Exercise 40

Suppose N is the number of people in the United States who travel by car to another state for a vacation this year when the average price of gasoline is p dollars per gallon. Do you expect dN/dp to be positive or negative? Explain.

Solution

dN/dp represents the rate at which the number of people going on vacation increases with respect to gas price (with units of people/(dollars/gallon)). The higher the gas price goes, the less people will travel by car to go on vacation, so dN/dp is negative.