ANALYTICAL STATISTICAL PROCEDURES LEVEL 2 FOR FRAUD WASTE & ABUSE … IN EXCEL!

(*INTELLIGENT DATA ANALYSIS FOR AUDIT EFFICIENCY*)

Course Description

There exists, in Excel, robust (and underutilized) audit capabilities. Many students have asked "is there MORE we could be learning?" YES!

Audit research has shown the vast differences in the Cost of Audit Evidence. Reviews of a myriad of audit work-papers suggests that Test of Controls (per $1 of audit effort) are far superior to Tests of details ($4), while Analytical Procedures are the most cost efficient type of audit evidence (5¢). And it's at your fingertips, in Excel!

In this course we'll cover non-linear bounds, decoupling fixed and variable costs, stepwise regression, discriminant analysis, forecasting, benchmarking, constructing management cockpits (in VBA) and de-seasoning of data.(We'll also spend some time refreshing our memories about the mechanics of basic regression.)

The proposed course "takes off" where the first course ends…with advanced topics. Further, this course acts as a sounding board for attendees to describe "wins" and difficulties in applying regression to audits in Texas.

This course is my own design, with innovative content addressing practical (and proven) audit tools, allowing for cutting-edge, forward-looking auditing. Additionally, the course content 1) Enhanced the control environment, 2) mitigated risk, 3) finds fraud and 4) serves as the basis of Continuous Control Monitoring CCM)…and thus appropriate for a government-oriented audience

Audit research has proven that Advanced Analytics is the most efficient and effective audit technique. Advanced analytics allows you to reduce cycle time. Also, you decrease your response time…and lessen your travel time (as you "bring the data to you"). Further, as you audit by exception, you will deploy your resources in a more efficient manner. Finally, Advanced Analytics provides for more robust (and better received) audit findings. Analytics work best with operational data, and thus are highly applicable for:

- Fraud Audits (advanced analytics has been proven to be the # 1 FRAUD FINDING TECHNIQUE in the world)
- Operational/Efficiency Audits (analytics is the basis of CONTINUOUS MONITORING)
- Program/Policy/Agency/Performance Audits
- Compliance/Statutory Audits (analytics can help in BASEL II and SOX compliance)
- Enterprise Risk Assessment and Management
- Financial Audits

Audit shops have reported that they can reduce audit time by 33% by using the techniques taught in this course!!

Who Should Attend

ALL auditors: process, compliance, fraud/waste/abuse, I.T., SOX, efficiency, program, performance … and Business Unit Managers … anyone who has to ask the following question, "Isn't There a Better Way?"

Detailed Course Outline

1. Introduction
   a. Course Objectives
   b. Refresher of WHY to run regression and other advanced analytics
   c. Emerging issues in the literature, from stakeholders and
   d. Other developments
2. Advanced Regression Concepts
   a. Constructing Prediction Intervals for non-linear data (Case Study)
   b. Eliminating the Fixed cost from regression data (Case Study)
   c. Labeling series of data and benchmarking (Case Study)
   d. Polynomials beyond the 2nd order (Case Study)
   e. When is a very low R-squared GOOD? (Case Study)
3. Addressing seasonality of data (within and between periods) via Exponential Smoothing(Case Study)
4. Forecasting
   a. How to "look forward" (Case Study)
   b. Residuals…determining "what should be" (Case Study)
5. Multi-variate regression and the information content of P-values(Case Study)
6. Addressing materiality in proportional regression: going to the right place to audit(Case Study)
7. Stepwise regression (demo)
8. Discriminant analysis (demo)
9. Flowcharts with decisions on how to attack advanced analytics
10. Re-visiting Management Dashboard and Visual Basic
11. QA session/Dialogue: "wins" and frustrations (and turning them into wins)
12. Bring your own data to class … we'll try it out
13. Student presentations … more complex

Course Objectives

Upon completion of this course participants will be able to:

- Refresh yourself as to the mechanics of regression analysis (we have taught the basic regression course, in Texas, for over 10 years: IT'S TIME TO RAISE THE BAR…AGAIN!)
- Learn how to run complex regression applications (non-linear bounds, p-values, stepwise)
- Discover how to eliminate the seasonality from data
- Recognize the vast benefits of forecasting…and how to do it
- Enhance your audit reports with multiple data series (benchmarking)
- Decompose repressible data into it's fixed and variable components
- Apply regression in audits where previously thought too difficult
- Provide more value to the auditee
- Constructing management dashboards
- Assist in risk management and risk mitigation
- Improve the Control Environment
- Discuss (and learn from) the pitfalls from your applications of regression (bring your data to class if you like): consider this a forum for a dialogue on "wins" and "non-wins" on actual attempts to run regression in audit engagements

Course Materials/Takeaways

Each participant will receive the following:

- Workbook with screen captures and step-by-step instructions
- Computerized cases so they may practice and replicate the classroom experience (that is, APPLY this knowledge on the job).

Course Length

- 1 to 1½ days

Dr. Dan Kneer Advisory Group
3639 Midway Drive, Suite B370
San Diego, CA 92110 USA
+1.619.223.1521

www.dankneer.com