

Contents

List of Figures

List of Tables

Chapter 1 - Adverse Impact

Overview

Types of Adverse Impact Analyses

The Concept of Statistical Significance

Selection Rate Comparison for a Single Event

Selection Rate Comparisons for Multiple Events

Availability Comparison for a Single Event

Availability Comparisons for Multiple Events

Using Logistic Regression to Evaluate Adverse Impact

Notes

Chapter 2 - Selection Procedure Development and Validation

Validation Defined

Overview of the Mechanics of Content and Criterion-related Validity

Benefits of the Validation Process

Professional Standards for Validation

Uniform Guidelines Requirements for Validation

Blending the Professional and Government Validation Standards into Practice

Steps for Completing a Content Validation Study

Eight Steps for Completing a Job Analysis

Developing a Selection Plan

Content Validation Requirements for Various Types of Selection Procedures

Criterion-related Validity

Challenges to Using a Validity Generalization Defense in Title VII Enforcement

Notes

Chapter 3 - Developing, Validating, and Analyzing Written Tests

Written Test Development Steps

Seven Steps for Developing a Content Valid Job Knowledge Written Test

Steps for Developing a Personality Test Using Criterion-related Validity

Notes

Chapter 4 - Developing, Validating, and Analyzing Structured Interviews

Methods for Improving the Interview Process

Types of Questions to Include in Structured Interviews

Steps for Developing Situational Questions

Administering and Scoring an Interview

Notes

Chapter 5 - Developing and Validating Training, Education & Experience (TEE) Requirements

Uniform Guidelines Criteria Regarding TEE Requirements

Professional Standards Regarding TEE Requirements

Using TEE Requirements in Open Selection/Promotional Processes

Using TEE Requirements in Closed Selection/Promotional Processes

Notes

Chapter 6 - Developing and Validating “Work Sample” Physical Ability Tests

Steps for Developing a Physical Ability Test Using Content Validity

Steps for Developing a Physical Ability Test Using Criterion-related Validity

Administering the Test

Scoring Physical Ability Tests

The Americans with Disabilities Act and Physical Ability Testing

Sample Test Event Description: Ladder Removal/Carry

Notes

Chapter 7 - Investigating Test Bias

Lautenschlager and Mendoza’s Reframing of Test Bias Analysis

Carrying Out Lautenschlager and Mendoza’s Approach in SPSS

Subgroup Scatterplots

Relation to Other Tests

Chapter 8 - Using Selection Procedures: Cutoffs, Banding, and Ranking

Developing Valid Cutoff Scores

Banding

Ranking

Weighting Selection Procedures into Combined Scores

Notes

Chapter 9 - Using Multiple Regression to Examine Compensation Practices

Introduction

How Does Multiple Regression (MR) Work?

Steps for Conducting Multiple Regression (MR) Analysis

Evaluating the Legal Defensibility of Regression Models

Notes

Chapter 10 - Internet Applicant Regulations and EEO Compliance

Introduction

Internet Applicant Regulations

Notes

Chapter 11 - Using Croson Studies to Develop Defensible Diversity Initiatives

Introduction

Case Background

Evaluating the Relevance of Ricci in both Public and Private Sectors

The Strong-Basis-in-Evidence Standard

Background on Croson Studies: Justification for Taking Remedial Action

Essential Components of a Croson Study

What Constitutes a Defensible Croson Study?

Evaluating Specific Practices in a Croson Study

Has Ricci Created an Internal Conflict in the 1991 Civil Rights Act?

Applying the Ricci Standard to Common Testing Situations

Applying Ricci to Other Title VII Situations (Outside of Testing)

Conclusions.

