you made in the table below. If you did not sell any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Received			
Profit (=P−\$10)			

The Apple Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this trading session you are an *Apple Demander*. Your *Buyer Value* is \$20. If you buy a bushel of apples for price \$$P$, your profit is $20 - P$. If you don't buy any apples, your profit is \$0.

If you bought apples, record the price you paid and the profit you made in the table below. If you did not buy any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$20 - P)$		

....

Session 2

In this trading session you are an *Apple Demander*. Your *Buyer Value* is \$40. If you buy a bushel of apples for price \$$P$, your profit is $40 - P$. If you don't buy any apples, your profit is \$0.

If you bought apples, record the price you paid and the profit you made in the table below. If you did not buy any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$40 - P)$			

The Apple Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this trading session, you are an *Apple Supplier*. Your *Seller Cost* is $10. If you sell a bushel of apples for price P, your profit is $P - 10$. If you don't sell any apples, your profit is $0.

If you sold apples, record the price and the profit you made in the table below. If you did not sell any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2
Price Received		
Profit $(=P-\$10)$		

....

Session 2

In this trading session you are an *Apple Demander*. Your *Buyer Value* is $20. If you buy a bushel of apples for price P, your profit is $20 - P$. If you don't buy any apples, your profit is $0.

If you bought apples, record the price you paid and the profit you made in the table below. If you did not buy any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(=\$20-P)$			

The Apple Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this trading session, you are an *Apple Supplier*. Your *Seller Cost* is $30. If you sell a bushel of apples for price P, your profit is $P - 30$. If you don't sell any apples, your profit is $0.

If you sold apples, record the price and the profit you made in the table below. If you did not sell any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2
Price Received		
Profit $(=P-\$30)$		

....

Session 2

In this trading session you are an *Apple Demander*. Your *Buyer Value* is $40. If you buy a bushel of apples for price P, your profit is $40 - P$. If you don't buy any apples, your profit is $0.

If you bought apples, record the price you paid and the profit you made in the table below. If you did not buy any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$40-P)$			

The Apple Market

Personal Information Sheet

Please hand this sheet in at the end of the session.

Session 1

In this trading session, you are an *Apple Supplier*. Your *Seller Cost* is $10. If you sell a bushel of apples for price P, your profit is $P - 10$. If you don't sell any apples, your profit is $0.

If you sold apples, record the price and the profit you made in the table below. If you did not sell any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2
Price Received		
Profit ($=P-$10$)		

....

Session 2

In this trading session, you are an *Apple Supplier*. Your *Seller Cost* is $30. If you sell a bushel of apples for price P, your profit is $P - 30$. If you don't sell any apples, your profit is $0.

If you sold apples, record the price and the profit you made in the table below. If you did not sell any apples, mark an X under Price and 0 under Profit.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Received			
Profit ($=P-$30$)			

Sales Contract: *Session* _____ *Round* _____

Price _____

Seller's ID _____   *Seller Cost* _____

Buyer's ID _____   *Buyer Value* _____

....

Sales Contract: *Session* _____ *Round* _____

Price _____

Seller's ID _____   *Seller Cost* _____

Buyer's ID _____   *Buyer Value* _____

....

Sales Contract: *Session* _____ *Round* _____

Price _____

Seller's ID _____   *Seller Cost* _____

Buyer's ID _____   *Buyer Value* _____

Experiment 2

Shifting Supply Curves: The Fish Market

Materials to Be Photocopied

Personal Information Sheets

There are six types of personal information sheets for this experiment. Make enough copies so that each student who might come to class will get one, and make one extra Type A sheet. Four of these types (labelled A, C, E, and F) are Fish Demanders in all sessions, and two types (labelled B and D) are Fishermen in all sessions.

Clip these personal information sheets together in six-packs, where each six-pack includes sheets of types A–F. Distribute as many of the *complete* six-packs as you can. Then pass out sheets from the top of the remaining six-pack. From the last six-pack, do not distribute a Type E, unless you also distribute a Type F. If the last sheet would be a Type E, distribute an extra Type A instead.[1]

Sales Contracts

You will also need a stack of sales contracts. Three sales contracts for each student in the class should be sufficient. In a pinch, you could use sales contracts made for Session 1. The only difference is that these contracts do not ask sellers to state their Seller Costs.

---

[1]No great harm will be done if you end with a Type E, but if you do so, the demand curve will differ slightly between the two sessions.

The Fish Market
Demander's Personal Information Sheet
Session 1:

In this session, you are a fish demander with a Buyer Value of $20. You can buy at most one fish. If you buy a fish, your profit is $20 *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$20 - P)$			

....

Session 2:

In this session, you are a fish demander with a Buyer Value of $20. You can buy at most one fish. If you buy a fish, your profit is $20 *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$20 - P)$			

The Fish Market
Fisherman's Personal Information Sheet
Session 1:

Today you have **1** fish to sell at the Fish Market. You have already spent $10 on fuel for your boat. Your profits equal the total amount you received for your fish *minus* $10. If you don't sell any fish, you have a LOSS of $10. Record the prices received for your fish and your profit or loss below.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price of Fish			
− Fixed Cost	$10	$10	$10
Profit			

....

Session 2:

Today you have **3** fish to sell at the Fish Market. You have already spent $10 on fuel for your boat. Your profits equal the total amount you received for your fish *minus* $10. If you don't sell any fish, you have a LOSS of $10. Record the prices received for your fish and your profit or loss below.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price of First Fish			
Price of Second Fish			
Price of Third Fish			
−Sunk Cost	$10	$10	$10
Profit			

The Fish Market
Demander's Personal Information Sheet
Session 1:

In this session, you are a fish demander with a Buyer Value of $20. You can buy at most one fish. If you buy a fish, your profit is $20 *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$20 - P)$			

....

Session 2:

In this session, you are a fish demander with a Buyer Value of $20. You can buy at most one fish. If you buy a fish, your profit is $20 *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$20 - P)$			

The Fish Market
Fisherman's Personal Information Sheet
Session 1:

Today you have **1** fish to sell at the Fish Market. You have already spent **$10** on fuel for your boat. Your profits equal the total amount you received for your fish *minus* **$10**. If you don't sell any fish, you have a LOSS of **$10**. Record the prices received for your fish and your profit or loss below.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price of Fish			
− Fixed Cost	$10	$10	$10
Profit			

....

Session 2:

Today you have **3** fish to sell at the Fish Market. You have already spent **$10** on fuel for your boat. Your profits equal the total amount you received for your fish *minus* **$10**. If you don't sell any fish, you have a LOSS of **$10**. Record the prices received for your fish and your profit or loss below.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price of First Fish			
Price of Second Fish			
Price of Third Fish			
−Sunk Cost	$10	$10	$10
Profit			

The Fish Market
Demander's Personal Information Sheet
Session 1:

In this session, you are a fish demander with a Buyer Value of $25. You can buy at most one fish. If you buy a fish, your profit is $25 *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$25 - P)$			

....

