# LoW) 8UUA Ubi U'flYŁ

# July 16, 2020

**Title** Dataset documentation for the third edition of `"Statistics: UnLocking the Power of Data" **5i hcfg**Lock, Lock, Lock Morgan, lock, and Lock

**Di V]g\Yf**"Wiley (2020)

Documentation for these datasets has been generated from the manual for the Lock5Data package. The package itself also includes versions of some fo the datasets for the first and second editions.

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# Description

Data from a sample of individuals in the American Community Survey

### **Format**

A data frame with 2000 observations on the following 9 variables.

Sex 0=female and 1=male

Age (years)

Married 0=not married and 1=married

Income Wages and salary for the past 12 months (in \$1,000's)

Hours Wk Hours of work per week

Race asian, black, other, or white

USCitizen 1=citizen and 0=noncitizen

HealthInsurance 1=have health insurance and 0=no health insurance

Language 1=English spoken at home and 0=other

### **Details**

The American Community Survey, administered by the US Census Bureau, is given every year to a random sample of about 3.5 million households (about 3% of all US households). Data on a random sample of 1% of all US residents are made public (after ensuring anonymity), and we have selected a random sub-sample of n = 2000 from the 2017 data for this dataset.

\*\* Updated for 3e (ealier verson is ACS2010). \*\*

# Source

The full public dataset can be downloaded at http://www.census.gov/acs/www/datadocumentation/pumsdata/, and the full list of variables are at https://www.census.gov/programs-surveys/acs/data/pums.html

AllCountries 5

**AllCountries** 

All Countries

#### **Description**

Data on the countries of the world

#### **Format**

A data frame with 217 observations on the following 26 variables.

Country Country name

Code Three-letter code for country

LandArea Size in 1000 sq. km.

Population Population in millions

Density Number of people per square kilometer

GDP Gross Domestic Product (in \$US) per capita

Rural Percentage of population living in rural areas

CO2 CO2 emissions (metric tons per capita)

PumpPrice Price for a liter of gasoline (\$US)

Military Percentage of government expenditures directed toward the military

Health Percentage of government expenditures directed towards healthcare

ArmedForces Number of active duty military personnel (in 1,000's)

Internet Percentage of the population with access to the internet

Cell Cell phone subscriptions (per 100 people)

HIV Percentage of the population with HIV

Hunger Percent of the population considered undernourished

Diabetes Percent of the population diagnosed with diabetes

BirthRate Births per 1000 people

DeathRate Deaths per 1000 people

ElderlyPop Percentage of the population at least 65 years old

LifeExpectancy Average life expectancy (years)

FemaleLabor Percent of females 15 - 64 in the labor force

Unemployment Percent of labor force unemployed

Energy Kilotons of oil equivalent

Electricity Electric power consumption (kWh per capita)

Developed Categories for kilowatt hours per capita, 1= under 2500, 2=2500 to 5000, 3=over 5000

#### **Details**

Data for each variable were collected for 2018 (or most recently available year). Within a variable all country measurements are from the same year, but the year may vary betwen different variables depending on availabilty.

\*\* This dataset is updated from an earlier versions (now Allcountries1e and AllCountries2e) \*\*

# Source

The data were gathered online from data.worldbank.org. Accessed June 2019.

6 April14Temps

APMultipleChoice

AP Multiple Choice

# **Description**

Correct responses on Advanced Placement multiple choice exams

# **Format**

A dataset with 400 observations on the following variable.

Answer Correct response: A, B, C, D, or E

# **Details**

Correct responses from multiple choice sections for a sample of released Advanced Placement exams

### Source

Sample exams from several disciplines at http://apcentral.collegeboard.com

April14Temps

April 14th Temperatures

# Description

Temperatures in Des Moines, IA and San Francisco, CA on April 14th

# **Format**

A data frame with 25 observations on the following 3 variables.

Year 1995 to 2019

DesMoines Temperature in Des Moines (degrees F)

SanFrancisco Temperature in San Francisco (degrees F)

# **Details**

Average temperature for the day of April 14th in each of 25 years from 1995-2019

\*\* Data set updated for 3e (earlier versions are now April14Temps1e and April14Temps2e) \*\*

# Source

The University of Dayton Average Daily Temperature Archive at http://academic.udayton.edu/kissock/http/Weather/citylistUS.htm

BaseballHits2019 7

BaseballHits2019

Baseball Team Statistics (2019)

# **Description**

Number of hits, wins, and other stats for MLB teams in 2019

### **Format**

A data frame with 30 observations on the following 14 variables.

Team Name of baseball team (3-character code)

League Either AL or NL

Wins Number of wins for the season

Runs Number of runs scored

Hits Number of hits

Doubles Number of doubles

Triples Number of triples

HomeRuns Number of home runs

RBI Number of runs batted in

StolenBases Number of stolen bases

CaughtStealing Number of times caught stealing

Walks Number of walks

Strikeouts Number of stikeouts

BattingAvg Team batting average

### **Details**

Offensive team statistics for the 2019 Major League Baseball regular season.

\*\* Updated for 3e (earlier versions are now BaseballHits2014 and BaseballHits1e)

# Source

http://www.baseball-reference.com/leagues/MLB/2019-standard-batting.shtml

8 BaseballTimes

BaseballSalaries2019 MLB Player Salaries in 2019

# **Description**

Opening Day salaries for all Major League Baseball players in 2019

#### **Format**

A data frame with 877 observations on the following 4 variables.

Name Player's name

Salary 2019 season salary (in millions)

Team Abbreviated team name

POS Code for player's main position

### **Details**

Yearly salary (in millions of dollars) for all players on the rosters of Major League Baseball teams at the start of the 2019 season.

\*\* Updated for 3e (ealier version for 2015 is at BaseballSalaries2015). \*\*

### **Source**

http://www.usatoday.com/sports/mlb/salaries

BaseballTimes

Baseball Game Times

# **Description**

Information for a sample of 30 Major League Baseball games played during the 2011 season

# **Format**

A dataset with 30 observations on the following 9 variables.

Away Away team name
Home Home team name

Runs Total runs scored (both teams)

Margin Margin of victory

Hits Total number of hits (both teams)

Errors Total number of errors (both teams)

Pitchers Total number of pitchers used (both teams)

Walks Total number of walks (both teams)

Time Elapsed time for game (in minutes)

BikeCommute 9

#### **Details**

Data from a sample of boxscores for Major League Baseball games played in August 2011.

#### **Source**

http://www.baseball-reference.com/boxes/2011.shtml

Benford Benford data

# **Description**

Two examples to test Benford's Law

### **Format**

A dataset with 9 observations on the following 4 variables.

Digit Leading digit (1-9)

BenfordP Expected proportion according to Benford's law

Address Frequency as a first digit in an address

Invoices Frequency as the first digit in invoice amounts

### **Details**

Leading digits from 1188 addresses sampled from a phone book and 7273 amounts from invoices sampled at a company.

# Source

Thanks to Prof. Richard Cleary for providing the data

BikeCommute Bike Commute

# Description

Commute times for two kinds of bicycle

### Format

A dataset with 56 observations on the following 9 variables.

Bike Type of material Carbon or Steel

Date Date of the bike commute

Distance Length of commute (in miles)

Time Total commute time (hours:minutes:seconds)

Minutes Time converted to minutes

10 BodyFat

AvgSpeed Average speed during the ride (miles per hour)

TopSpeed Maximum speed (miles per hour)
Seconds Time converted to seconds

Month Categories: 1Jan 2Feb 3Mar 4Apr 5May 6June 7July

#### Details

Data from a personal experiment to compare commuting time based on a randomized selection between two bicycles made of different materials.

### **Source**

Thanks to Dr. Groves for providing his data.

#### References

Bicycle weight and commuting time: randomised trial, in British Medical Journal, BMJ 2010;341:c6801.

BodyFat	Body Measurements	

### **Description**

Percent fat and other body measurements for a sample of men

#### **Format**

A dataset with 100 observations on the following 10 variables.

Bodyfat Percent body fat Age in years Age Weight Weight in pounds Height Height in inches Neck Neck circumference in cm. Chest Chest circumference in cm. Abdomen cirumference in cm. Ankle Ankle circumference in cm. Biceps Exended biceps circumference in cm. Wrist Wrist circumference in cm.

### **Details**

This is a subset of a larger sample of men who each had a percent body fat estimated by an underwater weighing technique. Other measurements were taken to see how they might be used to predict the body fat percentage.

# Source

These data were contributed by Roger Johnson, then at Carleton University, to the Datasets Archive at the Journal of Statistics Education.

https://ww2.amstat.org/publications/jse/v4n1/datasets.johnson.html

BootAtlantaCorr 11

The data were originally supplied by Dr. A. Garth Fisher, Human Performance Research Center, Brigham Young University, Provo, Utah 84602.

BodyTemp50

**Body Temperatures** 

# **Description**

Sample of 50 body temperatures

#### **Format**

A data frame with 50 observations on the following 3 variables.

BodyTemp Body temperature in degrees F
Pulse Pulse rates (beat per minute)
Sex F=Female, M=Male

#### **Details**

Body temperatures and pulse rates for a sample of 50 healthy adults. Note the Sex variable was labeled as Gender in earlier versions of this dataset. We acknowledge that this binary dichotomization is not a complete or inclusive representation of reality.

# Source

Shoemaker, "What's Normal: Temperature, Gender and Heartrate", Journal of Statistics Education, Vol. 4, No. 2 (1996)

http://jse.amstat.org/v4n2/datasets.shoemaker.html

BootAtlantaCorr

Bootstrap Correlations for Atlanta Commutes

### **Description**

Bootstrap correlations between Time and Distance for 500 commuters in Atlanta

# **Format**

A dataset with 1000 observations on the following variable.

CorrTimeDist Correlation between Time and Distance for a bootstrap sample of Atlanta commuters

### **Details**

Correlations for bootstrap samples of Time vs. Distance for the data on Atlanta commuters in CommuteAtlanta.

12 CAOSExam

#### Source

Computer simulation

Caffeine Taps Caffeine Taps

# **Description**

Finger tap rates with and without caffeine

### **Format**

A dataset with 20 observations on the following 2 variables.

Taps Number of finger taps in one minute

Group Treatment with levels Caffeine NoCaffeine

#### **Details**

Results from a double-blind experiment where a sample of male college students were asked to tap their fingers at a rapid rate. The sample was then divided at random into two groups of ten students each. Each student drank the equivalent of about two cups of coffee, which included about 200 mg of caffeine for the students in one group but was decaffeinated coffee for the second group. After a two hour period, each student was tested to measure finger tapping rate (taps per minute). The goal of the experiment was to determine whether caffeine produces an increase in the average tap rate.

### Source

Hand, Daly, Lund, McConway and Ostrowski, Handbook of Small Data Sets, Chapman and Hall, London (1994), pp. 40

CAOS Exam Scores

### **Description**

Scores on a pre-test and post-test of basic statistics concepts

# **Format**

A dataset with 10 observations on the following 3 variables.

Student ID code for student Pretest CAOS Pretest score Posttest CAOS Posttest score CarDepreciation 13

#### **Details**

The CAOS (Comprehensive Assessment of Outcomes in First Statistics Course) exam is designed to measure comprehension of basic statistical ideas in an introductory statistics course. This dataset has scores for ten students who took the CAOS pre-test at the start of a course and the post-test during the course itself. Each exam consists of 40 multiple choice questions and the score is the percentage correct.

#### **Source**

A sample of 10 students from an introductory statistics course. Find out more about the CAOS exam at http://app.gen.umn.edu/artist/caos.html

CarbonDioxide

Carbon Dioxide Levels

### **Description**

Atmospheric carbon dioxide levels by year

#### **Format**

A data frame with 12 observations on the following 2 variables.

Year Every five years from 1960 to 2015

C02 Carbon dioxide level in parts per million

# **Details**

Carbon dioxide levels in the atmosphere over a 55 year span from 1960-2015.

\*\* Updated for 3e (earler version is now CarbonDioxide2e) \*\*

# **Source**

Dr. Pieter Tans, NOAA/ESRL. Values recorded at the Mauna Loa Observatory in Hawaii. www.esrl.noaa.gov/gmd/ccgg/trends/

 ${\tt CarDepreciation}$ 

Car Depreciation

### **Description**

Depreciation for 20 car models.

#### **Format**

A dataset with 20 observations on the following 4 variables.

Car Name of the car model New Price of a new car

Used Value after new car leaves the lot after purchase

Depreciation Drop in value when a new car is driven away

14 Cars 2020

#### **Details**

Twenty car models were selected at random from *kellybluebook.com*. Original price (in dollars) and value after the car has been driven 10 miles were recorded for each model. The depreciation is the difference (New-Used).

#### **Source**

New and used automobile costs determined using 2015 models selected from kellybluebook.com.

Cars2020

2020 Car Models

### **Description**

Information about new car models in 2020

### **Format**

A data frame with 110 observations on the following 21 variables.

Make Manufacturer (e.g. Chevrolet, Toyota, etc.)

Model Car model (e.g. Impala, Highlander, ...)

Type Vehicle category (Hatchback, Minivan, Sedan, Sporty, SUV, or Wagon)

LowPrice Lowest MSRP (in \$1,000)

HighPrice Highest MSRP (in \$1,000)

CityMPG City miles per gallon (EPA)

HwyMPG Highway miles per gallon (EPA)

Seating Seating capacity

Drive Type of drive (AWD, FWD, or RWD)

Acc030 Time (in seconds) to go from 0 to 30 mph

Acc060 Time (in seconds) to go from 0 to 60 mph

QtrMile Time (in seconds) to go 1/4 mile

Braking Distance to stop from 60 mph (dry pavement)

FuelCap Fuel capacity (in gallons)

Length (in inches)

Width (in inches)

Height (in inches)

Wheelbase Wheelbase (in inches)

UTurn Diameter (in feet) needed for a U-turn

Weight Curb weight (in pounds)

Size Large, Midsized, or Small

# **Details**

Data for a set of 110 new car models in 2020 based on information in the Consumer Reports.

\*\* Updated for 3e (an earler version from 2015 is at Cars2015). \*\*

CityTemps 15

### **Source**

Data on new car models in 2020 accessed from Consumer Reports website. https://www.consumerreports.org/cars/

Cereal Breakfast Cereals

# Description

Nutrition information for a sample of 30 breakfast cereals

# **Format**

A dataset with 30 observations on the following 10 variables.

Name Brand name of cereal
Company Manufacturer coded as G=General Mills, K=Kellog's or Q=Quaker
Serving Serving size (in cups)
Calories Calories (per cup)
Fat Fat (grams per cup)
Sodium Sodium (mg per cup)
Carbs Carbohydrates (grams per cup)
Fiber Dietary Fiber (grams per cup)
Sugars Sugars (grams per cup)
Protein Protein (grams per cup)

### **Details**

Nutrition contents for a sample of breakfast cereals, derived from nutrition labels. Values are per cup of cereal (rather than per serving).

# Source

Cereal data obtained from nutrition labels at <a href="http://www.nutritionresource.com/foodcomp2.cfm?id=0800">http://www.nutritionresource.com/foodcomp2.cfm?id=0800</a>

CityTemps City Temperatures

# Description

Mean monthly temperature in Moscow, Melbourne, and San Francisco for 2017 and 2018

# **Format**

A data frame with 24 observations on the following 5 variables.

Year 2017 or 2018

16 ColaCalcium

Month 1=January through 12=December

Moscow Monthly temperatures in Moscow (Russia)

Melbourne Monthly temperatures in Melbourne (Australia)

San. Francisco Monthly temperatures in San Francisco (United States)

#### **Details**

Mean monthly temperatures in degrees C for the years 2017 and 2018 in each of three cities. \*\* Updated for 3e (an earlier version for 2014 and 2015 is at CityTemps2e). \*\*

#### **Source**

Source: KNMI Climate Explorer at https://climexp.knmi.nl/selectstation.cgi?id=someone@somewhere Use station codes 94866 (Melbourne), 72494 (San Francisco), 27612 (Moscow).

CocaineTreatment Cocaine Treatment

# **Description**

Relapse/no relapse responses to three different treatments for cocaine addiction

#### **Format**

A dataset with 72 observations on the following 2 variables.

