

# **SOCIOLOGICAL INVESTIGATION**



A LOGICAL SYSTEM THAT DERIVES  
KNOWLEDGE  
FROM DIRECT, SYSTEMATIC  
OBSERVATION

# *Forms of Truth*

- Belief or faith
- Expert testimony
- Simple agreement
- Science
  - ◆ Logical system that bases knowledge on direct systematic observation

## ***Common Sense Versus Scientific Evidence***

- “Poor people are far more likely than rich people to break the law.”
- “The United States is a middle-class society in which most people are more or less equal.”
- “Most poor people don’t want to work.”
- “Differences in the behavior of females and males are just ‘human nature.’ ”
- “People change as they grow old, losing many interests as they focus on their health.”
- “Most people marry because they are in love.”

# *3 Frameworks for Sociological Investigation*

- **Scientific sociology**
  - ◆ The study of society based on systematic observation of social behavior
  - ◆ Empirical evidence – information we can verify with our senses
- **Interpretive sociology**
  - ◆ The study of society that focuses on the meanings people attach to their social world
- **Critical sociology**
  - ◆ The study of society that focuses on the need for change

# Causation

- Cause and effect
  - ◆ A relationship in which change in one variable causes change in another
- Types of variables
  - ◆ *Independent*: the variable that causes the change
  - ◆ *Dependent*: the variable that changes (its value *depends* upon the independent variable)
- Correlation
  - ◆ A relationship by which two or more variables change together
- Spurious correlation
  - ◆ An apparent, though false, relationship between two or more variables caused by some other variable

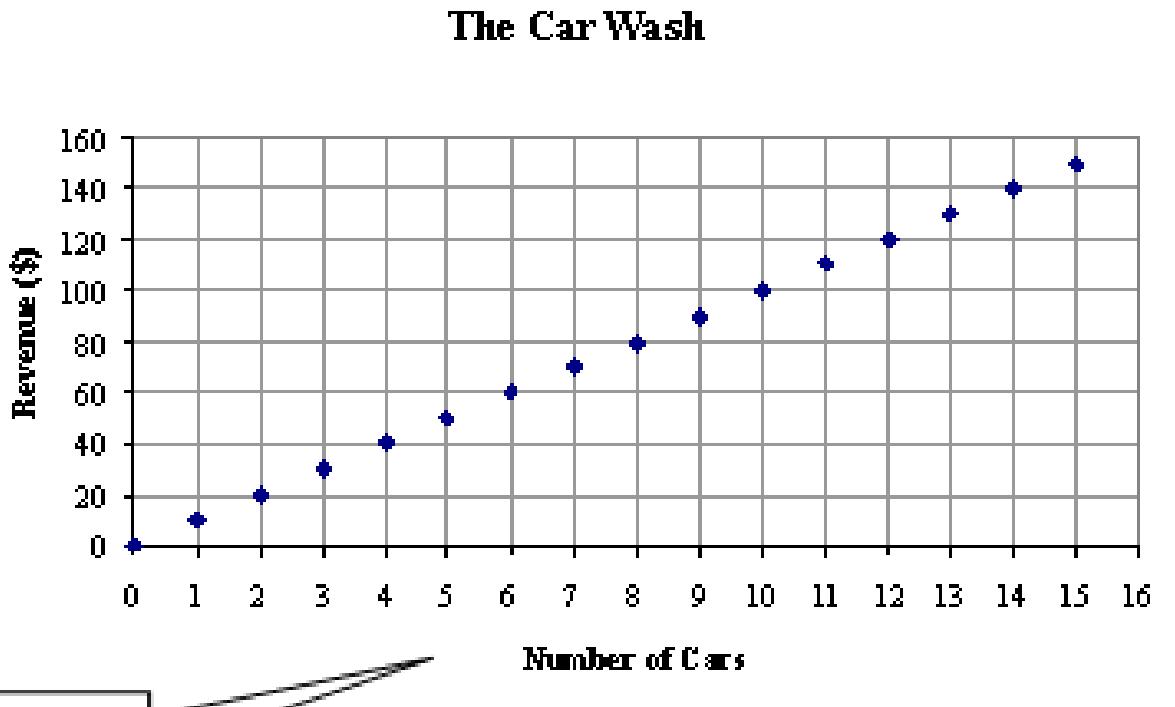
# Causation

**Dependent variable –**

The amount of money raised **depends** on the number of cars washed.

Effect

Y  
A  
X  
i  
S



**Independent variable**  
- the number of cars washed

Cause

X Axis

# *Scientific Sociology Terminology*

- **Concepts**

- ◆ A mental construct that represent some part of the world in a simplified form

- **Variables**

- ◆ Concepts whose values change from case to case

- **Measurement**

- ◆ A procedure for determining the value of a variable in a specific case

- **Operationalizing a variable**

- ◆ Specifying exactly what is to be measured before assigning a value to a variable

# *Scientific Sociology Terminology*

- **Reliability** – consistency in measurement
  - ◆ Does an instrument provide for a consistent measure of the subject matter?
- **Validity** – precision in measuring exactly what one intends to measure
  - ◆ Does an instrument actually measure what it sets out to measure?

