

## 10.3: Multinomial Logistic Regression

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Read Section 13.2.7 of your textbook. As you read, take notes on the following.

Suppose the response variable is categorical with  $m + 1$  outcomes, where  $m$  is at least 2. Such a variable follows a multinomial (instead of a Bernoulli) distribution.

- 1 Write down the logistic regression models in this setting with more than two outcomes for the response variable.
- 2 What is the interpretation for the coefficients of a logistic regression model when the response variable is multinomial?

View the videos below for a more thorough explanation on how the multinomial logistic regression is set up, along with a worked example. You can download the accompanying slides below the videos.

#### Part 1



#### Part 2



 [mod10\\_coeff.pdf](#)

Slides to accompany the "Multinomial Logistic Regression" videos