Drug Treatment drug: Desipramine, Lithium, or Placebo Relapse Did the patient relapse? no or yes

# **Details**

Data from an experiment to investigate the effectiveness of the two drugs, desipramine and lithium, in the treatment of cocaine addiction. Subjects (cocaine addicts seeking treatment) were randomly assigned to take one of the treatment drugs or a placebo. The response variable is whether or not the subject relapsed (went back to using cocaine) after the treatment.

### **Source**

Gawin, F., et.al., "Desipramine Facilitation of Initial Cocaine Abstinence", Archives of General Psychiatry, 1989; 46(2): 117 - 121.

ColaCalcium Cola Calcium

# **Description**

Calcium excretion with diet cola and water

CollegeScores 17

#### **Format**

A dataset with 16 observations on the following 2 variables.

Drink Type of drink: Diet cola or Water Calcium Amount of calcium excreted (in mg.)

#### **Details**

A sample of 16 healthy women aged 18 - 40 were randomly assigned to drink 24 ounces of either diet cola or water. Their urine was collected for three hours after ingestion of the beverage and calcium excretion (in mg.) was measured . The researchers were investigating whether diet cola leaches calcium out of the system, which would increase the amount of calcium in the urine for diet cola drinkers.

#### Source

Larson, Amin, Olsen, and Poth, Effect of Diet Cola on Urine Calcium Excretion, Endocrine Reviews, 31[3]: S1070, June 2010. These data are recreated from the published summary statistics, and are estimates of the actual data.

CollegeScores

College Scorecard

# **Description**

Information on all US post-secondary schools collected by the Department of Education for the College Scorecard

### **Format**

A data frame with 6141 observations on the following 37 variables.

Name Name of the school

State State where school is located

ID ID number for school

Main Main campus? (1=yes, 0=branch campus)

Accred Accreditation agency

MainDegree Predominant undergrad degree (0=not classified, 1=certificate, 2=associate, 3=bachelors,4=only graduate)

HighDegree Highest degree (0=no degrees, 1=certificate, 2=associate, 3=bachelors, 4= graduate)

Control Control of school (Private, Profit, Public)

Region Region of country (Midwest, Northeast, Southeast, Territory, West)

Locale Locale (City, Rural, Suburb, Town)

Latitude Latitude

Longitude Longitude

AdmitRate Admission rate

18 CollegeScores

MidACT Median of ACT scores

AvgSAT Average combined SAT scores

Online Only online (distance) programs

Enrollment Undergraduate enrollment

White Percent of undergraduates who report being white

Black Percent of undergraduates who report being black

Hispanic Percent of undergraduates who report being Hispanic

Asian Percent of undergraduates who report being Asian

Other Percent of undergraduates who don't report one of the above

PartTime Percent of undergraduates who are part-time students

NetPrice Average net price (cost minus aid)

Cost Average total cost for tuition, room, board, etc.

TuitionIn In-state tuition and fees

TuitonOut Out-of-state tuition and fees

TuitionFTE Net Tuition revenue per FTE student

InstructFTE Instructional spending per FTE student

FacSalary Average monthly salary for full-time faculty

FullTimeFac Percent of faculty that are full-time

Pell Percent of students receiving Pell grants

CompRate Completion rate (percent who finish program within 150% of normal time)

Debt Average debt for students who complete program

Female Percent of female students

FirstGen Percent of first-generation students

MedIncome Median family income (in \$1,000)

### **Details**

The US Department of Education maintains a database through its College Scorecard project of demographic information from all active postsecondary educational institutions that participate in Title IV. This dataset contains a small subsets of the variables in the full College Scorecard.

# Source

Data downloaded from the US Department of Education's College Scorecard at https://collegescorecard.ed.gov/data/(November 2019)

CollegeScores2yr 19

CollegeScores2yr

College Scorecard - Two Year

### **Description**

Information on all US colleges and universities that primarily grant associate's degrees, collected by the Department of Education for the College Scoreboard.

#### **Format**

A data frame with 1141 observations on the following 37 variables.

Name Name of the school

State State where school is located

ID ID number for school

Main Main campus? (1=yes, 0=branch campus)

Accred Accreditation agency

MainDegree Predominant undergrad degree (2=associate)

HighDegree Highest degree (0=no degrees, 1=certificate, 2=associate, 3=bachelors, 4= graduate)

Control Control of school (Private, Profit, Public)

Region Region of country (Midwest, Northeast, Southeast, Territory, West)

Locale Locale (City, Rural, Suburb, Town)

Latitude Latitude

Longitude Longitude

AdmitRate Admission rate

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Online Only online (distance) programs

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White Percent of undergraduates who report being white

Black Percent of undergraduates who report being black

Hispanic Percent of undergraduates who report being Hispanic

Asian Percent of undergraduates who report being Asian

Other Percent of undergraduates who don't report one of the above

PartTime Percent of undergraduates who are part-time students

NetPrice Average net price (cost minus aid)

Cost Average total cost for tuition, room, board, etc.

TuitionIn In-state tuition and fees

TuitonOut Out-of-state tuition and fees

TuitionFTE Net Tuition revenue per FTE student

InstructFTE Instructional spending per FTE student

FacSalary Average monthly salary for full-time faculty

20 CollegeScores4yr

FullTimeFac Percent of faculty that are full-time

Pell Percent of students receiving Pell grants

CompRate Completion rate (percent who finish program within 150% of normal time)

Debt Average debt for students who complete program

Female Percent of female students

FirstGen Percent of first-generation students

MedIncome Median family income (in \$1,000)

#### **Details**

The US Department of Education maintains a database through its College Scorecard project of demographic information from all active postsecondary educational institutions that participate in Title IV. This dataset contains a small subset of the variables in the full College Scorecard and only the schools that primarily grant associate's degrees (MainDegree=2). The CollegeScores dataset contains these and other schools with other degree types.

#### Source

Data downloaded from the US Department of Education's College Scorecard at https://collegescorecard.ed.gov/data/(November 2019)

CollegeScores4yr

College Scorecard - Four Year

# **Description**

Information on all US colleges and universities that primarily grant bachelor's degrees, collected by the Department of Education for the College Scoreboard

# **Format**

A data frame with 2012 observations on the following 37 variables.

Name Name of the school

State State where school is located

ID ID number for school

Main Main campus? (1=yes, 0=branch campus)

Accred Accreditation agency

MainDegree Predominant undergrad degree (3=bachelors)

HighDegree Highest degree (0=no degrees, 1=certificate, 2=associate, 3=bachelors, 4= graduate)

Control Control of school (Private, Profit, Public)

 $Region\ Region\ of\ country\ (\texttt{Midwest}, \texttt{Northeast}, \texttt{Southeast}, \texttt{Territory}, \texttt{West})$ 

Locale (City, Rural, Suburb, Town)

Latitude Latitude

Longitude Longitude

AdmitRate Admission rate

CommuteAtlanta 21

MidACT Median of ACT scores

AvgSAT Average combined SAT scores

Online Only online (distance) programs

Enrollment Undergraduate enrollment

White Percent of undergraduates who report being white

Black Percent of undergraduates who report being black

Hispanic Percent of undergraduates who report being Hispanic

Asian Percent of undergraduates who report being Asian

Other Percent of undergraduates who don't report one of the above

PartTime Percent of undergraduates who are part-time students

NetPrice Average net price (cost minus aid)

Cost Average total cost for tuition, room, board, etc.

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TuitonOut Out-of-state tuition and fees

TuitionFTE Net Tuition revenue per FTE student

InstructFTE Instructional spending per FTE student

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FullTimeFac Percent of faculty that are full-time

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CompRate Completion rate (percent who finish program within 150% of normal time)

Debt Average debt for students who complete program

Female Percent of female students

FirstGen Percent of first-generation students

MedIncome Median family income (in \$1,000)

#### **Details**

The US Department of Education maintains a database through its College Scorecard project of demographic information from all active postsecondary educational institutions that participate in Title IV. This dataset contains a small subset of the variables in the full College Scorecard and only the schools that primarily grant bachelor's degrees (MainDegree=3). The CollegeScores dataset contains these and other schools with other degree types.

#### Source

Data downloaded from the US Department of Education's College Scorecard at https://collegescorecard.ed.gov/data/ (November 2019)

CommuteAtlanta

Commute Atlanta

### **Description**

Commute times and distances for a sample of 500 people in Atlanta

# Format

A data frame with 500 observations on the following 5 variables.

22 CommuteStLouis

City Atlanta

Age Age of the respondent (in years)
Distance Commute distance (in miles)
Time Commute time (in minutes)

Sex F or M

### **Details**

Data from the US Census Bureau's American Housing Survey (AHS) which contains information about housing and living conditions for samples from certain metropolitan areas. These data were extracted from respondents in the Atlanta metropolitan area. They include only cases where the respondent worked somewhere other than home. Values show the time (in minutes) and distance (in miles) that respondents typically traveled on their commute to work each day as well as age and sex.

### **Source**

Sample chosen using DataFerret at http://www.thedataweb.org/index.html.

CommuteStLouis

Commute Times in St. Louis

# **Description**

Commute times and distances for a sample of 500 people in St. Louis

#### **Format**

A dataset with 500 observations on the following 5 variables.

City St. Louis

Age Age of the respondent (in years)

Distance Commute distance (in miles)

Time Commute time (in minutes)

Sex F or M

# Details

Data from the US Census Bureau's American Housing Survey (AHS) which contains information about housing and living conditions for samples from certain metropolitan areas. These data were extracted from espondents in the St. Louis metropolitan area. They include only cases where the respondent worked somewhere other than home. Values show the time (in minutes) and distance (in miles) that respondents typically traveled on their commute to work each day as well as age and sex.

#### **Source**

Sample chosen using DataFerret at http://www.thedataweb.org/index.html.

CricketChirps 23

CompassionateRats

Compassionate Rats

# **Description**

Would a rat attempt to free a trapped rat?

### **Format**

A dataset with 30 observations on the following 2 variables.

Sex Sex of the rat: coded as F or M
Empathy Freed the trapped rat? no or yes

### **Details**

In a recent study, some rats showed compassion by freeing another trapped rat, even when chocolate served as a distraction and even when the rats would then have to share the chocolate with their freed companion.

#### **Source**

Bartal I.B., Decety J., and Mason P., "Empathy and Pro-Social Behavior in Rats," Science, 2011; 224(6061):1427-1430.

CricketChirps

Cricket Chirps

# Description

Cricket chirp rate and temperature

### **Format**

A dataset with 7 observations on the following 2 variables.

Temperature Air temperature in degrees F
Chirps Cricket chirp rate (chirps per minute)

### **Details**

The data were collected by E.A. Bessey and C.A. Bessey who measured chirp rates for crickets and temperatures during the summer of 1898.

# **Source**

From E.A Bessey and C.A Bessey, Further Notes on Thermometer Crickets, American Naturalist, (1898) 32, 263-264.

24 DecemberFlights

DDS Develomental Services

**Description** 

Funding for individuals by the California Department of Developmental Services (DDS),

#### **Format**

A dataset with 1000 observations on the following 6 variables.

ID ID code for subject

AgeCohort Age group (0-5, 6-12, 13-17, 18-21, 22-50, 50+)

Age Age in years

Expenditures Annual expenditures in dollars

Ethnicity Ethnic group

# **Details**

The California Department of Developmental Services (DDS) allocates funds to support developmentally disabled California residents (such as those with autism, cerebral palsy, or intellectual disabilities) and their families. We refer to those supported by DDS as DDS consumers. The dataset DDS includes data on annual expenditure (in \$), ethnicity, age, and gender for 1000 DDS consumers.

# **Source**

Taylor, S.A. and Mickel, A. E. (2014). "Simpson's Paradox: A Data Set and Discrimination Case Study Exercise," Journal of Statistics Education, 22(1). The dataset has been altered slightly for privacy reasons, but is based on actual DDS consumers.

DecemberFlights

December Flights

### **Description**

Difference between actual and scheduled arrival for United and Delta flights in December 2018.

# **Format**

A data frame with 2000 observations on the following 2 variables.

Airline Delta or United

Difference Actual - Scheduled arrival times (in minutes)

# **Details**

For a sample of 1000 December flights (in 2018) from each airline, we find the difference between actual and scheduled arrival times. A negative value indicates the flight arrived early.

\*\* Updated for 3e (earlier version from 2014 is in DecemberFlights2e.)

DietDepression 25

#### **Source**

Downloaded from the Bureau of Transportation Statistics (https://www.bts.gov/). More specific URL is https://www.transtats.bts.gov/DL\_SelectFields.asp?Table\_ID=236&DB\_Short\_Name=On-Time

DietDepression

Diet and Depression

# Description

Results from a study of a short-term diet intervention on depression.

#### **Format**

A data frame with 75 observations on the following 10 variables.

Group Control or Diet

CESD1 CESD depression score on Day 1

CESD21 CESD depression score on Day 21

CESDDiff Change in CESD depression score

DASS1 DASS depression score on Day 1

DASS21 DASS depression score on Day 21

DASSDiff Change in DASS depression score

BMI1 Body Mass Index on Day 1

BMI21 Body Mass Index on Day 21

BMIDiff Change in Body Mass Index

# **Details**

A group of researchers in Australia conducted a short (three-week) dietary intervention in a randomized controlled experiment. In the study, 75 college-age students with elevated depression symptoms and relatively poor diet habits were randomly assigned to either a healthy diet intervention group or a control group. The researchers recorded the change over the three-week period on two different numeric scales of depression (the CESD scale and the DASS scale). The CESD (Centre for Epidemiological Studies Depression) score is based more on clinical observations, while the DASS (Depression, Anxiety, and Stress Scale) depends more on self-reported information. They also recorded body mass index (BMI) at the start and end of the 21 day period.

#### Source

Francis HM, et al., "A brief diet intervention can reduce symptoms of depression in young adults - A randomised controlled trial," PLoS ONE, 14(10), October 2019.

26 DogOwner

# **Description**

Digits from social security numbers and student selected "random numbers"

### **Format**

A dataset with 150 observations on the following 7 variables.

Random	Four digit random numbers given by a sample of students
RND1	First digit
RND2	Second digit
RND3	Third digit
RND4	Fourth digit
SSN8	Eighth digit of social security number
SSN9	Last digit of social security number

### **Details**

A sample of students were asked to give a random four digit number. The numbers are given in the dataset, along with separate columns for each of the four digits. The data also show the last two digits of each student's social security number (SSN).

### **Source**

In-class student surveys from several classes.

DogOwner	Dog/Owner matches

# **Description**

Experiment to match dogs with owners

# **Format**

A dataset with 25 observations on the following variable.

Match Was the dog correctly paired with it's owner? no or yes

### **Details**

Pictures were taken of 25 owners and their purebred dogs, selected from dog parks. Study participants were shown a picture of an owner together with pictures of two dogs (the owner's dog and another random dog from the study) and asked to choose which dog most resembled the owner.

EducationLiteracy 27

Each dog-owner pair was viewed by 28 naive undergraduate judges, and the pairing was deemed "correct" (yes) if the majority of judges (more than 14) chose the correct dog to go with the owner. \*\* In first edition, but not as dataset in 2e \*\*

# **Source**

Roy and Christenfeld, Do Dogs Resemble their Owners?, Psychological Science, Vol. 15, No. 5, 2004, pp. 361 - 363.

DrugResistance

Drug Resistance

# **Description**

Effect on drug resistance by level of treatment in mice.

#### **Format**

A dataset with 72 observations on the following 5 variables.

Treatment Untreated, Light, Moderate, or Aggressive

Weight Mouse weight in grams RBC Red blood cell density

ResistantDensity Density of resistant parasites

DaysInfectious Days infectious with resistant parasites

# **Details**

In an experiment to study drug resistance in mice, groups of 18 mice were injected with a mixture of drug-resistant and drug-susceptible malaria parasites. One group received no treatment while the others got limited, moderate, or aggressive amounts of anti-malarial treatment. The weight and red blood cell density reflect the initial health of the mice. Density of resistant parasites and number of days infectious measure the effectiveness of the treatment.

