Discrete Response Model Lecture 1

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Odd Ratios

Defining Odd-Ratio

Odds ratio incorporate information from both Rows 1 and 2 into a single number:

$$OR = \frac{\text{odds}_1}{\text{odds}_2} = \frac{\pi_1 / (1 - \pi_1)}{\pi_2 / (1 - \pi_2)} = \frac{\pi_1(1 - \pi_2)}{\pi_2(1 - \pi_1)}$$

Odds ratios are VERY useful in categorical data analysis and will be used throughout this course.