

# Package ‘Ecdat’

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**Depends** R (>= 3.5.0), Ecfun

**Suggests**

**Description** Data sets for econometrics, including political science.

**LazyData** true

**License** GPL (>= 2)

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Accident

*Ship Accidents*

---

**Description**

a cross-section

*number of observations* : 40

**Usage**

data(Accident)

**Format**

A dataframe containing :

**type** ship type, a factor with levels (A,B,C,D,E)

**constr** year constructed, a factor with levels (C6064,C6569,C7074,C7579)

**operate** year operated, a factor with levels (O6074,O7579)

**months** measure of service amount

**acc** accidents

### Source

McCullagh, P. and J. Nelder (1983) *Generalized linear methods*, New York:Chapman and Hall.

### References

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F21.3.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

AccountantsAuditorsPct

*Accountants and Auditors in the US 1850-2016*

---

### Description

Accountants and auditors as a percent of the US labor force 1850 to 2016 updating the analysis in Wyatt and Hecker (2006).

### Usage

```
data(AccountantsAuditorsPct)
```

### Format

a numeric vector of length 30 giving the percent of the US labor force in "Accounting and Auditing" each decade from 1850 to 2010 except for 1940 plus each year between 2011 and 2016.

### Source

This is based primarily on data extracted from the [Integrated Public Use Microdata Series](#) on 2018-09-01 with the computations documented in a vignette by this title in the Ecfun package.

This updates the data on Accountants and Auditors in in Wyatt and Hecker (2006). They relied primarily on data extracted from the [Integrated Public Use Microdata Series](#). I did the same but found two problems that seemed to require modifications:

1. IPUMS provided no data for 1940. Wyatt and Hecker (2006) used [Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, part 1 \(U.S. Department of Commerce, Bureau of the Census, 1975\)](#) for 1910-1940. The current data set uses that source only for 1040.

2. The IPUMS numbers showed an extreme jump from 1850 to 1860 followed by an even more extreme drop to 1870. The numbers in Sobek (2006) showed essentially the same behavior. Specifically, Sobek (2006) estimated the number of accountants and auditors in the US in those three years as 700, 1700, and 1200, and the labor force as 5277000, 8160800, and 12004200. These numbers give accountants and auditors as 0.013, 0.021, and 0.010 percent of the labor force, respectively for those three years. These numbers portray an incredible increase in the employment of accountants and auditors between 1850 and 1860 followed by a shocking decline the following decade. If, however, we swap the 1700 and 1200 between 1860 and 1870, the percentages become quite stable: 0.013, 0.015, and 0.014 percent, respectively.

We use these latter numbers, even though the uncorrected numbers seem more consistent with the numbers obtained from IPUMS.

## References

Historical Statistics of the United States, Colonial Times to 1970, Bicentennial Edition, part 1 (U.S. Department of Commerce, Bureau of the Census, 1975)

Steven Ruggles, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas, and Matthew Sobek (2018) *IPUMS USA: Version 8.0* [dataset]. Minneapolis, MN: IPUMS.

Matthew Sobek (2006) Chapter Ba. "Labor Occupations" in Susan B. Carter, ed., *Historical Statistics of the United States*, Cambridge U. Pr.

Ian D. Wyatt and Daniel E. Hecker (2006) "Occupational changes during the 20th century", *Monthly Labor Review*, March 2006, pp. 35-57

## See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

## Examples

```
data(AccountantsAuditorsPct)
plot(names(AccountantsAuditorsPct), AccountantsAuditorsPct,
     type='l', log='y', cex.axis=1.8)
# for the version of this contributed to Wikimedia Commons
```

---

Airline

*Cost for U.S. Airlines*

---

## Description

a panel of 6 observations from 1970 to 1984

*number of observations* : 90

*observation* : production units

*country* : United States

**Usage**

```
data(Airline)
```

**Format**

A dataframe containing :

**airline** airline

**year** year

**cost** total cost, in \\$,1,000

**output** output, in revenue passenger miles, index number

**pf** fuel price

**lf** load factor, the average capacity utilization of the fleet

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F7.1.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#), [Index.Time.Series](#)

---

Airq

*Air Quality for Californian Metropolitan Areas*

---

**Description**

a cross-section from 1972

*number of observations* : 30

*observation* : regional

*country* : United States

**Usage**

```
data(Airq)
```

**Format**

A dataframe containing :

**airq** indicator of air quality (the lower the better)

**vala** value added of companies (in thousands of dollars)

**rain** amount of rain (in inches)

**coas** is it a coastal area ?

**dens** population density (per square mile)

**medi** average income per head (in US dollars)

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 4.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

bankingCrises

*Countries in Banking Crises*

---

**Description**

A data.frame identifying which of 70 countries had a banking crisis each year 1800:2010. The first column is year. The remaining columns carry the names of the countries; those columns are 1 for years with banking crises and 0 otherwise.

**Usage**

```
data(bankingCrises)
```

**Format**

A data.frame

**Details**

This file was created using the following command:

```
bankingCrises <- readFinancialCrisisFiles(FinancialCrisisFiles)
```

This is documented further in the help file for [readFinancialCrisisFiles](#).

This is an update of a subset of the data used to create Figure 10.1. Capital Mobility and the Incidence of Banking Crises, All Countries, 1800-2008, Reinhart and Rogoff (2009, p. 156).

The general upward trend visible in a plot of these data may be attributed to at least two different factors:

- (1) The gradual increase in the proportion of human labor that is monetized.
- (2) An increase in the general ability of cronies of those in power to gamble with other people's money in forming and bankrupting financial institutions. The marked feature of this plot is the virtual absence of banking crises during the period of the Bretton Woods agreement, 1944 to 1971. This period ended when US President Nixon in effect canceled the Bretton Woods agreement by taking the US off the silver standard.

**Author(s)**

Spencer Graves



**Source**

<http://www.reinhartandrogoff.com>

**References**

Carmen M. Reinhart and Kenneth S. Rogoff (2009) *This Time Is Different: Eight Centuries of Financial Folly*, Princeton U. Pr.

**See Also**

[readFinancialCrisisFiles](#)

**Examples**

```
data(bankingCrises)
numberOfCrises <- rowSums(bankingCrises[-1], na.rm=TRUE)
plot(bankingCrises$year, numberOfCrises, type='b')

# Write to a file for Wikimedia Commons
## Not run:
svg('bankingCrises.svg')
plot(bankingCrises$year, numberOfCrises, type='b',
     cex.axis=2, las=1, xlab='', ylab='', bty='n', cex=0.5)
abline(v=c(1945, 1971), lty='dashed', col='blue')
text(1958, 14, 'Bretton Woods', srt=90, cex=2, col='blue')
dev.off()

## End(Not run)
```

---

Benefits

*Unemployment of Blue Collar Workers*

---

**Description**

a cross-section from 1972

*number of observations* : 4877

*observation* : individuals

*country* : United States

**Usage**

```
data(Benefits)
```

**Format**

A time serie containing :

**stateur** state unemployment rate (in %)

**statemb** state maximum benefit level

**state** state of residence code

**age** age in years

**tenure** years of tenure in job lost

**joblost** a factor with levels (slack\\_work,position\\_abolished,seasonal\\_job\\_ended,other)

**nwhite** non-white ?

**school12** more than 12 years of school ?

**sex** a factor with levels (male,female)

**bluecol** blue collar worker ?

**smsa** lives is smsa ?

**married** married ?

**dkids** has kids ?

**dykids** has young kids (0-5 yrs) ?

**yrdispl** year of job displacement (1982=1,..., 1991=10)

**rr** replacement rate

**head** is head of household ?

**ui** applied for (and received) UI benefits ?

**Source**

McCall, B.P. (1995) "The impact of unemployment insurance benefit levels on reciprocity", *Journal of Business and Economic Statistics*, **13**, 189–198.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 7.

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Bids

*Bids Received By U.S. Firms*

---

### Description

a cross-section

*number of observations* : 126

*observation* : production units

*country* : United States

### Usage

data(Bids)

### Format

A dataframe containing :

**docno** doc no.

**weeks** weeks

**numbids** count

**takeover** delta (1 if taken over)

**bidprem** bid Premium

**insthold** institutional holdings

**size** size measured in billions

**leglrest** legal restructuring

**rearest** real restructuring

**finrest** financial restructuring

**regulatn** regulation

**whtknight** white knight

### Source

Jaggia, Sanjiv and Satish Thosar (1993) “Multiple Bids as a Consequence of Target Management Resistance”, *Review of Quantitative Finance and Accounting*, 447–457.

Cameron, A.C. and Per Johansson (1997) “Count Data Regression Models using Series Expansions: with Applications”, *Journal of Applied Econometrics*, **12**, may, 203–223.

### References

Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>, chapter 5.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

breaches

*Cyber Security Breaches*

---

**Description**

data.frame of cyber security breaches involving health care records of 500 or more humans reported to the U.S. Department of Health and Human Services (HHS) as of June 27, 2014.

**Usage**

```
data(breaches)
```

**Format**

A data.frame with 1055 observations on the following 24 variables:

**Number** integer record number in the HHS data base

**Name\_of\_Covered\_Entity** [factor](#) giving the name of the entity experiencing the breach

**State** Factor giving the 2-letter code of the state where the breach occurred. This has 52 levels for the 50 states plus the District of Columbia (DC) and Puerto Rico (PR).

**Business\_Associate\_Involved** Factor giving the name of a subcontractor (or blank) associated with the breach.

**Individuals\_Affected** [integer](#) number of humans whose records were compromised in the breach. This is 500 or greater; U.S. law requires reports of breaches involving 500 or more records but not of breaches involving fewer.

**Date\_of\_Breach** [character](#) vector giving the date or date range of the breach. Recodes as [Dates](#) in `breach_start` and `breach_end`.

**Type\_of\_Breach** [factor](#) with 29 levels giving the type of breach (e.g., "Theft" vs., "Unauthorized Access/Disclosure", etc.)

**Location\_of\_Breached\_Information** [factor](#) with 41 levels coding the location from which the breach occurred (e.g., "Paper", "Laptop", etc.)

**Date\_Posted\_or\_Updated** [Date](#) the information was posted to the HHS data base or last updated.

**Summary** [character](#) vector of a summary of the incident.

**breach\_start** [Date](#) of the start of the incident = first date given in `Date_of_Breach` above.

`breach_end` [Date](#) of the end of the incident or NA if only one date is given in `Date_of_Breach` above.

`year` [integer](#) giving the year of the breach

## Details

The data primarily consists of breaches that occurred from 2010 through early 2014 when the extract was taken. However, a few breaches are recorded including 1 from 1997, 8 from 2002-2007, 13 from 2008 and 56 from 2009. The numbers of breaches from 2010 - 2014 are 211, 229, 227, 254 and 56, respectively. (A chi-square test for equality of the counts from 2010 through 2013 is 4.11, which with 3 degrees of freedom has a significance probability of 0.25. Thus, even though the lowest number is the first and the largest count is the last, the apparent trend is not statistically significant under the usual assumption of independent Poisson trials.)

The following corrections were made to the file:

Number	Name of Covered Entity	Corrections
45	Wyoming Department of Health	Cause of breach was missing. Added "Unauthorized Access / Disclosure" per <a href="http://smartbrief.com/03/29/10">smartbrief.com/03/29/10</a>
55	Reliant Rehabilitation Hospital North Houston	Cause of breach was missing. Added "Unauthorized Access / Disclosure" per Dissent. "Two Breaches Involving Unauthorized Access Lead to Notification." [www.phiprivacy.net/two-breaches-involving-unauthorized-access-lead-to
123	Aetna	Cause of breach was missing. Added Improper disposal per <a href="http://Aetna.com/news/newsReleases/2010/0630">Aetna.com/news/newsReleases/2010/0630</a>
157	Mayo Clinic	Cause of breach was missing. Added Unauthorized Access/Disclosure per Anderson, Howard. "Mayo Fires "Employees in 2 Incidents: Both Involved Unauthorized Access to Records." <a href="#">Data Breach Today. N.p., 4 Oct. 2010</a>
341	Saint Barnabas MedicL Center	Misspelled "Saint Barnabas Medical Center"
347	Americar Health Medicare	Misspelled "American Health Medicare"
484	Lake Granbury Medicl Ceter	Misspelled "Lake Granbury Medical Center"
782	See list of Practices under Item 9	Replaced name as "Cogent Healthcare, Inc." checked from XML and web documents
805	Dermatology Associates of Tallahassee	Had 00/00/0000 on breach date. This was crossed check to determine that it was Sept 4, 2013 with 916 records
815	Santa Clara Valley Medical Center	Mistype breach year as 09/14/2913 corrected as 09/14/2013
961	Valley View Hosptial Association	Misspelled "Valley View Hospital Association"
1034	Bio-Reference Laboratories, Inc.	Date changed from 00/00/000 to 2/02/2014 as subsequently determined.

## Author(s)

Spencer Graves

## Source

U.S. Department of Health and Human Services: Health Information Privacy: [Breaches Affecting 500 or More Individuals](#)

**See Also**

[HHSCyberSecurityBreaches](#) for a version of these data downloaded more recently. This newer version includes changes in reporting and in the variables included in the [data.frame](#).

**Examples**

```
data(breaches)
quantile(breaches$Individuals_Affected)
# confirm that the smallest number is 500
# -- and the largest is 4.9e6
# ... and there are no NAs

dDays <- with(breaches, breach_end - breach_start)
quantile(dDays, na.rm=TRUE)
# confirm that breach_end is NA or is later than
# breach_start
```

---

 BudgetFood

*Budget Share of Food for Spanish Households*


---

**Description**

a cross-section from 1980  
*number of observations* : 23972  
*observation* : households  
*country* : Spain

**Usage**

```
data(BudgetFood)
```

**Format**

A dataframe containing :

**wfood** percentage of total expenditure which the household has spent on food

**totexp** total expenditure of the household

**age** age of reference person in the household

**size** size of the household

**town** size of the town where the household is placed categorised into 5 groups: 1 for small towns,  
 5 for big ones

**sex** sex of reference person (man,woman)

**Source**

Delgado, A. and Juan Mora (1998) “Testing non-nested semiparametric models : an application to Engel curves specification”, *Journal of Applied Econometrics*, **13(2)**, 145–162.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

BudgetItaly

*Budget Shares for Italian Households*

---

**Description**

a cross-section from 1973 to 1992

*number of observations* : 1729

*observation* : households

*country* : Italy

**Usage**

```
data(BudgetItaly)
```

**Format**

A dataframe containing :

**wfood** food share

**whouse** housing and fuels share

**wmisc** miscellaneous share

**pfood** food price

**phouse** housing and fuels price

**pmisc** miscellaneous price

**totexp** total expenditure

**year** year

**income** income

**size** household size

**pct** cellule weight

**Source**

Bollino, Carlo Andrea, Federico Perali and Nicola Rossi (2000) "Linear household technologies", *Journal of Applied Econometrics*, **15(3)**, 253–274.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

BudgetUK

*Budget Shares of British Households*

---

**Description**

a cross-section from 1980 to 1982

*number of observations* : 1519

*observation* : households

*country* : United Kingdom

**Usage**

data(BudgetUK)

**Format**

A dataframe containing :

**wfood** budget share for food expenditure

**wfuel** budget share for fuel expenditure

**wcloth** budget share for clothing expenditure

**walc** budget share for alcohol expenditure

**wtrans** budget share for transport expenditure

**wother** budget share for other good expenditure

**totexp** total household expenditure (rounded to the nearest 10 UK pounds sterling)

**income** total net household income (rounded to the nearest 10 UK pounds sterling)

**age** age of household head

**children** number of children

**Source**

Blundell, Richard, Alan Duncan and Krishna Pendakur (1998) “Semiparametric estimation and consumer demand”, *Journal of Applied Econometrics*, **13**(5), 435–462.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.



**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Bwages

*Wages in Belgium*

---

**Description**

a cross-section from 1994

*number of observations* : 1472

*observation* : individuals

*country* : Belgium

**Usage**

data(Bwages)

**Format**

A dataframe containing :

**wage** gross hourly wage rate in euro

**educ** education level from 1 [low] to 5 [high]

**exper** years of experience

**sex** a factor with levels (males,female)

**Source**

European Community Household Panel.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 3.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Capm

*Stock Market Data*

---

### Description

monthly observations from 1960–01 to 2002–12

*number of observations* : 516

### Usage

`data(Capm)`

### Format

A time serie containing :

**rfood** excess returns food industry

**rdur** excess returns durables industry

**rcon** excess returns construction industry

**rmrf** excess returns market portfolio

**rf** riskfree return

### Source

most of the above data are from Kenneth French's data library at [http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html).