#### **Source**

Huijben S, Bell AS, Sim DG, Tomasello D, Mideo N, Day T, Read AF (2013) Aggressive chemotherapy and the selection of drug resistant pathogens. PLoS Pathogens 9(9): e1003578.

http://dx.doi.org/10.1371/journal.ppat.1003578

Huijben S, et al., (2013). Data from: Aggressive chemotherapy and the selection of drug resistant pathogens. Dryad Digital

Repository. http://dx.doi.org/10.5061/dryad.09qc0

EducationLiteracy

Education and Literacy

### **Description**

Education spending and literacy rates for countries.

28 ElectionMargin

#### **Format**

A data frame with 170 observations on the following 4 variables.

Country Name of country

Code Three-letter code for country

Education Education spending (as a percentage of GDP)

Literacy Literacy rate

#### **Details**

For each country, we have public spending on education (as a percentage of GDP) and literacy rate (percentage of the population who can read and write).

\*\* Updated for 3e (an earlier version is at EducationLiteracy2e). \*\*

# **Source**

Most recent data (as of 2019) for each country obtained from worldbank.org.

ElectionMargin Election Margin

# **Description**

Approval rating and election margin for recent presidential elections

### **Format**

A dataset with 12 observations on the following 5 variables.

Year Certain election years from 1940-2012
Candidate Incumbent US president
Approval Presidential approval rating at time of election
Margin Margin of victory/defeat (as a percentage)
Result Outcome of the election for the incumbent: Lost or Won

### **Details**

Data include US Presidential elections since 1940 in which an incumbent was running for president. The approval rating for the sitting president is compared to the margin of victory/defeat in the election.

\*\* Updated for 2e (original is now ElectionMargin1e) \*\*

#### **Source**

Silver, Nate, "Approval Ratings and Re-Election Odds", *fivethirtyeight.com*, posted January 28, 2011 and *http:\realclearpolitics.org* 

EmployedACS 29

EmployedACS

Employed in American Community Survey

# **Description**

Employed individuals from the American Community Survey (ACS) dataset

### **Format**

A data frame with 1287 observations on the following 9 variables.

Sex 0=female and 1=male

Age Age (years)

Married 0=not married and 1=married

Income Wages and salary for the past 12 months (in \$1,000's)

Hours Wk Hours of work per week

Race asian, black, other, white

USCitizen 1=citizen and 0=noncitizen

HealthInsurance 1=have health insurance and 0= no health insurance

Language 1=native English speaker and 0=other

# **Details**

This is a subset of the ACS dataset including only 1287 individuals who were employed. (HoursWk>0)

\*\* Updated for 3e (an earlier version is at EmployedACS2010). \*\*

### **Source**

The full public dataset can be downloaded at http://www.census.gov/acs/www/datadocumentation/pumsdata/, and the full list of variables is at https://www.census.gov/programs-surveys/acs/data/pums.html

ExerciseHours

Exercise Hours

# Description

Amount of exercise per week for students (and other variables)

30 FacebookFriends

#### **Format**

A data frame with 50 observations on the following 7 variables.

Year Year in school (1=First year,..., 4=Senior)

Sex F or M

Hand Left (1) or Right (r) handed?

Exercise Hours of exercise per week

TV Hours of TV viewing per week

Pulse Resting pulse rate (beats per minute)

Pierces Number of body piercings

#### **Details**

Data from an in-class survey of statistics students asking about amount of exercise, TV viewing, handedness, sex, pulse rate, and number of body piercings. Note the Sex variable was labeled as Gender in earlier versions of this dataset. We acknowledge that this binary dichotomization is not a complete or inclusive representation of reality.

#### **Source**

In-class student survey.

FacebookFriends

Facebook Friends

# **Description**

Data on number of Facebook friends and grey matter density in brain regions related to social perception and associative memory.

#### **Format**

A dataset with 40 observations on the following 2 variables.

GMdensity Normalized z-scores of grey matter density in certain brain regions FBfriends Number of friends on Facebook

### **Details**

A recent study in Great Britain examines the relationship between the number of friends an individual has on Facebook and grey matter density in the areas of the brain associated with social perception and associative memory. The study included 40 students at City University London.

# Source

Kanai, R., Bahrami, B., Roylance, R., and Rees, G., "Online social network size is reflected in human brain structure," Proceedings of the Royal Society, 7 April 2012; 279(1732): 1327-1334. Data approximated from information in the article.

FisherIris 31

### **Description**

Reactions of lizards to the presence of fire ants.

#### **Format**

A dataset with 80 observations on the following 3 variables.

Invasion Coded as Uninvaded or Invaded, depending on if the lizard comes from a region with fire ants

Twitches Number of twitches the lizard makes when encountering fire ants

Time for the lizard to flee in seconds (more than one minute is recorded as 61).

# **Details**

The red imported fire ant, *Solenopsis invicta*, is native to South America, but has an expansive invasive range, including much of the southern United States (invasion of this ant is predicted to go global). In the United States, these ants occupy similar habitats as fence lizards. The ants eat the lizards and the lizards eat the ants, and in either scenario the venom from the fire ant can be fatal to the lizard. The study explored the question of whether lizards learn to adapt their behavior if their environment has been invaded by fire ants by taking lizards from an uninvaded habitat (eastern Arkansas) and lizards from an invaded habitat (southern Alabama, which has been invaded for more than 70 years), exposing them to fire ants, and measuring how long it takes each lizard to flee and the number of twitches each lizard does.

# **Source**

Langkilde, T. (2009). "Invasive fire ants alter behavior and morphology of native lizards"", Ecology, 90(1): 208-217. Thanks to Dr. Langkilde for providing the data.

Iris Fisher's Iris Data
-------------------------

# **Description**

Measurements of three iris species

#### **Format**

A dataset with 150 observations on the following 5 variables.

Type Species of iris, Setosa, Virginica, or Versicolor
PetalLength Petal length in mm.
PetalWidth Petal width in mm.
SepalLength Sepal length in mm.
SepalWidth Sepal width in mm.

32 FishGills3

#### **Details**

Data used in Fisher's 1936 paper, this famous dataset looks at measurements for samples of three different species of iris. The petal is part of the flower itself and the sepals are green leaves, directly under the petals, providing support.

### **Source**

R. A. Fisher (1936). "The use of multiple measurements in taxonomic problems". Annals of Eugenics 7 (2): 179–188. doi:10.1111/j.1469-1809.1936.tb02137.x.

FishGills12

Fish Respiration and Calcium - Full Data

# **Description**

An experiment to look at fish respiration rates in water with different levels of calcium.

#### **Format**

A dataset with 360 observations on the following 2 variables.

 $\begin{array}{ll} \hbox{Calcium} & \hbox{Amount of calcium in the water (mg/L)} \\ \hbox{GillRate} & \hbox{Respiration rate (beats per minute)} \end{array}$ 

# **Details**

Fish were randomly assigned to twelve tanks with different levels (measured in mg/L) of calcium. Respiration rate was measured as number of gill beats per minute.

#### Source

Thanks to Prof. Brad Baldwin for supplying the data.

FishGills3

Fish Respiration and Calcium

### **Description**

Respiration rate for fish in three levels of calcium.

# Format

A dataset with 90 observations on the following 2 variables.

Calcium Level of calcium Low 0.71 mg/L, Medium 5.24 mg/L, or High 18.24 mg/L GillRate Respiration rate (beats per minute)

Flight433 33

### **Details**

Fish were randomly assigned to three tanks with different levels (low, medium and high) of calcium. Respiration rate was measured as number of gill beats per minute.

#### Source

Thanks to Prof. Brad Baldwin for supplying the data.

Flight433

Flight 433

### **Description**

Flight times for Flight 433 (Boston-SF) in January 2019.

#### **Format**

A data frame with 28 observations on the following variable.

AirTime Airborne flying fime (in minutes) for Flight 433, Boston to San Francisco

#### **Details**

United Airlines Flight 433 was a daily flight from Boston to San Francisco. The data show the airborne flying times for the flight on each day of January 2019.

\*\*Updated for 3e (earlier version from 2016 is in Flight433\_2e) \*\*

### **Source**

Data collected from the Bureau of Transportation Statistics website at http://www.bts.gov/xml/ontimesummarystatistics/src/dstat/OntimeSummaryAirtime.xml

FloridaLakes

Florida Lakes

# Description

Water quality measurements for a sample of lakes in Florida

#### **Format**

A dataset with 53 observations on the following 12 variables.

ID An identifying number for each lake

Lake Name of the lake

Alkalinity Concentration of calcium carbonate (in mg/L)

pH Acidity

Calcium Amount of calcium in water
Chlorophyll Amount of chlorophyll in water

AvgMercury Average mercury level for a sample of fish (large mouth bass) from each lake

34 FootballBrain

NumSamples Number of fish sampled at each lake
MinMercury Minimum mercury level in a sampled fish
MaxMercury Maximum mercury level in a sampled fish
Adjusted mercury level to account for the age of the fish
Mean age of fish in each sample

#### Details

This dataset describes characteristics of water and fish samples from 53 Florida lakes. Some variables (e.g. Alkalinity, pH, and Calcium) reflect the chemistry of the water samples. Mercury levels were recorded for a sample of large mouth bass selected at each lake.

#### Source

Lange, Royals, and Connor, Transactions of the American Fisheries Society (1993)

FootballBrain Football Brain Measurements

# **Description**

Brain measurements for non-football players, football players with no concussion history, and football players with a concussion history.

# **Format**

A dataset with 75 observations on the following 5 variables.

Group Control=no football, FBNoConcuss=football player but no concussions, or FBConcuss=football player with concussion history

Hipp Total hippocampus volume, in microL

LeftHipp Left hippocampus volume, in microL

Years Number of years playing football

Cognition Cognitive testing composite reaction time score, given as a percentile

# Details

The study included 3 groups, with 25 cases in each group. The control group consisted of healthy individuals with no history of brain trauma who were comparable to the other groups in age, sex, and education. The second group consisted of NCAA Division 1 college football players with no history of concussion, while the third group consisted of NCAA Division 1 college football players with a history of concussion. High resolution MRI was used to collect brain hippocampus volume. Data were collected between June 2011 and August 2013. The data values given here are estimated from information given in the paper.

#### **Source**

Singh R, Meier T, Kuplicki R, Savitz J, et al., "Relationship of Collegiate Football Experience and Concussion With Hippocampal Volume and Cognitive Outcome," JAMA, 311(18), 2014

ForestFires 35

ForestFires

Forest Fires

### **Description**

Characteristics of forest fires in Montesinho park (Portugal)

#### **Format**

A data frame with 517 observations on the following 13 variables.

X West to east coordinates for the site (1=farthest west to 9= farthest east)

Y North to south coordinates for the site (1=farthest north to 9=farthest south)

Month Month of the year (jan to dec)

Day Day of the week (sun to sat)

FFMC Fine fuel moisture code

DMC Duff moisture code

DC Drought code

ISI Initial spread index

Temp Outside temperature (in celsius)

RH Relative humidity (in %)

Wind Wind speed (in km/h)

Rain Rain in past 30 minutes (in mm/sq-m)

Area Total burned area (in hectares)

# **Details**

Data were recorded for fires in the Montesinho natural park in Portugal between January 2000 and December 2003. A map of the park (see the pdf linked below) is divided into 9x9 grid sections (given by the x,y-coordinates in the first two columns of the dataset). There are four components of a Fire Weather Index that rate how weather conditions might increase fire danger. FFMC. DMC, and DC reflect various measures of moisture content, while the ISI score indicated how fast a fire might spread (for example, by wind). For all four measures larger values are associated with more fire danger. Fires that are less than 100 square meters in size (0.01 hectares) are recorded as Area=0.

### Source

Data downloaded from the UCI Machine Learning Repository, https://archive.ics.uci.edu/ml/datasets/Forest+Fires

Original article: P. Cortez and A. Morais. "A Data Mining Approach to Predict Forest Fires using Meteorological Data", in New Trends in Artificial Intelligence, Proceedings of the 13th EPIA 2007 - Portuguese Conference on Artificial Intelligence (December 2007) http://www.dsi.uminho.pt/~pcortez/fires.pdf

36 GlobalInternet2019

Genetic Diversity Genetic Diversity

### **Description**

Genetic diversity for different populations are compared to the distance from East Africa.

#### **Format**

A dataset with 52 observations on the following 5 variables.

Population Identifier for each population

Country Main country where the population is found Continent Continent where the population is found GeneticDiversity A measure of genetic diversity in the population

Distance Distance by land to East Africa (in km)

#### **Details**

The data give a measure of genetic diversity for different populations and the geographic distance of each population from East Africa (Addis Ababa, Ethiopia), as one would travel over the surface of the earth by land (migration long ago is thought to have happened by land).

# **Source**

Calculated using data from S Ramachandran, O Deshpande, CC Roseman, NA Rosenberg, MW Feldman, LL Cavalli-Sforza. "Support from the relationship of genetic and geographic distance in human populations for a serial founder effect originating in Africa,"" Proceedings of the National Academy of Sciences, 2005, 102: 15942-15947.

GlobalInternet2019 Global Internet Usage

# Description

Internet usage for several countries

# **Format**

A data frame with 9 observations on the following 3 variables.

Country Name of country

InternetSpeed Average download speed (in Mb)

HoursOnline Average hours online per day

GolfRound 37

#### **Details**

The Worldwide Broadband Speed League tests internet speeds at millions of access points around the world. The average download speed for each country is derived from those data. The DataReportal site provides summaries of country level data on internet usage obtained from various sources. The average number of hours spent online for each country is based on survey data reported at that site.

\*\* Updated for 3e (earlier version from 2011 is at GlobalInternet2011).

### **Source**

Internet speeds for 2019 downloaded from https://www.cable.co.uk/broadband/speed/worldwide-speed-league Online hours for 2019 downloaded from https://datareportal.com/library

GolfRound

Golf Round

## **Description**

Scorecard for 18 holes of golf

#### **Format**

A data frame with 18 observations on the following 4 variables.

Hole Hole number (1 to 18)

Distance Length of the hole (in yards)

Par Par for the hole

Score Actual number of stokes needed in this round

# **Details**

Data come from a scorecard for one round of golf at the Potsdam Country Club. Par is the expected number of strokes a good golfer should need to complete the hole.

## **Source**

Personal file

 ${\sf GPAbySex}$ 

GPA by Sex

### **Description**

Data from a survey of introductory statistics students.

# **Format**

A dataset with 343 observations on the following 6 variables.

38 GSWarriors2019

Exercise Hours of exercise (per week)

SAT Combined SAT scores (out of 1600)

GPA Grade Point Average (0.00-4.00 scale)

Pulse Pulse rate (beats per minute)
Piercings Number of body piercings

CodedSex 0=female or 1=male

#### **Details**

This is a subset of the StudentSurvey dataset where cases with missing values have been dropped and sex is coded as a 0/1 indicator variable.

#### Source

A first day survey over several different introductory statistics classes.

GSWarriors2019

Golden State Warriors Basketball (2019)

# Description

Game log data for the Golden State Warriors basketball team in 2018-2019

### **Format**

A data frame with 82 observations on the following 33 variables.

Game ID number for each game

Date Date the game was played (mm/dd/yyy)

Location Away or Home

Opp Opponent team

Win Game result: L or W

Points Number of points scored

FG Field goals made

FGA Field goals attempted

FG3 Three-point field goals made

FG3A Three-point field goals attempted

FT Free throws made

FTA Free throws attempted

Rebounds Total rebounds

OffReb Offensive rebounds

Assists Number of assists

Steals Number of steals

Blocks Number of shots blocked

Turnovers Number of turnovers

HappyPlanetIndex 39

Fouls Number of fouls

OppPoints Opponent's points scored

OppFG Opponent's field goals made

OppFGA Opponent's field goals attempted

OppFG3 Opponent's three-point field goals made

OppFG3A Opponent's three-point field goals attempted

OppFT Opponent's free throws made

OppFTA Opponent's free throws attempted

OppRebounds Opponent's total rebounds

OppOffReb Opponent's offensive rebounds

OppAssists Opponent's assists

OppSteals Opponent's steals

OppBlocks Opponent's shots blocked

OppTurnovers Opponent's turnovers

OppFouls Opponent's fouls

### **Details**

Information from online boxscores for all 82 regular season games played by the Golden State Warriors basketball team during the 2018-2019 season.