# *Correlation Does Not Mean Causation*

- **Conditions for cause and effect to be considered**
  - ◆ **Existence of a correlation**
  - ◆ **The independent (causal) variable precedes the dependent variable in time**
  - ◆ **No evidence suggests that a third variable is responsible for a spurious correlation between the two original variables**

# *Scientific Sociology Terminology*

- Objectivity
  - ◆ A state of personal neutrality in conducting research
- Value-free research
  - ◆ Weber says sociologists should strive to be dispassionate and detached
- Replication
  - ◆ Repetition of research by other investigators
  - ◆ Helps limit distortion caused by personal values

# *Limitations of Scientific Sociology*

- Human behavior is too complex to predict precisely any individual's actions
- The mere presence of the researcher may affect the behavior being studied
- Social patterns change
- Sociologists are part of the world they study making value-free research difficult

## 2. *Interpretive Sociology*

- Interpretive Sociology
  - ◆ Focus on the meanings people attach to their social world
    - Looks at the “Why” behind behaviors
    - How people construct reality on a daily basis
    - Focus on “Qualitative data” ie. How people understand their surroundings

### *3. Critical Sociology*

- **Critical Sociology**

- ◆ Is it possible for a researcher to maintain objectivity?
- ◆ Critical Sociology focuses on the need for social change
- ◆ Sociologists make value judgments about how society should be improved
  - Should sociologists be social activists?
  - Is all research political or biased?
- ◆ The activism in Critical Sociology allow sociologists to support political positions

# *Gender And Research*

- Androcentricity
  - ◆ Approaching the topic from a male-only perspective
- Gynocentricity
  - ◆ Approaching the topic from a female-only perspective (less common than Androcentricity)
- Overgeneralizing
  - ◆ Using data collected from one sex and applying the findings to both sexes
- Gender blindness
  - ◆ The failure to consider the impact of gender at all
- Double standards
  - ◆ Using different standards to judge males and females
- Interference
  - ◆ This occurs when a subject under study reacts to the sex of the researcher and thereby interferes with the research operation

# *Ethical Guidelines for Research*

- Must strive to be technically competent & fair-minded
- Must disclose findings in full without omitting significant data & be willing to share their data
- Must protect the safety, rights and privacy of subjects
- Must obtain *informed consent*- subjects are aware of risks and responsibilities and agree
- Must disclose all sources of funding & avoid conflicts of interest
- Must demonstrate cultural sensitivity

# *Sociological Research Methods*

## *a Systematic Plan for Conducting Research*

- **Experiment** – a research method for investigating cause and effect under highly controlled conditions
- **Hypothesis** – an unverified statement of a relationship between variables (an educated guess)
- **Placebo** – a treatment that seems to be the same but has no effect on the experiment
- **Hawthorne effect** – a change in a subject's behavior caused by the awareness of being studied

# *Steps in the Ideal Experiment*

- Specify the dependent and independent variables
- Measure the dependent variable
- Expose dependent variable to independent variable
- Re-measure dependent variable to see if predicted change took place
  - ◆ If no change, modify hypothesis & re-test

# *Control*

- To be certain that the change in the dependent variable was due to the exposure to the independent variable researcher must keep constant other factors that may intrude
- One method is to break group into experimental and control groups
  - ◆ Experimental group gets exposed to independent variable
  - ◆ Control group gets exposed to a placebo

# ***Survey Research***

*A Research Method in Which Subjects Respond to a Series of Statements or Questions in a Questionnaire or Interview*

- Population
  - ◆ The people who are the focus of the research
- Sample
  - ◆ The part of the population that represents the whole
- Random Sample
  - ◆ Drawing a sample from a population so that every element of the population has an equal chance of being selected

# **Questionnaire**

*A Series of Written Questions a Researcher  
Presents to Subjects*

- Closed-ended
  - ◆ A series of fixed responses; easy to analyze but narrows range of responses
- Open-ended
  - ◆ Free response; broadens range of responses but harder to analyze

Most surveys are self-administered;  
pretesting can avoid costly problems

# *Other Research Methods*

- **Interviews**
  - ◆ A series of questions a researcher administers in person to respondents
- **Participant observation**
  - ◆ A research method in which investigators systematically observe people while joining in their routine activities
- **Secondary analysis**
  - ◆ A research method in which a researcher uses data collected by others

# *Interplay Between Theory & Method*

- **Inductive logic**
  - ◆ Reasoning that transforms specific observations into general theory
    - Induction “increases” from specific to general
- **Deductive logic**
  - ◆ Reasoning that transforms general theory into specific hypotheses suitable for testing
    - Deduction “decreases” from general to specific

# *10 Steps In Sociological Investigation*

1. Select and define topic
2. Review the literature
3. Develop key questions to ask
4. Assess requirements for study
5. Consider ethical issues
6. Select a research methodology
7. Collect the data
8. Interpret the findings
9. State conclusions
10. Publish the findings

# *How People Lie With Statistics*

- ◆ **People select their data**
  - Data may not be the whole truth
- ◆ **People interpret their data**
  - As if numbers can only mean one thing
- ◆ **People use graphs to “spin” the truth**
  - Manipulating timeframes on graphs
  - Using scale to inflate or deflate a trend