### References

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 2.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

Car *Stated Preferences for Car Choice*

---

**Description**

a cross-section

*number of observations* : 4654

*observation* : individuals

*country* : United States

**Usage**

data(Car)

**Format**

A dataframe containing :

**choice** choice of a vehicle among 6 propositions

**college** college education ?

**hsg2** size of household greater than 2 ?

**com15** commute lower than 5 miles a day ?

**typez** body type, one of regcar (regular car), sportuv (sport utility vehicle), sportcar, stwagon (station wagon), truck, van, for each proposition z from 1 to 6

**fuelz** fuel for proposition z, one of gasoline, methanol, cng (compressed natural gas), electric.

**pricez** price of vehicle divided by the logarithm of income

**rangez** hundreds of miles vehicle can travel between refuelings/rechargings

**accz** acceleration, tens of seconds required to reach 30 mph from stop

**speedz** highest attainable speed in hundreds of mph

**pollutionz** tailpipe emissions as fraction of those for new gas vehicle

**sizez** 0 for a mini, 1 for a subcompact, 2 for a compact and 3 for a mid-size or large vehicle

**spacez** fraction of luggage space in comparable new gas vehicle

**costz** cost per mile of travel (tens of cents) : home recharging for electric vehicle, station refueling otherwise

**stationz** fraction of stations that can refuel/recharge vehicle

**Source**

McFadden, Daniel and Kenneth Train (2000) "Mixed MNL models for discrete response", *Journal of Applied Econometrics*, **15(5)**, 447–470.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Caschool

*The California Test Score Data Set*

---

**Description**

a cross-section from 1998-1999

*number of observations* : 420

*observation* : schools

*country* : United States

**Usage**

`data(Caschool)`

**Format**

A dataframe containing :

**distcod** district code

**county** county

**district** district

**grspan** grade span of district

**enrltot** total enrollment

**teachers** number of teachers

**calwpct** percent qualifying for CalWorks

**mealpct** percent qualifying for reduced-price lunch

**computer** number of computers

**testscr** average test score (read.scr+math.scr)/2

**compstu** computer per student

**expnstu** expenditure per student

**str** student teacher ratio

**avginc** district average income

**elpct** percent of English learners

**readscr** average reading score

**mathscr** average math score

**Source**

California Department of Education <http://www.cde.ca.gov>.

**References**

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 4–7.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Catsup

*Choice of Brand for Catsup*

---

**Description**

a cross-section

*number of observations* : 2798

*observation* : individuals

*country* : United States

**Usage**

data(Catsup)

**Format**

A dataframe containing :

**id** individuals identifiers

**choice** one of heinz41, heinz32, heinz28, hunts32

**disp.z** is there a display for brand z ?

**feat.z** is there a newspaper feature advertisement for brand z ?

**price.z** price of brand z

**Source**

Jain, Dipak C., Naufel J. Vilcassim and Pradeep K. Chintagunta (1994) “A random-coefficients logit brand-choice model applied to panel data”, *Journal of Business and Economics Statistics*, **12(3)**, 317.

**References**

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Cigar

*Cigarette Consumption*

---

**Description**

a panel of 46 observations from 1963 to 1992

*number of observations* : 1380

*observation* : regional

*country* : United States

**Usage**

`data(Cigar)`

**Format**

A dataframe containing :

**state** state abbreviation

**year** the year

**price** price per pack of cigarettes

**pop** population

**pop16** population above the age of 16

**cpi** consumer price index (1983=100)

**ndi** per capita disposable income

**sales** cigarette sales in packs per capita

**pimin** minimum price in adjoining states per pack of cigarettes

**Source**

Baltagi, B.H. and D. Levin (1992) "Cigarette taxation: raising revenues and reducing consumption", *Structural Changes and Economic Dynamics*, **3**, 321–335.

Baltagi, B.H., J.M. Griffin and W. Xiong (2000) "To pool or not to pool: homogeneous versus heterogeneous estimators applied to cigarette demand", *Review of Economics and Statistics*, **82**, 117–126.

**References**

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Cigarette

*The Cigarette Consumption Panel Data Set*

---

**Description**

a panel of 48 observations from 1985 to 1995

*number of observations* : 528

*observation* : regional

*country* : United States

**Usage**

```
data(Cigarette)
```

**Format**

A dataframe containing :

**state** state

**year** year

**cpi** consumer price index

**pop** state population

**packpc** number of packs per capita

**income** state personal income (total, nominal)

**tax** average state, federal, and average local excise taxes for fiscal year

**avgprs** average price during fiscal year, including sales taxes

**taxs** average excise taxes for fiscal year, including sales taxes

**Source**

Professor Jonathan Gruber, MIT.

**References**

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 10.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Clothing

*Sales Data of Men's Fashion Stores*

---

**Description**

a cross-section from 1990  
*number of observations* : 400  
*observation* : production units  
*country* : Netherland

**Usage**

data(Clothing)

**Format**

A dataframe containing :

**tsales** annual sales in Dutch guilders  
**sales** sales per square meter  
**margin** gross-profit-margin  
**nown** number of owners (managers)  
**nfull** number of full-timers  
**npart** number of part-timers  
**naux** number of helpers (temporary workers)  
**hoursw** total number of hours worked  
**hourspw** number of hours worked per worker  
**inv1** investment in shop-premises  
**inv2** investment in automation.  
**ssize** sales floorspace of the store (in m<sup>2</sup>\$).  
**start** year start of business

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 3.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)



---

Computers

*Prices of Personal Computers*

---

### Description

a cross-section from 1993 to 1995

*number of observations* : 6259

*observation* : goods

*country* : United States

### Usage

data(Computers)

### Format

A dataframe containing :

**price** price in US dollars of 486 PCs

**speed** clock speed in MHz

**hd** size of hard drive in MB

**ram** size of Ram in in MB

**screen** size of screen in inches

**cd** is a CD-ROM present ?

**multi** is a multimedia kit (speakers, sound card) included ?

**premium** is the manufacturer was a "premium" firm (IBM, COMPAQ) ?

**ads** number of 486 price listings for each month

**trend** time trend indicating month starting from January of 1993 to November of 1995.

### Source

Stengos, T. and E. Zacharias (2005) "Intertemporal pricing and price discrimination : a semiparametric hedonic analysis of the personal computer market", *Journal of Applied Econometrics*, **forthcoming**.

### References

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Consumption

*Quarterly Data on Consumption and Expenditure*

---

**Description**

quarterly observations from 1947-1 to 1996-4

*number of observations* : 200

*observation* : country

*country* : Canada

**Usage**

data(Consumption)

**Format**

A time serie containing :

**yd** personal disposable income, 1986 dollars

**ce** personal consumption expenditure, 1986 dollars

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 1, 3, 4, 6, 9, 10, 14 and 15.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

coolingFromNuclearWar *Global cooling from a nuclear war*

---

**Description**

Average surface temperature changes world wide and in the Northern Hemisphere 3 and 10 years after the injections of 5, 50 and 150 Tg (teragrams = millions of metric tons) of smoke into the upper troposphere, per Robock, Oman, and Stenchikov (2007).

These numbers are relative to the average for 1925-1975, which explains why the numbers are positive with smoke = 0.

**Usage**

data(coolingFromNuclearWar)

**Format**

A dataframe containing :

**smoke** teragrams = millions of metric tons

**dC3g, dC10g, dC3n, dC10n** average change in surface temperature 3 and 10 years after injection of smoke into the upper troposphere globally (g) or in the Northern Hemispheres (n) in degrees Celsius.

**Source**

Alan Robock, Luke Oman, and Georgiy L. Stenchikov (2007) Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences, *Journal of Geophysical Research*, 112

**Examples**

```
data(coolingFromNuclearWar)
matplot(coolingFromNuclearWar[, 'smoke'],
        coolingFromNuclearWar[, 2:5], type='l')
(linFit <- lm(cbind(dC3g, dC10g, dC3n, dC10n)~smoke,
               coolingFromNuclearWar))

# total change
dC <- as.matrix(coolingFromNuclearWar[, 2:5] -
               rep(unlist(coolingFromNuclearWar[1, -1]), e=4))
(linFit0 <- lm(dC~smoke, coolingFromNuclearWar))
summary(linFit0)
```

---

 CPSch3

*Earnings from the Current Population Survey*


---

**Description**

a cross-section from 1998

*number of observations* : 11130

*observation* : individuals

*country* : United States

**Usage**

```
data(CPSch3)
```

**Format**

A dataframe containing :

**year** survey year

**ahe** average hourly earnings

**sex** a factor with levels (male,female)

**Source**

Bureau of labor statistics, U.S. Department of Labor <http://www.bls.gov>.

**References**

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 3.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Cracker

*Choice of Brand for Crackers*

---

**Description**

a cross-section

*number of observations* : 3292

*observation* : individuals

*country* : United States

**Usage**

data(Cracker)

**Format**

A dataframe containing :

**id** individuals identifiers

**choice** one of sunshine, kleebler, nabisco, private

**disp.z** is there a display for brand z ?

**feat.z** is there a newspaper feature advertisement for brand z ?

**price.z** price of brand z

**Source**

Jain, Dipak C., Naufel J. Vilcassim and Pradeep K. Chintagunta (1994) "A random-coefficients logit brand-choice model applied to panel data", *Journal of Business and Economics Statistics*, **12(3)**, 317.

Paap, R. and Philip Hans Frances (2000) "A dynamic multinomial probit model for brand choices with different short-run effects of marketing mix variables", *Journal of Applied Econometrics*, **15(6)**, 717-744.

## References

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

## See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

CRANpackages

*Growth of CRAN*

---

## Description

Data casually collected on the number of packages on the Comprehensive R Archive Network (CRAN) at different dates.

NOTE: This could change in the future. See Details below.

## Usage

```
data(CRANpackages)
```

## Format

A data.frame containing:

**Version** an ordered factor of the R version number primarily in use at the time. This was taken from archives of the major releases at <https://svn.r-project.org/R/branches/R-1-3-patches/tests/internet.Rout.save>, ... <https://svn.r-project.org/R/branches/R-3-1-branch/tests/internet.Rout.save>

**Date** an object of class Date giving the date on which the count of the number of CRAN packages was determined.

**Packages** an integer number of packages on the CRAN mirror checked on the indicated Date.

**Source** A factor giving the source (person) who collected the data.

## Details

This seems to provide the most widely available source for data on the growth of CRAN, manually recorded by John Fox and Spencer Graves. For a discussion of these and related data, see Fox (2009).

For more detail, see the [CRAN packages](#) data on Github maintained by Hadley Wickham. This contains the description file of every package uploaded to CRAN prior to the date of Hadley's most recent update. The current maintainer of the Ecdat and Ecfun packages would consider contributions along the following lines:

1. It might be nice to have a more complete dataset or datasets showing CRAN growth. This might include code fitting multiple models and predicting future growth with error bounds computed using

Bayesian Model Averaging. These model fits might make an interesting addition to the examples in this help file. With a little more effort, it might make an interesting note for *R Journal*. Functions written to fit those models might be added to the Ecfun package.

2. It might be nice to have a function in Ecfun to download the [CRAN packages](#) data from Github and convert it to a format suitable for updating this dataset.

The current maintainer for Ecdat and Ecfun (Spencer Graves) might be willing to accept code and documentation for this but is not ready to do it himself at the present time.

### Source

John Fox, "Aspects of the Social Organization and Trajectory of the R Project", *R Journal*, 1(2), Dec. 2009, 5-13. [https://journal.r-project.org/archive/2009-2/RJournal\\_2009-2\\_Fox.pdf](https://journal.r-project.org/archive/2009-2/RJournal_2009-2_Fox.pdf), accessed 2014-04-13.

### Examples

```
plot(Packages~Date, CRANpackages, log='y')
# almost exponential growth
```

---

Crime

*Crime in North Carolina*

---

### Description

a panel of 90 observations from 1981 to 1987

*number of observations* : 630

*observation* : regional

*country* : United States

### Usage

```
data(Crime)
```

### Format

A dataframe containing :

**county** county identifier

**year** year from 1981 to 1987

**crmrte** crimes committed per person

**prbarr** 'probability' of arrest

**prbconv** 'probability' of conviction

**prbpris** 'probability' of prison sentence

**avgsen** average sentence, days

**polpc** police per capita

**density** people per square mile  
**taxpc** tax revenue per capita  
**region** one of 'other', 'west' or 'central'  
**smsa** 'yes' or 'no' if in SMSA  
**pctmin** percentage minority in 1980  
**wcon** weekly wage in construction  
**wtuc** weekly wage in trns, util, commun  
**wtrd** weekly wage in whole sales and retail trade  
**wfir** weekly wage in finance, insurance and real estate  
**wser** weekly wage in service industry  
**wmfg** weekly wage in manufacturing  
**wfed** weekly wage of federal employees  
**wsta** weekly wage of state employees  
**wloc** weekly wage of local governments employees  
**mix** offence mix: face-to-face/other  
**pctymle** percentage of young males

### Source

Cornwell, C. and W.N. Trumbull (1994) "Estimating the economic model of crime with panel data", *Review of Economics and Statistics*, **76**, 360–366.

Baltagi, B. H. (forthcoming) "Estimating an economic model of crime using panel data from North Carolina", *Journal of Applied Econometrics*, .

### References

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>, .

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

CRSPday

*Daily Returns from the CRSP Database*

---

### Description

daily observations from 1969-1-03 to 1998-12-31

*number of observations* : 2528

*observation* : production units

*country* : United States

### Usage

```
data(CRSPday)
```

### Format

A dataframe containing :

**year** the year

**month** the month

**day** the day

**ge** the return for General Electric, Permno 12060

**ibm** the return for IBM, Permno 12490

**mobil** the return for Mobil Corporation, Permno 15966

**crsp** the return for the CRSP value-weighted index, including dividends

### Source

Center for Research in Security Prices, Graduate School of Business, University of Chicago, 725 South Wells - Suite 800, Chicago, Illinois 60607, <http://www.crsp.com>.

### References

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 7, 9 and 15.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)



---

CRSPmon

*Monthly Returns from the CRSP Database*

---

### Description

monthly observations from 1969-1 to 1998-12

*number of observations* : 360

*observation* : production units

*country* : United States

### Usage

`data(CRSPmon)`

### Format

A time serie containing :

**ge** the return for General Electric, Permno 12060

**ibm** the return for IBM, Permno 12490

**mobil** the return for Mobil Corporation, Permno 15966

**crsp** the return for the CRSP value-weighted index, including dividends

### Source

Center for Research in Security Prices, Graduate School of Business, University of Chicago, 725 South Wells - Suite 800, Chicago, Illinois 60607, <http://www.crsp.com>.

### References

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 13.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

Diamond

*Pricing the C's of Diamond Stones*

---

### Description

a cross-section from 2000

*number of observations* : 308

*observation* : goods

*country* : Singapore

### Usage

```
data(Diamond)
```

### Format

A dataframe containing :

**carat** weight of diamond stones in carat unit

**colour** a factor with levels (D,E,F,G,H,I)

**clarity** a factor with levels (IF,VVS1,VVS2,VS1,VS2)

**certification** certification body, a factor with levels (GIA,IGI,HRD)

**price** price in Singapore \

### Source

Chu, Singfat (2001) "Pricing the C's of Diamond Stones", *Journal of Statistics Education*, **9(2)**.

### References

Journal of Statistics Education's data archive : [http://www.amstat.org/publications/jse/jse\\_data\\_archive.htm](http://www.amstat.org/publications/jse/jse_data_archive.htm).

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

DM

*DM Dollar Exchange Rate*

---

### Description

weekly observations from 1975 to 1989

*number of observations* : 778

*observation* : country

*country* : Germany

### Usage

data(DM)

### Format

A dataframe containing :

**date** the date of the observation (19850104 is January, 4, 1985)

**s** the ask price of the dollar in units of DM in the spot market on friday of the current week

**f** the ask price of the dollar in units of DM in the 30-day forward market on friday of the current week

**s30** the bid price of the dollar in units of DM in the spot market on the delivery date on a current forward contract

### Source

Bekaert, G. and R. Hodrick (1993) "On biases in the measurement of foreign exchange risk premiums", *Journal of International Money and Finance*, **12**, 115-138.

### References

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 6, 438-443.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

Doctor	<i>Number of Doctor Visits</i>
--------	--------------------------------

---

**Description**

a cross-section from 1986

*number of observations* : 485

*observation* : individuals

*country* : United States

**Usage**

data(Doctor)

**Format**

A dataframe containing :

**doctor** the number of doctor visits

**children** the number of children in the household

**access** is a measure of access to health care

**health** a measure of health status (larger positive numbers are associated with poorer health)

**Source**

Gurmu, Shiferaw (1997) "Semiparametric estimation of hurdle regression models with an application to medicaid utilization", *Journal of Applied Econometrics*, **12(3)**, 225-242.

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 11.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

 DoctorAUS

*Doctor Visits in Australia*


---

**Description**

a cross-section from 1977–1978

*number of observations* : 5190

*observation* : individuals

*country* : Australia

**Usage**

data(DoctorAUS)

**Format**

A dataframe containing :

**sex** sex

**age** age

**income** annual income in tens of thousands of dollars

**insurance** insurance contract (medlevy : medibanl levy, levyplus : private health insurance, freepoor : government insurance due to low income, freerepa : government insurance due to old age disability or veteran status)

**illness** number of illness in past 2 weeks

**actdays** number of days of reduced activity in past 2 weeks due to illness or injury

**hscore** general health score using Goldberg's method (from 0 to 12)

**chcond** chronic condition (np : no problem, la : limiting activity, nla : not limiting activity)

**doctorco** number of consultations with a doctor or specialist in the past 2 weeks

**nondocco** number of consultations with non-doctor health professionals (chemist, optician, physiotherapist, social worker, district community nurse, chiropodist or chiropractor) in the past 2 weeks

**hospadmi** number of admissions to a hospital, psychiatric hospital, nursing or convalescent home in the past 12 months (up to 5 or more admissions which is coded as 5)

**hospdays** number of nights in a hospital, etc. during most recent admission: taken, where appropriate, as the mid-point of the intervals 1, 2, 3, 4, 5, 6, 7, 8-14, 15-30, 31-60, 61-79 with 80 or more admissions coded as 80. If no admission in past 12 months then equals zero.