\*\* Updated for third edition (2e version is now GSWarriors2016, 1e version is MiamiHeat dataset)
\*\*

## **Source**

Data for the 2018-2019 Golden State games downloaded from http://www.basketball-reference.com/teams/GSW/2019/gamelog/

HappyPlanetIndex

Happy Planet Index

### **Description**

Measurements related to happiness and well-being for 143 countries.

## **Format**

A dataset with 143 observations on the following 11 variables.

Country Name of country

Region 1=Latin America, 2=Western nations, 3=Middle East, 4=Sub-Saharan Africa,

5=South Asia, 6=East Asia, 7=former Communist countries

Happiness Score on a 0-10 scale for average level of happiness (10 is happiest)

LifeExpectancy Average life expectancy (in years)

Footprint Ecological footprint - a measure of the (per capita) ecological impact

HLY Happy Life Years - combines life expectancy with well-being

HPI Happy Planet Index (0-100 scale)

40 HeatCognition

HPIRank HPI rank for the country

GDPperCapita Gross Domestic Product (per capita)

HDI Human Development Index Population Population (in millions)

#### **Details**

Data for 143 countries from the Happy Planet Index Project that works to quantify indicators of happiness, well-being, and ecological footprint at a country level.

#### **Source**

Marks, N., "The Happy Planet Index", www.TED.com/talks, August 29, 2010. Data downloaded from http://www.happyplanetindex.org/data/

HeatCognition

Heat and Cognition

# **Description**

Effect of heat on cognitive ability

#### **Format**

A data frame with 46 observations on the following 3 variables.

AC Whether the student had air conditioning on in the room, No or Yes

MathZRT Z-score of reaction time solving math problems

ColorsZRT Z-score of reaction time solving STROOP color problems

### **Details**

Forty-six college students were asked to solve cognitive problems first thing in the morning during a heat wave in their Northeastern city. Twenty of the students had air-conditioning in their rooms and twenty-six did not. Z-scores of reaction times are given for math problems and for color dissonance problems.

#### Source

Cedeo Laurent JG, Williams A, Oulhote Y, Zanobetti A, Allen JG, Spengler JD "Reduced cognitive function during a heat wave among residents of non-air-conditioned buildings: An observational study of young adults in the summer of 2016." PLoS Med 15(7): e1002605, July 10, 2018. https://doi.org/10.1371/journal.pmed.1002605. (Dataset is simplified from the repeated measures design used in the original study.)

HockeyPenalties2019 41

HeightData	Height Data
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# **Description**

Heights measured for the same 94 children over 18 years.

#### **Format**

A dataset with 94 observations on the following 33 variables.

```
ID
            Identification number)
       Sex Mor F
   Year_1
            Height (in cm.) at age 1 year
            Height (in cm.) at age 1.25 years
Year_1.25
 Year_1.5
            Height (in cm.) at age 1.5 years
Year_1.75
            Height (in cm.) at age 1.75 years
   Year_2
            Height (in cm.) at age 2 years
            Height (in cm.) at age 3 years
   Year_3
            Height (in cm.) at age 4 years
   Year_4
   Year_5
             Height (in cm.) at age 5 years
             See below for full list of years...
Year_17.5
             Height (in cm.) at age 17.5 years
            Height (in cm.) at age 18 years
  Year_18
```

# **Details**

In the 1940's and 1950's, the heights of 39 boys and 54 girls, in centimeters, were measured at 30 different time points between the ages of 1 and 18 years as part of the University of California Berkeley growth study. Ages for measurement are 1, 1,25, 1,5, 1,75, 2, 3, 4, 5, 6, 7, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11,5, 12, 12.5, 13, 13.5, 14, 14.5, 15, 15.5, 16, 16.5, 17, 17.5, 18.

## Source

Tuddenham, R. D., and Snyder, M. M. (1954) "Physical growth of California boys and girls from birth to age 18", University of California Publications in Child Development, 1, 183-364.

HockeyPenalties2019 Hockey Penalties (2019)

#### **Description**

Penalty minutes (per game) for NHL teams in 2018-2019

#### **Format**

A data frame with 30 observations on the following 4 variables.

Team Name of the team

42 HollywoodMovies

```
PIM Average penalty minutes per game

OppPIM Average opponent's penalty mnutes per game

Playoff Did the team make the playoffs? (N or Y)
```

### **Details**

Data give the average number of penalty minutes for each of the 30 National Hockey League (NHL) teams (and their opponents) during the 2018-2019 regular season.

\*\* Updated for 3e (earlier version from 2010-11 is at HockeyPenalties2011). \*\*

#### **Source**

Data obtained online at https://www.hockey-reference.com/leagues/NHL\_2019.html#all\_stats

HollywoodMovies

Hollywood Movies

## **Description**

Data on movies released in Hollywood between 2012 and 2018

#### **Format**

A data frame with 1295 observations on the following 15 variables.

Movie Title of the movie

LeadStudio Primary U.S. distributor of the movie

RottenTomatoes Rotten Tomatoes rating (critics)

AudienceScore Audience rating (via Rotten Tomatoes)

 $\label{thm:comedy} Genre\ One\ of\ Action\ Adventure,\ Black\ Comedy,\ Comedy,\ Concert,\ Documentary,\ Drama,\ Horror,\ Musical,\ Romantic\ Comedy,\ Thriller,\ or\ Western$ 

TheatersOpenWeek Number of screens for opening weekend

OpeningWeekend Opening weekend gross (in millions)

BOAvgOpenWeekend Average box office income per theater, opening weekend

Budget Production budget (in millions)

DomesticGross Gross income for domestic (U.S.) viewers (in millions)

WorldGross Gross income for all viewers (in millions)

ForeignGross Gross income for foreign viewers (in millions)

Profitability WorldGross as a percentage of Budget

OpenProfit Percentage of budget recovered on opening weekend

Year Year the movie was released

# **Details**

Information from 1295 movies released from Hollywood between 2012 and 2018.

\*\* Updated for 3e (earlier versons are HollywoodMovies2013 and HollywoodMovies2011). \*\*

HomesForSale 43

#### Source

Movie data obtained from

https://www.boxofficemojo.com/
https://www.the-numbers.com/
https://www.rottentomatoes.com/

HomesForSale

Homes For Sale (2019)

# **Description**

Data on homes for sale in four states in 2019

#### **Format**

A data frame with 120 observations on the following 5 variables.

State Location of the home (CA, NJ, NY, or PA)

Price Asking price (in \$1,000's)

Size Area of all rooms (in 1,000's sq. ft.)

Beds Number of bedrooms

Baths Number of bathrooms

#### **Details**

Data for samples of homes for sale in each state, selected from *zillow.com*.

\*\* Updated for 3e (earlier version from 2010 is in HomesForSale2e). \*\*

# Source

Data collected from www.zillow.com in 2019.

HomesForSaleCA

Homes For Sale in California (2019)

# **Description**

Data for a sample of homes offered for sale in California

#### **Format**

A data frame with 30 observations on the following 5 variables.

State Location of the home (CA)

Price Asking price (in \$1,000's)

Size Area of all rooms (in 1,000's sq. ft.)

Beds Number of bedrooms

Baths Number of bathrooms

44 HomesForSaleNY

## **Details**

Data for sample of homes for sale in California, selected from *zillow.com*. This is a subset of the HomesForSale dataset.

\*\* Updated for 3e (earlier version from 2010 is in HomesForSaleCA2e). \*\*

#### **Source**

Data collected from www.zillow.com in 2019.

HomesForSaleCanton

Homes For Sale in Canton, NY (2019)

# Description

Data for a sample of homes offered for sale in Canton, NY

### **Format**

A data frame with 30 observations on the following 4 variables.

Price Asking price (in \$1,000's)

Size Area of all rooms (in 1,000's sq. ft.)

Beds Number of bedrooms

Baths Number of bathrooms

# **Details**

Data for a sample of homes for sale in Canton, NY, selected from *zillow.com*.

\*\* Updated for 3e (earlier version from 2010 is in HomesForSaleCanton2e). \*\*

### **Source**

Data collected from www.zillow.com in 2019.

HomesForSaleNY

Homes For Sale in New York (2019)

# Description

Data for a sample of homes offered for sale in New York (state)

# **Format**

A data frame with 30 observations on the following 5 variables.

State Location of the home (NY)

Price Asking price (in \$1,000's)

Size Area of all rooms (in 1,000's sq. ft.)

Beds Number of bedrooms

Baths Number of bathrooms

Honeybee 45

#### **Details**

Data for a sample of homes for sale in New York, selected from *zillow.com*. This is a subset of the HomesForSale dataset.

\*\* Updated for 3e (earlier version from 2010 is in HomesForSaleNY2e). \*\*

### **Source**

Data collected from www.zillow.com in 2019.

HomingPigeons

Homing Pigeons

# **Description**

Results from the 2019 Midwest Classic Homing Pigeon race

#### **Format**

A data frame with 1412 observations on the following 5 variables.

Position Finishing position in the race

Loft Name of the pigeon's home loft

Sex C=cock (male) or H=hen (female)

Distance (in miles) from release point to home loft

Speed (in yards per minute)

# Details

Finishing results from 1412 pigeons completing the 2019 Midwest Classic race for homing pigeons on June 30, 2019. Each loft may enter multiple pigeons.

#### **Source**

Final race report from the Midwest Homing Pigeon Association, downloaded from http://www.midwesthpa.com/MIDFinalReports.htm

Honeybee

Honeybee Colonies

# Description

Number of honeybee colonies (1995-2012)

#### **Format**

A dataset with 18 observations on the following 2 variables.

Year Year

Colonies Estimated number of honeybee colonies in the US (in thousands)

46 HoneybeeWaggle

#### **Details**

Data collected from the USDA on the estimated number of honeybee colonies in the US for the years 1995 through 2012.

#### Source

USDA National Agriculture and Statistical Services,

http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1191 Accessed September 2015.

HoneybeeCircuits

Honeybee Circuits

### **Description**

Number of circuits for honeybee dances and nest quality

#### **Format**

A dataset with 78 observations on the following 2 variables.

Circuits Number of waggle dance circuits for a returning scout bee

Quality Quality of the nest site: High or Low

### **Details**

When honeybees are looking for a new home, they send out scouts to explore options. When a scout returns, she does a "waggle dance" with multiple circuit repetitions to tell the swarm about the option she found. The bees then decide between the options and pick the best one. Scientists wanted to find out how honeybees decide which is the best option, so they took a swarm of honeybees to an island with only two possible options for new homes: one of very high honeybee quality and one of low quality. They then kept track of the scouts who visited each option and counted the number of waggle dance circuits each scout bee did when describing the option.

#### Source

Seeley, T., Honeybee Democracy, Princeton University Press, Princeton, NJ, 2010, p. 128

HoneybeeWaggle

Honeybee Waggle

# Description

Honeybee dance duration and distance to nesting site

### **Format**

A dataset with 7 observations on the following 2 variables.

HotDogs2019 47

> Distance to the potential nest site (in meters) Duration Duration of the waggle dance (in seconds)

### **Details**

When honeybee scouts find a food source or a nice site for a new home, they communicate the location to the rest of the swarm by doing a "waggle dance." They point in the direction of the site and dance longer for sites farther away. The rest of the bees use the duration of the dance to predict distance to the site.

#### Source

Seeley, T., Honeybee Democracy, Princeton University Press, Princeton, NJ, 2010, p. 128

HotDogs2019

Hot Dog Eating Contest

# Description

Winning number of hot dogs consumed in an eating contest (2002-2019)

#### **Format**

A data frame with 18 observations on the following 2 variables.

Year Year of the contest: 2002 to 2019

HotDogs Winning number of hot dogs consumed

## **Details**

Every Fourth of July, Nathan's Famous in New York City holds a hot dog eating contest, in which contestants try to eat as many hot dogs (with buns) as possible in ten minutes. The winning number of hot dogs are given for each year from 2002-2019.

\*\* Data set updated for 3e (earlier versions are HotDogs2015 and HotDogs1e) \*\*

# **Source**

Downloaded from https://en.wikipedia.org/wiki/Nathan's\_Hot\_Dog\_Eating\_Contest

48 HumanTears25

HouseStarts2018

Housing Starts (2000-2018)

# **Description**

Quarterly housing starts in the United States from 2000-2018

### **Format**

A data frame with 76 observations on the following 3 variables.

Year Year (2000 to 2018)

Quarter Q1=Jan-Mar, Q2=Apr-June, Q3=July-Sept, Q4=Oct-Dec

Houses New US residential house construction starts (in thousands)

#### **Details**

Number of new homes started in the US for each quarter from 2000-2018. Updated for 3e (earlier version is in HouseStarts2015)

### **Source**

Census.gov website https://www.census.gov/econ/currentdata/

https://www.census.gov/econ/currentdata/dbsearch?program=RESCONST&startYear=2000&endYear=2018&categories=STARTS&dataType=SINGLE&geoLevel=US&notAdjusted=1&submit=GET+DATA&releaseScheduleId=

HumanTears25

Human Tears -Sadness and Sexual Arousal

# Description

Differences in sadness and sexual arousal ratings for 25 men sniffing female tears or a placebo in a matched pairs experiment.

### **Format**

A data frame with 25 observations on the following 2 variables.

SexDiff Difference in sexual arousal rating (placebo rating - tears rating)

SadDiff Difference in sadness rating (placebo rating - tears rating)

HumanTears50 49

#### **Details**

Twenty-five men had a pad attached to their upper lip that contained either female tears collected from women who watched a sad film or a salt solution (as a placebo) that had been trickled down the same women's faces. The data were collected following a double-blind matched pairs design, where the order was randomized. The men were shown pictures of female faces and asked "To what extent is this face sad?" or "To what extent is this face sexually arousing?" Men's answers were input using a Visual Analog Scale, which were then converted to a scale with results between about 200 and 800. The data show the difference in rating (placebo rating minus sadness rating) for each man for the sad question (SadDiff) or the sexual arousal question (SexDiff). Data are approximated from information given in the article.

#### Source

Gelstein, S, et al., "Human Tears Contain a Chemosignal," Science, 331(6014), 226-230, January 14, 2011.

HumanTears50

Human Tears - Testosterone

# Description

Differences in testosterone levels for 50 men in a matched pairs experiment, where the differences are between sniffing female tears and sniffing a placebo

### **Format**

A data frame with 50 observations on the following 3 variables.

Placebo Testosterone level after sniffing a placebo

Tears Testosterone level after sniffing female tears

Difference in testosterone level (Placebo - Tears)

# Details

Fifty men had a pad attached to their upper lip that contained either female tears collected from women who watched a sad film or a salt solution (as a placebo) that had been trickled down the same women's faces. The data were collected following a double-blind matched pairs design, where the order was randomized and the data were collected on consecutive days. After sniffing each substance (placebo or tears), men had their salivary testosterone levels measured, in pg/ml. Data are approximated from information given in the article.

#### **Source**

Gelstein, S, et al., "Human Tears Contain a Chemosignal," Science, 331(6014), 226-230, January 14, 2011.

50 ICUAdmissions

Hurricanes2018

Hurricanes (1914 to 2018)

# **Description**

Hurricanes in the North Atlantic each year (1914-2018)

#### **Format**

A data frame with 105 observations on the following 2 variables.

Year Year (1914 to 2018)

Hurricanes Number of North Atlantic hurricanes

### **Details**

```
Number of North Atlantic hurricanes - yearly 1914-2018.

** Updated for 3e (ealier version through 2014 is in Hurricanes2014). **
```

### **Source**

Weather Underground website at https://www.wunderground.com/hurricane/hurrarchive.asp

ICUAdmissions

Intensive Care Unit Admissions

### **Description**

Data from patients admitted to an intensive care unit

# **Format**

A dataset with 200 observations on the following 21 variables.

