Sexton 6e Solutions Manual for Problems

Chapter 1:

1. In most countries the birth rate has fallen as incomes and the economic opportunities for women have increased. Use economics to explain this pattern.

**Answer: One of the most important resources used raising children has historically been the mother’s time. As opportunities for women to hold jobs, start businesses, and participate in political life increase, the cost of using women’s time for raising children increases. As the cost of the mother’s time rises, fewer children are born.**

2. Write your own definition of economics. What are the main elements of the definition?

**Answer: The definition must recognize the central parts of the economist’s point of view: resources are scarce; scarcity forces us to make choices; and the cost of any choice is the highest valued of the lost opportunities.**

3. Are the following topics ones that would be covered in microeconomics or macroeconomics?

a. the effects of an increase in the supply of lumber on the home-building industry.

b. changes in the national unemployment rate.

c. changes in the inflation rate.

d. changes in the country’s economic growth rate.

e. the price of concert tickets.

**Answers: a. microeconomics; b. macroeconomics; c. macroeconomics; d. macroeconomics; e. microeconomics.**

4. Identify which of the following headlines represents a microeconomic topic and which represents a macroeconomic topic.

a. “U.S. Unemployment Rate Reaches Historic Lows”

b. “General Motors Closes Auto Plant in St. Louis”

c. “OPEC Action Result in a General Increase in Prices”

d. “Companies Cut the Cost of Health Care for Employees”

e. “Lawmakers Worry about the Possibility of a US Recession”

f. “Colorado Rockies Make Outfielder Highest Paid Ballplayer”

**Answer: Macroeconomics examines economic problems that influence the whole economy. The focus is on aggregate or total economic activity. Headlines a, c, and e reflect the overall health of the economy. Microeconomics explains the actions of smaller units. The focus is on the decision-making behavior of firms and households. Headlines b, d, and f reflect the actions of firms.**

5. The Environmental Protection Agency asks you to help them understand the causes of urban pollution. Air pollution problems are worse the higher the Air Quality Index. You develop the following two hypotheses.

Hypothesis I: Air pollution will be a greater problem the higher the average temperature in the urban area. Hypothesis II: Air pollution will be a greater problem, the greater the population of the urban area.

Test each hypothesis with the facts given below. Which hypothesis fits the facts better? Have you developed a theory?

Metropolitan Days with Average Maximum Population  
Statistical Area Polluted Air\* Temperature (thousands)

Cincinnati, OH 30 64.0 1,979

El Paso, TX 13 77.1 680

Milwaukee, WI 12 55.9 1,690

Atlanta, GA 24 72.0 4,112

Philadelphia, PA 33 63.2 5,101

Albany, NY 8 57.6 876

San Diego, CA 20 70.8 2,814

Los Angeles, CA 80 70.6 9,519

\*Air Quality Index greater than 100 (2002) **Source:** U.S. Dept. of Commerce, Bureau of Census, 2002 Statistical Abstract of the United States, Tables Nos. 30, and 363; U.S. EPA, Air Trends Report, 2002, EPA.Gov/airtrends/Factbook.

**Answer: The data support the second hypothesis better than the first. The number of days with polluted air generally increases with the population. The five cities with the most days “with polluted air” are large places. The first hypothesis does not seem to be supported by the data. El Paso, Texas, was the hottest place on our list and had relatively few polluted days. The causes of air pollution are complex and many things affect the level of pollution in a city. In our limited world of seven cities, the second hypothesis is supported by the facts, and we could make a theoretical statement that air pollution will increase in general as population increases.**

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6.Do any of the following statements involve fallacies? If so, which ones do they involve?

a.Because sitting in the back of classrooms is correlated with getting lower grades in the class, students should always sit closer to the front of the classroom. **This involves confusing correlation with causation.**

b.Historically, the stock market rises in years the NFC team wins the Super Bowl and falls when the AFC wins the Super Bowl; I am rooting for the NFC team to win for the sake of my investment portfolio. **This involves confusing correlation with causation.**

c.When a basketball team spends more to get better players, it is more successful, which proves that all the teams should spend more to get better players. **This involves the fallacy of composition.**

d.Gasoline prices were higher last year than in 1970, yet people purchased more gas, which contradicts the law of demand. **This is a violation of the *ceteris paribus* conditions.**

e.An increase in the amount of money I have will make me better off, but an increase in the supply of money in the economy will not make Americans as a group better off. **There is no fallacy in this statement.**