**medecine** total number of prescribed and nonprescribed medications used in past 2 days

**prescrib** total number of prescribed medications used in past 2 days

**nonprese** total number of nonprescribed medications used in past 2 days

**Source**

Cameron, A.C. and P.K. Trivedi (1986) “Econometric Models Based on Count Data: Comparisons and Applications of Some Estimators and Tests”, *Journal of Applied Econometrics*, **1**, 29-54..

**References**

Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>, chapter 3.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

DoctorContacts

*Contacts With Medical Doctor*

---

**Description**

a cross-section from 1977–1978  
*number of observations* : 20186

**Usage**

data(DoctorContacts)

**Format**

A time serie containing :

**mdu** number of outpatient visits to a medical doctor

**lc** log(coinsrate+1) where coinsurance rate is 0 to 100

**idp** individual deductible plan ?

**lpi** log(annual participation incentive payment) or 0 if no payment

**fmde** log(max(medical deductible expenditure)) if IDP=1 and MDE>1 or 0 otherw

**physlim** physical limitation ?

**ndisease** number of chronic diseases

**health** self-rate health (excellent,good,fair,poor)

**linc** log of annual family income (in \ \$)

**lfam** log of family size

**educdec** years of schooling of household head

**age** exact age

**sex** sex (male,female)

**child** age less than 18 ?

**black** is household head black ?

**Source**

Deb, P. and P.K. Trivedi (2002) “The Structure of Demand for Medical Care: Latent Class versus Two-Part Models”, *Journal of Health Economics*, **21**, 601–625.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 553–556 and 565.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Earnings

*Earnings for Three Age Groups*

---

**Description**

a cross-section from 1988-1989

*number of observations* : 4266

*observation* : individuals

*country* : United States

**Usage**

data(Earnings)

**Format**

A dataframe containing :

**age** age groups, a factor with levels (g1,g2,g3)

**y** average annual earnings, in 1982 US dollars

**Source**

Mills, Jeffery A. and Sourushe Zandvakili (1997) “Statistical Inference via Bootstrapping for Measures of Inequality”, *Journal of Applied Econometrics*, **12(2)**, pp. 133-150.

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 5 and 7.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Electricity

*Cost Function for Electricity Producers*

---

**Description**

a cross-section from 1970 to 1970

*number of observations* : 158

*observation* : production units

*country* : United States

**Usage**

```
data(Electricity)
```

**Format**

A dataframe containing :

**cost** total cost

**q** total output

**pl** wage rate

**sl** cost share for labor

**pk** capital price index

**sk** cost share for capital

**pf** fuel price

**sf** cost share for fuel

**Source**

Christensen, L. and W. H. Greene (1976) "Economies of scale in U.S. electric power generation", *Journal of Political Economy*, **84**, 655-676.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, chapter 4, 317-320.

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 1, 76-84.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)



---

Fair

*Extramarital Affairs Data*

---

### Description

a cross-section

*number of observations* : 601

*observation* : individuals

*country* : United States

### Usage

```
data(Fair)
```

### Format

A dataframe containing :

**sex** a factor with levels (male,female)

**age** age

**ym** number of years married

**child** children ? a factor

**religious** how religious, from 1 (anti) to 5 (very)

**education** education

**occupation** occupation, from 1 to 7, according to hollingshead classification (reverse numbering)

**rate** self rating of marriage, from 1 (very unhappy) to 5 (very happy)

**nbaffairs** number of affairs in past year

### Source

Fair, R. (1977) "A note on the computation of the tobit estimator", *Econometrica*, **45**, 1723-1727.

<http://fairmodel.econ.yale.edu/rayfair/pdf/1978A200.PDF>.

### References

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F22.2.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Fatality

*Drunk Driving Laws and Traffic Deaths*

---

### Description

a panel of 48 observations from 1982 to 1988

*number of observations* : 336

*observation* : regional

*country* : United States

### Usage

```
data(Fatality)
```

### Format

A dataframe containing :

**state** state ID code

**year** year

**mrall** traffic fatality rate (deaths per 10000)

**beertax** tax on case of beer

**mlda** minimum legal drinking age

**jaild** mandatory jail sentence ?

**comserd** mandatory community service ?

**vmiles** average miles per driver

**unrate** unemployment rate

**perinc** per capita personal income

### Source

Pr. Christopher J. Ruhm, Department of Economics, University of North Carolina.

### References

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 8.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

FinancialCrisisFiles    *Files containing financial crisis data*

---

### Description

FinancialCrisisFiles is an object of class financialCrisisFiles created by the financialCrisisFiles function in Ecfun. It describes files containing data on financial crises downloadable from <http://www.reinhartandrogoff.com/data/browse-by-topic/topics/7/>.

### Usage

```
data(FinancialCrisisFiles)
```

### Details

Reinhart and Rogoff (<http://www.reinhartandrogoff.com>) provide numerous data sets analyzed in their book, "This Time Is Different: Eight Centuries of Financial Folly". Of interest here are data on financial crises of various types for 70 countries spanning the years 1800 - 2010, downloadable from <http://www.reinhartandrogoff.com/data/browse-by-topic/topics/7/>.

The function financialCrisisFiles in Ecfun produces a list of class financialCrisisFiles describing four different Excel files in very similar formats with one sheet per Country and a few extra descriptor sheets. The data object FinancialCrisisFiles is the default output of that function.

### Value

FinancialCrisisFiles is a list with components carrying the names of files to be read. Each component is a list of optional arguments to pass to `do.call(read.xls, ...)` to read the sheet with `name = name of that component`.

This corresponds to the files downloaded from <http://www.reinhartandrogoff.com/data/browse-by-topic/topics/7/> in January 2013 (except for the fourth, which was not available there because of an error with the web site but instead was obtained directly from Prof. Reinhart).

### Author(s)

Spencer Graves

### Source

<http://www.reinhartandrogoff.com>

### References

Carmen M. Reinhart and Kenneth S. Rogoff (2009) This Time Is Different: Eight Centuries of Financial Folly, Princeton U. Pr.

**See Also**[read.xls](#)

---

**Fishing***Choice of Fishing Mode*

---

**Description**

a cross-section

*number of observations* : 1182*observation* : individuals*country* : United States**Usage**

data(Fishing)

**Format**

A dataframe containing :

**mode** recreation mode choice, on of : beach, pier, boat and charter**price** price for chosen alternative**catch** catch rate for chosen alternative**pbeach** price for beach mode**ppier** price for pier mode**pboat** price for private boat mode**pcharter** price for charter boat mode**cbeach** catch rate for beach mode**cpier** catch rate for pier mode**cboat** catch rate for private boat mode**ccharter** catch rate for charter boat mode**income** monthly income**Source**

Herriges, J. A. and C. L. Kling (1999) "Nonlinear Income Effects in Random Utility Models", *Review of Economics and Statistics*, **81**, 62-72.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 463–466, 486 and 491–495.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Forward

*Exchange Rates of US Dollar Against Other Currencies*

---

**Description**

monthly observations from 1979–01 to 2001–12

*number of observations : 276*

**Usage**

data(Forward)

**Format**

A time serie containing :

**usdbp** exchange rate USD/British Pound Sterling

**usdeuro** exchange rate US D/Euro

**eurobp** exchange rate Euro/Pound

**usdbp1** 1 month forward rate USD/Pound

**usdeuro1** 1 month forward rate USD/Euro

**eurobp1** 1 month forward rate Euro/Pound

**usdbp3** 3 month forward rate USD/Pound

**usdeuro3** month forward rate USD/Euro

**eurobp3** month forward rate Euro/Pound

**Source**

Datastream .

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 4.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

 FriendFoe

*Data from the Television Game Show Friend Or Foe ?*


---

**Description**

a cross-section from 2002–03

*number of observations* : 227

*observation* : individuals

*country* : United States

**Usage**

data(FriendFoe)

**Format**

A dataframe containing :

**sex** contestant's sex

**white** is contestant white ?

**age** contestant's age in years

**play** contestant's choice : a factor with levels "foe" and "friend". If both players play "friend", they share the trust box, if both play "foe", both players receive zero prize, if one of them play "foe" and the other one "friend", the "foe" player receive the entire trust box and the "friend" player nothing

**round** round in which contestant is eliminated, a factor with levels ("1","2","3")

**season** season show, a factor with levels ("1","2")

**cash** the amount of cash in the trust box

**sex1** partner's sex

**white1** is partner white ?

**age1** partner's age in years

**play1** partner's choice : a factor with levels "foe" and "friend"

**win** money won by contestant

**win1** money won by partner

**Source**

Kalish, David E. (2004) "Data from the Television Game Show "Friend or Foe?"" , *Journal of Statistics Education*, **12**(3).

**References**

Journal of Statistics Education's data archive : [http://www.amstat.org/publications/jse/jse\\_data\\_archive.htm](http://www.amstat.org/publications/jse/jse_data_archive.htm).

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Garch	<i>Daily Observations on Exchange Rates of the US Dollar Against Other Currencies</i>
-------	---

---

**Description**

daily observations from 1980–01 to 1987–05–21

*number of observations* : 1867

*observation* : country

*country* : World

**Usage**

data(Garch)

**Format**

A dataframe containing :

**date** date of observation (yymmdd)

**day** day of the week (a factor)

**dm** exchange rate Dollar/Deutsch Mark

**ddm** dm-dm(-1)

**bp** exchange rate of Dollar/British Pound

**cd** exchange rate of Dollar/Canadian Dollar

**dy** exchange rate of Dollar/Yen

**sf** exchange rate of Dollar/Swiss Franc

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 8.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Gasoline

*Gasoline Consumption*

---

### Description

a panel of 18 observations from 1960 to 1978

*number of observations* : 342

*observation* : country

*country* : OECD

### Usage

```
data(Gasoline)
```

### Format

A dataframe containing :

**country** a factor with 18 levels

**year** the year

**lgaspcar** logarithm of motor gasoline consumption per auto

**lincomep** logarithm of real per-capita income

**lrpmg** logarithm of real motor gasoline price

**lcarpcap** logarithm of the stock of cars per capita

### Source

Baltagi, B.H. and Y.J. Griggin (1983) "Gasoline demand in the OECD: an application of pooling and testing procedures", *European Economic Review*, **22**.

### References

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)



---

Griliches

*Wage Datas*

---

### Description

a cross-section from 1980  
*number of observations* : 758  
*observation* : individuals  
*country* : United States

### Usage

```
data(Griliches)
```

### Format

A dataframe containing :

**rns** residency in the southern states (first observation) ?  
**rns80** same variable for 1980  
**mrt** married (first observation) ?  
**mrt80** same variable for 1980  
**smsa** residency in metropolitan areas (first observation) ?  
**smsa80** same variable for 1980  
**med** mother's education in years  
**iq** IQ score  
**kww** score on the "knowledge of the world of work" test  
**year** year of the observation  
**age** age (first observation)  
**age80** same variable for 1980  
**school** completed years of schooling (first observation)  
**school80** same variable for 1980  
**expr** experience in years (first observation)  
**expr80** same variable for 1980  
**tenure** tenure in years (first observation)  
**tenure80** same variable for 1980  
**lw** log wage (first observation)  
**lw80** same variable for 1980

**Source**

Blackburn, M. and Neumark D. (1992) “Unobserved ability, efficiency wages, and interindustry wage differentials”, *Quarterly Journal of Economics*, **107**, 1421-1436.

**References**

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 3, 250-256.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Grunfeld

*Grunfeld Investment Data*

---

**Description**

a panel of 10 observations from 1935 to 1954  
*number of observations* : 200  
*observation* : production units  
*country* : United States

**Usage**

`data(Grunfeld)`

**Format**

A dataframe containing :

**firm** observation

**year** date

**inv** gross Investment

**value** value of the firm

**capital** stock of plant and equipment

**Source**

Moody’s Industrial Manual, Survey of Current Business.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F13.1.

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

HC	<i>Heating and Cooling System Choice in Newly Built Houses in California</i>
----	--

---

**Description**

a cross-section  
*number of observations* : 250  
*observation* : households  
*country* : California

**Usage**

data(HC)

**Format**

A dataframe containing :

**depvar** heating system, one of gcc (gas central heat with cooling), ecc (electric central resistance heat with cooling), erc (electric room resistance heat with cooling), hpc (electric heat pump which provides cooling also), gc (gas central heat without cooling), ec (electric central resistance heat without cooling), er (electric room resistance heat without cooling)

**ich.z** installation cost of the heating portion of the system

**icca** installation cost for cooling

**och.z** operating cost for the heating portion of the system

**occa** operating cost for cooling

**income** annual income of the household

**References**

Kenneth Train's home page : <http://elsa.berkeley.edu/~train/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Heating

*Heating System Choice in California Houses*

---

### Description

a cross-section

*number of observations* : 900

*observation* : households

*country* : California

### Usage

`data(Heating)`

### Format

A dataframe containing :

**idcase** id

**depvar** heating system, one of gc (gas central), gr (gas room), ec (electric central), er (electric room), hp (heat pump)

**ic.z** installation cost for heating system z (defined for the 5 heating systems)

**oc.z** annual operating cost for heating system z (defined for the 5 heating systems)

**pb.z** ratio  $oc.z/ic.z$

**income** annual income of the household

**agehed** age of the household head

**rooms** numbers of rooms in the house

### References

Kenneth Train's home page : <http://elsa.berkeley.edu/~train/>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Hedonic

*Hedonic Prices of Census Tracts in Boston*


---

**Description**

a cross-section

*number of observations* : 506

*observation* : regional

*country* : United States

**Usage**

data(Hedonic)

**Format**

A dataframe containing :

**mv** median value of owner-occupied homes

**crim** crime rate

**zn** proportion of 25,000 square feet residential lots

**indus** proportion of nonretail business acres

**chas** is the tract bounds the Charles River ?

**nox** annual average nitrogen oxide concentration in parts per hundred million

**rm** average number of rooms

**age** proportion of owner units built prior to 1940

**dis** weighted distances to five employment centers in the Boston area

**rad** index of accessibility to radial highways

**tax** full value property tax rate (\\$/\\$10,000)

**ptratio** pupil/teacher ratio

**blacks** proportion of blacks in the population

**lstat** proportion of population that is lower status

**townid** town identifier

**Source**

Harrison, D. and D.L. Rubinfeld (1978) "Hedonic housing prices and the demand for clean air", *Journal of Environmental Economics Ans Management*, **5**, 81–102.

Belsley, D.A., E. Kuh and R. E. Welsch (1980) *Regression diagnostics: identifying influential data and sources of collinearity*, John Wiley, New-York.

## References

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>.

## See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

HHSCyberSecurityBreaches

*Cybersecurity breaches reported to the US Department of Health and Human Services*

## Description

Since October 2009 organizations in the U.S. that store data on human health are required to report any incident that compromises the confidentiality of 500 or more patients / human subjects (45 C.F.R. 164.408) These reports are publicly available. HHSCyberSecurityBreaches was downloaded from [the Office for Civil Rights of the U.S. Department of Health and Human Services, 2015-02-26](#)

## Usage

data(HHSCyberSecurityBreaches)

## Format

A dataframe containing 1151 observations of 9 variables:

**Name.of.Covered.Entity** A character vector identifying the organization involved in the breach.

**State** A factor giving the two-letter abbreviation of the US state or territory where the breach occurred. This has 52 levels for the 50 states plus the District of Columbia (DC) and Puerto Rico (PR).

**Covered.Entity.Type** A factor giving the organization type of the covered entity with levels "Business Associate", "Health Plan", "Healthcare Clearing House", and "Healthcare Provider"

**Individuals.Affected** An integer giving the number of humans whose records were compromised in the breach. This is 500 or greater; U.S. law requires reports of breaches involving 500 or more records but not of breaches involving fewer.

**Breach.Submission.Date** Date when the breach was reported.

**Type.of.Breach** A factor giving one of 29 different combinations of 7 different breach types, separated by ", ": "Hacking/IT Incident", "Improper Disposal", "Loss", "Other", "Theft", "Unauthorized Access/Disclosure", and "Unknown"

**Location.of.Breached.Information** A factor giving one of 47 different combinations of 8 different location categories: "Desktop Computer", "Electronic Medical Record", "Email", "Laptop", "Network Server", "Other", "Other Portable Electronic Device", "Paper/Films"

**Business.Associate.Present** Logical = (Covered.Entity.Type == "Business Associate")

**Web.Description** A character vector giving a narrative description of the incident.

## Details

This contains the breach report data downloaded 2015-02-26 from the US Health and Human Services. This catalogues reports starting 2009-10-21. Earlier downloads included a few breaches prior to 2009 when the law was enacted (inconsistently reported), and a date for breach occurrence in addition to the date of the report.

