

Homework Assignment #1 – Part I

Some of these questions in Part I are open-ended and a bit wacky, while others are pretty straight-forward and foreshadow things to come later in the semester. Give them a whirl. Be brief. I really want you to just spend some time thinking about some of these issues.

1. What is the opportunity cost of:
 - a. getting married
 - b. freedom of speech
 - c. a law prohibiting college-age students from drinking alcohol
 - d. a policy to reduce global warming

2. A baker is willing to bake a cake if he can sell it for at least \$6 (to cover the costs of ingredients, the use of his oven, and his time and effort). A customer is willing to pay \$10 for a cake.
 - a. Would some trade help both the baker and the customer? What trade?
 - b. How much do the baker and the customer gain from the trade you proposed in part (a)?
 - c. How would your answer to part (a) change if the government imposed a \$2 tax on every cake sold?
 - d. How would your answer to part (a) change if the government imposed a \$5 tax on every cake sold?

3. Do people always benefit from voluntary trades? Why might voluntary trades leave them worse off rather than better off? (Think of an example in your own life?)

4. Give examples of the following. Bonus points for comedy, double bonus points for clean (able to be put on the exam) funny:
Fallacy of composition, post-hoc fallacy, other-conditions fallacy, selection bias

5. Suppose another year of college will increase your lifetime earnings by \$30,000. The costs of tuition and books add up to only \$8,000 for an additional year. Comment on the following: “Because the benefit of \$30,000 exceeds the \$8,000 cost, you should complete another year of college.”

6. To celebrate its fiftieth anniversary, a gasoline station sells gasoline at the price it charged on its first day of operation: \$0.10 per gallon. As you drive by the gas station, you notice a long line of people waiting to buy gasoline. What types of people would you expect to join the line?

Homework Assignment #1 – Part II

There are two cities in the world, Springfield and Shelbyville. There are only two productive activities, making electricity, and winning softball games.

If Springfield spends all of its time making electricity, it can produce 5 megawatts. If Springfield spends all of its time winning softball games, it can produce 10 softball wins.

If Shelbyville completely specializes in making electricity, it can produce 20 megawatts. If Shelbyville completely specializes in softball, they can produce 30 wins.

Both cities can produce any linear combination of these levels of output. For example, Springfield can produce 2.5 megawatts of electricity and 5 softball wins. (connect the dots)

1. Sketch the PPCs for both cities, making sure to label your graph. A rough sketch is fine.
2. What is Springfield’s opportunity cost of producing 1 megawatt of electricity?
3. What is Springfield’s opportunity cost of producing 1 softball win?

4. What is Shelbyville's opportunity cost of producing 1 megawatt of electricity?
5. What is Shelbyville's opportunity cost of producing 1 softball win?
6. Who has the comparative advantage in softball win production?
7. Who has the comparative advantage in electricity production?
8. Which city has the absolute advantage in both activities?
9. Suppose each city selects autarky, and spends half of its time on each activity. How much of each good is produced?
10. Suppose each city completely specializes in the activity in which it has the comparative advantage. How much of each good is produced?
11. Suppose that Smithers makes the following offer to Shelbyville and Springfield. He will offer \$3 for each megawatt of electricity produced and \$1 for each softball game produced. If both Shelbyville and Springfield's objectives are to maximize their own revenue, how many of each good is produced?
12. In your answer to #11, do you end up with one city producing the good that they do not have the comparative advantage in? If so, why would they do such a rambunctious thing? Hint: what is the relative value of a softball win versus a megawatt of electricity?
13. Sketch society's PPC. Make sure the three "important" points are there.