ID Patient ID number Status Patient status: 0=lived or 1=died Age Patient's age (in years) Sex 0=male or 1=female Race Patient's race: 1=white, 2=black, or 3=other Service Type of service: 0=medical or 1=surgical Cancer Is cancer involved? 0=no or 1=yes Renal Is chronic renal failure involved? 0=no or 1=yes Infection Is infection involved? 0=no or 1=yes Patient gets CPR prior to admission? 0=no or 1=yes Systolic Systolic blood pressure (in mm of Hg) HeartRate Pulse rate (beats per minute) Previous Previous admission to ICU wihtin 6 months? ∅=no or 1=yes Type Admission type: 0=elective or 1=emergency Fracture Fractured bone involved? 0=no or 1=yes

InkjetPrinters 51

PO2 Partial oxygen level from blood gases under 60? 0=no or 1=yes

PH pH from blood gas under 7.25? 0=no or 1=yes

PCO2 Partial carbon dioxide level from blood gas over 45? 0=no or 1=yes

Bicarbonate Bicarbonate from blood gas under 18? 0=no or 1=yes
Creatinine Creatinine from blood gas over 2.0? 0=no or 1=yes
Consciousness Level: 0=conscious, 1=deep stupor, or 2=coma

### **Details**

Data from a sample of 200 patients following admission to an adult intensive care unit (ICU).

#### **Source**

DASL dataset downloaded from http://lib.stat.cmu.edu/DASL/Datafiles/ICU.html

ImmuneTea

Immune Tea

# **Description**

Interferon gamma production and tea drinking

### **Format**

A dataset with 21 observations on the following 2 variables.

InterferonGamma Measure of interferon gamma production

Drink Type of drink: Coffee or Tea

#### **Details**

Eleven healthy non-tea-drinking individuals were asked to drink five or six cups of tea a day, while ten healthy non-tea and non-coffee-drinkers were asked to drink the same amount of coffee, which has caffeine but not the L-theanine that is in tea. The groups were randomly assigned. After two weeks, blood samples were exposed to an antigen and production of interferon gamma was measured.

#### Source

Adapted from Kamath, et.al., "Antigens in tea-Beverage prime human V 2V2 T cells in vitro and in vivo for memory and non-memory antibacterial cytokine responses", Proceedings of the National Academy of Sciences, May 13, 2003.

InkjetPrinters

Inkjet Printers

### **Description**

Data from online reviews of inkjet printers

#### **Format**

A dataset with 20 observations on the following 6 variables.

Model name of printer
PPM Printing rate (pages per minute) for a benchmark set of print jobs
PhotoTime Time (in seconds) to print 4x6 color photos
Price Typical retail price (in dollars)
CostBW Cost per page (in cents) for printing in black & white
CostColor Cost per page (in cents) for printing in color

### **Details**

Information from reviews of inkjet printers at PCMag.com in August 2011.

#### **Source**

Inkjet printer reviews found at http://www.pcmag.com/reviews/printers, August 2011.

LifeExpectancyVehicles

Life Expectancy and Vehicle Registrations (2017)

### **Description**

Yearly US life expectancy and number of registered vehicles (1970-2017)

### **Format**

A data frame with 48 observations on the following 3 variables.

Year Year (1970 to 2017)

LifeExpectancy Average life expectancy (in years) for babies born in the year

Vehicles Number of motor vehicles registered in the US (in millions)

## **Details**

Life expectancy (in years for babies born each year) and number of vehicles registered in the US for each year from 1970 to 2017.

\*\* Updated for 3e (earlier versoins are LifeExpectancyVehicles2e and LifeExpectancyVehicles1e)

### **Source**

Vehicle registrations from the Federal Highway Administration, https://www.fhwa.dot.gov/policyinformation/statistics.cfm.

Lifetime data from the Centers for Disease Control and Prevention, National Center for Health Statistics, Health Data Interactive, www.cdc.gov/nchs/hdi.htm.

LightatNight4Weeks 53

1	Links of Ninks for Min
LightatNight	Light at Night for Mice

## **Description**

Data on body mass gain from an experiment with mice having different nighttime light conditions

#### **Format**

A dataset with 18 observations on the following 2 variables.

Group Light=dim light at night or Dark=dark at night
BMGain Body mass gain (in grams over a three week period)

### **Details**

In this study, 18 mice were randomly split into two groups. One group was on a normal light/dark cycle (Dark) and the other group had light during the day and dim light at night (Light). The dim light was equivalent to having a television set on in a room. The mice in darkness ate most of their food during their active (nighttime) period, matching the behavior of mice in the wild. The mice with dim light at night, however, consumed much of their food during the well-lit rest period, when most mice are usually sleeping. The change in body mass was recorded after three weeks.

\*\* See also LightatNight4Weeks or LightatNight8Weeks for more variables measured at other points in the same experiment, with a third experimental condition which had 9 additional mice with a bright light on all the time. \*\*

# **Source**

Fonken, L., et. al., "Light at night increases body mass by shifting time of food intake," Proceedings of the National Academy of Sciences, October 26, 2010; 107(43): 18664-18669.

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### **Description**

Data from an experiment with mice having different nighttime light conditions

## **Format**

A dataset with 27 observations on the following 9 variables.

Light	DM=dim light at night, LD=dark at night, or LL=bright light at night
BMGain	Body mass gain (in grams over a four week period)
Corticosterone	Blood corticosterone level (a measure of stress)
DayPct	Percent of calories eaten during the day
Consumption	Daily food consumption (grams)
GlucoseInt	Glucose intolerant? No or Yes

54 LightatNight8Weeks

GTT15 Glucose level in the blood 15 minutes after a glucose injection
GTT120 Glucose level in the blood 120 minutes after a glucose injection
Activity A measure of physical activity level

#### **Details**

In this study, 27 mice were randomly split into three groups. One group was on a normal light/dark cycle (LD), one group had bright light on all the time (LL), and one group had light during the day and dim light at night (DM). The dim light was equivalent to having a television set on in a room. The mice in darkness ate most of their food during their active (nighttime) period, matching the behavior of mice in the wild. The mice in both dim light and bright light, however, consumed more than half of their food during the well-lit rest period, when most mice are sleeping. Values in this dataset are recorded after four weeks in the experimental condition.

- \*\* This dataset was named LightatNight in the first edition \*\*
- \*\* See also LightatNight8Weeks for the same data after 8 weeks or LightatNight with just BMGain after 3 weeks for the DM and LD groups. \*\*

#### **Source**

Fonken, L., et. al., "Light at night increases body mass by shifting time of food intake," Proceedings of the National Academy of Sciences, October 26, 2010; 107(43): 18664-18669.

LightatNight8Weeks Light at Night for Mice - After 8 Weeks

# **Description**

Data from an experiment with mice having different nighttime light conditions

### **Format**

A dataset with 27 observations on the following 9 variables.

Light DM=dim light at night, LD=dark at night, or LL=bright light at night BMGain Body mass gain (in grams over an eight week period) Corticosterone Blood corticosterone level (a measure of stress) DayPct Percent of calories eaten during the day Consumption Daily food consumption (grams) GlucoseInt Glucose intolerant? No or Yes GTT15 Glucose level in the blood 15 minutes after a glucose injection GTT120 Glucose level in the blood 120 minutes after a glucose injection Activity A measure of physical activity level

### **Details**

In this study, 27 mice were randomly split into three groups. One group was on a normal light/dark cycle (LD), one group had bright light on all the time (LL), and one group had light during the day and dim light at night (DM). The dim light was equivalent to having a television set on in a room. The mice in darkness ate most of their food during their active (nighttime) period, matching the

MalevolentUniformsNHL 55

behavior of mice in the wild. The mice in both dim light and bright light, however, consumed more than half of their food during the well-lit rest period, when most mice are sleeping. Values in this dataset are recorded after eight weeks in the experimental condition.

\*\* See also LightatNight4Weeks for the same data after 4 weeks or LightatNight with just BMGain after 3 weeks for just the DM and LD groups. \*\*

#### Source

Fonken, L., et. al., "Light at night increases body mass by shifting time of food intake," Proceedings of the National Academy of Sciences, October 26, 2010; 107(43): 18664-18669.

MalevolentUniformsNFL Malevolent Uniforms NFL

### **Description**

Perceived malevolence of uniforms and penalties for National Football League (NFL) teams

#### **Format**

A dataset with 28 observations on the following 3 variables.

NFLTeam Team name

NFL\_Malevolence Score reflecting the "malevolence" of a team's uniform

ZPenYds Z-score for penalty yards

## Details

Participants with no knowledge of the teams rated the jerseys on characteristics such as timid/aggressive, nice/mean and good/bad. The averages of these responses produced a "malevolence" index with higher scores signifying impressions of more malevolent uniforms. To measure aggressiveness, the authors used the amount of penalty yards converted to z-scores and averaged for each team over the seasons from 1970-1986.

## **Source**

Frank and Gilovich, "The Dark Side of Self- and Social Perception: Black Uniforms and Aggression in Professional Sports", Journal of Personality and Social Psychology, Vol. 54, No. 1, 1988, p. 74-85.

MalevolentUniformsNHL Malevolent Uniforms NHL

# **Description**

Perceived malevolence of uniforms and penalties for National Hockey League (NHL) teams

# **Format**

A dataset with 28 observations on the following 3 variables.

56 ManhattanApartments

NHLTeam Team name

NHL\_Malevolence Score reflecting the "malevolence" of a team's uniform

ZPenMin Z-score for penalty minutes

#### **Details**

Participants with no knowledge of the teams rated the jerseys on characteristics such as timid/aggressive, nice/mean and good/bad. The averages of these responses produced a "malevolence" index with higher scores signifying impressions of more malevolent uniforms. To measure aggressiveness, the authors used the amount of penalty minutes converted to z-scores and averaged for each team over the seasons from 1970-1986.

#### Source

Frank and Gilovich, "The Dark Side of Self- and Social Perception: Black Uniforms and Aggression in Professional Sports", Journal of Personality and Social Psychology, Vol. 54, No. 1, 1988, p. 74-85.

MammalLongevity

Mammal Longevity

## **Description**

Longevity and gestation period for mammals

### **Format**

A dataset with 40 observations on the following 3 variables.

Animal Species of mammal

Gestation Time from fertilization until birth (in days)

Longevity Average lifespan (in years)

### **Details**

Dataset with average lifespan (in years) and typical gestation period (in days) for 40 different species of mammals.

### **Source**

2010 World Almanac, pg. 292.

ManhattanApartments

Manhattan Apartment Prices (2019)

### **Description**

Apartment prices for sale in Manhattan in 2019

MastersGolf 57

#### **Format**

A data frame with 20 observations on the following variable.

Rent Monthly rent (in dollars)

#### **Details**

Monthly rents for a sample of 20 one-bedroom apartments in Manhattan, NY that were advertised on Craig's List in November, 2019.

#### Source

Apartments newly advertised on Craig's List at newyork.craigslist.org, November, 2019.

MarriageAges

Marriage Ages

### **Description**

Ages for husbands and wives from marriage licenses

#### **Format**

A dataset with 100 observations on the following 2 variables.

Husband Age of husband at marriage
Wife Age of wife at marriage

# **Details**

Data from a sample of 100 marriage licences in St. Lawrence County, NY gives the ages of husbands and wives for newly married couples.

#### **Source**

Thanks to Linda Casserly, St. Lawrence County Clerk's Office

MastersGolf

Masters Golf Scores

# Description

Scores from the 2011 Masters golf tournament

### **Format**

A dataset with 20 observations on the following 2 variables.

First First round score (in relation to par)
Final Final four round score (in relation to par)

58 MentalMuscle

### **Details**

Data for a random sample of 20 golfers who made the cut at the 2011 Masters golf tournament.

#### **Source**

2011 Masters tournament results at http://www.masters.com/en\_US/discover/past\_winners.html

MateChoice

Fruitfly Survival - by Mate Choice

# **Description**

Number of fruitflies surviving depending on number of mating choices.

### **Format**

A dataset with 50 observations on the following 3 variables.

Choice	Number of surviving larvae (out of 200) when female had a choice of mates
NoChoice	Number of surviving larvae (out of 200) when female had only one choice for a mate
Difference	Choice - NoChoice

### **Details**

In an experiment, two hundred larvae from female fruitflies that were exposed to many male fruitflies were tracked to see how many survived. This was compared to a different set of 200 larvae from females that were exposed to only one male each. Values in the dataset give how many of the 200 larvae survived. This process was replicated 50 times, so each row of the dataset corresponds to the survival counts (and difference) for one run, starting with 200 larvae of each type.

### **Source**

Patridge, L. (1980). "Mate choice increases a component of offspring fitness in fruit flies," Nature, 283:290-291, 1/17/80.

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# **Description**

Comparing actual movements to mental imaging movements

# **Format**

A dataset with 32 observations on the following 3 variables.

Action	Treatment: Actual motions or Mental imaging motions
PreFatigue	Time (in seconds) to complete motions before fatigue
PostFatigue	Time (in seconds) to complete motions after fatigue

MindsetMatters 59

#### **Details**

In this study, participants were asked to either perform actual arm pointing motions or to mentally imagine equivalent arm pointing motions. Participants then developed muscle fatigue by holding a heavy weight out horizontally as long as they could. After becoming fatigued, they were asked to repeat the previous mental or actual motions. Eight participants were assigned to each group, and the time in seconds to complete the motions was measured before and after fatigue.

#### **Source**

Data approximated from summary statistics in: Demougeot L. and Papaxanthis C., "Muscle Fatigue Affects Mental Simulation of Action," The Journal of Neuroscience, July 20, 2011, 31(29):10712-10720.

MindsetMatters

Mindset Matters

## **Description**

Data from a study of perceived exercise with maids

#### **Format**

A dataset with 75 observations on the following 14 variables.

Cond Treatment condition: 0=uninformed or 1=informed

Age (in years)

Wt Original weight (in pounds)

Wt2 Weight after 4 weeks (in pounds)

BMI Original body mass index

BMI2 Body mass index after 4 weeks

Fat Original body fat percentage

Fat2 Body fat percentage after 4 weeks

WHR Original waist to hip ratio

WHR2 Waist to hip ratio after 4 weeks

Syst Original systolic blood pressure

Syst2 Systolic blood pressure after 4 weeks

Diast Original diastolic blood pressure

Diast2 Diastolic blood pressure after 4 weeks

### **Details**

In 2007 a Harvard psychologist recruited 75 female maids working in different hotels to participate in a study. She informed 41 maids (randomly chosen) that the work they do satisfies the Surgeon General's recommendations for an active lifestyle (which is true), giving them examples for how and why their work is good exercise. The other 34 maids were told nothing (uninformed). Various chacteristics (weight, body mass index, ...) were recorded for each subject at the start of the experiment and again four weeks later. Maids with missing values for weight change have been removed.

60 NBAPlayers2019

#### **Source**

Crum, A.J. and Langer, E.J. (2007). Mind-Set Matters: Exercise and the Placebo Effect, Psychological Science, 18:165-171. Thanks to the authors for supplying the data.

MustangPrice

Mustang Prices

# **Description**

Price, age, and mileage for used Mustang cars at an internet website

#### **Format**

A dataset with 25 observations on the following 3 variables.

Age Age of the car (in years)

Miles Mileage on the car (in 1,000's)

Price Asking price (in \$1,000's)

### **Details**

A statistics student, Gabe McBride, was interested in prices for used Mustang cars being offered for sale on an internet site. He sampled 25 cars from the website and recorded the age (in years), mileage (in thousands of miles) and asking price (in \$1,000's) for each car in his sample.

#### **Source**

Student project with data collected from autotrader.com in 2008.

NBAPlayers2019

NBA Players Data for 2018-19 Season

### **Description**

Data from the 2018-2019 regular season for 193 NBA basketball players.

#### **Format**

A data frame with 193 observations on the following 26 variables.

Player Name of player

Pos PG=point guard, SG=shooting guard, PF=power forward, SF=small forward, C=center

Age (in years)

Team Team name

Games Games played (out of 82)

Starts Games started

NBAStandings2019 61

Mins Minutes played

MinPerGame Minutes per game

FGMade Field goals made

FGAttempt Field goals attempted

FGPct Field goal percentage

FG3Made Three-point field goals made

FG3Attempt Three-point field goals attempted

FG3Pct Three-point field goal percentage

FTMade Free throws made

FTAttempt Free throws attempted

FTPct Free throw percentage

OffRebound Offensive rebounds

DefRebound Defensive rebounds

Rebounds Total rebounds

Assists Number of assists

Steals Number of steals

Blocks Number of blocked shots

Turnovers Number of turnovers

Fouls Number of personal fouls

Points Number of points scored

# **Details**

Data for 193 NBA basketball players from the 2018-2019 regular season. Includes all players who averaged more than 24 minutes per game that season.