The following corrections were made to the file: \* UCLA Health System, breach date 11/4/2011, had cover entity added as "Healthcare Provider" \* Wyoming Department of Health, breach date 3/2/2010 had breach type changed to "Unauthorized Access / Disclosure" \* Computer Program and Systems, Inc. (CPSI), breach date 3/30/2010 had breach type changed to "Unauthorized Access / Disclosure" \* Aetna, breach date 7/27/2010 had breach type changed to "Improper Disposal" (see explanation below), breach date 5/24/2010 name changed to City of Charlotte, NC (Health Plan) and state changed to NC \* Mercer, breach date 7/30/2010 state changed to MI \* Not applicable, breach date 11/2/2011 name changed to Northridge Hospital Medical Center and state changed to CA \* na, breach date 4/4/2011 name changed to Brian J Daniels DDS, Paul R Daniels DDS and state changed to AZ \* NA, breach date 5/27/2011 name changed to and Spartanburg Regional Healthcare System state changed to SC \* NA, breach date 7/4/2011 name changed to Yanz Dental Corporation and state changed to CA

## Source

"Breaches Affecting 500 or More Individuals" downloaded from the Office for Civil Rights of the U.S. Department of Health and Human Services, 2015-02-26

## See Also

[breaches](#) for an earlier download of these data. The exact reporting requirements and even the number and definitions of variables included in the data.frame have changed.

## Examples

```
##
## 1. mean(Individuals.Affected)
##
mean(HHSCyberSecurityBreaches$Individuals.Affected)
##
## 2. Basic Breach Types
##
tb <- as.character(HHSCyberSecurityBreaches$Type.of.Breach)
tb. <- strsplit(tb, ', ')
table(unlist(tb.))
# 8 levels, but two are the same apart from
# a trailing blank.
##
## 3. Location.of.Breached.Information
##
lb <- as.character(HHSCyberSecurityBreaches[[
  'Location.of.Breached.Information']])
table(lb)
lb. <- strsplit(lb, ', ')
table(unlist(lb.))
```

```
# 8 levels
table(sapply(1b., length))
# 1 2 3 4 5 6 7 8
#1007 119 13 8 1 1 1 1
# all 8 levels together observed once
# There are 256 = 2^8 possible combinations
# of which 47 actually occur in these data.
```

---

HI

*Health Insurance and Hours Worked By Wives*


---

### Description

a cross-section from 1993  
*number of observations* : 22272  
*observation* : individuals  
*country* : United States

### Usage

```
data(HI)
```

### Format

A dataframe containing :

**whrswk** hours worked per week by wife

**hhi** wife covered by husband's HI ?

**whi** wife has HI thru her job ?

**hhi2** husband has HI thru own job ?

**education** a factor with levels, "<9years", "9-11years", "12years", "13-15years", "16years", ">16years"

**race** one of white, black, other

**hispanic** hispanic ?

**experience** years of potential work experience

**kidslt6** number of kids under age of 6

**kids618** number of kids 6–18 years old

**husby** husband's income in thousands of dollars

**region** one of other, northcentral, south, west

**wght** sampling weight

### Source

Olson, Craig A. (1998) "A comparison of parametric and semiparametric estimates of the effect of spousal health insurance coverage on weekly hours worked by wives", *Journal of Applied Econometrics*, **13(5)**, september–october, 543–565.



## References

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

## See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Hmda

*The Boston HMDA Data Set*

---

## Description

a cross-section from 1997-1998

*number of observations* : 2381 *observation* : individuals *country* : United States

In package version 0.2-9 and earlier this dataset was called Hdma.

## Usage

data(Hmda)

## Format

A dataframe containing :

**dir** debt payments to total income ratio

**hir** housing expenses to income ratio

**lvr** ratio of size of loan to assessed value of property

**ccs** consumer credit score from 1 to 6 (a low value being a good score)

**mcs** mortgage credit score from 1 to 4 (a low value being a good score)

**pbcr** public bad credit record ?

**dmi** denied mortgage insurance ?

**self** self employed ?

**single** is the applicant single ?

**uria** 1989 Massachusetts unemployment rate in the applicant's industry

**condominium** is unit a condominium ? (was called comdominiom in version 0.2-9 and earlier versions of the package)

**black** is the applicant black ?

**deny** mortgage application denied ?

## Source

Federal Reserve Bank of Boston.

Munnell, Alicia H., Geoffrey M.B. Tootell, Lynne E. Browne and James McEneaney (1996) "Mortgage lending in Boston: Interpreting HMDA data", *American Economic Review*, 25-53.

**References**

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 9.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Housing

*Sales Prices of Houses in the City of Windsor*

---

**Description**

a cross-section from 1987  
*number of observations* : 546  
*observation* : goods  
*country* : Canada

**Usage**

data(Housing)

**Format**

A dataframe containing :

**price** sale price of a house  
**lotsize** the lot size of a property in square feet  
**bedrooms** number of bedrooms  
**bathrms** number of full bathrooms  
**stories** number of stories excluding basement  
**driveway** does the house has a driveway ?  
**recroom** does the house has a recreational room ?  
**fullbase** does the house has a full finished basement ?  
**gashw** does the house uses gas for hot water heating ?  
**airco** does the house has central air conditioning ?  
**garagepl** number of garage places  
**prefarea** is the house located in the preferred neighbourhood of the city ?

**Source**

Anglin, P.M. and R. Gencay (1996) "Semiparametric estimation of a hedonic price function", *Journal of Applied Econometrics*, **11(6)**, 633-648.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 3.  
Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Hstarts

*Housing Starts*

---

**Description**

quarterly observations from 1960-1 to 2001-4

*number of observations* : 168

*observation* : country

*country* : Canada

**Usage**

data(Hstarts)

**Format**

A time serie containing :

**hs** the log of urban housing starts in Canada, not seasonally adjusted, CANSIM series J6001, converted to quarterly

**hssa** the log of urban housing starts in Canada, seasonally adjusted, CANSIM series J9001, converted to quarterly. Observations prior to 1966:1 are missing

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 13.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Icecream

*Ice Cream Consumption*

---

### Description

four-weekly observations from 1951-03-18 to 1953-07-11

*number of observations* : 30

*observation* : country

*country* : United States

### Usage

```
data(Icecream)
```

### Format

A time serie containing :

**cons** consumption of ice cream per head (in pints);

**income** average family income per week (in US Dollars);

**price** price of ice cream (per pint);

**temp** average temperature (in Fahrenheit);

### Source

Hildreth, C. and J. Lu (1960) *Demand relations with autocorrelated disturbances*, Technical Bulletin No 2765, Michigan State University.

### References

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 4.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

incomeInequality      *Income Inequality in the US*

---

### Description

Data on quantiles of the distributions of family incomes in the United States. This combines three data sources:

- (1) US Census Table F-1 for the central quantiles
- (2) Piketty and Saez for the 95th and higher quantiles
- (3) Gross Domestic Product and implicit price deflators from <https://MeasuringWorth.com> (As of 2019-06-26 a check on R-Forge complained, "server certificate verification failed")

### Usage

```
data(incomeInequality)
```

### Format

A data.frame containing:

**Year** numeric year 1947:2012

**Number.thousands** number of families in the US

**quintile1, quintile2, median, quintile3, quintile4, p95** quintile1, quintile2, quintile3, quintile4, and p95 are the indicated quantiles of the distribution of family income from US Census Table F-1. The media is computed as the geometric mean of quintile2 and quintile3. This is accurate to the extent that the lognormal distribution adequately approximates the central 20 percent of the income distribution, which it should for most practical purposes.

**P90, P95, P99, P99.5, P99.9, P99.99** The indicated quantiles of family income per Piketty and Saez

**realGDP.M, GDP.Deflator, PopulationK, realGDPperCap** real GDP in millions, GDP implicit price deflators, US population in thousands, and real GDP per capita, according to [MeasuringWorth.com](https://MeasuringWorth.com).

**P95IRSvsCensus** ratio of the estimates of the 95th percentile of distributions of family income from the Piketty and Saez analysis of data from the Internal Revenue Service (IRS) and from the US Census Bureau.

The IRS has ranged between 72 and 98 percent of the Census Bureau figures for the 95th percentile of the distribution, with this ratio averaging around 75 percent since the late 1980s. However, this systematic bias is modest relative to the differences between the different quantiles of interest in this combined dataset.

**personsPerFamily** average number of persons per family using the number of families from US Census Table F-1 and the population from [MeasuringWorth.com](https://MeasuringWorth.com).

**realGDPperFamily** personsPerFamily \* realGDPperCap

**mean.median** ratio of realGDPperFamily to the median. This is a measure of skewness and income inequality.

**Details**

For details on how this `data.frame` was created, see "F1.PikettySaez.R" in `system.file('scripts', package='fda')`. This provides links for files to download and R commands to read those files and convert them into an updated version of `incomeInequality`. This is a reasonable thing to do if it is more than 2 years since `max(incomeInequality$year)`. All data are in constant 2012 dollars.

**Author(s)**

Spencer Graves

**Source**

United States Census Bureau, Table F-1. Income Limits for Each Fifth and Top 5 Percent of Families, All Races, <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-inequality.html>, accessed 2016-12-09.

Thomas Piketty and Emmanuel Saez (2003) "Income Inequality in the United States, 1913-1998", *Quarterly Journal of Economics*, 118(1) 1-39, <https://eml.berkeley.edu/~saez>, update accessed February 28, 2014.

Louis Johnston and Samuel H. Williamson (2011) "What Was the U.S. GDP Then?" *Measuring-Worth*, <https://www.measuringworth.org/usgdp>, accessed February 28, 2014.

**Examples**

```
##
## Ratio of IRS to census estimates for the 95th percentile
##
data(incomeInequality)
plot(P95IRSvsCensus~Year, incomeInequality, type='b')
# starts ~0.74, trends rapidly up to ~0.97,
# then drifts back to ~0.75
abline(h=0.75)
abline(v=1989)
# check
sum(is.na(incomeInequality$P95IRSvsCensus))
# The Census data runs to 2011; Pikety and Saez runs to 2010.
quantile(incomeInequality$P95IRSvsCensus, na.rm=TRUE)
# 0.72 ... 0.98

##
## Persons per Family
##

plot(personsPerFamily~Year, incomeInequality, type='b')
quantile(incomeInequality$personsPerFamily)
# ranges from 3.72 to 4.01 with median 3.84
# -- almost 4

##
## GDP per family
##
```

```

plot(realGDPperFamily~Year, incomeInequality, type='b', log='y')

##
## Plot the mean then the first quintile, then the median,
##          99th, 99.9th and 99.99th percentiles
##
plotCols <- c(21, 3, 5, 11, 13:14)
kcols <- length(plotCols)
plotColors <- c(1:6, 8:13)[1:kcols] # omit 7=yellow
plotLty <- 1:kcols

matplot(incomeInequality$Year, incomeInequality[plotCols]/1000,
        log='y', type='l', col=plotColors, lty=plotLty)

**** Growth broadly shared 1947 - 1970, then began diverging
**** The divergence has been most pronounced among the top 1%
**** and especially the top 0.01%

##
## Growth rate by quantile 1947-1970 and 1970 - present
##
keyYears <- c(1947, 1970, 2010)
(iYears <- which(is.element(incomeInequality$Year, keyYears)))

(dYears <- diff(keyYears))
kk <- length(keyYears)
(lblYrs <- paste(keyYears[-kk], keyYears[-1], sep='-'))

(growth <- sapply(incomeInequality[iYears,], function(x, labels=lblYrs){
  dxi <- exp(diff(log(x)))
  names(dxi) <- labels
  dxi
} ))

# as percent
(gr <- round(100*(growth-1), 1))

# The average annual income (realGDPperFamily) doubled between
# 1970 and 2010 (increased by 101 percent), while the median household
# income increased only 23 percent.

##
## Income lost by each quantile 1970-2010
## relative to the broadly shared growth 1947-1970
##
(lostGrowth <- (growth[, 'realGDPperFamily']-growth[, plotCols]))
# 1947-1970: The median gained 20% relative to the mean,
#           while the top 1% lost ground
# 1970-2010: The median lost 79%, the 99th percentile lost 29%,
#           while the top 0.1% gained

(lostIncome <- (lostGrowth[2, ] *
              incomeInequality[iYears[2], plotCols]))

```

```

# The median family lost $39,000 per year in income
# relative to what they would have with the same economic growth
# broadly shared as during 1947-1970.
# That's slightly over $36,500 per year = $100 per day

(grYr <- growth^(1/dYears))
(grYr. <- round(100*(grYr-1), 1))

##
## Regression line: linear spline
##

(varyg <- c(3:14, 21))
Varyg <- names(incomeInequality)[varyg]
str(F01ps <- reshape(incomeInequality[c(1, varyg)], idvar='Year',
                    ids=F1.PikettySeaz$Year,
                    times=Varyg, timevar='pctile',
                    varying=list(Varyg), direction='long'))
names(F01ps)[2:3] <- c('variable', 'value')
F01ps$variable <- factor(F01ps$variable)

# linear spline basis function with knot at 1970
F01ps$t1970p <- pmax(0, F01ps$Year-1970)

table(nas <- is.na(F01ps$value))
# 6 NAs, one each of the Piketty-Saez variables in 2011
F01i <- F01ps[!nas, ]

# formula:
# log(value/1000) ~ b*Year + (for each variable:
#   different intercept + (different slope after 1970))

Fit <- lm(log(value/1000)~Year+variable*t1970p, F01i)
anova(Fit)
# all highly significant
# The residuals may show problems with the model,
# but we will ignore those for now.

# Model predictions
str(Pred <- predict(Fit))

##
## Combined plot
##
# Plot to a file? Wikimedia Commons prefers svg format.
## Not run:
svg('incomeInequality8.svg')
# If you want software to convert svg to another format
# such as png, consider GIMP (www.gimp.org).

# Base plot

# Leave extra space on the right to label

```



```

# with growth since 1970
op <- par(mar=c(5, 4, 4, 5)+0.1)

matplot(incomeInequality$Year,
        incomeInequality[plotCols]/1000,
        log='y', type='l', col=plotColors, lty=plotLty,
        xlab='', ylab='', las=1, axes=FALSE, lwd=3)
axis(1, at=seq(1950, 2010, 10),
     labels=c(1950, NA, 1970, NA, 1990, NA, 2010),
     cex.axis=1.5)
yat <- c(10, 50, 100, 500, 1000, 5000, 10000)
axis(2, yat, labels=c('$10K', '$50K', '$100K', '$500K',
                    '$1M', '$5M', '$10M'), las=1, cex.axis=1.2)

# Label the lines
pctls <- paste(c(20, 40, 50, 60, 80, 90, 95, 99,
                99.5, 99.9, 99.99),
              '%', sep='')
lineLbl0 <- c('Year', 'families K', pctls,
              'realGDP.M', 'GDP deflator', 'pop-K', 'realGDPperFamily',
              '95 pct(IRS / Census)', 'size of household',
              'average family income', 'mean/median')
(lineLbls <- lineLbl0[plotCols])
sel75 <- (incomeInequality$Year==1975)

laby <- incomeInequality[sel75, plotCols]/1000

text(1973.5, c(1.2, 1.2, 1.3, 1.5, 1.9)*laby[-1],
     lineLbls[-1], cex=1.2)
text(1973.5, 1.2*laby[1], lineLbls[1], cex=1.2, srt=10)

##
## Add lines + points for the knots in 1970
##
End <- numeric(kcols)
F01names <- names(incomeInequality)
for(i in seq(length=kcols)){
  seli <- (as.character(F01i$variable) ==
          F01names[plotCols[i]])
# with(F01i[seli, ], lines(Year, exp(Pred[seli]),
# col=plotColors[i]))
  yri <- F01i$Year[seli]
  predi <- exp(Pred[seli])
  lines(yri, predi, col=plotColors[i])
  End[i] <- predi[length(predi)]
  sel70i <- (yri==1970)
  points(yri[sel70i], predi[sel70i],
         col=plotColors[i])
}

##
## label growth rates
##

```

```

table(sel170. <- (incomeInequality$Year>1969))
(lastYrs <- incomeInequality[sel170., 'Year'])
(lastYr. <- max(lastYrs)+4)
#text(lastYr., End, gR., xpd=NA)
text(lastYr., End, paste(gr[2, plotCols], '%', sep=''),
      xpd=NA)
text(lastYr.+7, End, paste(grYr.[2, plotCols], '%',
      sep=''), xpd=NA)

##
## Label the presidents
##
abline(v=c(1953, 1961, 1969, 1977, 1981, 1989, 1993,
          2001, 2009))
(m99.95 <- with(incomeInequality, sqrt(P99.9*P99.99))/1000)

text(1949, 5000, 'Truman')
text(1956.8, 5000, 'Eisenhower', srt=90)
text(1963, 5000, 'Kennedy', srt=90)
text(1966.8, 5000, 'Johnson', srt=90)
text(1971, 5*m99.95[24], 'Nixon', srt=90)
text(1975, 5*m99.95[28], 'Ford', srt=90)
text(1978.5, 5*m99.95[32], 'Carter', srt=90)
text(1985.1, m99.95[38], 'Reagan' )
text(1991, 0.94*m99.95[44], 'GHW Bush', srt=90)
text(1997, m99.95[50], 'Clinton')
text(2005, 1.1*m99.95[58], 'GW Bush', srt=90)
text(2010, 1.2*m99.95[62], 'Obama', srt=90)

##
## Done
##
par(op) # reset margins

dev.off() # for plot to a file

## End(Not run)

```

---

IncomeUK

*Seasonally Unadjusted Quarterly Data on Disposable Income and Expenditure*


---

### Description

quarterly observations from 1971–1 to 1985–2

*number of observations* : 58

*observation* : country

*country* : United Kingdom

**Usage**

```
data(IncomeUK)
```

**Format**

A time serie containing :

**income** total disposable income (million Pounds, current prices)

**consumption** consumer expenditure (million Pounds, current prices)

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapters 8 and 9.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

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Index.Econometrics      *Econometric fields*

