

Contents

	Page
Contents	III
Contributors	V
Introduction	1
Robert F. Boruch and Robert W. Pearson	
Research Designs and Causal Inferences: On Lord's Paradox	7
Paul W. Holland and Donald B. Rubin	
1. Introduction.....	8
2. A Model for Causal Inference.....	9
2.1 The elements of the model.....	9
2.2 Discussion of the elements of the model.....	10
2.3 Three kinds of studies.....	12
2.4 Causal effects and related quantities in causal studies	12
3. Lord's examples.....	14
3.1 Example 1: Two subpopulations receiving one treatment.....	14
3.2 Example 2: A descriptive study.....	18
3.3 Example 3: Contemplating new treatments.....	20
3.4 Example 4: Two explicit treatments.....	22
4. Discussion.....	23
Appendix: Randomization and Inference for Causal Effects	25
A.1 The completely randomized experiment.....	25
A.2 Causal effects in subpopulations.....	25
A.3 Randomization within populations.....	26
A.4 Randomization based on a covariate.....	27
A.5 Randomization based on a covariate within subpopulations.....	28
A.6 Descriptive studies.....	29
References.....	31
Tables and Figures.....	33

Toward Conducting Benefit-Cost Analysis of Data Programs Bruce D. Spencer	38
1. An Illustration of the Use of Benefit-Cost Analysis	38
2. A Closer Look at Benefit-Cost Analysis.....	40
3. Data Quality	42
4. Benefits	43
5. Uses of Data in Decisionmaking.....	45
6. Nonoptimal Data Use.....	47
7. Summary and Conclusions.....	49
Appendix.....	51
Tables and Figures.....	56
The Design and Analysis of Longitudinal Surveys: Controversies and Issues of Cost and Continuity Stephen E. Fienberg and Judith M. Tanur	60
Abstract	60
1. Introduction.....	61
2. Conceptual Framework.....	65
3. The Key Controversy: It's All a Matter of Perspective.....	68
4. Costs and the Effects of Scale	71
5. Longitudinal Missingness, Attrition, and Imputation.....	75
6. Drawing Formal Inferences from Sample Survey Data.....	79
7. Summary and Answer to Questions.....	83
References	86
The Role of Panel Studies in a World of Scarce Research Resources Greg J. Duncan, F. Thomas Juster, and James N. Morgan	94
1. Analytic Benefits of Panel Designs.....	95
1.1. The role of panel data in describing and explaining change.....	96
1.2. Panels as successive cross-sections	100
2. Panel Designs and Data Quality.....	101
2.1. Effects of memory on response error	101
2.2. Effect of panel participation	104
2.3. Analytic costs of "cheaper" panel studies.....	105
3. Relative Monetary Costs of Longitudinal Studies	110
4. Summary.....	113
References	115