Session 2:

In this session, you are a fish demander with a Buyer Value of $5. You can buy at most one fish. If you buy a fish, your profit is $5 *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$5 - P)$			

The Fish Market
Demander's Personal Information Sheet
Session 1:

In this session, you are a fish demander with a Buyer Value of **$5**. You can buy at most one fish. If you buy a fish, your profit is **$5** *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$5-P)$			

....

Session 2:

In this session, you are a fish demander with a Buyer Value of **$25**. You can buy at most one fish. If you buy a fish, your profit is **$25** *minus* the price that you pay. If you don't buy a fish, your profit is zero. In the table below, record the price that you paid and your profits for each round.

Record of Prices and Profits

	Round 1	Round 2	Round 3
Price Paid			
Profit $(= \$25-P)$			

Sales Contract: *Session* _____ *Round* _____

Price _____   *Buyer Value* _____

Seller's ID _____

Buyer's ID _____

....

Sales Contract: *Session* _____ *Round* _____

Price _____   *Buyer Value* _____

Seller's ID _____

Buyer's ID _____

....

Sales Contract: *Session* _____ *Round* _____

Price _____   *Buyer Value* _____

Seller's ID _____

Buyer's ID _____

Experiment 3

A Sales Tax

Materials to Be Photocopied

Personal Information Sheets

There are twelve regular types of Personal Information Sheets, Types 1-12, and one extra type, Type X. Photocopy and clip together enough 12-packs of Personal Information Sheets consisting Types 1-12 so that there is at least one sheet for each student who might come to class. Also make two copies of the Type X Personal Information Sheet.

Distribute as many *complete* 12-packs, consisting of sheets of Types 1-12 as possible. From the remaining 12-pack, distribute as many clusters of three (1–3, 4–6, etc.) as possible. If the number of students present is not divisible by three, give the remaining students sheets of Type X. If three or more latecomers arrive after you have distributed Personal Information sheets, arrange to give them regular sheets (in clusters of three).

Sales Contracts

You will also need about three sales contracts for each student who might come to class. These should be photocopied from the original found here and the copied sheets should be cut make three contracts from each sheet. If you want to save paper and have left-over sales contracts form Experiment 1, you can use these. The only difference is that these contracts remind students to report the Buyer Values or Seller Costs on their P.I. sheets rather than their after-tax values or costs.

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **$23**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(=P-\$23)$		

Session 2

In this session you are an **Apple Supplier** and your `Seller Cost` is **$18**. If you sell a bushel of apples, you must pay a Sales Tax of **$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= P - \$18 - \$15)$		

Session 3

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$35**. If you buy a bushel of apples, you must pay a Sales Tax of **$15** in addition to the price you pay to the buyer.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$35-P-\$15)$		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **$18**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($=P-\$18$)		

Session 2

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$35.** In this session, you do not have to pay a sales tax, but suppliers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($=\$35-P$)		

Session 3

In this session you are a **Supplier** and your `Seller Cost` for a bushel of apples is **$23.** You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($=P-\$23$)		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an `Apple Demander` and your `Buyer Value` for a bushel of apples is **$35**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= 35-P)		

Session 2

In this session you are an `Apple Supplier` and your `Seller Cost` is **$23**. If you sell a bushel of apples, you must pay a Sales Tax of **$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= $P - \$23 - \$15$)		

Session 3

In this session you are a `Supplier` and your `Seller Cost` for a bushel of apples is **$18**. You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=P-18)		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$25**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= 25-P)		

Session 2

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$30**. In this session, you do not have to pay a sales tax, but suppliers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= 30-P)		

Session 3

In this session you are a **Supplier** and your `Seller Cost` for a bushel of apples is **$13**. You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=P-13)		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$30**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$30 - P)$		

Session 2

In this session you are an **Apple Supplier** and your `Seller Cost` is **$13**. If you sell a bushel of apples, you must pay a Sales Tax of **$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= P - \$13 - \$15)$		

Session 3

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$25**. If you buy a bushel of apples, you must pay a Sales Tax of **$15** in addition to the price you pay to the buyer.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$25 - P - \$15)$		

TYPE 6 Student ID Number _____

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **$13**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(=P-\$13)$		

Session 2

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$25**. In this session, you do not have to pay a sales tax, but suppliers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$25-P)$		

Session 3

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$30**. If you buy a bushel of apples, you must pay a Sales Tax of **$15** in addition to the price you pay to the buyer.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$30-P-\$15)$		

Sales Tax Experiment
Personal Information Sheet

....

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **$28**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(=P-\$28)$		

....

Session 2

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$45**. In this session, you do not have to pay a sales tax, but suppliers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$45-P)$		

....

Session 3

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$40**. If you buy a bushel of apples, you must pay a Sales Tax of **$15** in addition to the price you pay to the buyer.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$40-P-\$15)$		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$45**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= 45-P)		

Session 2

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$40**. In this session, you do not have to pay a sales tax, but suppliers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= 40-P)		

Session 3

In this session you are a **Supplier** and your `Seller Cost` for a bushel of apples is **$28**. You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=P-28)		

Sales Tax Experiment
Personal Information Sheet

....

Session 1:

In this market session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$40**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$40 - P)$		

....

Session 2

In this session you are an **Apple Supplier** and your `Seller Cost` is **$28**. If you sell a bushel of apples, you must pay a Sales Tax of **$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= P - \$28 - \$15)$		

....

Session 3

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$45**. If you buy a bushel of apples, you must pay a Sales Tax of **$15** in addition to the price you pay to the buyer.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit $(= \$45 - P - \$15)$		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$20**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= $20−$P$)		

Session 2

In this session you are an **Apple Supplier** and your `Seller Cost` is **$3**. If you sell a bushel of apples, you must pay a Sales Tax of **$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= $P - \$3 - \$15$)		

Session 3

In this session you are a **Supplier** and your `Seller Cost` for a bushel of apples is **$8**. You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=$P−\$8$)		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **\$3**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=$P-\$3$)		

Session 2

In this session you are an **Apple Supplier** and your `Seller Cost` is **\$8**. If you sell a bushel of apples, you must pay a Sales Tax of **\$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= $P - \$8 - \$15$)		

Session 3

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **\$20**. If you buy a bushel of apples, you must pay a Sales Tax of **\$15** in addition to the price you pay to the buyer.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= $\$20-P-\$15$)		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **$8**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=P−$8)		

Session 2

In this session you are an **Apple Demander** and your `Buyer Value` for a bushel of apples is **$20**. In this session, you do not have to pay a sales tax, but suppliers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (= $20−$P$)		

Session 3

In this session you are a **Supplier** and your `Seller Cost` for a bushel of apples is **$3**. You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit (=P−$3)		

Sales Tax Experiment
Personal Information Sheet

Session 1:

In this market session you are an **Apple Supplier** and your `Seller Cost` for a bushel of apples is **$18**.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($=P-$18$)		

Session 2

In this session you are an **Apple Supplier** and your `Seller Cost` is **$18**. If you sell a bushel of apples, you must pay a Sales Tax of **$15** in addition to your Seller Cost. If you don't sell any apples, you do not have to pay the tax or pay your Seller Cost.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($= P - $18 - 15)		

Session 3

In this session you are a **Supplier** and your `Seller Cost` for a bushel of apples is **$18**. You don't have to pay any Sales Tax, but buyers do.