---

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  - [Caschool](#) : The California Test Score Data Set
  - [MCAS](#) : The Massachusetts Test Score Data Set
  - [University](#) : Provision of University Teaching and Research

Index.Source

Source

**Description**

- Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>
  - [Bids](#) : Bids Received By U.S. Firms
  - [BudgetFood](#) : Budget Share of Food for Spanish Households
  - [BudgetItaly](#) : Budget Shares for Italian Households
  - [BudgetUK](#) : Budget Shares of British Households
  - [Car](#) : Stated Preferences for Car Choice
  - [Computers](#) : Prices of Personal Computers
  - [Crime](#) : Crime in North Carolina
  - [Doctor](#) : Number of Doctor Visits
  - [Earnings](#) : Earnings for Three Age Groups
  - [HI](#) : Health Insurance and Hours Worked By Wives
  - [Housing](#) : Sales Prices of Houses in the City of Windsor
  - [Males](#) : Wages and Education of Young Males
  - [Mathlevel](#) : Level of Calculus Attained for Students Taking Advanced Micro–economics
  - [MoneyUS](#) : Macroeconomic Series for the United States
  - [MunExp](#) : Municipal Expenditure Data
  - [OFP](#) : Visits to Physician Office
  - [Oil](#) : Oil Investment
  - [Participation](#) : Labor Force Participation
  - [PatentsRD](#) : Patents, R\&D and Technological Spillovers for a Panel of Firms
  - [Train](#) : Stated Preferences for Train Traveling
  - [Unemployment](#) : Unemployment Duration
  - [University](#) : Provision of University Teaching and Research
  - [Workinghours](#) : Wife Working Hours
- Journal of Business Economics and Statistics web site : <https://amstat.tandfonline.com/loi/ubes20>
  - [Benefits](#) : Unemployment of Blue Collar Workers
  - [Catsup](#) : Choice of Brand for Catsup
  - [Cracker](#) : Choice of Brand for Crakers
  - [Kakadu](#) : Willingness to Pay for the Preservation of the Kakadu National Park
  - [Ketchup](#) : Choice of Brand for Ketchup
  - [LaborSupply](#) : Wages and Hours Worked
  - [Mofa](#) : International Expansion of U.S. Mofa’s (majority–owned Foreign Affiliates in Fire (finance, Insurance and Real Estate)
  - [Somerville](#) : Visits to Lake Somerville
  - [Tuna](#) : Choice of Brand for Tuna

- [Yogurt](#) : Choice of Brand for Yogurts
- Journal of Statistics Education's data archive : [http://www.amstat.org/publications/jse/jse\\_data\\_archive.htm](http://www.amstat.org/publications/jse/jse_data_archive.htm)
  - [Diamond](#) : Pricing the C's of Diamond Stones
  - [FriendFoe](#) : Data from the Television Game Show Friend Or Foe ?
- Kenneth Train's home page : <https://elsa.berkeley.edu/~train/> (R-Forge reported "SSL: no alternative certificate subject name matches target host name" for this URL, so I disarmed it.)
  - [HC](#) : Heating and Cooling System Choice in Newly Built Houses in California
  - [Heating](#) : Heating System Choice in California Houses
  - [Mode](#) : Mode Choice
- Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <https://www.wiley.com/legacy/wileychi/baltagi/>
  - [Cigar](#) : Cigarette Consumption
  - [Crime](#) : Crime in North Carolina
  - [Gasoline](#) : Gasoline Consumption
  - [Grunfeld](#) : Grunfeld Investment Data
  - [Hedonic](#) : Hedonic Prices of Census Tracts in Boston
  - [Produc](#) : Us States Production
  - [Wages](#) : Panel Datas of Individual Wages
- Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge
  - [DoctorContacts](#) : Contacts With Medical Doctor
  - [Fishing](#) : Choice of Fishing Mode
  - [LaborSupply](#) : Wages and Hours Worked
  - [MedExp](#) : Structure of Demand for Medical Care
  - [PSID](#) : Panel Survey of Income Dynamics
  - [PatentsHGH](#) : Dynamic Relation Between Patents and R&D
  - [RetSchool](#) : Return to Schooling
  - [StrikeDur](#) : Strikes Duration
  - [Treatment](#) : Evaluating Treatment Effect of Training on Earnings
  - [UnempDur](#) : Unemployment Duration
  - [VietNamH](#) : Medical Expenses in Viet-nam (household Level)
  - [VietNamI](#) : Medical Expenses in Viet-nam (individual Level)
- Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>
  - [Bids](#) : Bids Received By U.S. Firms
  - [DoctorAUS](#) : Doctor Visits in Australia
  - [OFP](#) : Visits to Physician Office
  - [PatentsHGH](#) : Dynamic Relation Between Patents and R&D
  - [Somerville](#) : Visits to Lake Somerville
  - [StrikeNb](#) : Number of Strikes in Us Manufacturing

- Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press
  - [CRSPday](#) : Daily Returns from the CRSP Database
  - [CRSPmon](#) : Monthly Returns from the CRSP Database
  - [Consumption](#) : Quarterly Data on Consumption and Expenditure
  - [Doctor](#) : Number of Doctor Visits
  - [Earnings](#) : Earnings for Three Age Groups
  - [Hstarts](#) : Housing Starts
  - [MW](#) : Growth of Disposable Income and Treasury Bill Rate
  - [Money](#) : Money, GDP and Interest Rate in Canada
  - [Participation](#) : Labor Force Participation
  - [Tbrate](#) : Interest Rate, GDP and Inflation
- Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall
  - [Accident](#) : Ship Accidents
  - [Airline](#) : Cost for U.S. Airlines
  - [Electricity](#) : Cost Function for Electricity Producers
  - [Fair](#) : Extramarital Affairs Data
  - [Grunfeld](#) : Grunfeld Investment Data
  - [Klein](#) : Klein's Model I
  - [Longley](#) : The Longley Data
  - [ManufCost](#) : Manufacturing Costs
  - [Metal](#) : Production for SIC 33
  - [ModeChoice](#) : Data to Study Travel Mode Choice
  - [Mroz](#) : Labor Supply Data
  - [MunExp](#) : Municipal Expenditure Data
  - [Nerlove](#) : Cost Function for Electricity Producers, 1955
  - [Solow](#) : Solow's Technological Change Data
  - [Strike](#) : Strike Duration Data
  - [TranspEq](#) : Statewide Data on Transportation Equipment Manufacturing
- Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm)
  - [DM](#) : DM Dollar Exchange Rate
  - [Electricity](#) : Cost Function for Electricity Producers
  - [Griliches](#) : Wage Datas
  - [LT](#) : Dollar Sterling Exchange Rate
  - [Mishkin](#) : Inflation and Interest Rates
  - [Mpyr](#) : Money, National Product and Interest Rate
  - [Nerlove](#) : Cost Function for Electricity Producers, 1955
  - [Pound](#) : Pound-dollar Exchange Rate
  - [SumHes](#) : The Penn Table
  - [Yen](#) : Yen-dollar Exchange Rate
- Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers

- [CPSch3](#) : Earnings from the Current Population Survey
- [Caschool](#) : The California Test Score Data Set
- [Cigarette](#) : The Cigarette Consumption Panel Data Set
- [Fatality](#) : Drunk Driving Laws and Traffic Deaths
- [Hmda](#) : The Boston HMDA Data Set
- [Journals](#) : Economic Journals Dat Set
- [MCAS](#) : The Massachusetts Test Score Data Set
- [Macrodat](#) : Macroeconomic Time Series for the United States
- [Orange](#) : The Orange Juice Data Set
- [Star](#) : Effects on Learning of Small Class Sizes
- Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons
  - [Airq](#) : Air Quality for Californian Metropolitan Areas
  - [Benefits](#) : Unemployment of Blue Collar Workers
  - [Bwages](#) : Wages in Belgium
  - [Capm](#) : Stock Market Data
  - [Clothing](#) : Sales Data of Men’s Fashion Stores
  - [Forward](#) : Exchange Rates of US Dollar Against Other Currencies
  - [Garch](#) : Daily Observations on Exchange Rates of the US Dollar Against Other Currencies
  - [Housing](#) : Sales Prices of Houses in the City of Windsor
  - [Icecream](#) : Ice Cream Consumption
  - [IncomeUK](#) : Seasonally Unadjusted Quarterly Data on Disposable Income and Expenditure
  - [Irates](#) : Monthly Interest Rates
  - [Labour](#) : Belgian Firms
  - [Males](#) : Wages and Education of Young Males
  - [MoneyUS](#) : Macroeconomic Series for the United States
  - [NaturalPark](#) : Willingness to Pay for the Preservation of the Alentejo Natural Park
  - [PE](#) : Price and Earnings Index
  - [PPP](#) : Exchange Rates and Price Indices for France and Italy
  - [PatentsRD](#) : Patents, R&D and Technological Spillovers for a Panel of Firms
  - [Pricing](#) : Returns of Size-based Portfolios
  - [SP500](#) : Returns on Standard & Poor’s 500 Index
  - [Schooling](#) : Wages and Schooling
  - [Tobacco](#) : Households Tobacco Budget Share
  - [Wages1](#) : Wages, Experience and Schooling

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Index.Time.Series      *Time Series*

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### Description

- annual
  - [Klein](#) : Klein's Model I
  - [LT](#) : Dollar Sterling Exchange Rate
  - [Longley](#) : The Longley Data
  - [ManufCost](#) : Manufacturing Costs
  - [Mpyr](#) : Money, National Product and Interest Rate
  - [PE](#) : Price and Earnings Index
  - [Solow](#) : Solow's Technological Change Data
- daily
  - [CRSPday](#) : Daily Returns from the CRSP Database
  - [Garch](#) : Daily Observations on Exchange Rates of the US Dollar Against Other Currencies
  - [SP500](#) : Returns on Standard & Poor's 500 Index
- four-weekly
  - [Icecream](#) : Ice Cream Consumption
- monthly
  - [CRSPmon](#) : Monthly Returns from the CRSP Database
  - [Capm](#) : Stock Market Data
  - [Forward](#) : Exchange Rates of US Dollar Against Other Currencies
  - [Irates](#) : Monthly Interest Rates
  - [Mishkin](#) : Inflation and Interest Rates
  - [Orange](#) : The Orange Juice Data Set
  - [PPP](#) : Exchange Rates and Price Indices for France and Italy
  - [Pricing](#) : Returns of Size-based Portfolios
  - [StrikeNb](#) : Number of Strikes in Us Manufacturing
- quarterly
  - [Consumption](#) : Quarterly Data on Consumption and Expenditure
  - [Hstarts](#) : Housing Starts
  - [IncomeUK](#) : Seasonally Unadjusted Quarterly Data on Disposable Income and Expenditure
  - [MW](#) : Growth of Disposable Income and Treasury Bill Rate
  - [Macrodat](#) : Macroeconomic Time Series for the United States
  - [Money](#) : Money, GDP and Interest Rate in Canada
  - [MoneyUS](#) : Macroeconomic Series for the United States
  - [Tbrate](#) : Interest Rate, GDP and Inflation
- weekly
  - [DM](#) : DM Dollar Exchange Rate
  - [Pound](#) : Pound-dollar Exchange Rate
  - [Yen](#) : Yen-dollar Exchange Rate



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Irates                      *Monthly Interest Rates*

---

**Description**

monthly observations from 1946–12 to 1991–02

*number of observations* : 531

*observation* : country

*country* : United–States

**Usage**

data(Irates)

**Format**

A time serie containing :

**r1** interest rate for a maturity of 1 months (% per year).

**r2** interest rate for a maturity of 2 months (% per year).

**r3** interest rate for a maturity of 3 months (% per year).

**r5** interest rate for a maturity of 5 months (% per year).

**r6** interest rate for a maturity of 6 months (% per year).

**r11** interest rate for a maturity of 11 months (% per year).

**r12** interest rate for a maturity of 12 months (% per year).

**r36** interest rate for a maturity of 36 months (% per year).

**r60** interest rate for a maturity of 60 months (% per year).

**r120** interest rate for a maturity of 120 months (% per year).

**Source**

McCulloch, J.H. and H.C. Kwon (1993) *U.S. term structure data, 1947–1991*, Ohio State Working Paper 93-6, Ohio State University, Columbus.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 8.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

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Journals

*Economic Journals Dat Set*

---

### Description

a cross-section from 2000  
*number of observations* : 180  
*observation* : goods

### Usage

data(Journals)

### Format

A dataframe containing :

**title** journal title  
**pub** publisher  
**society** scholarly society ?  
**libprice** library subscription price  
**pages** number of pages  
**charpp** characters per page  
**citestot** total number of citations  
**date1** year journal was founded  
**oclc** number of library subscriptions  
**field** field description

### Source

Professor Theodore Bergstrom of the Department of Economics at the University of California, San Diego.

### References

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 6.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

Kakadu

*Willingness to Pay for the Preservation of the Kakadu National Park***Description**

a cross-section

*number of observations* : 1827*observation* : individuals*country* : Australia**Usage**

data(Kakadu)

**Format**

A dataframe containing :

**lower** lowerbound of willingness to pay, 0 if observation is left censored**upper** upper bound of willingness to pay, 999 if observation is right censored**answer** an ordered factor with levels nn (respondent answers no, no), ny (respondent answers no, yes or yes, no), yy (respondent answers yes, yes)**recparks** the greatest value of national parks and nature reserves is in recreation activities (from 1 to 5)**jobs** jobs are the most important thing in deciding how to use our natural resources (from 1 to 5)**lowrisk** development should be allowed to proceed where environmental damage from activities such as mining is possible but very unlikely (from 1 to 5)**wildlife** it's important to have places where wildlife is preserved (from 1 to 5)**future** it's important to consider future generations (from 1 to 5)**aboriginal** in deciding how to use areas such as Kakadu national park, their importance to the local aboriginal people should be a major factor (from 1 to 5)**finben** in deciding how to use our natural resources such as mineral deposits and forests, the most important thing is the financial benefits for Australia (from 1 to 5)**mineparks** if areas within natural parks are set aside for development projects such as mining, the value of the parks is greatly reduced (from 1 to 5)**moreparks** there should be more national parks created from state forests (from 1 to 5)**gov** the government pays little attention to the people in making decisions (from 1 to 4)**envcon** the respondent recycles things such as paper or glass and regularly buys unbleached toilet paper or environmentally friendly products ?**vparks** the respondent has visited a national park or bushland recreation area in the previous 12 months ?**tvenv** the respondent watches tv programs about the environment ? (from 1 to 9)

**conservation** the respondent is member of a conservation organization ?

**sex** male,female

**age** age

**schooling** years of schooling

**income** respondent's income in thousands of dollars

**major** the respondent received the major–impact scenario of the Kakadu conservation zone survey ?

### Source

Werner, Megan (1999) “Allowing for zeros in dichotomous–choice contingent–valuation models”, *Journal of Business and Economic Statistics*, **17(4)**, october, 479–486.

### References

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Ketchup

*Choice of Brand for Ketchup*

---

### Description

a cross-section

*number of observations* : 4956

*observation* : individuals

*country* : United States

### Usage

data(Ketchup)

### Format

A dataframe containing :

**hid** individuals identifiers

**id** purchase identifiers

**choice** one of heinz, hunts, delmonte, stb (store brand)

**price.z** price of brand z

**Source**

Kim, Byong–Do, Robert C. Blattberg and Peter E. Rossi (1995) “Modeling the distribution of price sensitivity and implications for optimal retail pricing”, *Journal of Business Economics and Statistics*, **13(3)**, 291.

**References**

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

 Klein

*Klein's Model I*


---

**Description**

annual observations from 1920 to 1941

*number of observations* : 22

*observation* : country

*country* : United States

**Usage**

data(Klein)

**Format**

A time serie containing :

**cons** consumption

**profit** corporate profits

**privwage** private wage bill

**inv** investment

**lcap** previous year's capital stock

**gnp** GNP

**pubwage** government wage bill

**govspend** government spending

**taxe** taxes

**Source**

Klein, L. (1950) *Economic fluctuations in the United States, 1921-1941*, New York, John Wiley and Sons.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F15.1.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

LaborSupply

*Wages and Hours Worked*

---

**Description**

a panel of 532 observations from 1979 to 1988

*number of observations* : 5320

**Usage**

```
data(LaborSupply)
```

**Format**

A dataframe containing :

**lnhr** log of annual hours worked

**lnwg** log of hourly wage

**kids** number of children

**age** age

**disab** bad health

**id** id

**year** year

**Source**

Ziliak, Jim (1997) "Efficient Estimation With Panel Data when Instruments are Predetermined: An Empirical Comparison of Moment-Condition Estimators", *Journal of Business and Economic Statistics*, **419–431**.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 708–15, 754–6.

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Labour

*Belgian Firms*

---

**Description**

a cross-section from 1996

*number of observations* : 569

*observation* : production units

*country* : Belgium

**Usage**

data(Labour)

**Format**

A dataframe containing :

**capital** total fixed assets, end of 1995 (in 1000000 euro)

**labour** number of workers (employment)

**output** value added (in 1000000 euro)

**wage** wage costs per worker (in 1000 euro)

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 4.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Longley

*The Longley Data*

---

### Description

annual observations from 1947 to 1962

*number of observations* : 16

*observation* : country

*country* : United States

### Usage

```
data(Longley)
```

### Format

A time serie containing :

**employ** employment (1,000s)

**price** GNP deflator

**gnp** nominal GNP (millions)

**armed** armed forces

### Source

Longley, J. (1967) "An appraisal of least squares programs from the point of view of the user", *Journal of the American Statistical Association*, **62**, 819-841.

