

**Statistics 1:  
Introduction to  
Probability and Statistics  
Section 1-3**

---

---

---

---

---

---

---

**Critical Thinking**

- **Statistical thinking often depends more on common sense than on math skills**
- **Here, we apply common sense with critical thinking about data and statistical analysis**

---

---

---

---

---

---

---

**Abuses of Statistics**

- **Bad samples**
- **Small samples**
- **Loaded questions**
- **Misleading graphs**
- **Pictographs**

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Bad samples**
- **Small samples**
- **Loaded questions**
- **Misleading graphs**
- **Pictographs**

---

---

---

---

---

---

---

---

## **(More) Abuses of Statistics**

- **Precise numbers**
- **Distorted percentages**
- **Partial pictures**
- **Deliberate distortions**

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Bad samples**

—

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Small samples**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Loaded questions**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Misleading graphs**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Pictographs**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Precise numbers**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Distorted percentages**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Partial pictures**

–

---

---

---

---

---

---

---

---

## **Abuses of Statistics**

- **Deliberate distortions**

–

---

---

---

---

---

---

---

---