What is statistics good for?

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What if I ask google?

sta·tis·tics

/stəˈtistiks/

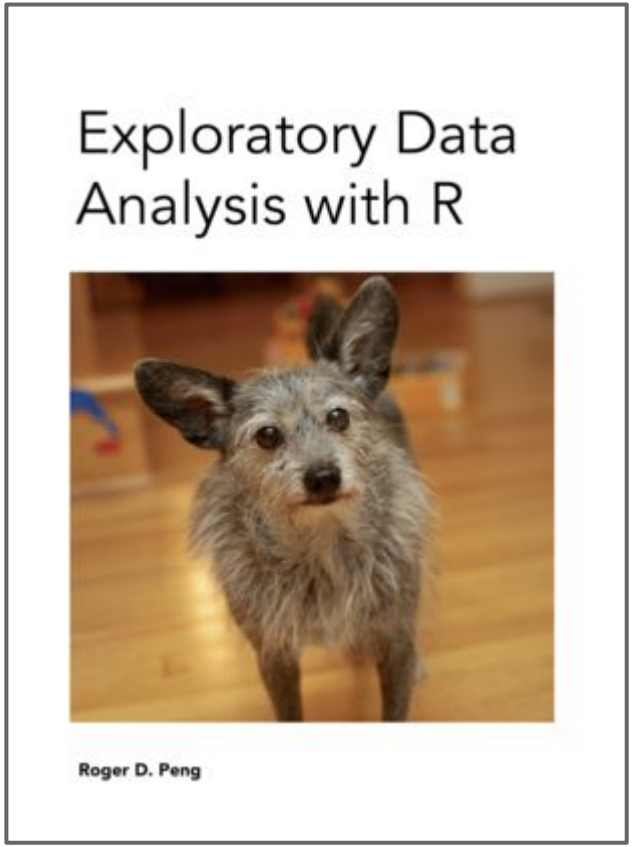
noun

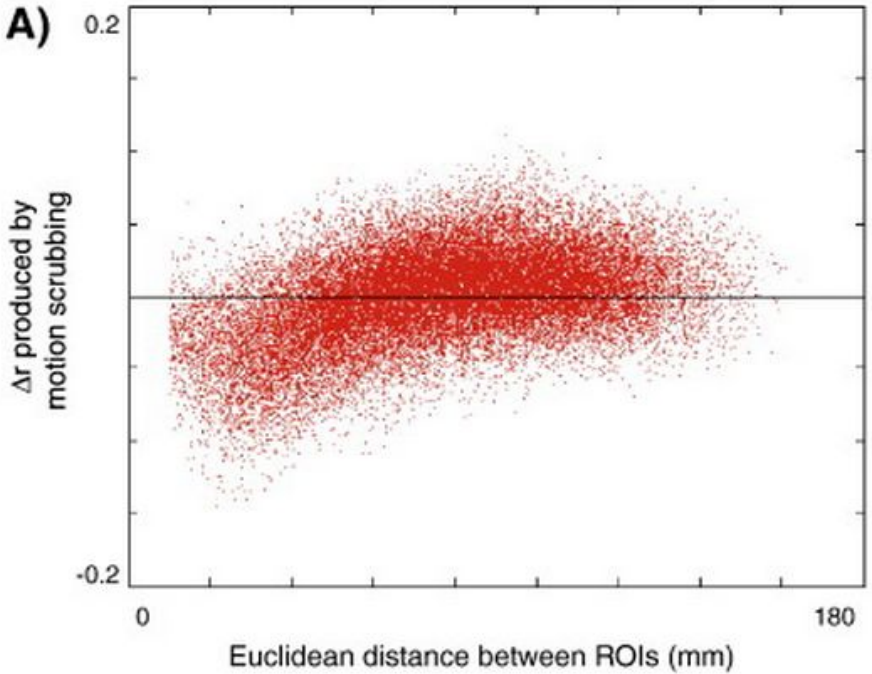
the practice or science of collecting and analyzing numerical data in large quantities, especially for the purpose of inferring proportions in a whole from those in a representative sample.

