

C O N T E N T S

Series Editor's Introduction	5
1. Thomas Bayes and Statistical Inference	7
2. Classical Statistical Inference	9
Use of Tail Probabilities	10
Interpretation of Confidence Intervals	11
Uncertainty about Parameter Values	11
3. Bayes' Theorem	12
Derivation	12
An Example	13
One Population	16
4. Bayesian Methods for a Proportion	18
Proportion	18
5. Bayesian Methods for Other Parameters	34
Mean	34
Correlation	39
Regression	44
Contingency Tables	48
Difference Between Two Means	51
Ratio of Two Variances	55
Analysis of Variance	57
6. Prior Distributions	59
Informative versus Noninformative Priors	61
Finding Prior Distributions	64
Subjective Nature of Priors	66
Effect of Priors	68

7. Bayesian Difficulties 70

Priors 70

Data Probabilities 71

Computation 72

8. Bayesian Strengths 72

Specific Reasons 73

General Reasons 75

References 78

About the Author 80