Record of Prices and Profits

	Round 1	Round 2
Price Paid		
Profit ($=P-$18$)		

Sales Contract: *Session* ____ *Round* ____

Price ____

Seller's ID ____   *Seller Cost* ____

Buyer's ID ____   *Buyer Value* ____

*Report SC or BV from your P.I. sheet (not accounting for taxes).

Sales Contract: *Session* ____ *Round* ____

Price ____

Seller's ID ____   *Seller Cost* ____

Buyer's ID ____   *Buyer Value* ____

*Report SC or BV from your P.I. sheet (not accounting for taxes).

Sales Contract: *Session* ____ *Round* ____

Price ____

Seller's ID ____   *Seller Cost* ____

Buyer's ID ____   *Buyer Value* ____

*Report SC or BV from your P.I. sheet (not accounting for taxes).

Experiment 4

Prohibited Markets

Materials to Be Photocopied

Personal Information Sheets

We have prepared four different types of personal information sheets, labeled as A, B, C, and D. Make up enough "four-packs" of sheets, containing one sheet of each of the four types, so that you have at least one sheet for every student who might come to class. Also make three extra Type A sheets. Distribute as many complete four-packs as you can. Give type A sheets to the remaining students.[1] Make a note of the number of four-packs and the number of extra Type A sheets distributed.

Sales Contracts

You should have about four sales contracts for each student in the class. Sales contracts are the same as those used in Experiment 2. If you have left-over sales contracts from Experiment 1, you could use these as well. (In this case you can tell sellers that they don't need to enter their Seller Costs on the sales contract.)

---

[1] This procedure guarantees that the demand curve will be the same in all three sessions of the experiment.

The Drug Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this session you are a drug supplier. You can sell either 0,1 or 2 units. Your Seller Cost for each unit that you sell is **$10**. You have no fixed costs and the government will not interfere with your market activities.

Record of Prices and Profits

	Round 1	Round 2
Price of First Unit		
Price of Second Unit		
Total Costs		
Total Profit		

Session 2

In this session you are a drug supplier. You can sell either 0 or 2 units. If you sell 2 units, the police will intercept one of them and fine you $5. You are not paid for the sale that is intercepted. Your total costs are $25.

	Round 1	Round 2
Price in Successful Sale		
Total Profit (=Sale Price −$25)		

Session 3

In this session you are a drug supplier. You can sell either 0 or 2 units. If you sell 2 units, the police will intercept one of them and fine you $5. You are not paid for the sale that is intercepted. Your total costs are $25.

	Round 1	Round 2
Price in Successful Sale		
Total Profit (=Sale Price −$25)		

The Drug Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this session, you are an Addict. You find it extremely painful to go without the drug. If you buy a unit of drugs for price P, you will have a profit (loss) of $30-P$. If you don't buy any drugs, you will suffer a LOSS of **$20**.

	Round 1	Round 2
Price		
Profit (Loss)		

Session 2

In this session you are a drug supplier. You can sell either 0 or 2 units. If you sell 2 units, the police will intercept one of them and fine you $5. You are not paid for the sale that is intercepted. Your total costs are $25.

	Round 1	Round 2
Price in Successful Sale		
Total Profit (=Sale Price $-$25$)		

Session 3

In this session, you are a Casual Demander who enjoys but is not addicted to the drug. If you obtain a unit of drugs, you will receive a Buyer Value of **$15**. If you do not obtain any drugs, your profit will be **$0**.

	Round 1	Round 2
Price Paid		
Profit (= 15-P$)		

The Drug Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this session, you are a Casual Demander who enjoys but is not addicted to the drug. If you obtain a unit of drugs, you will receive a Buyer Value of $15. If you do not obtain any drugs, your profit will be $0.

	Round 1	Round 2
Price Paid		
Profit (= $15−P$)		

Session 2

In this session, you are an Addict. You find it extremely painful to go without the drug. If you buy a unit of drugs for price P, you will have a profit (loss) of $30−P$. If you don't buy any drugs, you will suffer a LOSS of $20.

	Round 1	Round 2
Price		
Profit (Loss)		

Session 3

In this session you are a drug supplier. You can sell either 0 or 2 units. If you sell 2 units, the police will intercept one of them and fine you $5. You are not paid for the sale that is intercepted. Your total costs are $25.

	Round 1	Round 2
Price in Successful Sale		
Total Profit (=Sale Price −$25)		

TYPE D   Student ID Number _____

The Drug Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1

In this session you are a drug supplier. You can sell either 0,1 or 2 units. Your Seller Cost for each unit that you sell is $10. You have no fixed costs and the government will not interfere with your market activities.

Record of Prices and Profits

	Round 1	Round 2
Price of First Unit		
Price of Second Unit		
Total Costs		
Total Profit		

Session 2

In this session, you are a Casual Demander who enjoys but is not addicted to the drug. If you obtain a unit of drugs, you will receive a Buyer Value of $15. If you do not obtain any drugs, your profit will be $0.

	Round 1	Round 2
Price Paid		
Profit (= 15-P$)		

Session 3

In this session, you are an Addict. You find it extremely painful to go without the drug. If you buy a unit of drugs for price P, you will have a profit (loss) of 30-P$. If you don't buy any drugs, you will suffer a LOSS of $20.

	Round 1	Round 2
Price		
Profit (Loss)		

Sales Contract: *Session* _____ *Round* _____

Price _____   *Buyer Value*_____

Seller's ID _____

Buyer's ID _____

....

Sales Contract: *Session* _____ *Round* _____

Price _____   *Buyer Value*_____

Seller's ID _____

Buyer's ID _____

....

Sales Contract: *Session* _____ *Round* _____

Price _____   *Buyer Value*_____

Seller's ID _____

Buyer's ID _____

Experiment 5

A Minimum Wage

Materials to Be Photocopied

Personal Information Sheets

Make equal numbers of Form A and Form B sheets so that you will have enough of these sheets in total for 3/4 of the class. Make enough copies of Form C for the remaining 1/4 of the class.

