

Program: Benford's Law Helps Identify Fraudsters

Speaker: Greg Wright, Certified Fraud Examiner, Certified Financial Planner

Introduced by: Dave Knoll

Attendance: 122

Guests: J. Davis, Midge Decker, J. B. Hamlett, Robert Hamlett, Rolan Kjosen, Paul Lewer, Colleen Most????, Jack Overman, Sherri Roizen, John Woodruff

Scribe: Gonz Chua

Editor: Carl Warner

Mr. Wright started the lecture by asking "Can we recognize Fraudulent Numbers?". He said there is forensic analytic software that incorporates Benford's Law in the investigation of fraud; however, software is not always necessary for detection of such frauds.

He then gave a definition of Benford's Law and described a short history of its development. Simon Newcomb, a Canadian-American astronomer and mathematician, published a "Note on the Frequency of Use of the Different Digits in Natural Numbers" in 1881 and suggested using the "1" digit in the early investigation. This was followed by physicist Frank Benford's paper in 1938, "The Law of Anomalous Numbers". He then described the use of Benford's law in two examples in a short quiz on Indiana county population estimates and land areas of countries in square kilometers. He showed that the fraudulent columns end in certain numbers that are improbable using Benford's law.

Mr. Wright cited that IRS uses the last 2 digits of entries to detect fraudulent submissions and caught the Madoff Feeder Fund, and Indiana authorities caught Tim Durham in his fraudulent scheme with the Obsidian Fund. He also cited the fraudulent Iranian election results exposed by university students using Benford's law to explain the unlikely outcome. In the end, in spite of such accuracy, a non-conformist test result does not always indicate illegal methods were involved.

Greg Wright