\*\* Data set updated for 3e (earlier versions are NBAPlayers2015 and NBAPlayers2011). \*\*

### **Source**

http://www.basketball-reference.com/leagues/NBA\_2019\_stats.html

NBAStandings2019

NBA 2018-2019 Regular Season Standings

# **Description**

Won-Loss record and statistics for NBA Teams in 2018-2019

### **Format**

A data frame with 30 observations on the following 6 variables.

Team Team name

Wins Number of wins in an 82 game regular season

Losses Number of losses

WinPct Proportion of games won

PtsFor Average points scored per game

PtsAgainst Average points allowed per game

62 NFLContracts2019

#### **Details**

Won-Loss record and regular season statistics for 30 teams in the National Basketball Association for the 2018-2019 season.

\*\* Data set updated for 3e (earlier version are NBAStandings2016 and NBAStandings1e) \*\*

#### **Source**

Data downloaded from http://www.basketball-reference.com/leagues/NBA\_2019\_games.html

NFLContracts2019

NFL Contracts in 2019

# **Description**

Dollar size of contracts for all NFL players in 2019

#### **Format**

A data frame with 1988 observations on the following 5 variables.

Player Player's name

Position Code for the primary position of the player (QB=quarterback, etc.)

Team Nickname of the team

TotalMoney Total value of the contract (in millions of dollars)

YearlySalary Salary (in millions of dollars) for the 2019 season

#### **Details**

This dataset contains salary information for all National Football League (NFL) players under contract for the 2019 season. Many contracts extend over multiple years, so TotalMoney gives the overall size of the contract and YearlySalary indicates how much of that is to be paid for the 2019 season. All amounts are in millions of dollars.

\*\* Updated for 3e (earlier version is NFLContracts2015). \*\*

#### **Source**

Contract data collected from http://overTheCap.com, accessed September, 2019.

NFLPreseason2019 63

NFLPreseason2019

*Wins for NFL Teams* (2005-2019)

## **Description**

Number of preseason and regular season wins for NFL teams, each year from 2005 to 2019.

### **Format**

A data frame with 480 observations on the following 4 variables.

Team Code for one of 32 NFL teams

Season Year between 2005 and 2019

Preseason Number of preseason wins (out of 4 games)

RegularWins Number of regular season wins (out of 16 games)

#### **Details**

Number of wins in the preseason (out of 4 preseason games) and regular season (out of 16 regular season games) for each of the 32 National Football (NFL) teams over a fifteen year period from 2005 to 2019.

\*\* Updated for 3e (earlier version is now NFLPreseason2014). \*\*

#### **Source**

Data available at http://www.pro-football-reference.com/.

NFLScores2018

NFL Scores in 2018

## **Description**

Results for all NFL games for the 2018 regular season

## **Format**

A data frame with 256 observations on the following 11 variables.

Week Week of the season (1 through 17)

HomeTeam Home team name

AwayTeam Visiting team name

HomeScore Points scored by the home team

AwayScore Points scored by the visiting team

HomeYards Yards gained by the home team

AwayYards Yards gained by the visiting team

HomeTO Turnovers lost by the home team

AwayT0 Turnovers lost by the visiting team

Date Date of the game

Day Day of the week (Mon, Sat, Sun, or Thu)

64 NHANES

#### **Details**

Data for all 256 regular season games in the National Football League (NFL) for the 2018 season. \*\* Updated for 3e (earlier version is NFLScores2011). \*\*

#### Source

NFL scores and game statistics found at http://www.pro-football-reference.com/years/2018/games.htm.

**NHANES** 

National Health and Nutrition Examination Survey (NHANES) Subset

### **Description**

A subset of the 2009-2010 National Health and Nutrition Examination Survey (NHANES).

#### **Format**

A data frame with 4716 observations on the following 5 variables.

Case Case ID number

Organic Buy any food labeled organic (past 30 days)? (No or Yes)

Health Self-rating of health (Excellent, Very good, Fair, Good, or Poor)

 $\label{th:binary} Health \ with \ two \ categories: \ Poor \ / \ Fair \ / \ Good \ or \ Very \ good \ / \ Excellent$ 

Income Monthly income? (dollars)

# Details

This dataset is a subset of the 2009-2010 National Health and Nutrition Examination Survey (NHANES). NHANES is a national survey conducted by the Centers for Disease Control and Prevention (CDC) on a random sample of Americans. This subset contains data on select variables for the subset of people with responses to the questions about buying organic food and self-reported health status.

# Source

The data were downloaded from https://www.cdc.gov/nchs/nhanes/index.htm.

## **Description**

Variables related to nutrition and health for 315 individuals

#### **Format**

A dataset with 315 observations on the following 17 variables.

```
ID number for each subject in this sample
            ID
                 Subject's age (in years)
           Age
         Smoke
                 Smoker? coded as No or Yes
                 Weight/(Height^2)
     Quetelet
      Vitamin
                 Vitamin use: coded as 1=Regulary, 2=Occasionally, or 3=No
     Calories
                 Number of calories consumed per day
                 Grams of fat consumed per day
         Fiber
                 Grams of fiber consumed per day
      Alcohol
                Number of alcoholic drinks consumed per week
  Cholesterol
                Cholesterol consumed (mg per day)
     BetaDiet
                 Dietary beta-carotene consumed (mcg per day)
  RetinolDiet
                 Dietary retinol consumed (mcg per day)
   BetaPlasma
                 Plasma beta-carotene (ng/ml)
                 Plasma retinol (ng/ml)
RetinolPlasma
           Sex
                 Coded as Female or Male
   VitaminUse
                 Coded as No Occasional Regular
                 Smoking status: coded as 1=Never, 2=Former, or 3=Current
   PriorSmoke
```

## **Details**

Data from a cross-sectional study to investigate the relationship between personal characteristics and dietary factors, and plasma concentrations of retinol, beta-carotene and other carotenoids. Study subjects were patients who had an elective surgical procedure during a three-year period to biopsy or remove a lesion of the lung, colon, breast, skin, ovary or uterus that was found to be non-cancerous.

## Source

Nierenberg, Stukel, Baron, Dain, and Greenberg, "Determinants of plasma levels of beta-carotene and retinol", American Journal of Epidemiology (1989). Data downloaded from <a href="http://lib.stat.cmu.edu/datasets/Plasma\_Retinol">http://lib.stat.cmu.edu/datasets/Plasma\_Retinol</a>.

016 Olympic Men's Marathon
----------------------------

### **Description**

Times for all finishers in the men's marathon at the 2016 Olympics

66 OrganicEffect

#### **Format**

A data frame with 140 observations on the following 4 variables.

Athlete Name of marathoner

Country Nationality of marathoner (3 letter country code)

Time Time as H:MM:SS

Minutes Time in minutes

#### **Details**

Results for all finishers in the 2016 Men's Olympic marathon in Rio de Janeiro, Brazil.

\*\* Updated for 3e (earlier versions are now in OlympicMarathon2012 and OlympicMarathon2008)

\*\*

### **Source**

https://www.olympic.org/rio-2016/athletics/marathon-men

OrganicEffect

Eating Organic Foods

#### **Description**

Data comparing pesticide levels in family members when eating non-organic vs organic food

### **Format**

A dataset with 160 observations on the following 6 variables.

Person Code for family member, Father, Mother, GirlA, GirlB, Boy

Pesticide One of eight different pesticides measured

Day Day of the measurement (Day1, Day3, Day4, or Day6)

NonOrganic Level of the pesticide after eating a non-organic diet

Organic Level of the pesticide after eating an organic diet

Diff Difference = NonOrganic - Organic

### **Details**

A study looked at a Swedish family that ate a conventional diet (non-organic), and then had them eat only organic for two weeks. Pesticide concentrations for several different pesticides were measured in micrograms/g creatinine by testing morning urine. Multiple measurements were taken for each person before the switch to organic foods, and then again after participants had been eating organic for at least one week.

# Source

Magner, J., Wallberg, P., Sandberg, J., and Cousins, A.P. (2015). "Human exposure to pesticides from food: A pilot study," IVL Swedish Environmental Research Institute.

https://www.coop.se/PageFiles/429812/Coop%20Ekoeffekten\_Report%20ENG.pdf, January 2015

OttawaSenators2019 67

OttawaSenators2019

Ottawa Senators Hockey Team (2018-2019)

### **Description**

Data for 26 players on the 2018-2109 Ottawa Senators NHL team

#### **Format**

A data frame with 26 observations on the following 10 variables.

Player Players name

Position D=defense, C=center, RW=right wing, LW=left wing

Age (in years)

Games Games played in the 2018-19 NHL season (out of 82)

Goals Goals

Assists Assists

Points Goals + Assists

PlusMinus Difference between (even strength) goals for and against while on ice

PenMins Number of penalty minutes

MinPerGame Average minutes on the ice per game

# **Details**

Data for all players (except goalies) who played at least 10 games with the Ottawa Senators hockey team in the 2018-2019 NHL season.

\*\* Updated for 3e (previous versions are now OttawaSenators2015 and OttawaSenators1e) \*\*

### **Source**

http://www.hockey-reference.com/teams/OTT/2019.html

**PASeniors** 

Pennsylvania High School Seniors

# Description

Information on a sample of high school seniors from the state of Pennsylvania between 2010 and 2019.

68 PASeniors

#### **Format**

A data frame with 457 observations on the following 36 variables.

Year Year student submitted data

Gender Female or Male

Age Age (in years)

Hand Dominant hand (Left, Right, or Both)

Height (in cm)

Foot Foot length (in cm)

Armspan (in cm)

Languages Languages spoken

GetToSchool Main mode of transportation to school (Bus, Car, or Walk - Walk includes bicycle)

TravelTime Travel time to school (in minutes)

ReactionTime Time (in seconds) to click when a color changes

MemoryScore Score in an online memory game

Activity Favorite physical activity

Music Favorite genre of music

BirthMonth Birth month

Season Favorite season

Allergies Have allergies? (No or Yes)

Vegetarian? (No or Yes)

FavFood Favorite food

Drink Beverage used most often during the day

FavSubject Favorite subject in school

Sleep1 Typical hours of sleep on a school night

Sleep2 Typical hours of sleep on a non-school night

Occupants Number of occupants at home

Communicate Most often method to communicate with friends

TextsSent Number of texts sent (previous day)

HangHours Hours last week spent hanging out with friends

HWHours Hours last week spent doing homework

SportsHours Hours last week spent playing sports or outdoor activities

VideoGameHours Hours last week spent playing computer/video games

ComputerHours Hours last week spent using a computer

TVHours Hours last week spent watching TV

WorkHours Hours last week spent working at a paid job

SchoolPressure Amount of pressure due to schoolwork

Superpower Most desired superpower (Fly, Freeze time, Invisibility, Super strength, or Telepathy)

Preference Prefers to be Famous, Happy, Healthy, or Rich

PumpkinBeer 69

### **Details**

The dataset gives responses for a random sample of high school seniors in Pennsylvania who participated in the Census at Schools project.

#### Source

Data from U.S. Census at School (https://www.amstat.org/censusatschool) downloaded and used with the permission of the American Statistical Association.

PizzaGirl

Pizza Girl Tips

### **Description**

Data on tips for pizza deliveries

#### **Format**

A dataset with 24 observations on the following 2 variables.

Tip Amount of tip (in dollars)

Shift Data collected over three different shifts

## **Details**

"Pizza Girl" collected data on her deliveries and tips over three different evening shifts.

### Source

Pizza Girl: Statistical Analysis at

http://slice.seriouseats.com/archives/2010/04/statistical-analysis-of-a-pizza-delivery-shift-20100429.html.

PumpkinBeer

Pumpkin Beer

### **Description**

Ratings of different kinds of pumpkin beer by a wife and husband

### **Format**

A data frame with 18 observations on the following 8 variables.

Name Name of pumpkin beer

Brewer Name of brewery that produced the beer

WifeRating Rating on a 0-10 scale by the wife

HusbandRating Rating on a 0-10 scale by the husband

70 RandomP50N200

WifeComments Text of comments by the wife HusbandComments Text of comments by the husband Average Average of the two ratings (wife and husband) Year Year the ratings were done (2011 to 2019)

### **Details**

A Lock wife and husband are fans of pumpkin flavored beer, so they have each rated a variety of different brands of pumpkin beer over the years.

### **Source**

Personal records

OuizPulse10

Ouiz vs Lecture Pulse Rates

# **Description**

Paired data with pulse rates in a lecture and during a quiz for 10 students

#### **Format**

A dataset with 10 observations on the following 3 variables.

Student ID number for the student

Quiz Pulse rate (beats per minute) during a quiz Lecture Pulse rate (beats per minute) during a lecture

## **Details**

Ten students in an introductory statistics class measured their pulse rate (beats per minute) in two settings: first, in the middle of a regular class lecture and second, while taking an in-class quiz.

### **Source**

In-class data collection

RandomP50N200

Simulated proportions

# **Description**

Counts and proportions for 5000 simulated samples with n=200 and p=0.50

# **Format**

A dataset with 5000 observations on the following two variables

RetailSales 71

> Number of simulated "yes" responses in 200 trials Phat Sample proportion (Count/200)

### **Details**

Results from 5000 simulations of samples of size n=200 from a population with proportion of "yes" responses at p=0.50.

#### Source

Computer simulation

RestaurantTips

Restaurant Tips

# **Description**

Tip data from the First Crush Bistro

#### **Format**

A dataset with 157 observations on the following 7 variables.

Size of the bill (in dollars) Bill Size of the tip (in dollars) Tip Credit Paid with a credit card? n or y Guests Number of people in the group Day of the week: m=Monday, t=Tuesday, w=Wednesday, th=Thursday, or f=Friday Dav Code for specfic waiter/waitress: A, B, or C Server Tip as a percentage of the bill

# **Details**

PctTip

The owner of a bistro called First Crush in Potsdam, NY was interested in studying the tipping patterns of his customers. He collected restaurant bills over a two week period that he believes provide a good sample of his customers. The data recorded from 157 bills include the amount of the bill, size of the tip, percentage tip, number of customers in the group, whether or not a credit card was used, day of the week, and a coded identity of the server.

### Source

Thanks to Tom DeRosa at First Crush for providing the tipping data.

RetailSales

Retail Sales (2009-2019)

### **Description**

Monthly U.S. Retail Sales from 2009 to 2019

72 RockandRoll2019

#### **Format**

A data frame with 129 observations on the following 3 variables.

Month (Jan through Dec)

Year Years from 2009 to 2019

Sales Monthly U.S. retail sales (in billions of dollars)

#### **Details**

Data show the monthly retail sales (in billions) for the U.S. economy in each month from January 2009 through September 2019.

\*\* Updated for 3e (earlier versions are RetailSales2e and RetailSales1e). \*\*

#### **Source**

Data downloaded from <a href="http://www.census.gov/retail/">http://www.census.gov/retail/</a>.

RockandRoll2019

Rock & Roll Hall of Fame (2019)

# Description

Groups and Individuals in the Rock and Roll Hall of Fame as of 2019

#### **Format**

A data frame with 329 observations on the following 4 variables.

Inductee Name of the group or individual

FemaleMembers Yes if individual or member of the group is female, otherwise No

Category Type of individual or group: Early Influence, Lifetime Achievement, Non-performer, Performer, or Sideman

People Number of people in the group

### **Details**

All inductees of the Rock & Roll Hall of Fame as of 2019.

\*\* Updated for 3e (earlier versions are now RockandRoll2015 and RockandRoll1e) \*\*

#### **Source**

Rock & Roll Hall of Fame website, http://rockhall.com/inductees/alphabetical/

SalaryGender 73

# Description

Salaries for college teachers

# **Format**

A dataset with 100 observations on the following 4 variables.

74 SampColleges

Salary Annual salary in \$1,000's
Gender 0=female or 1=male
Age Age in years

PhD 1=have PhD or 0=no PhD

### Details

A random sample of college teachers taken from the 2010 American Community Survey (ACS) 1-year Public Use Microdata Sample (PUMS).

