

Consulting Practicum: 6627

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Preface

This is a Quarto book.

To learn more about Quarto books visit <https://quarto.org/docs/books>.

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1 Mixed Models

1.1 Clustered data

1.1.1 Review of multiple linear regression

Recall the multiple linear regression model:

For the model $Y|X = X\beta + \epsilon$, we have

- $Y \in \mathbb{R}^n$ is the response variable (a continuous random vector)
- $X \in \mathbb{R}^{n \times p}$ is the covariate matrix (Note that the first column is often 1_n – the column vector of ones)
- $X_i \in \mathbb{R}^p$ is the i^{th} observed explanatory variable ($i = 1, \dots, n$) (not a random variable, in the sense that we condition on it)
- $\beta \in \mathbb{R}^{p \times 1}$ is the coefficient vector
- $\epsilon \in \mathbb{R}^n$ is the random error (continuous random variable)

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2 Summary

In summary, this book has no content whatsoever.

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References