7. In the 1940s, Dr. Melvin Page conducted a national campaign to stop people other than infants from drinking milk. According to Page, milk was a dangerous food and a leading cause of cancer. He pointed to the fact that more people died of cancer in Wisconsin, the nation’s leading milk producer, than any other state as proof of his claim. How would you evaluate Dr. Page’s claim?

**Answer: This is a case of mistaking correlation for causation. People in Wisconsin tended to live long lives and since cancer is a disease of middle and old age, it was a more frequent cause of death in Wisconsin than in other states. An area low in cancer deaths is likely to be an area of poor health where inhabitants die young.**

8. Are the following statements normative or positive, or do they contain both normative and positive statements?

a.A higher income-tax rate would generate increased tax revenues. Those extra revenues should be used to give more government aid to the poor. **Both normative and positive statements.**

b.The study of physics is more valuable than the study of sociology, but both should be studied by all college students. **Normative statements.**

c.An increase in the price of corn will decrease the amount of corn purchased. However, it will increase the amount of wheat purchased. **Positive statements.**

d.A decrease in the price of butter will increase the amount of butter purchased, but that would be bad because it would increase Americans’ cholesterol levels. **Both normative and positive statements.**

e.The birth rate is reduced as economies urbanize, but it also leads to a decreased average age of developing countries’ populations. **Positive statements.**

9. In the debate about clean air standards we have often heard the statement, “A nation as rich as the United States should have no pollution.” Why is this a normative statement? Would it help you make a decision on national air quality standards? Describe two positive statements that might be useful in determining the air quality standards.

**Answer: This is a normative statement because it is a matter of opinion. Unless you held this opinion or respected the speaker, this normative statement would not cause you to support a zero tolerance standard for air pollution. Positive statements about the effect of such standards, which could be tested, would refer to changes in the costs and/or benefits of adopting the more extreme standards. Examples might include “imposing zero pollution standards will significantly reduce the industrial output of the U.S. economy” or “the reduction in health problems resulting from the imposition of zero pollution standards will provide the benefits of significant reduction in health care costs.”**

10.Answer the following questions:

a.What is the difference between self-interest and selfishness? **Self-interest is the desire to improve one’s life. It includes the desire to advance any goal one cares about, including many “altruistic” goals, such as helping the poor. Selfishness is the “excessive” concern for oneself and one’s own advantage without regard for others.**

b.Why does inaction have consequences? **Inactions are choices not to do something. Inactions, like actions, have consequences. For example, if you choose not to study, you may fail an exam.**

c.Why are observation and prediction more difficult in economics than in chemistry? **Observation and prediction are more difficult in economics than in chemistry because, unlike chemists, economists generally cannot observe behavior in a laboratory setting where all relevant environmental variables can be carefully controlled. Economists study economic behavior in the real world, where many variables influence behavior simultaneously. It is difficult in a complex global economy to observe and predict relationships between variables, isolated from other effects.**

d.Why do economists look at group behavior rather than individual behavior? **Economics is concerned with reaching generalizations about human behavior. If one generalizes on the basis of observed individual behavior, one risks committing the fallacy of composition. Generalizations based upon observed group behavior are likely to be both more realistic and useful (reliable).**

11**.** Using the map analogy from the chapter, talk about the importance of abstraction. How do you abstract when taking notes in class?

**Answer: Abstraction enables an observer to highlight what are considered significant details for her purposes. If maps attempted to capture even the most minute of details, they would be far too complicated and difficult to read for their intended purposes. Instead, good maps provide useful information by highlighting important features. Likewise, students abstract when taking notes. Rather than attempt to write down every word spoken by an instructor, a student is likely to outline the main ideas that are expressed. By abstracting in this way, a student can master the information that is most essential to understanding the topic at hand.**