

# Advanced Feature Training: Benford's Law

We invite you to participate in an experimental research study conducted by a doctoral student and faculty advisors at the Business School of the University of Colorado Denver. Through participation, you will receive free online training on Benford's Law, an advanced feature of generalized audit software (GAS) such as ACL. Training will be provided through training website. The training session covers a lecture about the conceptual background of Benford's Law, a self-tutorial, a test, and a survey. Completing the entire study should take about 2 hours.

**Training Website:** <http://ouray.cudenver.edu/~h1kim/BenfordsLaw/Benford.htm>

**Contact:** [Hyo-Jeong.Kim@ucdenver.edu](mailto:Hyo-Jeong.Kim@ucdenver.edu)

**Instructions:** You will be randomly assigned to either group A or group B when you access the training website. Please follow the instruction on each page. When you finish the instruction on each page, click the "Next" button to go to the next page. You can't come back to the previous page once clicking the "Next" button.

**Prerequisites:** Prior to taking this training, you need to have a basic knowledge of computer and understand a basic functionality of GAS: import, age, duplication, gap detection, extraction, filters, join files, sort, statistics, stratification, summarization, print, etc.

## Learning Objectives

- Learn about the definition and background of Benford's Law.
- Understand Benford's Law with various applications.
- Know the data conformance of Benford's Law.
- Understand how to perform Benford's Law in GAS with accounting data.
- Learn how to graph the output of Benford's Law in GAS.
- Understand how to interpret the result of Benford's Law.

**Software/Hardware Requirements:** You need to use your own computer that ACL audit software is installed on.

## Training Outline

*Please be aware that this procedure may change depending on which group you are assigned to.*

Procedures	Time Estimates	Description
Lecture	15 minutes	<ul style="list-style-type: none"><li>• Definition, background, audit applications, data conformance of Benford's Law</li></ul>
Self-Tutorial	45 minutes	<ul style="list-style-type: none"><li>• Guided exercise of Benford's Law using Expense Reimbursement data.</li><li>• Case study demonstrating Benford's Law using fraudulent data.</li></ul>
Test	50 minutes	<ul style="list-style-type: none"><li>• Case study demonstrating Benford's Law using Accounts Payable data.</li></ul>
Survey	10 minutes	<ul style="list-style-type: none"><li>• Perception of GAS</li><li>• Perception of advanced features</li><li>• Usage of GAS and advanced features</li></ul>

## Researchers:

Hyo-Jeong Kim, PhD candidate  
Business School, University of  
Colorado Denver  
720-224-8328  
[Hyo-Jeong.Kim@ucdenver.edu](mailto:Hyo-Jeong.Kim@ucdenver.edu)

Michael Mannino, PhD  
Business School, University of  
Colorado Denver  
303-556-6615  
[Michael.Mannino@ucdenver.edu](mailto:Michael.Mannino@ucdenver.edu)

Robert J. Nieschwietz, PhD  
Albers School of Business and  
Economics, Seattle University  
206-296-5736  
[nieschw@seattleu.edu](mailto:nieschw@seattleu.edu)