### References

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F4.2.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)



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LT *Dollar Sterling Exchange Rate*

---

**Description**

annual observations from 1791 to 1990

*number of observations* : 200

*observation* : country

*country* : United Kingdom

**Usage**

data(LT)

**Format**

A time series containing :

s US \*Dollar / \*Pound exchange rate

**uswpi** US wholesale price index, normalized to 100 for 1914

**ukwpi** US wholesale price index, normalized to 100 for 1914

**Source**

Lothian, J. and M. Taylor (1996) "Real exchange rate behavior: the recent float from the perspective of the past two centuries", *Journal of Political Economy*, **104**, 488-509.

**References**

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 9, 613-621.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

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Macrodat

*Macroeconomic Time Series for the United States*

---

### Description

quarterly observations from 1959-1 to 2000-4

*number of observations* : 168

*observation* : country

*country* : United States

### Usage

data(Macrodat)

### Format

A time serie containing :

**lhur** unemployment rate (average of months in quarter)

**punew** cPI (Average of Months in Quarter)

**fyff** federal funds interest rate (last month in quarter)

**fygm3** 3 month treasury bill interest rate (last month in quarter)

**fygt1** 1 year treasury bond interest rate (last month in quarter)

**exruk** dollar / Pound exchange rate (last month in quarter)

**gdpjp** real GDP for Japan

### Source

Bureau of Labor Statistics, OECD, Federal Reserve.

### References

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 12 and 14.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Males

*Wages and Education of Young Males*

---

### Description

a panel of 545 observations from 1980 to 1987

*number of observations* : 4360

*observation* : individuals

*country* : United States

### Usage

data(Males)

### Format

A dataframe containing :

**nr** identifier

**year** year

**school** years of schooling

**exper** years of experience (=age-6-school)

**union** wage set by collective bargaining ?

**ethn** a factor with levels (black,hisp,other)

**married** married ?

**health** health problem ?

**wage** log of hourly wage

**industry** a factor with 12 levels

**occupation** a factor with 9 levels

**residence** a factor with levels (rural area, north east, northern central, south)

### Source

National Longitudinal Survey (NLS Youth Sample).

Vella, F. and M. Verbeek (1998) “Whose wages do unions raise ? A dynamic model of unionism and wage”, *Journal of Applied Econometrics*, **13**, 163–183.

### References

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 10.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

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ManufCost	<i>Manufacturing Costs</i>
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---

**Description**

annual observations from 1947 to 1971  
*number of observations* : 25  
*observation* : country  
*country* : United States

**Usage**

data(ManufCost)

**Format**

A time serie containing :

**cost** cost index  
**sk** capital cost share  
**sl** labor cost share  
**se** energy cost share  
**sm** materials cost share  
**pk** capital price  
**pl** labor price  
**pe** energy price  
**pm** materials price

**Source**

Berndt, E. and D. Wood (1975) "Technology, prices and the derived demand for energy", *Journal of Economics and Statistics*, **57**, 376-384.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F14.1.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Mathlevel	<i>Level of Calculus Attained for Students Taking Advanced Micro–economics</i>
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---

**Description**

a cross-section from 1983 to 1986

*number of observations* : 609

*observation* : individuals

*country* : United States

**Usage**

```
data(Mathlevel)
```

**Format**

A dataframe containing :

**mathlevel** highest level of math attained , an ordered factor with levels 170, 171a, 172, 171b, 172b, 221a, 221b

**sat** sat Math score

**language** foreign language proficiency ?

**sex** male, female

**major** one of other, eco, oss (other social sciences), ns (natural sciences), hum (humanities)

**mathcourse** number of courses in advanced math (0 to 3)

**physiccourse** number of courses in physics (0 to 2)

**chemistcourse** number of courses in chemistry (0 to 2)

**Source**

Butler, J.S., T. Aldrich Finegan and John J. Siegfried (1998) “Does more calculus improve student learning in intermediate micro and macroeconomic theory ?”, *Journal of Applied Econometrics*, **13(2)**, april, 185–202.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

MCAS

*The Massachusetts Test Score Data Set*

---

### Description

a cross-section from 1997-1998

*number of observations* : 220

*observation* : schools

*country* : United States

### Usage

data(MCAS)

### Format

A dataframe containing :

**code** district code (numerical)

**municipa** municipality (name)

**district** district name

**regday** spending per pupil, regular

**specneed** spending per pupil, special needs

**bilingua** spending per pupil, bilingual

**occupday** spending per pupil, occupational

**totday** spending per pupil, total

**spc** students per computer

**speced** special education students

**Inchpct** eligible for free or reduced price lunch

**tchratio** students per teacher

**percap** per capita income

**totsc4** 4th grade score (math+english+science)

**totsc8** 8th grade score (math+english+science)

**avgsalary** average teacher salary

**pctel** percent english learnersh

### Source

Massachusetts Comprehensive Assessment System (MCAS), Massachusetts Department of Education, 1990 U.S. Census.

## References

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 7.

## See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

MedExp

*Structure of Demand for Medical Care*

---

## Description

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>  
*number of observations : 5574*

## Usage

data(MedExp)

## Format

A time serie containing :

**med** annual medical expenditures in constant dollars excluding dental and outpatient mental

**lc**  $\log(\text{coinsrate}+1)$  where coinsurance rate is 0 to 100

**idp** individual deductible plan ?

**lpi**  $\log(\text{annual participation incentive payment})$  or 0 if no payment

**fmde**  $\log(\max(\text{medical deductible expenditure}))$  if  $IDP=1$  and  $MDE>1$  or 0 otherw

**physlim** physical limitation ?

**ndisease** number of chronic diseases

**health** self-rate health (excellent,good,fair,poor)

**line**  $\log$  of annual family income (in \\$)

**lfam**  $\log$  of family size

**educdec** years of schooling of household head

**age** exact age

**sex** sex (male,female)

**child** age less than 18 ?

**black** is household head black ?

## Source

Deb, P. and P.K. Trivedi (2002) "The Structure of Demand for Medical Care: Latent Class versus Two-Part Models", *Journal of Health Economics*, **21**, 601–625.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Metal

*Production for SIC 33*

---

**Description**

a cross-section

*number of observations* : 27

*observation* : regional

*country* : United States

**Usage**

data(Metal)

**Format**

A dataframe containing :

**va** output

**labor** labor input

**capital** capital input

**Source**

Aigner, D., K. Lovell and P. Schmidt (1977) "Formulation and estimation of stochastic frontier production models", *Journal of Econometrics*, **6**, 21-37.

Hildebrand, G. and T. Liu (1957) *Manufacturing production functions in the United States*, Ithaca, N.Y.: Cornell University Press.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F6.1.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)



**Description**

monthly observations from 1950-2 to 1990-12

*number of observations* : 491

*observation* : country

*country* : United States

**Usage**

```
data(Mishkin)
```

**Format**

A time serie containing :

**pai1** one-month inflation rate (in percent, annual rate)

**pai3** three-month inflation rate (in percent, annual rate)

**tb1** one-month T-bill rate (in percent, annual rate)

**tb3** three-month T-bill rate (in percent, annual rate)

**cpi** CPI for urban consumers, all items (the 1982-1984 average is set to 100)

**Source**

Mishkin, F. (1992) "Is the Fisher effect for real ?", *Journal of Monetary Economics*, **30**, 195-215.

**References**

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 2, 176-184.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

Mode	<i>Mode Choice</i>
------	--------------------

---

**Description**

a cross-section

*number of observations* : 453

*observation* : individuals

**Usage**

data(Mode)

**Format**

A dataframe containing :

**choice** one of car, carpool, bus or rail

**cost.z** cost of mode z

**time.z** time of mode z

**References**

Kenneth Train's home page : <http://elsa.berkeley.edu/~train/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

ModeChoice	<i>Data to Study Travel Mode Choice</i>
------------	---

---

**Description**

a cross-section

*number of observations* : 840

*observation* : individuals

*country* : Australia

**Usage**

data(ModeChoice)

**Format**

A dataframe containing :

**mode** choice : air, train, bus or car

**ttme** terminal waiting cost time, 0 for car

**invc** in vehicle cost-cost component

**invt** travel time in vehicle

**gc** generalized cost measure

**hinc** household income

**psize** party size in mode chosen

**Source**

Greene, W.H. and D. Hensher (1997) *Multinomial logit and discrete choice models* in Greene, W. H. (1997) *LIMDEP version 7.0 user's manual revised*, Plainview, New York econometric software, Inc .

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F21.2.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Mofa	<i>International Expansion of U.S. Mofa's (majority-owned Foreign Affiliates in Fire (finance, Insurance and Real Estate)</i>
------	---

---

**Description**

a cross-section from 1982

*number of observations* : 50

*observation* : country

*country* : United States

**Usage**

data(Mofa)

**Format**

A dataframe containing :

**capexp** capital expenditures made by the MOFA's of nonbank U.S. corporations in finance, insurance and real estate. Source: "U.S. Direct Investment Abroad: 1982 Benchmark Survey data." Table III.C 6.

**gdp** gross domestic product. Source: "World Bank, World Development Report 1984." Table 3. (This variable is scaled by a factor of 1/100,000)

**sales** sales made by the majority owned foreign affiliates of nonbank U.S. parents in finance, insurance and real estate. Source: "U.S. Direct Investment Abroad: 1982 Benchmark Survey Data." Table III.D 3. (This variable is scaled by a factor of 1/100)

**nbaif** the number of U.S. affiliates in the host country. Source: "U.S. Direct Investment Abroad: 1982 Benchmark Survey Data." Table 5. (This variable is scaled by a factor of 1/100)

**netinc** net income earned by MOFA's of nonbank U.S. corporations operating in the nonbanking financial sector of the host country. Source: "U.S. Direct Investment Abroad: 1982 Benchmark Survey Data." Table III.D 6. (This variable is scaled by a factor of 1/10)

**Source**

Ioannatos, Petros E. (1995) "Censored regression estimation under unobserved heterogeneity : a stochastic parameter approach", *Journal of Business and Economics Statistics*, **13(3)**, july, 327–335.

**References**

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Money

*Money, GDP and Interest Rate in Canada*

---

**Description**

quarterly observations from 1967-1 to 1998-4

*number of observations* : 128

*observation* : country

*country* : Canada

**Usage**

data(Money)

**Format**

A time serie containing :

- m** log of the real money supply
- y** the log of GDP, in 1992 dollars, seasonally adjusted
- p** the log of the price level
- r** the 3-month treasury till rate

**Source**

CANSIM Database of Statistics Canada.

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 7 and 8.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

MoneyUS

*Macroeconomic Series for the United States*

---

**Description**

quarterly observations from 1954–01 to 1994–12  
*number of observations* : 164  
*country* : United States

**Usage**

data(MoneyUS)

**Format**

A time serie containing :

- m** log of real M1 money stock
- infl** quarterly inflation rate (change in log prices), % per year
- cpr** commercial paper rate, % per year
- y** log real GDP (in billions of 1987 dollars)
- tbr** treasury bill rate

**Source**

Hoffman, D.L. and R.H. Rasche (1996) "Assessing forecast performance in a cointegrated system", *Journal of Applied Econometrics*, **11**, 495–517.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 9.  
Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Mpyr

*Money, National Product and Interest Rate*

---

**Description**

annual observations from 1900 to 1989  
*number of observations* : 90  
*observation* : country  
*country* : United States

**Usage**

data(Mpyr)

**Format**

A time serie containing :

**m** natural log of M1  
**p** natural log of the net national product price deflator  
**y** natural log of the net national product  
**r** the commercial paper rate in percent at an annual rate

**Source**

Stock, J. and M. Watson (1999) "Testing for common trends", *Journal of the American Statistical Association*, **83**, 1097-1107.

**References**

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 10, 665-667.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Mroz

*Labor Supply Data*


---

**Description**

a cross-section

*number of observations* : 753

*observation* : individuals

*country* : United States

**Usage**

data(Mroz)

**Format**

A dataframe containing :

**work** work at home in 1975? (Opposite of carData::lfp[['lfp']] = labor force participation: When one is 'no', the other is 'yes' and vice versa.)

**hoursw** wife's hours of work in 1975

**child6** number of children less than 6 years old in household (Same as carData::Mroz['k5'].)

**child618** number of children between ages 6 and 18 in household (Same as carData::Mroz['k618'])

**agew** wife's age

**educw** wife's educational attainment, in years

**hearnw** wife's average hourly earnings, in 1975 dollars

**wagew** wife's wage reported at the time of the 1976 interview (not= 1975 estimated wage)

**hoursh** husband's hours worked in 1975

**ageh** husband's age

**educ** husband's educational attainment, in years

**wageh** husband's wage, in 1975 dollars

**income** family income, in 1975 dollars

**educwm** wife's mother's educational attainment, in years

**educwf** wife's father's educational attainment, in years

**unemprate** unemployment rate in county of residence, in percentage points

**city** lives in large city (SMSA) ?

**experience** actual years of wife's previous labor market experience

**Details**

These data seem to have come from the same source as `carData::Mroz`, though each data set has variables not in the other. The variables that are shared have different names, and the level names for 'work' here are swapped from the levels of `carData::Mroz['lfp']`.

**Source**

Mroz, T. (1987) "The sensitivity of an empirical model of married women's hours of work to economic and statistical assumptions", *Econometrica*, **55**, 765-799.

1976 Panel Study of Income Dynamics.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F4.1.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#), [Mroz](#)

**Examples**

```
head(Mroz)

#If 'car' and / or 'carData' is also in the path,
# then use the following to be clear that
# you want this version:
head(Ecdat::Mroz)
```

---

MunExp

*Municipal Expenditure Data*

---

**Description**

a panel of 265 observations from 1979 to 1987

*number of observations* : 2385

*observation* : regional

*country* : Sweden

**Usage**

```
data(MunExp)
```



**Format**

A dataframe containing :

**id** identification

**year** date

**expend** expenditure

**revenue** revenue from taxes and fees

**grants** grants from Central Government

**Source**

Dahlberg, M. and E. Johansson (2000) "An examination of the dynamic behavior of local government using GMM boot-strapping methods", *Journal of Applied Econometrics*, **21**, 333-355.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F18.1.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

MW

*Growth of Disposable Income and Treasury Bill Rate*

---

**Description**

quarterly observations from 1963-3 to 1975-4

*number of observations* : 50

*observation* : country

*country* : United States

**Usage**

data(MW)

**Format**

A time serie containing :

**rdi** the rate of growth of real U.S. disposable income, seasonally adjusted

**trate** the U.S. treasury bill rate

**Source**

MacKinnon, J. G. and H. T. White (1985) "Some heteroskedasticity consistent covariance matrix estimators with improved finite sample properties", *Journal of Econometrics*, **29**, 305-325.

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 5.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

NaturalPark

*Willingness to Pay for the Preservation of the Alentejo Natural Park*

---

**Description**

a cross-section from 1987  
*number of observations* : 312  
*observation* : individuals  
*country* : Portugal

**Usage**

```
data(NaturalPark)
```

**Format**

A dataframe containing :

- bid1** initial bid, in euro
- bidh** higher bid
- bidl** lower bid
- answers** a factor with levels (nn,ny,yn,yy)
- age** age in 6 classes
- sex** a factor with levels (male,female)
- income** income in 8 classes

**Source**

Nunes, Paulo (2000) *Contingent Valuation of the Benefits of natural areas and its warmglow component*, PhD thesis 133, FETEW, KULeuven.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 7.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Nerlove

*Cost Function for Electricity Producers, 1955*

---

**Description**

a cross-section from 1955 to 1955

*number of observations* : 159

*observation* : production units

*country* : United States

**Usage**

data(Nerlove)

**Format**

A dataframe containing :

**cost** total cost

**output** total output

**pl** wage rate

**sl** cost share for labor

**pk** capital price index

**sk** cost share for capital

**pf** fuel price

**sf** cost share for fuel

**Source**

Nerlove, M. (1963) *Returns to scale in electricity industry* in Christ, C. ed. (1963) *Measurement in Economics: Studies in Mathematical Economics and Econometrics in Memory of Yehuda Grunfeld*, Stanford, California, Stanford University Press .

Christensen, L. and W. H. Greene (1976) "Economies of scale in U.S. electric power generation", *Journal of Political Economy*, **84**, 655-676.

## References

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F14.2.

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 1, 76-84.

## See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

nonEnglishNames

*Names with Character Set Problems*

---

## Description

A [data.frame](#) describing names containing character codes rare or non-existent in standard English text, e.g., with various accent marks that may not be coded consistently in different locales or by different software.

## Usage

```
data(nonEnglishNames)
```

## Format

A `data.frame` with two columns:

**nonEnglish** a character vector containing names that often have non-standard characters with the non-standard characters replaced by "\_"

**English** a character vector containing a standard English-character translation of nonEnglish

## See Also

[grepNonStandardCharacters](#), [subNonStandardCharacters](#)

## Examples

```
data(nonEnglishNames)
```

```
all.equal(ncol(nonEnglishNames), 2)
```

---

nuclearWeaponStates    *Nations with nuclear weapons*

---

### Description

Data on the 9 nuclear-weapon states as of April 2019.