Distribute equal numbers of Form A and of Form B until about 3/4 of the students in class have sheets. Distribute Form C to the remaining 1/4 of the class. (Small deviations from the 3/4-1/4 proportions will not matter, but it is desirable to distribute equal numbers of type A and B forms.)

Employment Records and Unemployment Registers

Make about one copy for each student who might come to class of the sheet containing short and long form employment record sheets. Cut these apart to separate the two record sheets on each page.

Distribute four copies of the short and three copies of the long form employment records to each of the firms.

Make seven copies of the Unemployment Register.

Minimum Wage Experiment
Laborer's Information Sheet

Session 1

In this session, if you are unemployed, you can get a reservation wage of **$12**. If you get a job, you will *not* get your reservation wage, but instead you will get the wage agreed on.

Record of Employment and Wages

Write ''U'' under "Wage Received" if unemployed.

	Round 1	Round 2
Wage Received		

....

Session 2

In this session, if you are unemployed, you can get a reservation wage of **$5**. If you get a job, you will *not* get your reservation wage, but instead you will get the wage agreed on. You are not allowed to accept a job for less than the legal minimum wage, which is **$15**.

Record of Employment and Wages

Write ''U'' under "Wage Received" if unemployed.

	Round 1	Round 2
Wage Received		

....

Session 3

In this session, if you are unemployed, you get a reservation wage of **$12**. If you get a job, you will *not* get your reservation wage, but instead you will get the wage agreed on. You are not allowed to accept a job for less than the legal minimum wage, which is **$15**.

Record of Employment and Wages

Write ''U'' under "Wage Received" if unemployed.

	Round 1	Round 2	Round 3
Wage Received			

Minimum Wage Experiment
Laborer's Information Sheet

Session 1

In this session, if you are unemployed, you can get a reservation wage of $5. If you get a job, you will *not* get your reservation wage, but instead you will get the wage agreed on.

Record of Employment and Wages
Write ''U'' under "Wage Received" if unemployed.

	Round 1	Round 2
Wage Received		

....

Session 2

In this session, if you are unemployed, you get a reservation wage of $12. If you get a job, you will *not* get your reservation wage, but instead you will get the wage agreed on. You are not allowed to accept a job for less than the legal minimum wage, which is $15.

Record of Employment and Wages
Write ''U'' under "Wage Received" if unemployed.

	Round 1	Round 2
Wage Received		

....

Session 3

In this session, if you are unemployed, you can get a reservation wage of $5. If you get a job, you will *not* get your reservation wage, but instead you will get the wage agreed on. You are not allowed to accept a job for less than the legal minimum wage, which is $15.

Record of Employment and Wages
Write ''U'' under "Wage Received" if unemployed.

	Round 1	Round 2
Wage Received		

Minimum Wage Experiment
Firm's Information Sheet
Session 1:

In this session, the value of your output is $20 if you hire one laborer and $30 if you hire two. Your profits are the value of your output *minus* the total amount of wages you pay.

	Round 1	Round 2
Value of Ouput		
Total Wages Paid		
Profit		

. . . .

Session 2

In this session, the value of your output is $20 If you hire one laborer and $30 if you hire two. Your profits are the value of your output *minus* the total amount of wages you pay. The legal minimum wage is $15.

	Round 1	Round 2
Value of Ouput		
Total Wages Paid		
Profit		

. . . .

Session 3

In this session, you can hire up to four laborers. The value of your ouput is $30 if you hire one laborer, $55 if you hire two, $75, if you hire three, and $95 if you hire four.. The legal minimum wage is $15. Your profits are the value of your output *minus* the total amount of wages you pay.

	Round 1	Round 2
Value of Ouput		
Total Wages Paid		
Profit		

Employment Record
Short Form–Used in Sessions 1 and 2

Employer's ID _____

Worker's ID Number	Worker's Reservation Wage	Wage Paid to Worker

Session _____   Round _____

....

Employment Record
Long Form–Used in Session 3

Employer's ID _____

Worker's ID Number	Worker's Reservation Wage	Wage Paid to Worker

Session 3   Round _____

Session _____ Round _____

Unemployment Register

ID Number or Name	Res. Wage	ID Number or Name	Res. Wage

Experiment 6

Externalities

Materials to Be Photocopied

Personal Information Sheets

Make up enough Personal Information sheets of Types 1-12 so that there is one sheet for each student. Also make two Type X sheets. Distribute as many *complete* 12-packs (one sheet per person), consisting of sheets of Types 1-12 as possible. From the remaining 12-pack, distribute as many clusters of three (1–3, 4–6, etc.) as possible. If the number of students present is not divisible by three, give sheets of Type X to the remaining students.

Sales Contracts and Personal Information Sheets

Prepare approximately two sales contracts for each student in the class and about 3/4 as many pollution permits as the number of students in class. Since these are printed three-to-a-page, they need to be cut apart after photocopying. You can use left-over sales contracts from Experiments 1 or 3 if you remind students that in Session 2, sellers should report their before-tax Seller Costs.

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost $23. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Supplier** and your Seller Cost is $18. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus your Pollution Tax, minus the total pollution cost. If you don't sell one, you have a loss equal to the total pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

Session 3

In this session you are a lawn ornament **Demander** with Buyer Value $35. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost **$18**. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Demander** with **Buyer Value** **$35**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost **$23**. To sell a lawn ornament, you need a pollution permit. If you buy a permit and sell a lawn ornament, your profit is the price you got for the lawn ornament, minus the price you paid for the permit, minus your seller cost, minus the cost of pollution damage. If you don't sell a lawn ornament or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Demander** with Buyer Value **$35**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Supplier** and your **Seller Cost** is **$23**. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus your Pollution Tax, minus the total pollution cost. If you don't sell one, you have a loss equal to the total pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost **$18**. To sell a lawn ornament, you need a pollution permit. If you buy a permit and sell a lawn ornament, your profit is the price you got for the lawn ornament, minus the price you paid for the permit, minus your seller cost, minus the cost of pollution damage. If you don't sell a lawn ornament or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Demander** with Buyer Value **$25**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Demander** with `Buyer Value` **$30**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost **$13**. To sell a lawn ornament, you need a pollution permit. If you buy a permit and sell a lawn ornament, your profit is the price you got for the lawn ornament, minus the price you paid for the permit, minus your seller cost, minus the cost of pollution damage. If you don't sell a lawn ornament or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Demander** with Buyer Value **$30**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Supplier** and your `Seller Cost` is **$13**. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus your Pollution Tax, minus the total pollution cost. If you don't sell one, you have a loss equal to the total pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

Session 3

In this session you are a lawn ornament **Demander** with `Buyer Value` **$25**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost **$13**. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Demander** with **Buyer Value** **$25**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 3

In this session you are a lawn ornament **Demander** with **Buyer Value** **$30**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost $28. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

....