### **Source**

Downloaded from https://www.census.gov/programs-surveys/acs/data/pums.html

SampColleges

Sample of US Post-secondary Schools

# **Description**

Information for a sample of 50 US post-secondary schools from the Department of Education's College Scorecard

### **Format**

A data frame with 50 observations on the following 37 variables.

Name Name of the school

State State where school is located

ID ID number for school

Main Main campus? (1=yes, 0=branch campus)

Accred Accreditation agency

MainDegree Predominant undergrad degree (0=not classified, 1=certificate, 2=associate, 3=bachelors,4=only graduate)

HighDegree Highest degree (0=no degrees, 1=certificate, 2=associate, 3=bachelors, 4= graduate)

Control Control of school (Private, Profit, Public)

Region Region of country (Midwest, Northeast, Southeast, Territory, West)

Locale Locale (City, Rural, Suburb, Town)

Latitude Latitude

Longitude Longitude

AdmitRate Admission rate

MidACT Median of ACT scores

AvgSAT Average combined SAT scores

Online Only online (distance) programs

Enrollment Undergraduate enrollment

White Percent of undergraduates who report being white

SampColleges2yr 75

Black Percent of undergraduates who report being black

Hispanic Percent of undergraduates who report being Hispanic

Asian Percent of undergraduates who report being Asian

Other Percent of undergraduates who don't report one of the above

PartTime Percent of undergraduates who are part-time students

NetPrice Average net price (cost minus aid)

Cost Average total cost for tuition, room, board, etc.

TuitionIn In-state tuition and fees

TuitonOut Out-of-state tuition and fees

TuitionFTE Net Tuition revenue per FTE student

InstructFTE Instructional spending per FTE student

FacSalary Average monthly salary for full-time faculty

FullTimeFac Percent of faculty that are full-time

Pell Percent of students receiving Pell grants

CompRate Completion rate (percent who finish program within 150% of normal time)

Debt Average debt for students who complete program

Female Percent of female students

FirstGen Percent of first-generation students

MedIncome Median family income (in \$1,000)

# **Details**

The US Department of Education maintains a database through its College Scorecard project of demographic information from all active postsecondary educational institutions that participate in Title IV. This dataset contains information from a sample of the 50 schools selected from CollegeScores.

### **Source**

Data downloaded from the US Department of Education's College Scorecard at https://collegescorecard.ed.gov/data/(November 2019)

 ${\tt SampColleges2yr}$ 

Sample of College Scorecard - Two Year

# **Description**

Information for a sample of 50 US post-secondary schools that primarily grant associate's degrees, from the Department of Education's College Scorecard

76 SampColleges2yr

#### **Format**

A data frame with 50 observations on the following 31 variables.

Name Name of the school

State State where school is located

ID ID number for school

Main Main campus? (1=yes, 0=branch campus)

Accred Accreditation agency

MainDegree Predominant undergrad degree (0=not classified, 1=certificate, 2=associate, 3=bachelors,4=only graduate)

HighDegree Highest degree (0=no degrees, 1=certificate, 2=associate, 3=bachelors, 4= graduate)

Control Control of school (Private, Profit, Public)

Region Region of country (Midwest, Northeast, Southeast, Territory, West)

Locale (City, Rural, Suburb, Town)

Enrollment Undergraduate enrollment

White Percent of undergraduates who report being white

Black Percent of undergraduates who report being black

Hispanic Percent of undergraduates who report being Hispanic

Asian Percent of undergraduates who report being Asian

Other Percent of undergraduates who don't report one of the above

PartTime Percent of undergraduates who are part-time students

NetPrice Average net price (cost minus aid)

Cost Average total cost for tuition, room, board, etc.

TuitionIn In-state tuition and fees

TuitonOut Out-of-state tuition and fees

TuitionFTE Net Tuition revenue per FTE student

InstructFTE Instructional spending per FTE student

FacSalary Average monthly salary for full-time faculty

FullTimeFac Percent of faculty that are full-time

Pell Percent of students receiving Pell grants

CompRate Completion rate (percent who finish program within 150% of normal time)

Debt Average debt for students who complete program

Female Percent of female students

FirstGen Percent of first-generation students

MedIncome Median family income (in \$1,000)

# **Details**

Details The US Department of Education maintains a database through its College Scorecard project of demographic information from all active postsecondary educational institutions that participate in Title IV. This dataset contains information from a sample of the two-year colleges selected from all two-year colleges in ColleeScores2yr.

### **Source**

Data downloaded from the US Department of Education's College Scorecard at https://collegescorecard.ed.gov/data/(November 2019)

SampColleges4yr 77

SampColleges4yr

Sample of College Scorecard - Four Year

# **Description**

Information on a sample of 50 US four-year colleges and universities from the Department of Education's College Scoreboard

#### **Format**

A data frame with 50 observations on the following 37 variables.

Name Name of the school

State State where school is located

ID ID number for school

Main Main campus? (1=yes, 0=branch campus)

Accred Accreditation agency

MainDegree Predominant undergrad degree (3=bachelors)

HighDegree Highest degree (0=no degrees, 1=certificate, 2=associate, 3=bachelors, 4= graduate)

Control Control of school (Private, Profit, Public)

Region Region of country (Midwest, Northeast, Southeast, Territory, West)

Locale Locale (City, Rural, Suburb, Town)

Latitude Latitude

Longitude Longitude

AdmitRate Admission rate

MidACT Median of ACT scores

AvgSAT Average combined SAT scores

Online Only online (distance) programs

Enrollment Undergraduate enrollment

White Percent of undergraduates who report being white

Black Percent of undergraduates who report being black

Hispanic Percent of undergraduates who report being Hispanic

Asian Percent of undergraduates who report being Asian

Other Percent of undergraduates who don't report one of the above

PartTime Percent of undergraduates who are part-time students

NetPrice Average net price (cost minus aid)

Cost Average total cost for tuition, room, board, etc.

TuitionIn In-state tuition and fees

TuitonOut Out-of-state tuition and fees

TuitionFTE Net Tuition revenue per FTE student

InstructFTE Instructional spending per FTE student

FacSalary Average monthly salary for full-time faculty

78 SampCountries

FullTimeFac Percent of faculty that are full-time

Pell Percent of students receiving Pell grants

CompRate Completion rate (percent who finish program within 150% of normal time)

Debt Average debt for students who complete program

Female Percent of female students

FirstGen Percent of first-generation students

MedIncome Median family income (in \$1,000)

### **Details**

The US Department of Education maintains a database through its College Scorecard project of demographic information from all active postsecondary educational institutions that participate in Title IV. This dataset contains information from a sample of the four-year colleges and universities selected from all four-year colleges in CollegeScores4yr.

#### Source

Data downloaded from the US Department of Education's College Scorecard at https://collegescorecard.ed.gov/data/(November 2019)

SampCountries

Sample of Countries

# **Description**

Data on a sample of fifty countries of the world (2018)

### **Format**

A data frame with 50 observations on the following 25 variables.

Country Country name

LandArea Size in 1000 sq. km.

Population Population in millions

Density Number of people per square kilometer

GDP Gross Domestic Product (in \$US) per capita

Rural Percentage of population living in rural areas

CO2 CO2 emissions (metric tons per capita)

PumpPrice Price for a liter of gasoline (\$US)

Military Percentage of government expenditures directed toward the military

Health Percentage of government expenditures directed towards healthcare

ArmedForces Number of active duty military personnel (in 1,000's)

Internet Percentage of the population with access to the internet

Cell Cell phone subscriptions (per 100 people)

HIV Percentage of the population with HIV

Hunger Percent of the population considered undernourished

SandP500 79

Diabetes Percent of the population diagnosed with diabetes

BirthRate Births per 1000 people

DeathRate Deaths per 1000 people

ElderlyPop Percentage of the population at least 65 years old

LifeExpectancy Average life expectancy (years)

FemaleLabor Percent of females 15 - 64 in the labor force

Unemployment Percent of labor force unemployed

EnergyUse Kilotons of oil equivalent

Electricity Electric power consumption (kWh per capita)

Developed Categories for kilowatt hours per capita, 1= under 2500, 2=2500 to 5000, 3=over 5000

# **Details**

Data from AllCountries for a random sample of 50 countries. Data for 2016-2018 to avoid many missing values in more recent years.

\*\* Updated for 3e (earler versions are now SampCountries2e and SampCountries1e). \*\*

### Source

Data collected from the World Bank website, http://www.worldbank.org.

SandP500

S&P 500 Prices

# Description

Daily data for S&P 500 Stock Index

### **Format**

A data frame with 251 observations on the following 6 variables.

Date Trading date (mm/dd/yyy)

Open Opening value

High High point for the day

Low Low point for the day

Close Closing value

Volume Shares traded (in millions)

# **Details**

Daily prices for the S&P 500 Stock Index for trading days in 2018.

\*\* Updated for 3e (earlier versions are SandP5002e from 2014 and SandP5001e from 2010). \*\*

# **Source**

Downloaded from http://finance.yahoo.com/q/hp?s=^GSPC+Historical+Prices

80 SandwichAnts2

SandwichAnts	Sandwich Ants

# **Description**

Ant counts on samples of different sandwiches

### **Format**

A dataset with 24 observations on the following 5 variables.

```
Butter Butter on the sandwich? no (Cases with Butter=yes are in SandwichAnts2)

Filling Type of filling: Ham & Pickles, Peanut Butter, or Vegemite

Type of bread: Multigrain, Rye, White, or Wholemeal

Ants Number of ants on the sandwich

Order Trial number
```

### **Details**

As young students, Dominic Kelly and his friends enjoyed watching ants gather on pieces of sandwiches. Later, as a university student, Dominic decided to study this with a more formal experiment. He chose three types of sandwich fillings (vegemite, peanut butter, and ham & pickles), four types of bread (multigrain, rye, white, and wholemeal), and put butter on some of the sandwiches.

To conduct the experiment he randomly chose a sandwich, broke off a piece, and left it on the ground near an ant hill. After several minutes he placed a jar over the sandwich bit and counted the number of ants. He repeated the process, allowing time for ants to return to the hill after each trial, until he had two samples for each combination of the factors.

This dataset has only sandwiches with no butter. The data in SandwichAnts2 adds information for samples with butter.

# **Source**

Margaret Mackisack, "Favourite Experiments: An Addendum to What is the Use of Experiments Conducted by Statistics Students?", Journal of Statistics Education (1994) http://www.amstat.org/publications/jse/v2n1/mackisack.supp.html

rt 2	- Part 2

# **Description**

Ant counts on samples of different sandwiches

# **Format**

A dataset with 48 observations on the following 5 variables.

```
Butter Butter on the sandwich? no or yes
Filling Type of filling: Ham & Pickles, Peanut Butter, or Vegemite
```

SleepCaffeine 81

Bread Type of bread: Multigrain, Rye, White, or Wholemeal

Ants Number of ants on the sandwich

Order Trial number

### **Details**

As young students, Dominic Kelly and his friends enjoyed watching ants gather on pieces of sand-wiches. Later, as a university student, Dominic decided to study this with a more formal experiment. He chose three types of sandwich fillings (vegemite, peanut butter, and ham & pickles), four types of bread (multigrain, rye, white, and wholemeal), and put butter on some of the sandwiches. To conduct the experiment he randomly chose a sandwich, broke off a piece, and left it on the ground near an ant hill. After several minutes he placed a jar over the sandwich bit and counted the number of ants. He repeated the process, allowing time for ants to return to the hill after each trial, until he had two samples for each combination of the three factors.

# **Source**

Margaret Mackisack, "Favourite Experiments: An Addendum to What is the Use of Experiments Conducted by Statistics Students?", Journal of Statistics Education (1994) http://www.amstat.org/publications/jse/v2n1/mackisack.supp.html

SkateboardPrices

Skateboard Prices

# **Description**

Prices of skateboards for sale online

### **Format**

A dataset with 20 observations on the following variable.

Price Selling price in dollars

### **Details**

Prices for skateboards offered for sale on eBay.

### **Source**

Random sample taken from all skateboards available for sale on eBay on February 12, 2012.

SleepCaffeine

Sleep Caffeine

# **Description**

Experiment to compare word recall after sleep or caffeine

82 SleepStudy

#### **Format**

A dataset with 24 observations on the following 2 variables.

Group Treatment: Caffeine or Sleep Words Number of words recalled

### **Details**

A random sample of 24 adults were divided equally into two groups and given a list of 24 words to memorize. During a break, one group takes a 90 minute nap while another group is given a caffeine pill. The response variable is the number of words participants are able to recall following the break.

### Source

Mednick, Cai, Kanady, and Drummond, "Comparing the benefits of caffeine, naps and placebo on verbal, motor and perceptual memory", Behavioural Brain Research, 193 (2008), 79-86.

SleepStudy

Sleep Study

# **Description**

Data from a study of sleep patterns for college students.

# Format

A dataset with 253 observations on the following 27 variables.

1=male, 0=female Gender ClassYear Year in school, 1=first year, ..., 4=senior LarkOwl Early riser or night owl? Lark, Neither, or Owl NumEarlyClass Number of classes per week before 9 am EarlyClass Indicator for any early classes GPA Grade point average (0-4 scale) ClassesMissed Number of classes missed in a semester Z-score on a test of cognitive skills CognitionZscore PoorSleepQuality Measure of sleep quality (higher values are poorer sleep) DepressionScore Measure of degree of depression AnxietyScore Measure of amount of anxiety Measure of amount of stress StressScore DepressionStatus Coded depression score: normal, moderate, or severe Coded anxiety score: normal, moderate, or severe AnxietyStatus Stress Coded stress score: normal or high DASScore Combined score for depression, anxiety and stress Happiness Measure of degree of happiness AlcoholUse Self-reported: Abstain, Light, Moderate, or Heavy Drinks Number of alcoholic drinks per week WeekdayBed Average weekday bedtime (24.0=midnight) WeekdayRise Average weekday rise time (8.0=8 am)

Smiles 83

WeekendBed Average hours of sleep on weekdays
WeekendBed Average weekend bedtime (24.0=midnight)
WeekendRise Average weekend rise time (8.0=8 am)
WeekendSleep Average weekend bedtime (24.0=midnight)
AverageSleep Average hours of sleep for all days
AllNighter Had an all-nighter this semester? 1=yes, 0=no

### **Details**

The data were obtained from a sample of students who did skills tests to measure cognitive function, completed a survey that asked many questions about attitudes and habits, and kept a sleep diary to record time and quality of sleep over a two week period.

### **Source**

Onyper, S., Thacher, P., Gilbert, J., Gradess, S., "Class Start Times, Sleep, and Academic Performance in College: A Path Analysis," April 2012; 29(3): 318-335. Thanks to the authors for supplying the data.

|--|

# **Description**

Experiment to study effect of smiling on leniency in judicial matters

### **Format**

A dataset with 68 observations on the following 2 variables.

Leniency Score assigned by a judgment panel (higher is more lenient)
Group Treatment group: neutral or smile

### Details

Hecht and LeFrance conducted a study examining the effect of a smile on the leniency of disciplinary action for wrongdoers. Participants in the experiment took on the role of members of a college disciplinary panel judging students accused of cheating. For each suspect, along with a description of the offense, a picture was provided with either a smile or neutral facial expression. A leniency score was calculated based on the disciplinary decisions made by the participants.

# **Source**

LaFrance, M., & Hecht, M. A., "Why smiles generate leniency", Personality and Social Psychology Bulletin, 21, 1995, 207-214.

84 SpeedDating

### **Description**

Data from a sample of four minute speed dates.

