# 2016 GAISE College Report

(Adapted from an activity by Matthew Beckman)

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# Guidelines for Assessment and Instruction in Statistics Education

- 1. Teach statistical thinking
  - A. Teach statistics as an investigative process of problem solving and decision making
  - B. Give students experience with multivariable thinking
- 2. Focus on conceptual understanding
- 3. Integrate real data with a context and purpose
- 4. Foster active learning
- 5. Use technology to explore concepts and analyze data
- 6. Use assessments to improve and evaluate student learning

# **Discussion Activity**

## Part I: Summarize your assigned GAISE guidelines

Be prepared to summarize each of your assigned GAISE guidelines for the class. For example,

- 1. What is this guideline intended to accomplish?
- 2. Do you think this guideline is important, and why or why not?
- 3. Have you ever experienced a class that incorporated this guideline, and how did this experience impact your learning?
- 4. What sort of examples did the authors of the GAISE College Report describe?

#### Part II: Action Plan

Prepare a specific plan to share with the class describing how an instructor could implement your assigned GAISE guidelines in:

- 1. A statistics course you are currently taking this semester
- 2. An introductory statistics course like STAT 200 at Penn State

We will critique these suggestions as a class to refine our thinking about the GAISE guidelines and help everyone begin to think about how they will incorporate GAISE guidelines into upcoming practice teaching assignments.

### Part III: Topics Omitted from Introductory Statistics

Be prepared to share your remarks about the topics the might be omitted from introductory statistics courses.

- 1. Which topics are you glad to see on this list?
- 2. What are your personal experiences with these course topics being included/excluded?
- 3. Are there topics listed that you believe should **NOT** be excluded?
  - (a) Share reasons why you'd like it to remain in the course
  - (b) Share reasons why it might reasonably be excluded
- 4. Are there topics missing from the list that you think should be included?
  - (a) Share reasons why you'd like it to be excluded
  - (b) Share reasons why it might reasonably remain in the course