Session 2

In this session you are a lawn ornament **Demander** with Buyer Value $40. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

....

Session 3

In this session you are a lawn ornament **Demander** with Buyer Value $40. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Demander** with Buyer Value
$40. If you buy a lawn ornament, your profit is your Buyer Value minus
the price you paid, minus the cost of pollution damage. If you don't buy
one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Demander** with `Buyer Value`
$40. If you buy a lawn ornament, your profit is your Buyer Value minus
the price you paid, minus the cost of pollution damage. If you don't buy a
lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost
$28. To sell a lawn ornament, you need a pollution permit. If you buy
a permit and sell a lawn ornament, your profit is the price you got for the
lawn ornament, minus the price you paid for the permit, minus your seller
cost, minus the cost of pollution damage. If you don't sell a lawn ornament
or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Demander** with Buyer Value $40. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

....

Session 2

In this session you are a lawn ornament **Supplier** and your **Seller Cost** is $28. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus your Pollution Tax, minus the total pollution cost. If you don't sell one, you have a loss equal to the total pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

....

Session 3

In this session you are a lawn ornament **Demander** with **Buyer Value** $40. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Demander** with Buyer Value
\$20. If you buy a lawn ornament, your profit is your Buyer Value minus
the price you paid, minus the cost of pollution damage. If you don't buy
one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Supplier** and your **Seller
Cost** is **\$8**. If you sell a lawn ornament, your profit is the price you
received, minus your Seller Cost, minus your Pollution Tax, minus the total
pollution cost. If you don't sell one, you have a loss equal to the total
pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost
\$13. To sell a lawn ornament, you need a pollution permit. If you buy
a permit and sell a lawn ornament, your profit is the price you got for the
lawn ornament, minus the price you paid for the permit, minus your seller
cost, minus the cost of pollution damage. If you don't sell a lawn ornament
or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost $8. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Supplier** and your **Seller Cost** is $13. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus your Pollution Tax, minus the total pollution cost. If you don't sell one, you have a loss equal to the total pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

Session 3

In this session you are a lawn ornament **Demander** with **Buyer Value** $20. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost **$13**. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Demander** with **Buyer Value** **$20**. If you buy a lawn ornament, your profit is your Buyer Value minus the price you paid, minus the cost of pollution damage. If you don't buy a lawn ornament, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Buyer Value	Price	Poll.Damage	Profit
Round 1				
Round 2				

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost **$8**. To sell a lawn ornament, you need a pollution permit. If you buy a permit and sell a lawn ornament, your profit is the price you got for the lawn ornament, minus the price you paid for the permit, minus your seller cost, minus the cost of pollution damage. If you don't sell a lawn ornament or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Externalities Experiment

Session 1:

In this session you are a lawn ornament **Supplier** with Seller Cost $18. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus the cost of pollution damage. If you don't sell one, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Poll.Damage	Profit
Round 1				
Round 2				

Session 2

In this session you are a lawn ornament **Supplier** and your `Seller Cost` is $18. If you sell a lawn ornament, your profit is the price you received, minus your Seller Cost, minus your Pollution Tax, minus the total pollution cost. If you don't sell one, you have a loss equal to the total pollution cost.

Record of Prices and Profits

	Price	Seller Cost	Tax Paid	Poll. Damage	Profit
Round 1					
Round 2					

Session 3

In this session you are a lawn ornament **Supplier** with Seller Cost $18. To sell a lawn ornament, you need a pollution permit. If you buy a permit and sell a lawn ornament, your profit is the price you got for the lawn ornament, minus the price you paid for the permit, minus your seller cost, minus the cost of pollution damage. If you don't sell a lawn ornament or buy a permit, you have a loss equal to the cost of pollution damage.

Record of Prices and Profits

	Price	Seller Cost	Cost of Permit	Poll. Damage	Profit
Round 1					
Round 2					

Pollution Permit

This permit can be resold, but can only be used for the designated round.

Original Owner's ID _____   Session _____ Round_____

First Buyer's ID_____   Price at Sale _____

Second Buyer's ID_____   Price at Sale _____

Third Buyer's ID_____   Price at Sale _____

- -

Pollution Permit

This permit can be resold, but can only be used for the designated round.

Original Owner's ID _____   Session _____ Round_____

First Buyer's ID_____   Price at Sale _____

Second Buyer's ID_____   Price at Sale _____

Third Buyer's ID_____   Price at Sale _____

- -

Pollution Permit

This permit can be resold, but can only be used for the designated round.

Original Owner's ID _____   Session _____ Round_____

First Buyer's ID_____   Price at Sale _____

Second Buyer's ID_____   Price at Sale _____

Third Buyer's ID_____   Price at Sale _____

Sales Contract: *Session* _____ *Round* _____

Price _____

Seller's ID _____   **Seller Cost* _____

Buyer's ID _____   *Buyer Value* _____

*In Session 2, sellers should not include tax in reported Seller Cost.

....

Sales Contract: *Session* _____ *Round* _____

Price _____

Seller's ID _____   **Seller Cost* _____

Buyer's ID _____   *Buyer Value* _____

*In Session 2, sellers should not include tax in reported Seller Cost.

....

Sales Contract: *Session* _____ *Round* _____

Price _____

Seller's ID _____   **Seller Cost* _____

Buyer's ID _____   *Buyer Value* _____

*In Session 2, sellers should not include tax in reported Seller Cost.

Experiment 7

Monopoly and Cartels

Materials to Be Photocopied

Personal Information Sheets

Make enough 6-packs of Personal Information Sheets of Types A–F so that there is a sheet for every student who might come to class. Also make two extra copies of the Type A sheet.

In class, distribute as many full 6-packs as you can. If, after you have done this, there are 1 or 2 students without sheets, give them Type A sheets. If there are 3 or more students left, hand out one sheet each of Types A, B, and C, and then give Type A sheets to any remaining students.

Firm Record Sheets

Make 18 copies of the Firm Record Sheet that is used in Sessions 2 and 3, and 6 copies of the Firm Record Sheets that is used in Session 4.

In each round of each session, give a Firm Record Sheet to each student who plays the role of a firm.

Monopoly Experiment
Personal Information Sheet

Session 1

In this session you are a monopolist facing the demand curve described by your instructor. Write the price that you choose to charge, the quantity that you can sell at that price and the profits you will make.

