

CHAPTER OVERVIEW

10: ANCOVA Part II

Objectives

Upon completion of this chapter, you should be able to:

- Use ANCOVA to analyze experiments that require polynomial modeling for quantitative (numerical) predictors.
- Test hypotheses for treatment effects on polynomial coefficients.

In this chapter, we will extend our work with ANCOVA to model quantitative predictors with higher-order polynomials by utilizing orthogonal polynomial coding. Fitting a polynomial to express the impact of the quantitative predictor on the response is also called trend analysis and helps to evaluate the separate contributions of linear and nonlinear components of the polynomial. The examples discussed will illustrate how software can be used to fit higher-order polynomials within an ANCOVA model.

[10.1: ANCOVA with Quantitative Factor Levels](#)

[10.2: Quantitative Predictors - Orthogonal Polynomials](#)

[10.3: Chapter 10 Summary](#)

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