



Waukegan Community Unit  
School District #60  
Lincoln Center for Educational Services  
Division of Teaching, Learning, and Professional Practices

## **The Core Principals: Standards for Mathematical Practice**

### **Conceptual Category: Statistics and Probability**

### **Overview**

The goal of the Standards for Mathematical Practice is to complement the Common Core State Standards by working to engage students in the subject matter, ensuring that they grow in maturity and expertise from Pre-Kindergarten through High School.

#### **Interpreting Categorical and Quantitative Data**

- Summarize, represent, and interpret data on a single count or measurement variable
- Summarize, represent, and interpret data on two categorical and quantitative variables
- Interpret linear data

#### **Making Inferences and Justifying Conclusions**

- Understand and evaluate random processes underlying statistical experiments
- Make inferences and justify conclusions from sample surveys, experiments and observational studies

#### **Conditional Probability and the Rules of Probability**

- Understand independence and conditional probability and use them to interpret data
- Use the rules of probability to compute probabilities of compound events in a uniform probability model

#### **Using Probability to Make Decisions**

- Calculate expected values and use them to solve problems
- Use probability to evaluate outcomes of decisions

#### **Standards for Mathematical Practice**

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for an express regularity in repeated reasoning