Price $ _____ Quantity _____ Profit $ _____

Session 2

In this market session your Buyer Value is $16.

Price Paid	
Profit (= $16−P$)	

Session 3

In this market session your Buyer Value is $16.

	Round 1	Round 2
Price Paid		
Profit (= $16−P$)		

Session 4

In this market session your Buyer Value is $16.

Price Paid	
Profit (= $16−P$)	

NON-STUDENT

Monopoly Experiment
Personal Information Sheet

Session 1

In this session you are a monopolist facing the demand curve described by your instructor. Write the price that you choose to charge, the quantity that you can sell at that price and the profits you will make.

Price \$ _____ Quantity _____Profit \$ _____

Session 2

In this market session your Buyer Value is \$21.

Price Paid	
Profit (= \$21$-P$)	

Session 3

In this market session your Buyer Value is \$16.

	Round 1	Round 2
Price Paid		
Profit (= \$16$-P$)		

Session 4

In this market session your Buyer Value is \$21.

Price Paid	
Profit (= \$21$-P$)	

NON-STUDENT

Monopoly Experiment
Personal Information Sheet

Session 1

In this session you are a monopolist facing the demand curve described by your instructor. Write the price that you choose to charge, the quantity that you can sell at that price and the profits you will make.

Price $ _____ Quantity _____ Profit $ _____

Session 2

In this market session your Buyer Value is $16.

Price Paid	
Profit (= $16−P$)	

Session 3

In this market session your Buyer Value is $21.

	Round 1	Round 2
Price Paid		
Profit (= $21−P$)		

Session 4

In this market session your Buyer Value is $16.

Price Paid	
Profit (= $16−P$)	

NON-STUDENT

Monopoly Experiment
Personal Information Sheet

Session 1

In this session you are a monopolist facing the demand curve described by your instructor. Write the price that you choose to charge, the quantity that you can sell at that price and the profits you will make.

Price $ _____ Quantity _____ Profit $ _____

Session 2

In this market session your Buyer Value is $16.

Price Paid	
Profit (= $16−P$)	

Session 3

In this market session your Buyer Value is $11.

	Round 1	Round 2
Price Paid		
Profit (= $11−P$)		

Session 4

In this market session your Buyer Value is $11.

Price Paid	
Profit (= $11−P$)	

I AM A STUDENT

Monopoly Experiment
Personal Information Sheet

Session 1

In this session you are a monopolist facing the demand curve described by your instructor. Write the price that you choose to charge, the quantity that you can sell at that price and the profits you will make.

Price $ _____ Quantity _____ Profit $ _____

Session 2

In this market session your Buyer Value is **$11**.

Price Paid	
Profit (= $11−P$)	

Session 3

In this market session your Buyer Value is **$16**.

	Round 1	Round 2
Price Paid		
Profit (= $16−P$)		

Session 4

In this market session your Buyer Value is **$11**.

Price Paid	
Profit (= $11−P$)	

I AM A STUDENT

Monopoly Experiment
Personal Information Sheet

Session 1

In this session you are a monopolist facing the demand curve described by your instructor. Write the price that you choose to charge, the quantity that you can sell at that price and the profits you will make.

Price $ _____ Quantity _____Profit $ _____

Session 2

In this market session your Buyer Value is $11.

Price Paid	
Profit (= $11−P$)	

Session 3

In this market session your Buyer Value is $11.

	Round 1	Round 2
Price Paid		
Profit (= $11−P$)		

Session 4

In this market session your Buyer Value is $16.

Price Paid	
Profit (= $16−P$)	

I AM A STUDENT

Firm Record Sheet: Cartel Experiment

(For use in Session 2 or 3)

Firm's ID _____   Session _____

Quota Agreed on (if any) _____

Buyer's ID	Buyer Value	Price	Buyer's ID	Buyer Value	Price

Firm Record Sheet: Session 4
Cartel Experiment

Firm's ID Number _____

Quota for Non-students _____   Quota for Students _____

For each sale, record the buyer's ID and Buyer Value and the price at
which you sold to this buyer. If the buyer showed a student ID, put a
* in the column marked "Student?"

Buyer's ID	Buyer Value	Price	Student?	Buyer's ID	Buyer Value	Price	Student?

Experiment 8

Entry and Exit

Materials to Be Photocopied

Personal Information Sheets

Personal Information Sheets are included here for photocopying. Make enough copies of Types A-D so that there is one copy for every student who might come to class. Make 3 copies of Type X. Clip together several 4-packs consisting of one sheet each type A-D. Distribute as many of these full 4-packs as possible to your class. Distribute Type X information sheets to the remaining students and to late-comers.

Restaurant Customer Lists

Make about twice as many copies of the "Restaurant Customer List" as the number of students in class. In each round of the experiment, give a Restaurant Customer List to each student who elects to open a restaurant.

Customer's Personal Information Sheet
Session 1

In this Session, your Buyer Value for a Restaurant Meal is **$24**. If you buy a meal for price **P** your profit will be **$24−P**. If you don't buy a meal, your profit is **0**.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

....

Session 2

In this Session, your Buyer Value for a Restaurant Meal is **$12**. If you buy a meal for price **P** your profit will be **$12−P**. If you don't buy a meal, your profit is **0**.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

Customer's Personal Information Sheet
Session 1

In this Session, your Buyer Value for a Restaurant Meal is $18. If you buy a meal for price P your profit will be $18 - P$. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

....

Session 2

In this Session, your Buyer Value for a Restaurant Meal is $18. If you buy a meal for price P your profit will be $18 - P$. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

Customer's Personal Information Sheet
Session 1

In this Session, your Buyer Value for a Restaurant Meal is $12. If you buy a meal for price P your profit will be $12−P. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

....

Session 2

In this Session, your Buyer Value for a Restaurant Meal is $24. If you buy a meal for price P your profit will be $24−P. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

Customer's Personal Information Sheet
Session 1

In this Session, your Buyer Value for a Restaurant Meal is $8. If you buy a meal for price P your profit will be $8−P. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

Session 2

In this Session, your Buyer Value for a Restaurant Meal is $8. If you buy a meal for price P your profit will be $8−P. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

Customer's Personal Information Sheet
Session 1

In this Session, your Buyer Value for a Restaurant Meal is $8. If you buy a meal for price P your profit will be $8−P. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

....

Session 2

In this Session, your Buyer Value for a Restaurant Meal is $8. If you buy a meal for price P your profit will be $8−P. If you don't buy a meal, your profit is 0.

You can purchase at most one meal, whether or not you choose to open a restaurant.

Customer's Record of Prices and Profits

	Price Paid	Profit
Round 1		
Round 2		
Round 3		

Customer List: Session ____ Round ____

Restaurant Owner's ID _____

	ID Number	Buyer Value	Price
1.			
2.			
3.			
4.			

