

Interpreting Categorical Variables

| Statistical Question | What is the proportion of students who do not play an instrument? | How many students neither own a cat nor play an instrument? | Do a greater proportion of students in Rosa's art class who own cats prefer to play an instrument than those who do not own cats? | Is there a difference in cat preference for those who play instruments versus those who don't? | |
|-----------------------------|---|---|---|--|--|
| Visualization | | | | | |
| Numerical Summaries | | | | | |
| Answer | | | | | |

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Answer Key

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| Visualization | <i>Plot B</i> | <i>Plot E Plot G Plot K Plot I</i> | <i>Plot H Plot J</i> | <i>Plot E Plot F Plot K Plot L</i> | |
| Numerical Summaries | <i>Table 2</i> | <i>Table 1 Table 7</i> | <i>Table 8</i> | <i>Table 4</i> | |
| Answer | <i>The proportion of students who do not play an instrument is 0.514. A majority of students do not play an instrument.</i> | <i>Nine students neither own a cat nor play and instrument.</i> | <i>No. About 44% of students who own cats play an instrument whereas 53% of students who do not own cats play an instrument.</i> | <i>41% of students who play and instrument own a cat and 50% of students who do not play an instrument own a cat. It seems that students in Rosa's class who do not play an instrument prefer cats compared to those students that play and instrument.</i> | |