Topic C:

**Categorical Data on Two Variables**

S-ID.B.5, S-ID.C.9

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| Focus Standard: | S-ID.B.5 | Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.★ |
|  | S-ID.C.9 | Distinguish between correlation and causation.★ |
| Instructional Days: | 3 |  |
| Lesson 9: | Summarizing Bivariate Categorical Data (E)[[1]](#footnote-1) | |
| Lesson 10: | Summarizing Bivariate Categorical Data with Relative Frequencies (E) | |
| Lesson 11: | Conditional Relative Frequencies and Association (E) | |

In Topic C, students reconnect with previous work in Grade 8 involving categorical data. Students use a two-way frequency table to organize data on two categorical variables. Students calculate the conditional relative frequencies from the frequency table. They explore a possible association between two categorical variables using differences in conditional, relative frequencies. Students also come to understand the distinction between association between two categorical variables and a causal relationship between two variables. This provides a foundation for work on sampling and inference in later grades.

1. Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E-**Exploration Lesson, **S-**Socratic Lesson [↑](#footnote-ref-1)