Ethics

STAT8801
Statistical Consulting

School of Statistics
University of Minnesota

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Road map

U of M mandates training in ethical conduct of research, scholarship, and teaching (see `www.research.umn.edu/ethics`).

1. General
2. Scientific
3. Statistical

Full Disclosure

These classes draw heavily and extensively from material assembled by Prof. Doug Hawkins and by the University of Minnesota FIRST program (Fostering Integrity in Research, Scholarship, and Teaching), with some additional material from Jerry Cohen in the Dept. of Horticultural Science.

Ethical Science

"Of all the traits which qualify a scientist for citizenship in the republic of science, I would put a sense of responsibility as a scientist at the very top. A scientist can be brilliant, imaginative, clever with his hands, profound, broad, narrow but he is not much as a scientist unless he is responsible."

Alvin Weinberg, "The Obligations of Citizenship in the Republic of Science," Minerva, 16: 1-3, 1978

Principles

Many sources of principles: religion, philosophers, national leaders, etc. We'll discuss some universal themes.

Discuss:

Brainstorm some situations where your principle might influence a decision. Be prepared to share one or two.

Principles from Resnik, D. B. 1998 The Ethics of Science, an Introduction

Principles

Nonmaleficence Do no harm to yourself or others.

Beneficence Help yourself and others.

Autonomy Allow rational individuals to make free, informed choices.

Justice Treat people fairly; treat equals equally, unequals unequally.

Utility Maximize the ratio of benefit to harm for all people.

Fidelity Keep your promises and agreements.

Honesty Do not lie, defraud, or mislead.

Privacy Respect personal privacy and confidentiality.

Ethics is hard

It's easy to talk the talk of ethics, but it's difficult to walk the walk.

Ethical dilemmas occur when principles or obligations come into conflict.

Discuss:

Which of the other principles might conflict with yours? Be prepared to share an example of such a conflict.

Teacher Ethics

A student about to get a C begs the professor for a B, since a C will cause the student to lose a Fellowship and return to his home country. He will do any amount of extra work to get the B. What should the professor do?

It turns out that the student is doing poorly in all classes; is this relevant?

The Tuskegee Syphilis Study

The predecessor agency to the CDC funded a research project in which 400 African-American men with syphilis were deceived into participating in a study of the natural history of the disease. Subjects were offered "treatment" for their disease, when in fact none was offered and the only interventions were diagnostic and sometimes risky (spinal taps). During the course of the study, penicillin was discovered, but withheld from the subjects until the time that the research was stopped in 1973. This case was one of the sentinel events that catalyzed the creation of federal regulations for the protection of human research subjects.

What if they had been volunteered and had been told the truth?

Obeying the law

The speed limit in a school zone is 20 mph. Can you ignore that law and drive faster?

What if you are rushing an injured person to the hospital?

Keeping promises

You work for a drug company. When you began, you signed a nondisclosure agreement wherein you promised to keep secret everything you learn while working at the company.

The company is testing a new drug, and you discover that the company's report to the FDA conceals that several patients taking the new drug in the clinical trial died.

What do you do?

Summary

- Ethics are rules of conduct for individuals.
- Ethics are based on principles of benefit to self and others.
- Problems arise when principles conflict.
- Resolving ethical conflict can be difficult.