

## CHAPTER OVERVIEW

### 12: Finite Sampling Models

This chapter explores a number of models and problems based on sampling from a finite population. Sampling without replacement from a population of objects of various types leads to the hypergeometric and multivariate hypergeometric models. Sampling with replacement from a finite population leads naturally to the birthday and coupon-collector problems. Sampling without replacement from an ordered population leads naturally to the matching problem and to the study of order statistics.

[12.1: Introduction to Finite Sampling Models](#)

[12.2: The Hypergeometric Distribution](#)

[12.3: The Multivariate Hypergeometric Distribution](#)

[12.4: Order Statistics](#)

[12.5: The Matching Problem](#)

[12.6: The Birthday Problem](#)

[12.7: The Coupon Collector Problem](#)

[12.8: Pólya's Urn Process](#)

[12.9: The Secretary Problem](#)

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