Translations, word origin, and more definitions

Let’s take a different tact in defining the field by categorizing the core activities

- Descriptive analysis (EDA, quantification, summarization, clustering)
- Inference (estimation, sampling, variability, defining populations)
- Prediction (machine learning, supervised learning)
- Design (the process of designing experiments)


Exploratory Data Analysis with R
Roger D. Peng



Spurious but systematic correlations in functional connectivity MRI networks arise from subject motion

Jonathan D. Power[a], Kelly A. Barnes[a], Abraham Z. Snyder[a, b], Bradley L. Schlaggar[a, b, c, d], Steven E. Petersen[a, b, d, e]

Statistical
inference
for data science
FIG. 7.
FIG. 8.
FIG. 9.
A
A
B
B
Brian Caffo

“Statistical inference - the process of making conclusions about populations from a sample”

Election Watch: Karl Rove Vs. the Arithmetic

In a bizarre interlude last night, Fox News analyst and GOP rainmaker Karl Rove went to war against math--his own network's.

By James Poniewozik @poniewozik | Nov. 07, 2012 | 100 Comments

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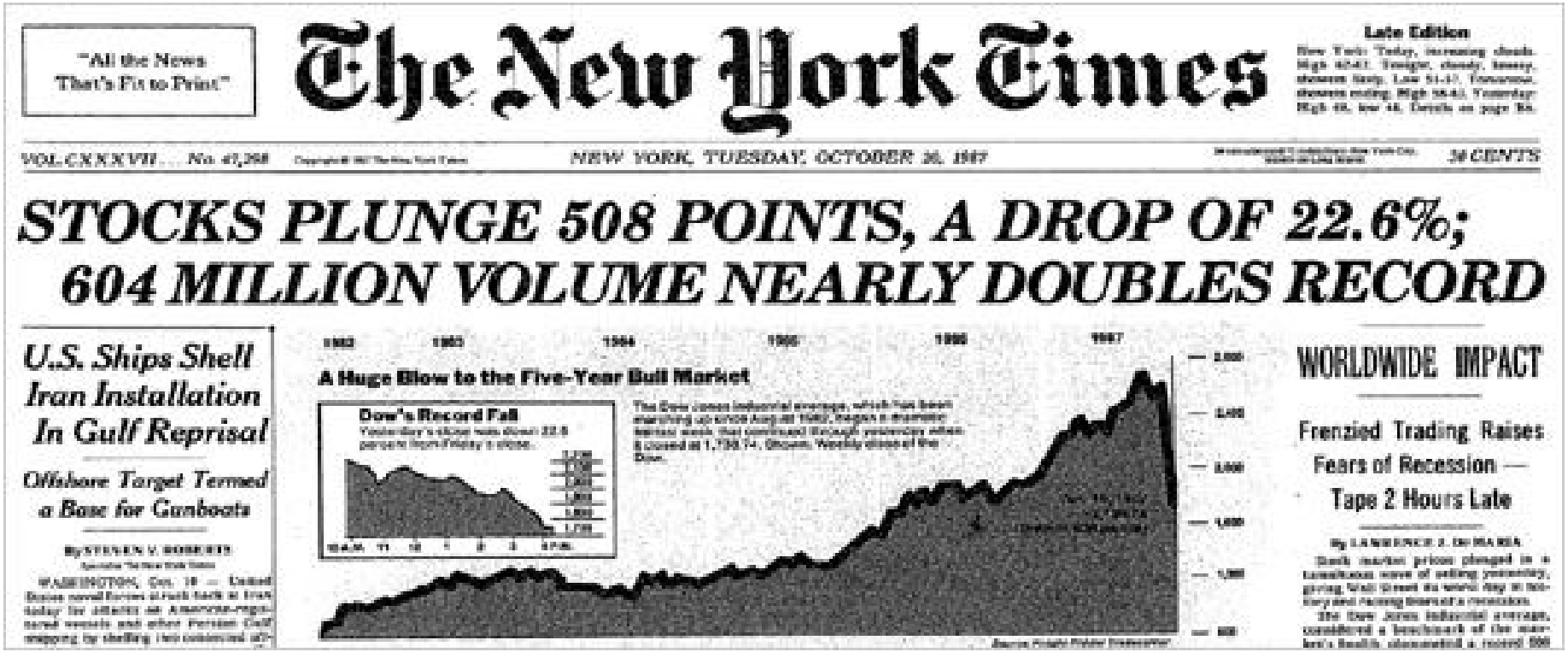

