

There are several fields that are related to applied statistics. Here are a few examples:

1. **Data Science:** Data science involves the use of statistical and computational methods to extract insights and knowledge from data. It combines skills in programming, machine learning, and data visualization with a solid foundation in statistical concepts.
2. **Biostatistics:** Biostatistics involves the application of statistical methods to biological and health-related data. Biostatisticians work in areas such as clinical trials, epidemiology, and public health.
3. **Econometrics:** Econometrics involves the use of statistical methods to analyze economic data. Econometricians work in areas such as finance, market research, and policy analysis.
4. **Business Analytics:** Business analytics involves the use of statistical methods to extract insights and knowledge from business data. Business analysts work in areas such as marketing, operations, and strategy.
5. **Actuarial Science:** Actuarial science is a field of study that involves the use of mathematical and statistical methods to analyze and manage financial risks, especially in the insurance industry.

In the next chapter we will begin our journey into statistics by discussing some of the reasons there is so much data being produced.

1.5 Exercises

Basic Concepts

1. How does the chart show that there is a growing interest in the field of statistics?
2. What has been the major contributing factor in the increase in job opportunities for statisticians?
3. Why are there concerns about a shortage of highly-trained individuals with applied statistical skills?
4. Research the salaries of statisticians and data scientists. How do their salaries compare to other professions like engineering and computer science?

CR Chapter Review

Key Terms and Ideas

- Empiricism
- Statistics
- Rationality
- Deductive Reasoning
- Syllogism
- Inductive Reasoning
- Population
- Frame
- Census
- Parameter
- Metric
- Sample
- Statistic
- Descriptive Statistics
- Inferential Statistics
- Statistical Literacy