

Ethical Guidelines for Statistical Practice: Report of the Ad Hoc Committee on Professional Ethics

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PREAMBLE

The American Statistical Association is a scientific, professional, and educational organization. As such it recognizes that the professional integrity of statisticians is dependent not only upon their skills and dedication but also upon their adherence to recognized principles of ethical behavior. Wherein statistics as a science strives toward truth, these guidelines are designed to provide a measure by which both individuals and organizations can avoid compromise of truth and can be protected from the misuse of statistics and statistical data.

The traditional ethical norms of seeking truth and avoiding error are of particular importance in the practice of statistics. Beyond these traditional ethical norms, statisticians have ethical concerns for the privacy of collected data, the open and complete description of the statistical process, and the use and communication of the statistical method.

Therefore, this document proposes ethical principles for the guidance of statisticians. It encourages statisticians to be constantly aware of ethical issues which could influence their professional work and to continually strive to increase their personal competence in the practice of their profession.

I. PURPOSE AND SCOPE

A. The American Statistical Association hereby establishes these Ethical Guidelines for Statistical Practice. These guidelines identify ethical relationships with the public, government, clients or employers, and other professionals. They appear in Section II.

B. This document is open-ended: it establishes procedures for amending its contents and for broadening its scope. The main vehicle for such changes is the Ad Hoc Committee on Professional Ethics. The structure of this Committee is outlined in Section III.

C. Additional requirements may be incorporated into the body of this document for any of the following specific purposes:

- 1. to extend the general guidelines;
- 2. to identify further points of ethical contact between statisticians and the public, government, their clients or employers, and other professionals;
- to establish ethical principles for the use of statistics in a particular area—medicine, law, or survey research, for example;
- 4. to set ethical principles for publishing statistical reports; and
- 5. to document procedures for resolving disputes on questions of professional ethics.

Changing this document is discussed in Section IV, where the initial trial period is specified.

II. GENERAL GUIDELINES

A. Statisticians have a public duty to maintain integrity in their professional work, particularly in the application of statistical skills to problems where private interests may inappropriately affect the development or application of statistical knowledge. For these reasons, statisticians should:

- 1. present their findings and interpretations honestly and objectively;
- 2. avoid untrue, deceptive, or undocumented statements;
- 3. disclose any financial or other interests that may affect, or appear to affect, their professional statements.

B. Recognizing that collecting data for a statistical inquiry may impose a burden on respondents, that it may be viewed by some as an invasion of privacy, and that it often involves legitimate confidentiality considerations, statisticians should:

- 1. collect only the data needed for the purpose of their inquiry;
- 2. inform each potential respondent about the general nature and sponsorship of the inquiry, and the intended uses of the data;
- 3. establish their intentions, where pertinent, to protect the confidentiality of information collected from respondents; try to ensure that these intentions realistically reflect their ability to do so; and clearly state pledges of confidentiality and their limitations to the respondents;
- 4. ensure that the means are adequate to protect confidentiality to the extent pledged or intended; that processing and use of data are in conformity with the pledges made; that appropriate care is taken with directly identifying information (using such steps as destroying this type of information or removing it from the file when it is no longer needed for the inquiry); that appropriate techniques are applied to control statistical disclosure; and
- 5. ensure that, whenever data are transferred to other persons or organizations, this transfer is in conformity with the confidentiality pledges established; require written assurance from the recipients of the data that the measures employed to protect confidentiality will be at least equal to those originally pledged.

C. Recognizing that statistical work must be visible and open to assessment in order to advance knowledge, and that such assessment may involve the assumptions, methodology and data processing used, statisticians should:

- 1. delineate the boundaries of the inquiry as well as the boundaries of the statistical inferences which can be derived from it;
- 2. emphasize that statistical analysis may be an essential component of an inquiry, and should be acknowledged in the same manner as other essential components;
- be prepared to document: data sources used in an inquiry; known inaccuracies in the data; steps taken to correct or to refine the data, statistical procedures applied to the data and the assumptions required for their application;
- 4. make the data sources available for analysis by other responsible parties with appropriate safeguards for privacy concerns;
- 5. recognize that the selection of a statistical procedure may to some extent be a matter of judgment, and that other statisticians may select alternative procedures; and
- 6. direct any criticism of a statistical inquiry to the inquiry itself, and not to the individuals conducting it.

D. Recognizing that a client or employer may be unfamiliar with statistical practice and be dependent upon the statistician for expert advice, statisticians should:

- 1. make clear their qualifications to undertake the statistical inquiry at hand;
- 2. inform a client or employer of all factors that may affect or conflict with their impartiality;
- 3. accept no contingency-fee arrangements;
- 4. fulfill all commitments in any inquiry undertaken;
- 5. apply statistical procedures without concern for a favorable outcome;
- 6. state clearly, accurately, and completely to a client the possible consequences if their recommended statistical procedures are overruled; and
- 7. disclose no private information about or belonging to any present or former client without the client's approval.

III. AD HOC COMMITTEE ON PROFESSIONAL ETHICS

A. The Ad Hoc Committee on Professional Ethics for the American Statistical Association consists of nine members to be selected by the President of the Association. The term of service is 3 years (except for the initial members, one-third of whom serve 1 year, onethird serve 2 years, one-third of whom serve 3 years). The Committee officers consist of a Chair, and a Vice-Chair.

B. To keep the importance of ethical principles before the Membership of the Association, the Ad Hoc Committee on Professional Ethics uses appropriate publication channels to provide information about the ethical issues raised in statistical practice. Materials prepared for this purpose may discuss actual disputes or respond to questions raised by statisticians or by others concerning ethical principles. The Committee may develop a series of case studies of ethical issues in practical settings.

C. The Committee may recommend actions to the Board of Directors that modify the general guidelines to meet changing conditions; or add sections that specify principles of ethical behavior for the collection, preparation, reporting, and use of statistics in individual subject matter areas. Section IV describes the procedures for such modifications.

D. The Committee establishes liaison with groups in other organizations that are concerned with ethical behavior.

E. The Committee serves as a focal point for ethical questions that are raised in statistical research and practice. The Committee may consult, in strictest confidence, with the involved individuals and organizations in order to work out an understanding.

IV. MODIFICATION TO THESE GUIDELINES

A. These guidelines are to have a trial period of 3 years, at the end of which time they will be reexamined in their then current form by the Board of Directors. Recognizing that these guidelines must be allowed to grow and mature through active use, the Ad Hoc Committee on Professional Ethics may, during that period, modify and extend them by a two-thirds vote. Each change is to be submitted to the Board of Directors for their approval.

B. During the trial period, the Committee is to develop and refine procedures for administering the General Guidelines. These administrative procedures are to be submitted to the Board of Directors for their approval.

C. The Committee is to communicate with each Section of the Association concerning amendments to this document which are relevant to the particular Section.

D. Advice from other professional groups is to be sought by the Committee to widen the scope of this document to encompass statistical issues faced by these groups.

Members of the Ad Hoc Committee on Professional Ethics

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Lee-Ann Hayek, Smithsonian Institution; Vice-Chair Tore Dalenius, Brown University

Sidney Hollander, Hollander Cohen Associates

Charles R. Mann, Charles R. Mann Associates

- Eli S. Marks, Bureau of the Census
- Janace S. Pierce, Ontario Ministry of Transportation and Communication

Frederick J. Scheuren, Internal Revenue Service William Seltzer, United Nations