

Neil J. Dorans • Sandip Sinharay  
Editors

# Looking Back

Proceedings of a Conference  
in Honor of Paul W. Holland

 Springer

# Contents

## Part I Paul Holland's Contributions

- 1 The Contributions of Paul Holland ..... 3  
Shelby J. Haberman

## Part II Holland the Young Scholar

- Comments on My Social Network Research..... 19  
Paul W. Holland

- 2 Algebraic Statistics for  $p_1$  Random Graph Models:  
Markov Bases and Their Uses..... 21  
Stephen E. Fienberg, Sonja Petrović, and Alessandro Rinaldo

- 3 Mr. Holland's Networks: A Brief Review of the Importance  
of Statistical Studies of Local Subgraphs or One Small Tune  
in a Large Opus ..... 39  
Stanley Wasserman

## Part III Holland Shaping ETS

- Some of My Favorite Things About Working at ETS ..... 51  
Paul W. Holland

- 4 Bayesian Analysis of a Two-Group Randomized  
Encouragement Design..... 55  
Donald B. Rubin

<b>5</b>	<b>The Role of Nonparametric Analysis in Assessment Modeling: Then and Now</b> .....	<b>67</b>
	Brian W. Junker	
<b>6</b>	<b>What Aspects of the Design of an Observational Study Affect Its Sensitivity to Bias from Covariates That Were Not Observed?</b> .....	<b>87</b>
	Paul R. Rosenbaum	
<b>7</b>	<b>The Origins of Procedures for Using Differential Item Functioning Statistics at Educational Testing Service</b> .....	<b>115</b>
	Michael J. Zieky	
<b>Part IV Holland the Berkeley Professor</b>		
	<b>Why I Left ETS and Returned</b> .....	<b>129</b>
	Paul W. Holland	
<b>8</b>	<b>Cause or Effect? Validating the Use of Tests for High-Stakes Inferences in Education</b> .....	<b>131</b>
	Derek C. Briggs	
<b>9</b>	<b>Propensity Score Matching to Extract Latent Experiments from Nonexperimental Data: A Case Study</b> .....	<b>149</b>
	Ben B. Hansen	
<b>Part V Holland Rebuilding ETS</b>		
	<b>Returning to ETS from Berkeley</b> .....	<b>183</b>
	Paul W. Holland	
<b>10</b>	<b>Log-Linear Models as Smooth Operators: Holland's Statistical Applications and Their Practical Uses</b> .....	<b>185</b>
	Tim P. Moses	
<b>11</b>	<b>Chain Equipercentile Equating and Frequency Estimation Equipercentile Equating: Comparisons Based on Real and Simulated Data</b> .....	<b>203</b>
	Sandip Sinharay	
<b>12</b>	<b>An Observed-Score Equating Framework</b> .....	<b>221</b>
	Alina A. von Davier	

**Part VI Holland: From Mentor to Colleague**

**Great Colleagues Make a Great Institution** ..... 239  
Paul W. Holland

**13 An Exploratory Analysis of Charter Schools** ..... 241  
Henry I. Braun, Christina Tang, and Kathleen M. Sheehan

**14 Holland’s Advice for the Fourth Generation  
of Test Theory: Blood Tests Can Be Contests**..... 259  
Neil J. Dorans

**Author Index**..... 273

**Subject Index** ..... 279