Total Revenue____   Total Cost ____   Profit ____

Customer List: Session ____ Round ____

Restaurant Owner's ID _____

	ID Number	Buyer Value	Price
1.			
2.			
3.			
4.			

Total Revenue____   Total Cost ____   Profit ____

Experiment 9

Network Externalities

Materials to Be Photocopied

Personal Information Sheets

Make enough copies of Personal Information Sheets A–F so that there is
one sheet for everyone who might come to class. Clip together six-packs
containing one sheet of each type. Distribute as many complete six-packs
as you can, and then distribute sheets to remaining students, starting with
A and going as far as you need to.

Record Sheets

Make 4 copies of the Record of Sales sheet for Session 1, and make about
20 copies of the Sales Record Sheets to be used in Sessions 2 and 3.

Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1—Network Externalities

In this session your *Initial Value* for a picture phone is **\$1**. Your *Buyer Value* is your *Initial Value* times the *Network Externality Factor*.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
Initial Value (IV)	1	1	1	1
Network Externality Factor (NEF)				
Buyer Value =IV×NEF				
Price Paid				
Profit =BV-Price				

....

Session 2—Competing Standards

You must pay a \$15 learning cost when you buy your first Operating System. Each time you switch systems, you must pay this \$15 cost again.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

....

Session 3–New, Improved Technology

If you adopt the new, improved operating system, your learning costs are \$20. If you use the old OS, you have no learning costs.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1—Network Externalities

In this session your *Initial Value* for a picture phone is **$2**. Your *Buyer Value* is your *Initial Value* times the *Network Externality Factor*.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
Initial Value (IV)	2	2	2	2
Network Externality Factor (NEF)				
Buyer Value =IV×NEF				
Price Paid				
Profit =BV-Price				

Session 2—Competing Standards

You must pay a $15 learning cost when you buy your first Operating System. Each time you switch systems, you must pay this $15 cost again.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

Session 3–New, Improved Technology

If you adopt the new, improved operating system, your learning costs are $20. If you use the old OS, you have no learning costs.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

TYPE C   **Student ID Number** _____

Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1—Network Externalities

In this session your *Initial Value* for a picture phone is **\$3**. Your *Buyer Value* is your *Initial Value* times the *Network Externality Factor.*

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
Initial Value (IV)	3	3	3	3
Network Externality Factor (NEF)				
Buyer Value =IV×NEF				
Price Paid				
Profit =BV-Price				

....

Session 2—Competing Standards

You must pay a \$15 learning cost when you buy your first Operating System. Each time you switch systems, you must pay this \$15 cost again.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

....

Session 3–New, Improved Technology

If you adopt the new, improved operating system, your learning costs are \$20. If you use the old OS, you have no learning costs.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

TYPE D   Student ID Number _____

Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1—Network Externalities

In this session your *Initial Value* for a picture phone is **\$4**. Your *Buyer Value* is your *Initial Value* times the *Network Externality Factor*.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
Initial Value (IV)	4	4	4	4
Network Externality Factor (NEF)				
Buyer Value =IV×NEF				
Price Paid				
Profit =BV-Price				

....

Session 2—Competing Standards

You must pay a \$15 learning cost when you buy your first Operating System. Each time you switch systems, you must pay this \$15 cost again.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

....

Session 3–New, Improved Technology

If you adopt the new, improved operating system, your learning costs are \$20. If you use the old OS, you have no learning costs.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

Personal Information Sheet

Please hand this sheet in at the end of the session.

Session 1—Network Externalities

In this session your *Initial Value* for a picture phone is **$5**. Your *Buyer Value* is your *Initial Value* times the *Network Externality Factor.*

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
Initial Value (IV)	5	5	5	5
Network Externality Factor (NEF)				
Buyer Value =IV×NEF				
Price Paid				
Profit =BV-Price				

....

Session 2—Competing Standards

You must pay a $15 learning cost when you buy your first Operating System. Each time you switch systems, you must pay this $15 cost again.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

....

Session 3–New, Improved Technology

If you adopt the new, improved operating system, your learning costs are $20. If you use the old OS, you have no learning costs.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 1—Network Externalities

In this session your *Initial Value* for a picture phone is **$6**. Your *Buyer Value* is your *Initial Value* times the *Network Externality Factor*.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
Initial Value (IV)	6	6	6	6
Network Externality Factor (NEF)				
Buyer Value =IV×NEF				
Price Paid				
Profit =BV-Price				

Session 2—Competing Standards

You must pay a $15 learning cost when you buy your first Operating System. Each time you switch systems, you must pay this $15 cost again.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

Session 3–New, Improved Technology

If you adopt the new, improved operating system, your learning costs are $20. If you use the old OS, you have no learning costs.

Record of Values, Prices and Profits

	Round 1	Round 2	Round 3	Round 4
OS Seller's ID				
Buyer Value				
Learning Cost (LC)				
Price Paid				
Profit =BV-Price-LC				

Record of Sales–Session 1

Round_____   Price_____

Buyer's ID	Initial Value	Buyer's ID	Initial Value

Sales Record Sheet   Seller's ID_____

Session _____   Round _____

Buyer's ID	Price	Buyer's ID	Price	Buyer's ID	Price

Experiment 11

Comparative Advantage and Trade

Materials to Be Photocopied

Personal Information Sheets

Make enough copies of each of the two Poorlander Report Sheets, labeled for Sessions 1 and 2, for 2/3 of the class. Make enough copies of each of the two Richlander Report Sheets for 1/3 of the class. The Session 1 tickets are printed two-to-a-page, so you should cut them apart before coming to class.

Fish and Bread Tickets

Make one copy of the page of fish tickets and one copy of the page of bread tickets for each student that might come to class.

Poorlander's Report, Session 1

In Session 1, where I can not trade with others, I choose to produce _____ units of fish and _____ units of bread. My payoff is the minimum of these two quantities, which is _____.

ID Number _____

Richlander's Report Session 1

In Session 1, where I can not trade with others, I choose to produce _____ units of fish and _____ units of bread. My payoff is the minimum of these two quantities, which is _____.

Poorlander's Report, Session 2

First Round

In this round, I produced _____ units of fish and _____
_____ units of bread. After I finished trading, I was left
with _____ units of fish and _____ units of bread.
My payoff in this session is _____.

Last Round

In this round, I produced _____ units of fish and _____
_____ units of bread. After I finished trading, I was left
with _____ units of fish and _____ units of bread.
My payoff in this session is _____.

Richlander's Report, Session 2

First Round

In this round, I produced _____ units of fish and _____
_____ units of bread. After I finished trading, I was left
with _____ units of fish and _____ units of bread.
My payoff in this session is _____.