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The New York Times

Late Edition

VOL. CXXXVII... No. 47,268 NEW YORK, TUESDAY, OCTOBER 20, 1987 50 CENTS

STOCKS PLUNGE 508 POINTS, A DROP OF 22.6%; 604 MILLION VOLUME NEARLY DOUBLES RECORD

U.S. Ships Shell Iran Installation In Gulf Reprisal

Offshore Target Termed a Base for Gunboats

By STEVEN V. ROBERTS

WASHINGTON, Oct. 19 — United States naval forces struck back at Iran today for attacks on American-registered vessels and other Persian Gulf shipping by shelling two commercial oil-

1982 1983 1984 1985 1986 1987

A Huge Blow to the Five-Year Bull Market

Dow's Record Fall

Yesterday's close was down 22.6 percent from Friday's close.

The Dow Jones industrial average, which has been marching up since August 1982, began a dramatic retreat week that continued through yesterday when it closed at 1,738.74. Shown, Weekly closes of the Dow.

WORLDWIDE IMPACT

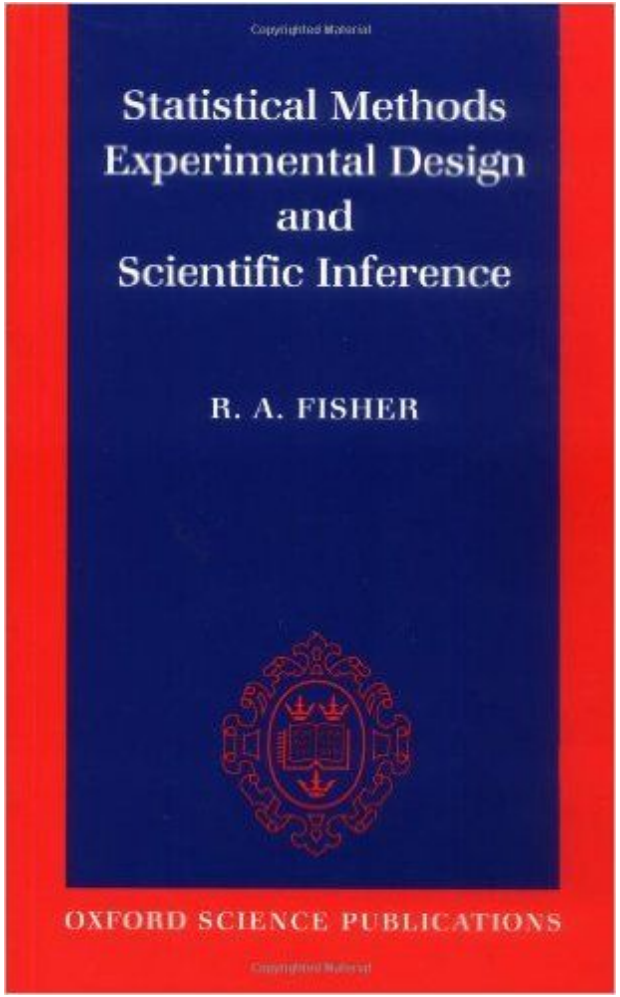
Frenzied Trading Raises Fears of Recession — Tape 2 Hours Late

By LAWRENCE J. De MARIA

Stock market prices plunged in a tumultuous wave of selling yesterday, giving Wall Street its worst day in history and raising fears of a recession.

The Dow Jones industrial average, considered a benchmark of the market's health, plummeted a record 508

http://www.stock-market-crash.net/wp-content/uploads/2012/06/Black-Monday-the-Stock-Market-Crash-of-1987-NYT.jpg


Statistical Methods
Experimental Design
and
Scientific Inference
R. A. FISHER
OXFORD SCIENCE PUBLICATIONS

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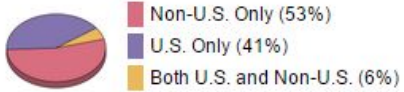
Locations of Recruiting Studies



Total N = 36,294 studies
(Data as of September 03, 2015)

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