Whitewater Rafting Measures Up!

The Value of Guided Rafting on Southern Rivers

The scientists in this study wanted to ***quantify*** the value of people's vacations. For most scientists, numbers are necessary to evaluate and compare the results of their research. For some things, discovering the correct number is easy. For example, it is easy to measure how tall a tree is, or how many insects you find in a particular area. For social scientists, measuring things like people's attitudes or values is much harder. In this study, you will learn how the scientists put numbers on the value of a whitewater rafting trip.

Discovery

Bring a special toy, stuffed animal, or book to school. Share it with your classmates. Pretend that you are auctioning it off. Ask for prices until you reach the highest bidder. Is the price higher or lower than what you think it is worth? Why do you think that the value is higher or lower than you think it is worth?

Introduction

People have many different kinds of values. They might value their family, home, and country, as well as their favorite t-shirt or place to play. Almost everything has some kind of value, from an old teddy bear to your parents' car.

VOCABULARY

Vocabulary in article indicated in italics

Consumer surplus
The extra price people are willing to pay for something, above its actual cost

Guided rafting trip
A whitewater rafting trip that is led by a professional guide

Monetary value
How much money something is worth

Non-commodity value
A monetary value (see above) placed on something, although it is something that cannot be bought or sold

Quantify
To measure something and assign a number to it

Adapted from:
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Some values are easy to *quantify*, such as the value of a new car. This is because the car can be bought or sold for a price. Other values, such as the value of your old teddy bear, cannot be easily quantified. That is because you probably would not sell your teddy bear, and no one else might not want to buy it anyway. Nevertheless, that teddy bear has a value, which would be called its *non-commodity value*.

Many kinds of activities are done outside, such as hiking, birdwatching, and canoeing. You may not pay to do these activities, but they still have a value to you. If forest managers have to decide between two options, they want to know how much people value the two options, even if one of the options has a *non-commodity value*. For example, if a river is dammed for electric power, the electricity has value to some people. However, the river can then no longer be used for canoeing and rafting, which also has a value to some people. Economists are social scientists who try to identify the *monetary value* of non-commodity resources, as well as commodity resources. For example, they try to compare the value of things that are not bought and sold, but are nevertheless important to people. Economists call the value of something, especially the value that people are willing to pay for something over its actual cost, *consumer surplus*. They try to estimate *consumer surplus* so that decisions can be made according to the best understanding of what people value.

Scientists Mike Bowker, D. B. K. English, and J. A. Donovan, wanted to understand the value of whitewater rafting. They felt that if they could identify a *consumer surplus* value for whitewater rafting, decision-makers could make better decisions in the future about how to manage free flowing rivers.

Reflection

1 Why do you think it is important (or not important) to understand non-commodity and consumer surplus values?

2 What are things that have a non-commodity value in your life?

Methods

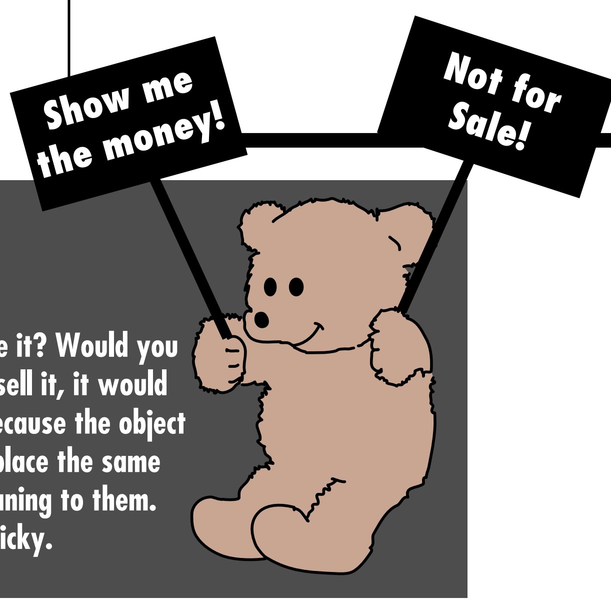
Dr. Bowker and his colleagues studied people who rafted on two rivers, the Chattooga River in Georgia, and the Nantahala river in North Carolina. They created a questionnaire, and mailed it to people who had taken a *guided rafting trip* on either of the two rivers. The scientists asked people how far they traveled to get to the river, how much money they spent to go rafting, and how often they went rafting. They also asked people what their income was. They calculated the value of the rafting trip by adding up actual costs and estimating other costs and values. For example, they multiplied the number of miles each person said they traveled by $.09, and added that to the actual cost of going rafting. Economists believe that people's time is worth something, so the scientists added an estimate for the amount of time spent traveling and rafting. This estimate was based on the amount of their income, or how much they are paid to work. Because economists do not agree on how best to estimate the value of a person's time, Dr. Bowker and his colleagues used a range of values. They, therefore, ended up with a range of values for guided rafting on the two rivers.

Reflection

1 Think about taking a day trip with your family to go boating on a nearby lake. Would you be willing to give up playing with your friends to do that?

2 Now think about taking a day trip with your mom or dad so they can visit the dentist. Would you want to give up playing with your friends to do that? What is the difference between the two day trips?

3 Do you think that using a person's income is a good way to estimate the value of his/her time? Why or why not?



What would you do?

Think about your favorite thing in the world, for example, a toy or a book. How much do you value it? Would you sell it if given the chance? Chances are if you did sell it, it would be for a lot more than the original price. This is because the object is special to you. Perhaps other people wouldn't place the same price on it, because it probably has a different meaning to them. As you can see, placing a price on things can get tricky.

Results

Dr. Bowker and his colleagues found that guided rafting on the Chattooga River had a *consumer surplus* of between $119 and $286, depending on how the value of people's time was computed. They found that the Nantahala River's *consumer surplus* value was between $89 and $191. Why do you think the Chattooga River's rafting value was higher? The scientists believe it is because the rapids on the Chattooga River are more exciting to raft than the Nantahala River, and people are willing to pay more for the experience. With information like this, decision-makers can better compare the value of different management options on free flowing rivers. Then, when they make decisions, even experiences that cannot be bought or sold can be considered.

Reflection

1 Has your mother or father ever told you that you could not go outside to play until a household chore or your homework was done? In what way is your mother or father putting a value on your after-school time?

2 Do you think you could put a monetary value on your afterschool free time? Why or why not?