Last Round

In this round, I produced _____ units of fish and _____
_____ units of bread. After I finished trading, I was left
with _____ units of fish and _____ units of bread.
My payoff in this session is _____.

1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)
1 Unit of Fish (Round 1)	1 Unit of Fish (Round 1)

1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)
1 Unit of Bread (Round 1)	1 Unit of Bread (Round 1)

1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)
1 Unit of Fish (Round 2)	1 Unit of Fish (Round 2)

1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)
1 Unit of Bread (Round 2)	1 Unit of Bread (Round 2)

Experiment 12

Adverse Selection

Materials to Be Photocopied

Price Decision Sheets

Make enough copies of the Price Decision Sheet so that there is one for each person who might come to class. These sheets are printed three-to-a-page, so you will need to cut them apart.

Personal Information Sheets

Make enough copies of Personal Information Sheets of Types A–F so that there is one sheet for each person who might come to class.

Record Sheets

Make 5 copies of the Quality Registration Sheet.
    Make about 30 copies of the Record of Cars Purchased sheets.

Session 1–Price Decisions

ID Number _____

Price in Situation i _____

Price in Situation ii _____

....

Session 1–Price Decisions

ID Number _____

Price in Situation i _____

Price in Situation ii _____

....

Session 1–Price Decisions

ID Number _____

Price in Situation i _____

Price in Situation ii _____

The Lemons Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 2

In this session, your used car is a `Good Used Car`. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-\$1600$)		

....

Session 3

In this session, your used car is a `Lemon`. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 4

In this session, your used car is a `Lemon`. In this session, you may show this information sheet to a buyer to prove the type of your car. If you sell your used car, your profits for the round are equal to the price you receive. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

The Lemons Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 2

In this session, your used car is a **Lemon**. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 3

In this session, your used car is a Good Used Car. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-\$1600$)		

....

Session 4

In this session, your used car is a Good Used Car. In this session, you may show this information sheet to a buyer to prove the type of your car. If you sell your used car, your profits for the round are equal to the price you received for the car *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-\$1600$)		

The Lemons Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 2

In this session, your used car is a `Good Used Car`. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-$1600$)		

....

Session 3

In this session, your used car is a `Lemon`. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 4

In this session, your used car is a `Lemon`. In this session, you may show this information sheet to a buyer to prove the type of your car. If you sell your used car, your profits for the round are equal to the price you receive. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

The Lemons Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 2

In this session, your used car is a **Lemon**. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 3

In this session, your used car is a **Lemon**. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 4

In this session, your used car is a **Lemon**. In this session, you may show this information sheet to a buyer to prove the type of your car. If you sell your used car, your profits for the round are equal to the price you receive. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

The Lemons Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 2

In this session, your used car is a `Good Used Car`. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-$1600$)		

....

Session 3

In this session, your used car is a `Good Used Car`. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-$1600$)		

....

Session 4

In this session, your used car is a `Good Used Car`. In this session, you may show this information sheet to a buyer to prove the type of your car. If you sell your used car, your profits for the round are equal to the price you received for the car *minus* $1600. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P-$1600$)		

The Lemons Market
Personal Information Sheet
Please hand this sheet in at the end of the session.

Session 2

In this session, your used car is a **Lemon**. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 3

In this session, your used car is a **Lemon**. You are NOT allowed to show this information sheet to anyone else. If you sell your car, your profits for the round are equal to the price you received. If you did not sell your car, your profits are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

....

Session 4

In this session, your used car is a **Lemon**. In this session, you may show this information sheet to a buyer to prove the type of your car. If you sell your used car, your profits for the round are equal to the price you receive. If you did not sell your car, your profits for the round are zero.

Record of Sales Price and Profit

	Round 1	Round 2
Price Received (P)		
Profit ($=P$)		

Record of Cars Purchased

In Session 4, put an asterisk next to the price if the seller proved that this car was good.

Session _____   Round _____

Car Dealer's ID _____

Seller's ID	Price	Seller's ID	Price

Quality Registration Sheet

Session _____   Round _____

Lemons Sold		Good Cars Sold	
Seller's ID	Seller's ID	Seller's ID	Seller's ID

Experiment 13

Auctions

Materials to Be Photocopied

The only material you need for the first batch of experiments is a packet of
Post-Its or similar small blank pieces of paper.

If you run the counting pennies experiment, you will need a small jar
of previously counted pennies and some Post-Its or small blank pieces of
paper.

If you run the "Unreliable Accountant" experiment, you will want to
photocopy the next page. This page contains 22 slips of paper containing
"accountant's estimates" of the value of a carload of merchandise. The mean
(and median) of these estimates is $120. The highest estimate is $170 and
the lowest is $70. (If you want to use different values, you can make your
own batch of slips, with different numbers.) Make enough sheets so that
there is at least one slip for each student in class. Cut the estimate slips
apart and put them in a large envelope. In class, each student will draw one
estimate from the envelope.

To auction a $1 bill, you need a $1 bill.

Estimated Value is $170.	Estimated Value is $170.
Estimated Value is $160.	Estimated Value is $160.
Estimated Value is $150	Estimated Value is $150.
Estimated Value is $140.	Estimated Value is $140.
Estimated Value is $130.	Estimated Value is $130.
Estimated Value is $120.	Estimated Value is $120.
Estimated Value is $110.	Estimated Value is $110.
Estimated Value is $100.	Estimated Value is $100.
Estimated Value is $90.	Estimated Value is $90.
Estimated Value is $80.	Estimated Value is $80.
Estimated Value is $70.	Estimated Value is $70.

Experiment 14

Bargaining

Materials to Be Photocopied

Make one copy of the Session 1 bid sheet for each student in class. Make one copy of each of the Session 2 and Session 3 bid sheets for every two students in class. Hand out bid sheets to buyers at the beginning of each session. In Session 1, you may hold two rounds, reversing the role of buyers and sellers in the second round.

Bicycle Bid Sheet–Session 1

Buyer's ID _____

Buyer's Offer _____

....

Seller's ID _____

Offer Accepted ☐

Offer Rejected ☐

Bicycle Bid Sheet–Session 2

Buyer's ID _____

Amount Bid _____

....

Seller's ID _____

Bid Accepted ☐

Bid Rejected ☐

Amount of Counteroffer _____

....

Buyer Accepts Counteroffer ☐

Buyer Rejects Counteroffer ☐

Bicycle Bid Sheet–Session 3

Buyer's ID _____

Buyer's First Bid _____

Seller's ID _____

First Bid Accepted ☐

Amount of Counteroffer _____

Buyer Accepts Counteroffer ☐

Buyer's Second Bid _____

Seller Accepts Second Bid ☐

Seller Rejects Second Bid ☐