#### **Format**

A dataset with 276 observations on the following 22 variables.

```
Would the male like another date? 1=yes 0=no
        DecisionM
        DecisionF
                     Would the female like another date? 1=yes 0=no
            LikeM
                     How much the male likes his partner (1-10 scale)
                     How much the female likes her partner (1-10 scale)
            LikeF
     PartnerYesM
                     Male's estimate of chance the female wants another date (1-10 scale)
                     Female's estimate of chance the male wants another date (1-10 scale)
     PartnerYesF
                     Male's age (in years)
              AgeM
              AgeF
                     Females age (in years)
                     Male's race: Asian Black Caucasian Latino Other
             RaceM
            RaceF
                     Female's race: Asian Black Caucasian Latino Other
                     Male's rating of female's attractiveness (1-10 scale)
     AttractiveM
     AttractiveF
                     Female's rating of male's attractiveness (1-10 scale)
                     Male's rating of female's sincerity (1-10 scale)
         SincereM
                     Female's rating of male's sincerity (1-10 scale)
         SincereF
    IntelligentM
                     Male's rating of female's intelligence (1-10 scale)
    IntelligentF
                     Female's rating of male's intelligence (1-10 scale)
                     Male's rating of female as fun (1-10 scale)
              FunM
              FunF
                     Female's rating of male as fun (1-10 scale)
       AmbitiousM
                     Male's rating of female's ambition (1-10 scale)
                     Female's rating of male's ambition (1-10 scale)
       AmbitiousF
SharedInterestsM
                     Male's rating of female's shared interests (1-10 scale)
SharedInterestsF
                     Female's rating of male's shared interests (1-10 scale)
```

### **Details**

Participants were students at Columbia's graduate and professional schools, recruited by mass email, posted fliers, and fliers handed out by research assistants. Each participant attended one speed dating session, in which they met with each participant of the opposite sex for four minutes. Order and session assignments were randomly determined. After each four minute "speed date," participants filled out a form rating their date on a scale of 1-10 on various attributes. Only data from the first date in each session is recorded here.

# Source

Gelman, A. and Hill, J., Data analysis using regression and multilevel/hierarchical models, Cambridge University Press: New York, 2007

StatGrades 85

SplitBill	Split Bill vs Individual Meal Costs

# **Description**

Meal costs when ordering individually vs splitting a bill

# **Format**

A dataset with 48 observations on the following 4 variables.

Payment Payment method: Individual or Split

Sex F = female or M = male

Items Number of items ordered

Cost Cost of items ordered in Israeli new shekel's (ILS)

# **Details**

Subjects were 48 Israeli students who were randomly assigned to eat in groups of six (three males and three females) at a restaurant. Half the groups were told that they would pay for meals individually and half were told that the group would split the bill equally. The number of items ordered and cost (in Israeli new shekels) was recorded for each individual.

# Source

Gneezy, U., Haruvy, E., and Yafe, H. "The Inefficiency of Splitting the Bill," The Economic Journal, 2004; 114, 265-280.

|--|

# Description

Grades on statistics exams

# **Format**

A dataset with 50 observations on the following 3 variables.

Exam1	Score (out of 100 points) on the first exam
Exam2	Score (out of 100 points) on the second exam
Final	Score (out of 100 points) on the final exam

# **Details**

Exam scores for a sample of students who completed a course using Statistics: Unlocking the Power of Data as a text. The dataset contains scores on Exam1 (Chapters 1 to 4), Exam2 (Chapters 5 to 8), and the Final exam (entire book).

86 StorySpoilers

### **Source**

Random selection of students in an introductory statistics course.

StockChanges

Stock Changes

# **Description**

Stock price change for a sample of stocks from the S&P 500 (August 2-6, 2010)

# **Format**

A dataset with 50 observations on the following variable.

SPChange Change in stock price (in dollars)

# **Details**

A random sample of 50 companies from Standard & Poor's index of 500 companies was selected. The change in the price of the stock (in dollars) over the 5-day period from August 2 - 6, 2010 was recorded for each company in the sample.

# **Source**

Data obtained from http://money.cnn.com/data/markets/sandp/

StorySpoilers

Story Spoilers

# Description

Ratings for stories with and without spoilers

# **Format**

A dataset with 12 observations on the following 3 variables.

Story ID for story

Spoiler Average (0-10) rating for spoiler version
Original Average (0-10) rating for original version

# **Details**

This study investigated whether a story spoiler that gives away the ending early diminishes suspense and hurts enjoyment. For twelve different short stories, the study's authors created a second version in which a spoiler paragraph at the beginning discussed the story and revealed the outcome. Each version of the twelve stories was read by at least 30 people and rated on a 1 to 10 scale to create an

StudentSurvey 87

overall rating for the story, with higher ratings indicating greater enjoyment of the story. Stories 1 to 4 were ironic twist stories, stories 5 to 8 were mysteries, and stories 9 to 12 were literary stories.

#### Source

Leavitt, J. and Christenfeld, N., "Story Spoilers Don't Spoil Stories," Psychological Science, published OnlineFirst, August 12, 2011.

StressedMice

Stressed Mice

# **Description**

Time in darkness for mice in different environments

#### **Format**

A dataset with 14 observations on the following 2 variables.

Time Time spent in darkness (in seconds)

Environment Type of environment: Enriched or Standard

### **Details**

In the study, mice were randomly assigned to either an enriched environment where there was an exercise wheel available, or a standard environment with no exercise options. After three weeks in the specified environment, for five minutes a day for two weeks, the mice were each exposed to a "mouse bully" - a mouse who was very strong, aggressive, and territorial. One measure of mouse anxiety is amount of time hiding in a dark compartment, with mice who are more anxious spending more time in darkness. The amount of time spent in darkness is recorded for each of the mice.

# **Source**

Data approximated from summary statistics in: Lehmann and Herkenham, "Environmental Enrichment Confers Stress Resiliency to Social Defeat through an Infralimbic Cortex-Dependent Neuroanatomical Pathway", The Journal of Neuroscience, April 20, 2011, 31(16):61596173.

StudentSurvey

Student Survey Data

# **Description**

Data from a survey of students in introductory statistics courses

### **Format**

A data frame with 362 observations on the following 17 variables.

Year Year in school

Sex code F=female or M=male

Smoke Smoker? No or Yes

Award Preferred award: Academy, Nobel, or Olympic

HigherSAT Which SAT is higher? Math or Verbal

Exercise Hours of exercise per week

TV Hours of TV viewing per week

Height (in inches)

Weight Weight (in pounds)

Siblings Number of siblings

BirthOrder Birth order, 1=oldest

VerbalSAT VerbalSAT score

MathSAT Math SAT scorer

SAT Combined Verbal + Math SAT

GPA College grade point average

Pulse Pulse rate (beats per minute)

Piercings Number of body piercings

### **Details**

Data from an in-class survey given to introductory statistics students over several years. Note the Sex variable was labeled as Gender in earlier versions of this dataset. We acknowledge that this binary dichotomization is not a complete or inclusive representation of reality.

### **Source**

In-class student survey

Synchronized Movement Synchronized Movement

# **Description**

Effects of synchronized movement activities

### **Format**

A dataset with 264 observations on the following 11 variables.

Sex f = female or m = male

Group Type of activity. Coded as HS+HE, HS+LE, LS+HE, or LS+LE

for High/Low Synchronizaton + High/Low Exertion

Synch Synchronized activity? yes or no

Exertion Exertion level: high or low

PainToleranceBefore Measure of pain tolerance (mm Hg) before activity

PainTolerance Measure of pain tolerance (mm Hg) after activity

PainTolDiff Difference (after - before) in pain tolerance

MaxPressure Reached the maximum pressure (300 mm Hg) when testing pain tolerance (after)

CloseBefore Rating of closeness to the group before activity (1=least close to 7=most close)

Rating of closeness to the group after activity (1=least close to 7=most close)

CloseDiff Change on closeness rating (after - before)

TextbookCosts 89

#### **Details**

From a study of 264 high school students in Brazil to examine the effect of doing synchronized movements (such as marching in step or doing synchronized dance steps) and the effect of exertion on variables, such as pain tolerance and attitudes towards others. Students were randomly assigned to activities that involved synchronized or non-synchronized movements involving high or low levels of exertion. Pain tolerance was measured with a blood pressure cuff, going to a maximum possible reading of 300 mmHg.

### **Source**

Tarr B, Launay J, Cohen E, and Dunbar R, "Synchrony and exertion during dance independently raise pain threshold and encourage social bonding," Biology Letters, 11(10), October 2015.

TenCountries

Ten Countries

# **Description**

A subset of the AllCountries data for a random sample of ten countries

#### **Format**

A data frame with 10 observations on the following 4 variables.

Country Country name

Code Three-letter country code

Area Size in 1000 sq. kilometers

PctRural Percentage of population living in rural areas

# **Details**

Area and percent rural for a sample of ten countries from AllCountries dataset.

\*\* Updated for 3e (earlier versions are now TenCountries2e and TenCountries1e) \*\*

### Source

Data collected from the World Bank website, http://www.worldbank.org

TextbookCosts

Textbook Costs

# Description

Prices for textbooks for different courses

# **Format**

A data frame with 40 observations on the following 3 variables.

Field General discipline of the course: Arts, Humanities, NaturalScience, or SocialScience

Books Number of books required

Cost Total cost (in dollars) for required books

90 TrafficFlow

#### **Details**

Data are from samples of ten courses in each of four disciplines at a liberal arts college. For each course the bookstore's website lists the required texts(s) and costs. Data were collected for the Fall 2011 semester.

### Source

Bookstore online site

ToenailArsenic

Toenail Arsenic

# **Description**

Arsenic in toenails of 19 people using private wells in New Hampshire

### **Format**

A dataset with 19 observations on the following variable.

Arsenic Level of arsenic found in toenails (ppm)

### **Details**

Level of arsenic was measured in toenails of 19 subjects from New Hampshire, all with private wells as their main water source.

# Source

Adapted from Karagas, et.al.,"Toenail Samples as an Indicator of Drinking Water Arsenic Exposure", Cancer Epidemiology, Biomarkers and Prevention 1996;5:849-852.

TrafficFlow

Traffic Flow

# Description

Traffic flow times from a simulation with timed and flexible traffic lights

# Format

A dataset with 24 observations on the following 3 variables.

Timed Delay time (in minutes) for fixed timed lights

Flexible Delay time (in minutes) for flexible communicating lights
Difference (Timed-Flexible) for each simulation

USStates 91

#### **Details**

Engineers in Dresden, Germany were looking at ways to improve traffic flow by enabling traffic lights to communicate information about traffic flow with nearby traffic lights. The data show results of one experiment where they simulated buses moving along a street and recorded the delay time (in seconds) for both a fixed time and a flexible system of lights. The process was repeated under both conditions for a sample of 24 simulated scenarios.

#### Source

Lammer and Helbing, "Self-Stabilizing decentralized signal control of realistic, saturated network traffic", Santa Fe Institute working paper \# 10-09-019, September 2010.

**USStates** 

US State Data

# Description

Various data for all 50 US States.

#### **Format**

A data frame with 50 observations on the following 22 variables.

State State name

HouseholdIncome Median household income (in \$1,000's)

Region MW=Midwest, NE=Northeast, S=South, W=West

Population Number of residents (in millions for 2014)

EighthGradeMath Average score NAEP mathematics for 8th-grade students

HighSchool % of residents (ages 25-34) who are high school graduates

College % of residents (ages 25-34) who are college graduates

IQ Estimated mean IQ score of residents

GSP Gross state product (in \$1,000's per capita)

Vegetables % of residents eating vegetables at least once per day

Fruit % of residents eating fruit at least once per day

Smokers % of residents who smoke

Physical Activity % who do 150+ minutes of aerobic physical activity per week

Obese % obese residents (BMI 30+)

NonWhite % nonwhite residents

HeavyDrinkers % heavy drinkers (men: 14+ drinks/week, women 7+ drinks/week)

Electoral Number of state votes in the presidential electoral college

ClintonVote Proportion of votes for Democrat Clinton in 2016 presidential election

Elect2016 State winner in 2016 presidential election (D=Clinton, R=Trump)

TwoParents % of children living in two-parent households

StudentSpending School spending (in \$1,000 per pupil)

Insured % of adults (ages 19-64) who have any kind of health coverage

92 WaterStriders

#### **Details**

Information from each of the 50 states of the United States. Years vary from 2013 to 2018 depending on data availability.

\*\* Updated for 3e (earlier versions are now USStates2e and USStates1e) \*\*

#### Source

U.S. Census Bureau, 2013-2017 5-Year American Community Survey

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid= ACS\_17\_5YR\_DP03&src=pt

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid= ACS\_17\_5YR\_S1501&src=pt

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid= ACS\_17\_5YR\_B02001&prodType=table

http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml (Table C23008)

https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid= ACS\_17\_5YR\_S2701&prodType=table

WaterStriders

Water Striders

# **Description**

Mating activity for water striders

### **Format**

A dataset with 10 observations on the following 3 variables.

AggressiveMale Hyper-aggressive male in group? No or Yes

FemalesHiding Proportion of time the female water striders were in hiding

MatingActivity Measure of mean mating activity (higher numbers meaning more mating)

### **Details**

Water striders are common bugs that skate across the surface of water. Water striders have different personalities and some of the males are hyper-aggressive, meaning they jump on and wrestle with any other water strider near them. Individually, because hyper-aggressive males are much more active, they tend to have better mating success than more inactive striders. This study examined the effect they have on a group. Four males and three females were put in each of ten pools of water. Half of the groups had a hyper-aggressive male as one of the males and half did not. The proportion of time females are in hiding was measured for each of the 10 groups, and a measure of mean mating activity was also measured with higher numbers meaning more mating.

Wetsuits 93

#### Source

Sih, A. and Watters, J., "The mix matters: behavioural types and group dynamics in water striders," Behaviour, 2005; 142(9-10): 1423.

WaterTaste WaterTaste

# **Description**

Blind taste test to compare brands of bottled water

# **Format**

A dataset with 100 observations on the following 10 variables.

Gender Gender of respondent: F=Female M=Male

Age (in years)
Class Year in school F=First year J=Junior 0=Other P S0=Sophomore SR=Senior
UsuallyDrink Usual source of drinking water: Bottled, Filtered, or Tap
FavBotWatBrand Favorite brand of bottled water

Preference Order of perference: A=Sams Choice, B=Aquafina, C=Fiji, and D=Tap water

First Top choice among Aquafina, Fiji, SamsChoice, or Tap Second Second choice

Third Third choice
Fourth Fourth choice

# **Details**

Result from a blind taste test comparing four different types of water (Sam's Choice, Aqufina, Fiji, and tap water). Participants rank ordered waters when presented in a random order.

# Source

"Water Taste Test Data" by M. Leigh Lunsford and Alix D. Dowling Finch in the Journal of Statistics Education (Vol 18, No, 1) 2010

http://www.amstat.org/publications/jse/v18n1/lunsford.pdf

Wetsuits Wetsuits

# **Description**

Swim velocity (for 1500 meters) with and without wearing a wetsuit

### Format

A dataset with 12 observations on the following 4 variables.

Wetsuit Maximum swim velocity (m/sec) when wearing a wetsuit

94 YoungBlood

NoWetsuit Maximum swim velocity (m/sec) when wearing a regular bathing suit

Gender Gender of swimmer: F or M

Type Type of athlete: swimmer or triathlete

### **Details**

A study tested whether wearing wetsuits influences swimming velocity. Twelve competitive swimmers and triathletes swam 1500m at maximum speed twice each; once wearing a wetsuit and once wearing a regular bathing suit. The order of the trials was randomized. Each time, the maximum velocity in meters/sec of the swimmer was recorded.

### **Source**

de Lucas, R.D., Balildan, P., Neiva, C.M., Greco, C.C., Denadai, B.S. (2000). "The effects of wetsuits on physiological and biomechanical indices during swimming," Journal of Science and Medicine in Sport, 3 (1): 1-8.

YoungBlood

Young Blood

# **Description**

Effects of transfusions of young blood on exercise endurance in mice

### **Format**

A dataset with 30 observations on the following 2 variables.

Plasma Whether the blood came from a Young or Old mouse

Runtime Maximum treadmill run time (in minutes) in a 90-minute window

# **Details**

The data come from a study to see if transfusions of blood plasma from young mice (equivalent to about a 25-year-old person) can counteract or reverse brain aging in old mice (equivalent to about a 70-year-old person.) Old mice were randomly assigned to receive plasma from either a young mice or another old mouse, and exercise endurance was measured.

# Source

Data come from two references, and are estimated from summary statistics and graphs. Sanders L, "Young blood proven good for old brain," Science News, 185(11), May 31, 2014. Manisha S, et al., "Restoring Systemic GDF11 Levels Reverses Age-Related Dysfunction in Mouse Skeletal Muscle," Science, 9 May 2014.

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