### Usage

```
data(nuclearWeaponStates)
```

### Format

A dataframe containing :

**nation** The name of the country (character). The former USSR is listed here as Russia.

**ctry** [ISO 31661](#)- alpha-2 two-letter country codes (character).

**firstTest** Date of first test of a nuclear weapon.

For Israel, which has not publicly acknowledged that it has nuclear weapons, this uses the Date of the [Vela Incident](#).

**yearsSinceLastFirstTest** years since the most recent previous first test (as [numeric](#)).

**nuclearWeapons** number of nuclear weapons

**nYieldNA, nLowYield, nMidYield, nHighYield** number of weapons for which the yield in (nYieldNA) = unknown or variable, (nLowYield) = at most 15 kt (kilotons), the size of the Hiroshima bomb, (nMidYield) = greater than 15 but less than 50 kt, and (nHighYield) = at least 50 kt.

### Source

Overview from [World Nuclear Weapon Stockpile](#)

firstTest from [Wikipedia](#), "List of states with nuclear weapons"

US from [Hans M. Kristensen & Robert S. Norris \(2018\) United States nuclear forces, 2018, Bulletin of the Atomic Scientists, 74:2, 120-131, DOI: 10.1080/00963402.2018.143821](#)

Russia from [Hans M. Kristensen & Matt Korda \(2019\) Russian nuclear forces, 2019, Bulletin of the Atomic Scientists, 75:2, 73-84, DOI: 10.1080/00963402.2019.1580891](#)

UK from [Robert S. Norris and Hans M. Kristensen \(2013\) The British nuclear stockpile, 1953-2013, Bulletin of the Atomic Scientists, 69:4, 69-75s](#)

France from [Robert S. Norris & Hans M. Kristensen \(2008\) French nuclear forces, 2008, Bulletin of the Atomic Scientists, 64:4, 52-54, 57](#)

China from [Hans M. Kristensen & Robert S. Norris \(2018\) Chinese nuclear forces, 2018, Bulletin of the Atomic Scientists, 74:4, 289-295](#)

India from [Hans M. Kristensen & Robert S. Norris \(2017\) Indian nuclear forces, 2017, Bulletin of the Atomic Scientists, 73:4, 205-209](#)

Israel from Hans M. Kristensen and Robert S. Norris (2014) Israeli nuclear weapons, 2014, *Bulletin of the Atomic Scientists*, 70:6, 97-115

Pakistan from Hans M. Kristensen, Robert S. Norris & Julia Diamond (2018) Pakistani nuclear forces, 2018, *Bulletin of the Atomic Scientists*, 74:5, 348-358

North Korea from Hans M. Kristensen & Robert S. Norris (2018) North Korean nuclear capabilities, 2018, *Bulletin of the Atomic Scientists*, 74:1, 41-51

### Examples

```
data(nuclearWeaponStates)
plot(yearsSinceLastFirstTest~firstTest, nuclearWeaponStates,
      type='h', xlab='', ylab='')
with(nuclearWeaponStates,
      text(firstTest, yearsSinceLastFirstTest, ctry))
```

---

OFP

*Visits to Physician Office*

---

### Description

a cross-section

*number of observations* : 4406

*observation* : individuals

*country* : United States

### Usage

```
data(OFP)
```

### Format

A dataframe containing :

**ofp** number of physician office visits

**ofnp** number of nonphysician office visits

**opp** number of physician outpatient visits

**opnp** number of nonphysician outpatient visits

**emr** number of emergency room visits

**hosp** number of hospitalizations

**numchron** number of chronic conditions

**addiff** the person has a condition that limits activities of daily living ?

**age** age in years (divided by 10)

**black** is the person african-american ?

**sex** is the person male ?  
**married** is the person married ?  
**school** number of years of education  
**faminc** family income in 10000\\$  
**employed** is the person employed ?  
**privins** is the person covered by private health insurance ?  
**medicaid** is the person covered by medicaid ?  
**region** the region (noreast, midwest,west)  
**hlth** self-perceived health (excellent, poor, other)

### Source

Deb, P. and P.K. Trivedi (1997) "Demand for Medical Care by the Elderly: A Finite Mixture Approach", *Journal of Applied Econometrics*, **12**, 313-326..

### References

Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>, chapter 6.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Oil

*Oil Investment*

---

### Description

a cross-section from 1969 to 1992  
*number of observations* : 53  
*observation* : production units  
*country* : United Kingdom

### Usage

data(Oil)

**Format**

A dataframe containing :

**dur** duration of the appraisal lag in months (time span between discovery of an oil field and beginning of development, i.e. approval of annex B).

**size** size of recoverable reserves in millions of barrels

**waterd** depth of the sea in metres

**gasres** size of recoverable gas reserves in billions of cubic feet

**operator** equity market value (in 1991 million pounds) of the company operating the oil field

**p** real after-tax oil price measured at time of annex B approval

**vardp** volatility of the real oil price process measured as the squared recursive standard errors of the regression of  $pt-pt-1$  on a constant

**p97** adaptive expectations (with parameter  $\theta=0.97$ ) for the real after-tax oil prices formed at the time of annex B approval

**varp97** volatility of the adaptive expectations (with parameter  $\theta=0.97$ ) for real after tax oil prices measured as the squared recursive standard errors of the regression of  $pt$  on  $pte(\theta)$

**p98** adaptive expectations (with parameter  $\theta=0.98$ ) for the real after-tax oil prices formed at the time of annex B approval

**varp98** volatility of the adaptive expectations (with parameter  $\theta=0.98$ ) for real after tax oil prices measured as the squared recursive standard errors of the regression of  $pt$  on  $pte(\theta)$

**Source**

Favero, Carlo A., M. Hashem Pesaran and Sunil Sharma (1994) "A duration model of irreversible oil investment : theory and empirical evidence", *Journal of Applied Econometrics*, **9(S)**, S95–S112.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Orange

*The Orange Juice Data Set*

---

**Description**

monthly observations from 1948-01 to 2001-06

*number of observations* : 642

*observation* : country

*country* : United States



**Usage**

```
data(Orange)
```

**Format**

A time serie containing :

**priceoj** producer price for frozen orange juice

**pricefg** producer price index for finished goods

**fdd** freezing degree days (from daily minimum temperature recorded at Orlando area airports)

**Source**

U.S. Bureau of Labor Statistics for PPIOJ and PWFS, National Oceanic and Atmospheric Administration (NOAA) of the U.S Department of Commerce for FDD.

**References**

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Participation

*Labor Force Participation*

---

**Description**

a cross-section

*number of observations* : 872

*observation* : individuals

*country* : Switzerland

**Usage**

```
data(Participation)
```

**Format**

A dataframe containing :

**lfp** labour force participation ?  
**lnnlinc** the log of nonlabour income  
**age** age in years divided by 10  
**educ** years of formal education  
**nyc** the number of young children (younger than 7)  
**noc** number of older children  
**foreign** foreigner ?

**Source**

Gerfin, Michael (1996) "Parametric and semiparametric estimation of the binary response", *Journal of Applied Econometrics*, **11(3)**, 321-340.

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 11.

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

PatentsHG

*Dynamic Relation Between Patents and R&D*

---

**Description**

a panel of 346 observations from 1975 to 1979  
*number of observations* : 1730  
*observation* : production units  
*country* : United States

**Usage**

data(PatentsHG)

**Format**

A dataframe containing :

**obsno** firm index

**year** year

**cusip** Compustat's identifying number for the firm (Committee on Uniform Security Identification Procedures number)

**ardsic** a two-digit code for the applied R&D industrial classification (roughly that in Bound, Cummins, Griliches, Hall, and Jaffe, in the Griliches R&D, Patents, and Productivity volume)

**scisect** is the firm in the scientific sector ?

**logk** the logarithm of the book value of capital in 1972.

**sumpat** the sum of patents applied for between 1972-1979.

**logr** the logarithm of R&D spending during the year (in 1972 dollars)

**logr1** the logarithm of R&D spending (one year lag)

**logr2** the logarithm of R&D spending (two years lag)

**logr3** the logarithm of R&D spending (three years lag)

**logr4** the logarithm of R&D spending (four years lag)

**logr5** the logarithm of R&D spending (five years lag)

**pat** the number of patents applied for during the year that were eventually granted

**pat1** the number of patents (one year lag)

**pat2** the number of patents (two years lag)

**pat3** the number of patents (three years lag)

**pat4** the number of patents (four years lag)

**Source**

Hall, Bronwyn , Zvi Griliches and Jerry Hausman (1986) "Patents and R&D: Is There a Lag?", *International Economic Review*, **27**, 265-283.

**References**

Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>, chapter 9.

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 792-5.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

PatentsRD

*Patents, R&D and Technological Spillovers for a Panel of Firms*

---

### Description

a panel of 181 observations from 1983 to 1991

*number of observations* : 1629

*observation* : production units

*country* : world

### Usage

data(PatentsRD)

### Format

A dataframe containing :

**year** year

**fi** firm's id

**sector** firm's main industry sector, one of aero (aerospace), chem (chemistry), comput (computer), drugs, elec (electricity), food, fuel (fuel and mining), glass, instr (instruments), machin (machinery), metals, other, paper, soft (software), motor (motor vehicles)

**geo** geographic area, one of eu (European Union), japan, usa, rotw (rest of the world)

**patent** numbers of European patent applications

**rdexp** log of R&D expenditures

**spil** log of spillovers

### Source

Cincer, Michele (1997) "Patents, R & D and technological spillovers at the firm level : some evidence from econometric count models for panel data", *Journal of Applied Econometrics*, **12(3)**, may-june, 265-280.

### References

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>. Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 7.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

PE *Price and Earnings Index*

---

**Description**

annual observations from 1800 to 1931

*number of observations* : 132

*observation* : country

*country* : United States

**Usage**

data(PE)

**Format**

A time serie containing :

**price** S\&P composite stock price index

**earnings** S\&P composite earnings index

**Source**

Robert Shiller.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 8.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

politicalKnowledge      *Political knowledge in the US and Europe*

---

### Description

Data from McChesney and Nichols (2010) on domestic and international knowledge in Denmark, Finland, the UK and the US among college graduates, people with some college, and roughly 12th grade only.

### Usage

```
data(politicalKnowledge)
```

### Format

A data.frame containing 12 columns and 4 rows.

**country** a character vector of Denmark, Finland, UK, and US, being the four countries compared in this data set.

**DomesticKnowledge.hs, DomesticKnowledge.sc, DomesticKnowledge.c** percent correct answers to calibrated questions regarding knowledge of prominent items in domestic news in a survey of residents of the four countries among college graduates (ending ".c"), some college (".sc") and high school ("hs"). Source: McChesney and Nichols (2010, chapter 1, chart 8).

**InternationalKnowledge.hs, InternationalKnowledge.sc, InternationalKnowledge.c** percent correct answers to calibrated questions regarding knowledge of prominent items in international news in a survey of residents of the four countries by education level as for DomesticKnowledge. Source: McChesney and Nichols (2010, chapter 1, chart 7).

**PoliticalKnowledge.hs, PoliticalKnowledge.sc, PoliticalKnowledge.c** average of domestic and international knowledge

**PublicMediaPerCapita** Per capital spending on public media in 2007 in US dollars from McChesney and Nichols (2010, chapter 4, chart 1)

**PublicMediaRel2US** Spending on public media relative to the US, being PublicMediaPerCapita / PublicMediaPerCapita[4].

### Author(s)

Spencer Graves

### Source

Robert W. McChesney and John Nichols (2010) *The Death and Life of American Journalism* (Nation Books)

**Examples**

```

##
## 1. Combine first 2 rows
##
data(politicalKnowledge)
pk <- politicalKnowledge[-1,]
pk[1, -1] <- ((politicalKnowledge[1, -1] +
              politicalKnowledge[2, -1])/2)
pk[1, 'country'] <- 'DK-FI'

##
## 2. plot
##
xlim <- range(pk[, 'PublicMediaPerCapita'])
ylim <- 100*range(pk[2:7])
text.cex <- 2

# to label the lines
(US.UK <- (pk[2, -1]+pk[3, -1])/2)

#png('Knowledge v. public media.png')
op <- par(mar=c(5, 7, 4, 2)+.1)
plot(c(0, 110), 100*ylim, type='n', axes=FALSE,
      xlab='public media $ per capita',
      ylab='Political Knowledge\n(% of standard questions)',
      cex.lab=2)
axis(1, cex.axis=2)
axis(2, las=2, cex.axis=2)
with(pk, text(PublicMediaPerCapita, 100*PoliticalKnowledge.hs,
              country, cex=text.cex, xpd=NA,
              col=c('forestgreen', 'orange', 'red')))
with(pk, text(PublicMediaPerCapita, 100*PoliticalKnowledge.sc,
              country, cex=text.cex, xpd=NA,
              col=c('forestgreen', 'orange', 'red')))
with(pk, text(PublicMediaPerCapita, 100*PoliticalKnowledge.c,
              country, cex=text.cex, xpd=NA,
              col=c('forestgreen', 'orange', 'red')))
with(pk, lines(PublicMediaPerCapita, 100*PoliticalKnowledge.hs,
              type='b', pch=' '))
with(pk, lines(PublicMediaPerCapita, 100*PoliticalKnowledge.sc,
              type='b', pch=' '))
with(pk, lines(PublicMediaPerCapita, 100*PoliticalKnowledge.c,
              type='b', pch=' '))
with(US.UK, text(PublicMediaPerCapita, 100*PoliticalKnowledge.hs,
                 'High School\nor less', srt=37, cex=1.5))
with(US.UK, text(PublicMediaPerCapita, 100*PoliticalKnowledge.sc,
                 'some\ncollege', srt=10.5, cex=1.5))
with(US.UK, text(PublicMediaPerCapita, 100*PoliticalKnowledge.c,
                 "Bachelor's\nor more", srt=-1, cex=1.5))

par(op)
#dev.off()

```

```
##
## redo for Wikimedia commons
## without English axis labels
## to facilitate multilingual use
##
#svg('Knowledge v. public media.svg')
op <- par(mar=c(3,3,2,2)+.1)
plot(c(0, 110), 100*ylim, type='n', axes=FALSE,
      xlab='', ylab='', cex.lab=2)
axis(1, cex.axis=2)
axis(2, las=2, cex.axis=2)
with(pk, text(PublicMediaPerCapita, 100*PoliticalKnowledge.hs,
              country, cex=text.cex, xpd=NA,
              col=c('forestgreen', 'orange', 'red')))
with(pk, text(PublicMediaPerCapita, 100*PoliticalKnowledge.sc,
              country, cex=text.cex, xpd=NA,
              col=c('forestgreen', 'orange', 'red')))
with(pk, text(PublicMediaPerCapita, 100*PoliticalKnowledge.c,
              country, cex=text.cex, xpd=NA,
              col=c('forestgreen', 'orange', 'red')))
with(pk, lines(PublicMediaPerCapita, 100*PoliticalKnowledge.hs,
               type='b', pch=' '))
with(pk, lines(PublicMediaPerCapita, 100*PoliticalKnowledge.sc,
               type='b', pch=' '))
with(pk, lines(PublicMediaPerCapita, 100*PoliticalKnowledge.c,
               type='b', pch=' '))
par(op)
#dev.off()
```

---

Pound

*Pound-dollar Exchange Rate*

---

### Description

weekly observations from 1975 to 1989

*number of observations* : 778

*observation* : country

*country* : Germany

### Usage

data(Pound)



**Format**

A dataframe containing :

- date** the date of the observation (19850104 is January, 4, 1985)
- s** the ask price of the dollar in units of Pound in the spot market on friday of the current week
- f** the ask price of the dollar in units of Pound in the 30-day forward market on friday of the current week
- s30** the bid price of the dollar in units of Pound in the spot market on the delivery date on a current forward contract

**Source**

Bekaert, G. and R. Hodrick (1993) “On biases in the measurement of foreign exchange risk premiums”, *Journal of International Money and Finance*, **12**, 115-138.

**References**

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 6, 438-443.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

 PPP

*Exchange Rates and Price Indices for France and Italy*

---

**Description**

monthly observations from 1981–01 to 1996–06  
*number of observations* : 186  
*observation* : country  
*country* : France and Italy

**Usage**

data(PPP)

**Format**

A time serie containing :

- lnit** log price index Italy
- lnfr** log price index France
- lnx** log exchange rate France/Italy
- cpit** consumer price index Italy
- cpifr** consumer price index France

**Source**

Datastream.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapters 8 and 9.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Pricing

*Returns of Size-based Portfolios*

---

**Description**

monthly observations from 1959–02 to 1993–11  
*number of observations* : 418

**Usage**

`data(Pricing)`

**Format**

A time serie containing :

- r1** monthly return on portfolio 1 (small firms)
- r2** monthly return on portfolio 2
- r3** monthly return on portfolio 3
- r4** monthly return on portfolio 4
- r5** monthly return on portfolio 5
- r6** monthly return on portfolio 6
- r7** monthly return on portfolio 7
- r8** monthly return on portfolio 8
- r9** monthly return on portfolio 9
- r10** monthly return on portfolio 10 (large firms)
- rf** risk free rate (return on 3-month T-bill)
- cons** real per capita consumption growth based on total US personal consumption expenditures (nondurables and services)

**Source**

Center for research in security prices.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 5.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

Produc

*Us States Production*

**Description**

a panel of 48 observations from 1970 to 1986

*number of observations* : 816

*observation* : regional

*country* : United States

**Usage**

data(Produc)

**Format**

A dataframe containing :

**state** the state

**year** the year

**pcap** private capital stock

**hwy** highway and streets

**water** water and sewer facilities

**util** other public buildings and structures

**pc** public capital

**gsp** gross state products

**emp** labor input measured by the employment in non-agricultural payrolls

**unemp** state unemployment rate

**Source**

Munnell, A. (1990) “Why has productivity growth declined? Productivity and public investment”, *New England Economic Review*, 3–22.

