Regression Analysis for Impact Evaluation Training Course

Professional Development Training Course Outline

Category	Monitoring and Evaluation	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Regression analysis is a powerful statistical technique widely used in impact evaluation to quantify relationships between variables, measure program effectiveness, and inform data-driven decision-making. Regression Analysis for Impact Evaluation Training Course provides participants with a comprehensive understanding of regression models, including linear, logistic, and multilevel regressions, along with practical applications in monitoring and evaluation (M&E). Emphasis is placed on interpreting coefficients, testing hypotheses, addressing confounding variables, and applying robust analytical methods for rigorous impact assessment. Participants will gain hands-on experience using statistical software, designing regression-based evaluation strategies, and translating results into actionable insights for policy and program improvement.

With increasing demand for evidence-based decision-making, this training equips professionals with trending analytical skills to evaluate program outcomes, optimize interventions, and enhance organizational impact. By integrating case studies, real-world datasets, and interactive exercises, the course ensures practical mastery of regression techniques. Participants will learn how to handle missing data, control for biases, and report findings with clarity, making it ideal for researchers, M&E specialists, policy analysts, and data-driven decision-makers seeking to strengthen their impact evaluation capabilities.

Programme Curriculum

Regression Analysis for Impact Evaluation Training Course

Introduction

Regression analysis is a powerful statistical technique widely used in impact evaluation to quantify relationships between variables, measure program effectiveness, and inform data-driven decision-making. Regression

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Course Duration

5 days

Course Objectives

1. Understand the fundamentals of regression analysis for impact evaluation.
2. Apply linear regression models to real-world program data.
3. Implement logistic regression for binary outcomes in M&E.
4. Utilize multilevel regression models for hierarchical data.
5. Test hypotheses and interpret regression coefficients accurately.
6. Identify and control confounding variables in regression models.
7. Handle missing data and outliers in impact evaluation datasets.
8. Conduct sensitivity and robustness checks for reliable results.
9. Integrate regression analysis with causal inference techniques.
10. Visualize and communicate regression findings effectively.
11. Design regression-based evaluation strategies for programs.
12. Apply software tools (R, Stata, or SPSS) for regression analysis.
13. Translate regression outputs into actionable program recommendations.

Target Audience

1. Monitoring & Evaluation Specialists
2. Policy Analysts and Researchers
3. Program Managers and Coordinators
4. Data Analysts and Statisticians
5. Development Consultants
6. Social Scientists
7. Graduate Students in Social Sciences and Public Policy
8. Decision-Makers and Evidence-Based Practitioners

Course Modules

Module 1: Introduction to Regression Analysis

- Fundamentals of regression and correlation
- Types of regression models (linear, logistic, multilevel)

- Key assumptions in regression
- Overview of regression in impact evaluation
- Case study: Evaluating education program outcomes

Module 2: Linear Regression for Impact Evaluation

- Simple vs. multiple linear regression
- Model specification and variable selection
- Estimating and interpreting coefficients
- Assessing goodness-of-fit
- Case study: Health intervention impact on patient outcomes

Module 3: Logistic Regression and Binary Outcomes

- Introduction to logistic regression
- Odds ratios and probability interpretation
- Model diagnostics and evaluation
- Handling categorical predictors
- Case study: Predicting program success rates

Module 4: Multilevel and Hierarchical Regression

- Understanding hierarchical data structures
- Random intercept and random slope models
- Estimation techniques for multilevel models
- Interpreting multilevel regression outputs
- Case study: Regional impact analysis of agricultural interventions

Module 5: Handling Confounding and Bias

- Identifying confounders in datasets
- Techniques to control bias (matching, covariate adjustment)
- Sensitivity analysis for robustness
- Detecting multicollinearity
- Case study: Evaluating social protection programs

Module 6: Dealing with Missing Data and Outliers

- Types of missing data
- Imputation techniques
- Identifying and handling outliers
- Impact of missing data on regression results
- Case study: Education enrollment data analysis

Module 7: Communicating Regression Results

- Data visualization techniques
- Reporting regression findings clearly
- Using dashboards for decision-making
- Translating analysis into recommendations
- Case study: NGO program impact report

Module 8: Advanced Regression Applications

- Regression with interaction terms
- Non-linear regression models
- Combining regression with causal inference methods
- Forecasting program outcomes
- Case study: Evaluating economic empowerment programs

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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