

15-1 Ethics in Statistics

Key Concept Statistical methods give us tremendous power to better understand the world in which we live. This power, however, can be abused in ways that are fundamentally unethical. It is important for us to consider some ethical issues in statistics related to data collection, analysis, and reporting.

I. Data Collection

Obtaining Data

“The end does not justify the means” is a widely quoted phrase central to many ethical debates. Are actions that harm some individuals ever justifiable if the results of these actions benefit others? When, if ever, does the good of the many outweigh the good of the few? There are many research studies in which the health and safety of research subjects were compromised so that others might benefit.

Prisoner Studies In the early 1970s, it is estimated that 90% of pharmaceutical research in the United States was conducted using prisoners as human test subjects. In some cases, this research was conducted without the prisoner’s knowledge or consent. These prisoners served as an easily accessible and controlled population for a wide range of research conducted by pharmaceutical companies, the U.S. Army, and others. The Common Rule (discussed later in this section) now protects human research subjects in the United States, and there is continuing debate about whether research should ever be allowed in prisons.

Milgram Experiment During the 1960s, Stanley Milgram conducted one of the most infamous psychological studies. Subjects were ordered to administer progressively stronger electrical shocks to actors who were in another room. These actors were not visible to the subject and were not actually receiving shocks. Prerecorded screams were played so the subject could hear them. The actor would bang on the wall and beg for the subject to stop.

Prior to the experiment, a poll of experts estimated that only 3% of subjects would continue giving shocks after hearing the screams and the pleas to stop, but 65% of the subjects increased shocks until the maximum of 375 volts was reached. This and subsequent follow-up studies provided valuable insight into the power of authority and the danger of obedience.