Note

Appendix A - Choosing the Correct Tool for Adverse Impact Analyses

Overview

Introduction

Statistical Significance Testing and Adverse Impact

Limitations of the Fisher Exact Test for Adverse Impact Analysis

Lancaster's mid-P (LMP) as the Solution

Simulation

Conclusion

Appendix B - The Conditional Standard Error of Measurement (CSEM)

Overview

Background

Steps for Banding Using the M-F Procedure

Notes

References

Reference Authorities Regarding the Limitations of the Fisher Exact Test

References Supporting the Use of Lancaster's mid-P Adjustment to the FET

Index

List of Figures

- Figure 2-1 Job Expert Sample Size Guidelines
- Figure 3-1 Standard Error of Measurement (SEM) by Score Level
- Figure 5-1 Sample TEE Survey
- Figure 5-2 TEE Rating Guidelines
- Figure 7-1 Model Summary with Significant Difference in R^2
- Figure 7-2 Stacked Subgroup Scatterplot
- Figure 9-1 SPSS Model Summary Report
- Figure 9-2 SPSS ANOVA Report
- Figure 9-3 SPSS Coefficient Report
- Figure 9-4 SPSS Collinearity Diagnostics Report
- Figure 9-5 Setting Up an Excel File for Use in Multiple Regression
- Figure 9-6 Excel Data Analysis Dialogue Box
- Figure 9-7 Excel Regression Window
- Figure 9-8 Excel Input Y Range Window
- Figure 9-9 Excel Input X Range Window
- Figure 9-10 Interpreting Multiple Regression Analysis Output
- Figure 10-1 Basic Qualification (BQ) Development Survey
- Figure 12-1 Lyderson (2009): The Actual Significance Level Using 2 X 2 Tables
- Figure 12-2 Crans & Shuster (2008): The FET Null Power Function
- Figure 12-3 Crans & Shuster (2008): FET Test Sizes Using a 0.05 Significance Level
- Figure 12-4 Average Type I Error Rates of 2 X 2 Tests (Top-Down Selection)
- Figure 12-5 Power of 2 X 2 Tests (Fixed Cutoff Selection, $d = 1.0$)
- Figure 12-6 Power of 2 X 2 Tests (Top-Down Selection, $d = 1.0$, 30% SR)
- Figure 12-7 Power of 2 X 2 Tests (Top-Down Selection, $d = 1.0$, 50% SR)

List of Tables

Table 1-1	2 X 2 Contingency Table
Table 1-2	Simpson's Paradox Example
Table 2-1	Selection Plan Example
Table 2-2	Content Validity Requirements for Work Sample and KSAPC Tests
Table 2-3	Guidelines for Interpreting Correlations
Table 2-4	Standards for Evaluating the Internal Quality of a VG Study
Table 2-5	Evaluating the VG Study and the Local Situation
Table 2-6	Applicant Pool Situational Factors that Influence a Local Validation Study
Table 2-7	Test Situational Factors that Influence a Local Validation Study
Table 2-8	Job Situational Factors that can Influence a Local Validation Study
Table 3-1	Bloom's Taxonomy for Item Writing
Table 3-2	Guidelines for Interpreting Test Reliability
Table 3-3	Firefighter Certification Test Development Survey
Table 3-4	Process-by-Content Matrix: Police Sergeant
Table 11-1	<u>Ricci</u> Exam Results
Table 11-2	Elements of a Comprehensive Croson Study
Table 11-3	Strong-Basis-in-Evidence Requirement Applied to Testing Scenarios
Table 11-4	Strong-Basis-in-Evidence Requirement Applied to Non-Testing Scenarios
Table 12-1	Probability Outcomes Assuming Fixed Marginal Frequencies
Table 12-2	Studies Evaluating 2 X 2 Tests (including the FET), 1994-2009
Table 12-3	Type I Error Rates of 2 X 2 Tests (Top-Down Selection)
Table 12-4	Power of 2 X 2 Tests (Top-Down System, $d = 1.0$)
Table 12-5	Type I Error Rates of 2 X 2 Tests (Fixed Cutoff Selection)
Table 12-6	Power of 2 X 2 Tests (Fixed Cutoff Selection, $d = 1.0$)
Table 13-1	Score Bands Using the M-F CSEM Method