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EXECUTIVE SUMMARY

THE AMERICAN STATISTICAL ASSOCIATION (ASA) funded the Guidelines for Assessment and Instruction in Statistics Education (GAISE) Project, which consists of two groups, one focused on K–12 education and one focused on introductory college courses. This report presents the recommendations developed by the college group.

The report includes a brief history of the introductory college course and summarizes the 1992 report¹ by George Cobb that has been considered a generally accepted set of recommendations for teaching these courses. Results of a survey on the teaching of introductory courses are summarized, along with a description of current versions of introductory statistics courses. We then offer a list of goals for students, based on what it means to be statistically literate. We present six recommendations for the teaching of introductory statistics that build on the previous recommendations from Cobb's report. Our six recommendations include the following:

1. Emphasize statistical literacy and develop statistical thinking
2. Use real data
3. Stress conceptual understanding, rather than mere knowledge of procedures
4. Foster active learning in the classroom
5. Use technology for developing conceptual understanding and analyzing data
6. Use assessments to improve and evaluate student learning

The report concludes with suggestions for how to make these changes and includes numerous examples in the appendices to illustrate details of the recommendations.

¹ George Cobb. *Heeding the Call for Change: Suggestions for Curricular Action (MAA Notes No. 22)*, chapter Teaching Statistics, pages 3–43. The Mathematical Association of America, Washington DC, 1992