Baltagi, B. H. and N. Pinnoi (1995) “Public capital stock and state productivity growth: further evidence”, *Empirical Economics*, **20**, 351–359.

**References**

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

 PSID

---

*Panel Survey of Income Dynamics*


---

**Description**

a cross-section from 1993

*number of observations* : 4856

*observation* : individuals

*country* : United States

**Usage**

data(PSID)

**Format**

A dataframe containing :

**intnum** 1968 interview number

**persnum** person number

**age** age of individual

**educatn** highest grade completed

**earnings** total labor income

**hours** annual work hours

**kids** live births to this individual

**married** last known marital status (married, never married, windowed, divorced, separated, NA/DF, no histories)

**Source**

Panel Survey of Income Dynamics.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 295–300.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

 RetSchool

*Return to Schooling*


---

**Description**

a panel of 48 observations from 1970 to 1986

*number of observations* : 5225

*observation* : individuals

*country* : United States

**Usage**

data(RetSchool)

**Format**

A time serie containing :

**wage76** wage in 1876

**grade76** grade level in 1976

**exp76** experience 1n 1976

**black** black ?

**south76** lived in south in 1976 ?

**smsa76** lived in smsa in 1976 ?

**region** region, a factor with levels (un,midatl,enc,wnc,sa,esc,wsc,m,p)

**smsa66** lived in smsa in 1966 ?

**momdad14** lived with both parents at age 14 ?

**sinmom14** lived with mother only at age 14 ?

**nodaded** father has no formal education ?

**nomomed** mother has no formal education ?

**daded** mean grade level of father

**momed** mean grade level of mother  
**famed** father's and mother's education, a factor with 9 levels  
**age76** age in 1976  
**col4** is any 4-year college nearby ?

### Source

Kling, Jeffrey R. (2001) "Interpreting Instrumental Variables Estimates of the Return to Schooling", *Journal of Business and Economic Statistics*, **19(3)**, July, 358–364.  
 Dehejia, R.H. and S. Wahba (2002) "Propensity-score Matching Methods for Nonexperimental Causal Studies", *Restat*, 151–161.

### References

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Schooling

*Wages and Schooling*

---

### Description

a cross-section from 1976  
*number of observations* : 3010  
*observation* : individuals  
*country* : United States

### Usage

`data(Schooling)`

### Format

A dataframe containing :

**smsa66** lived in smsa in 1966 ?  
**smsa76** lived in smsa in 1976 ?  
**nearc2** grew up near 2-yr college ?  
**nearc4** grew up near 4-yr college ?  
**nearc4a** grew up near 4-year public college ?

**nearc4b** grew up near 4-year private college ?  
**ed76** education in 1976  
**ed66** education in 1966  
**age76** age in 1976  
**daded** dads education (imputed avg if missing)  
**nodaded** dads education imputed ?  
**momed** mothers education  
**nomomed** moms education imputed ?  
**momdad14** lived with mom and dad at age 14 ?  
**sinmom14** single mom at age 14 ?  
**step14** step parent at age 14 ?  
**south66** lived in south in 1966 ?  
**south76** lived in south in 1976 ?  
**lwage76** log wage in 1976 (outliers trimmed)  
**famed** mom-dad education class (1-9)  
**black** black ?  
**wage76** wage in 1976 (raw, cents per hour)  
**enroll76** enrolled in 1976 ?  
**kww** the kww score  
**iqscore** a normed IQ score  
**mar76** married in 1976 ?  
**libcrd14** library card in home at age 14 ?  
**exp76** experience in 1976

### Source

National Longitudinal Survey of Young Men (NLSYM) .

Card, D. (1995) *Using geographical variation in college proximity to estimate the return to schooling* in Christofides, L.N., E.K. Grant and R. Swidinsky (1995) *Aspects of labour market behaviour : essays in honour of John Vanderkamp*, University of Toronto Press, Toronto .

### References

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 5.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Solow

*Solow's Technological Change Data*

---

### Description

annual observations from 1909 to 1949

*number of observations* : 41

*observation* : country

*country* : United States

### Usage

`data(Solow)`

### Format

A time serie containing :

**q** output

**k** capital/labor ratio

**A** index of technology

### Source

Solow, R. (1957) "Technical change and the aggregate production function", *Review of Economics and Statistics*, **39**, 312-320.

### References

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F7.2.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)



---

Somerville

*Visits to Lake Somerville*

---

### Description

a cross-section from 1980  
*number of observations* : 659  
*observation* : individuals  
*country* : United States

### Usage

```
data(Somerville)
```

### Format

A dataframe containing :

**visits** annual number of visits to lake Somerville  
**quality** quality ranking score for lake Somerville  
**ski** engaged in water-skiing at the lake ?  
**income** annual household income  
**feeSom** annual user fee paid at lake Somerville ?  
**costCon** expenditures when visiting lake Conroe  
**costSom** expenditures when visiting lake Somerville  
**costHoust** expenditures when visiting lake Houston

### Source

Seller, Christine, John R. Stoll and Jean-Paul Chavas (1985) “Valuation of empirical measures of welfare change : a comparison of nonmarket techniques”, *Land Economics*, **61(2)**, may, 156–175.

Gurmu, Shiferaw and Pravin K. Trivedi (1996) “ Excess zeros in count models for recreational trips”, *Journal of Business and Economics Statistics*, **14(4)**, october, 469–477.

Santos Silva, Jao M. C. (2001) “A score test for non-nested hypotheses with applications to discrete data models”, *Journal of Applied Econometrics*, **16(5)**, 577–597.

### References

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>. Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>, chapter 6.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

SP500

*Returns on Standard & Poor's 500 Index*

---

**Description**

daily observations from 1981-01 to 1991-04

*number of observations : 2783*

**Usage**

```
data(SP500)
```

**Format**

A dataframe containing :

**r500** daily return S&P500 (change in log index)

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Star

*Effects on Learning of Small Class Sizes*

---

**Description**

a cross-section from 1985-89

*number of observations : 5748*

*observation : individuals*

*country : United States*

**Usage**

```
data(Star)
```

**Format**

A dataframe containing :

**tmathssk** total math scaled score

**treadssk** total reading scaled score

**classk** type of class, a factor with levels (regular,small.class,regular.with.aide)

**totexpk** years of total teaching experience

**sex** a factor with levels (boy,girl)

**freelunk** qualified for free lunch ?

**race** a factor with levels (white,black,other)

**schidkn** school indicator variable

**Source**

Project STAR:

[Description from 2001-06-02](#). [Description from 2011-06-18](#).

**References**

Stock, James H. and Mark W. Watson (2003) *Introduction to Econometrics*, Addison-Wesley Educational Publishers, chapter 11.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Strike

*Strike Duration Data*

---

**Description**

a cross-section from 1968 to 1976

*number of observations* : 62

*country* : United States

**Usage**

data(Strike)

**Format**

A dataframe containing :

**duration** strike duration in days

**prod** unanticipated output

**Source**

Kennan, J. (1985) “The duration of contract strikes in U.S. manufacturing”, *Journal of Econometrics*, **28**, 5-28.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F22.1.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

StrikeDur

*Strikes Duration*

---

**Description**

a cross-section from 1968 to 1976

*number of observations* : 566

*country* : United States

**Usage**

```
data(StrikeDur)
```

**Format**

A dataframe containing :

**dur** duration of the strike in days

**gdp** measure of stage of business cycle (deviation of monthly log industrial production in manufacturing from prediction from OLS on time, time-squared and monthly dummies)

**Source**

Kennan, J. (1985) “The Duration of Contract strikes in U.S. Manufacturing”, *Journal of Econometrics*, **28**, 5-28.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 574–582.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

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StrikeNb	<i>Number of Strikes in Us Manufacturing</i>
----------	--

---

**Description**

monthly observations from 1968(1) to 1976 (12)

*number of observations* : 108

*observation* : country

*country* : United States

**Usage**

data(StrikeNb)

**Format**

A time serie containing :

**strikes** number of strikes (number of contract strikes in U.S. manufacturing beginning each month)

**output** level of economic activity (measured as cyclical departure of aggregate production from its trend level)

**time** a time trend from 1 to 108

**Source**

Kennan, J. (1985) "The Duration of Contract strikes in U.S. Manufacturing", *Journal of Econometrics*, **28**, 5-28.

Cameron, A.C. and Trivedi P.K. (1990) "Regression Based Tests for Overdispersion in the Poisson Model", *Journal of Econometrics*, december, 347-364.

**References**

Cameron, A.C. and Trivedi P.K. (1998) *Regression analysis of count data*, Cambridge University Press, <http://cameron.econ.ucdavis.edu/racd/racddata.html>, chapter 7.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

SumHes

*The Penn Table*

---

### Description

a panel of 125 observations from 1960 to 1985

*number of observations* : 3250

*observation* : country

*country* : World

### Usage

```
data(SumHes)
```

### Format

A dataframe containing :

**year** the year

**country** the country name (factor)

**opec** OPEC member ?

**com** communist regime ?

**pop** country's population (in thousands)

**gdp** real GDP per capita (in 1985 US dollars)

**sr** saving rate (in percent)

### Source

Summers, R. and A. Heston (1991) "The Penn world table (mark 5): an expanded set of international comparisons, 1950-1988", *Quarterly Journal of Economics*, **29**, 229-256.

### References

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 5, 358-363.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

Tbrate	<i>Interest Rate, GDP and Inflation</i>
--------	---

---

**Description**

quarterly observations from 1950-1 to 1996-4

*number of observations* : 188

*observation* : country

*country* : Canada

**Usage**

```
data(Tbrate)
```

**Format**

A time serie containing :

**r** the 91-day treasury bill rate

**y** the log of real GDP

**pi** the inflation rate

**Source**

CANSIM database of Statistics Canada.

**References**

Davidson, R. and James G. MacKinnon (2004) *Econometric Theory and Methods*, New York, Oxford University Press, chapter 2.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

terrorism

*Global Terrorism Database yearly summaries***Description**

The **Global Terrorism Database (GTD)** "is a database of incidents of terrorism from 1970 onward". Through 2015, this database contains information on 141,966 incidents.

terrorism provides a few summary statistics along with an **ordered** factor methodology, which **Pape et al.** insisted is necessary, because an increase of over 70 percent in suicide terrorism between 2007 and 2013 is best explained by a methodology change in GTD that occurred on 2011-11-01; Pape's own **Suicide Attack Database** showed a 19 percent *decrease* over the same period.

**Usage**

```
data(terrorism)
data(incidents.byCountryYr)
data(nkill.byCountryYr)
```

**Format**

incidents.byCountryYr and nkill.byCountryYr are matrices giving the numbers of incidents and numbers of deaths by year and by location of the event for 206 countries (rows) and for all years between 1970 and 2016 (columns) except for 1993, for which the entries are all NA, because the raw data previously collected was lost (though the total for that year is available in the `data.frame` terrorism).

**NOTES:**

1. For nkill.byCountryYr and for terrorism[c('nkill', 'nkill.us')], NAs in GTD were treated as 0. Thus the actual number of deaths were likely higher, unless this was more than offset by incidents being classified as terrorism, when they should not have been.
2. incidents.byCountryYr and nkill.byCountryYr are NA for 1993, because the GTD data for that year were lost.

terrorism is a `data.frame` containing the following:

**year** integer year, 1970:2016.

**methodology** an **ordered** factor giving the methodology / organization responsible for the data collection for most of the given year. The Pinkerton Global Intelligence Service (PGIS) managed data collection from 1970-01-01 to 1997-12-31. The Center for Terrorism and Intelligence Studies (CETIS) managed the project from 1998-01-01 to 2008-03-31. The Institute for the Study of Violent Groups (ISVG) carried the project from 2008-04-01 to 2011-10-31. The National Consortium for the Study of Terrorism and Responses to Terrorism (START) has managed data collection since 2011-11-01. For this variable, partial years are ignored, so methodology = CEDIS for 1998:2007, ISVG for 2008:2011, and START for 2012:2014.

**method** a character vector consisting of the first character of the levels of methodology:

```
c('p', 'c', 'i', 's')
```



**incidents** integer number of incidents identified each year.

NOTE:  $\text{sum}(\text{terrorism}[[\text{"incidents"}]]) = 146920 = 141966$  in the GTD database plus 4954 for 1993, for which the incident-level data were lost.

**incidents.us** integer number of incidents identified each year with `country_txt = "United States"`.

**suicide** integer number of incidents classified as "suicide" by GTD variable `suicide = 1`. For 2007, this is 359, the number reported by Pape et al. For 2013, it is 624, which is 5 more than the 619 mentioned by Pape et al. Without checking with the SMART project administrators, one might suspect that 5 more suicide incidents from 2013 were found after the data Pape et al. analyzed but before the data used for this analysis.

**suicide.us** Number of suicide incidents by year with `country_txt = "United States"`.

**nkill** number of confirmed fatalities for incidents in the given year, including attackers =  $\text{sum}(\text{nkill}, \text{na.rm}=\text{TRUE})$  in the GTD incident data.

NOTE: `nkill` in the GTD incident data includes both perpetrators and victims when both are available. It includes one when only one is available and is NA when neither is available. However, in most cases, we might expect that the more spectacular and lethal incidents would likely be more accurately reported. To the extent that this is true, it means that when numbers are missing, they are usually zero or small. This further suggests that the summary numbers recorded here probably represent a slight but not substantive undercount.

**nkill.us** number of U.S. citizens who died as a result of incidents for that year =  $\text{sum}(\text{nkill.us}, \text{na.rm}=\text{TRUE})$  in the GTD incident data.

NOTES:

1. This is subject to the same likely modest undercount discussed with `nkill`.)
2. These are U.S. citizens killed regardless of location. This explains at least part of the discrepancies between `terrorism[, 'nkill.us']` and `nkill.byCountryYr['United States', ]`.

**nwound** number of people wounded. (This is subject to the same likely modest undercount discussed with `nkill`.)

**nwound.us** Number of U.S. citizens wounded in terrorist incidents for that year =  $\text{sum}(\text{nwound.us}, \text{na.rm}=\text{TRUE})$  in the GTD incident data. (This is subject to the same likely modest undercount discussed with `nkill`.)

**pNA.nkill, pNA.nkill.us, pNA.nwound, pNA.nwound.us** proportion of observations by year with missing values. These numbers are higher for the early data than more recent numbers. This is particularly true for `nkill.us` and `nwound.us`, which exceed 90 percent for most of the period with `methodology = 'PGIS'`, prior to 1998.

**worldPopulation, USpopulation** Estimated de facto population in thousands living in the world and in the US as of 1 July of the year indicated, according to the Population Division of the Department of Economic and Social Affairs of the United Nations; see "Sources" below.

**worldDeathRate, USdeathRate** Crude death rate (deaths per 1,000 population) worldwide and in the US, according to the World Bank; see "Sources" below. This World Bank data set includes `USdeathRate` for each year from 1900 to 2014.

The `WorldDeathRate` here were read manually from a plot on [that web page](#), except for the the number for 2015, which was estimated as a reduction of 0.73 percent from 2014, which was the average rate of decline (ratio of two successive years) for 1990 to 2014. The same method was used to estimate the `USdeathRate` for 2015 as the same as for 2014.

NOTE: `USdeathRate` is to two significant digits only, unlike `WorldDeathRate`, which has four significant digits.

**worldDeaths, USdeaths** number of deaths by year in the world and US

$\text{worldDeaths} = \text{worldPopulation} * \text{worldDeathRate}$ .

USdeaths were computed by summing across age groups in "Deaths\_5x1.txt" for the United States, downloaded from <http://www.mortality.org/cgi-bin/hmd/country.php?cntr=USA&level=1> from the Human Mortality Database; see sources below.

**kill.pmp, kill.pmp.us** terrorism deaths per million population worldwide and in the US =

$0.001 * \text{nkill} / \text{worldPopulation}$

**pkill, pkill.us** terrorism deaths as a proportion of total deaths worldwide and in the US

$\text{pkill} = \text{nkill} / \text{worldDeaths}$

$\text{pkill.us} = \text{nkill.us} / \text{USdeaths}$

### Details

As noted with the "description" above, Pape et al. noted that the GTD reported an increase in suicide terrorism of over 70 percent between 2007 and 2013, while their [Suicide Attack Database](#) showed a 19 percent *decrease* over the same period. Pape et al. insisted that the most likely explanation for this difference is the change in the organization responsible for managing that data collection from ISVG to START.

If the issue is restricted to how incidents are classified as "suicide terrorism", this concern does not affect the other variables in this summary.

However, if it also impacts what incidents are classified as "terrorism", it suggests larger problems.

### Author(s)

Spencer Graves

### Source

National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2017). Global Terrorism Database [Data file]. Retrieved from <http://www.start.umd.edu/gtd> [accessed 2018-04-08].

See also the [Global Terrorism Database](#) maintained by the National Consortium for the Study of Terrorism and Responses to Terrorism (START, 2015), <http://www.start.umd.edu/gtd>.

The world and US population figures came from "Total Population - Both Sexes", [World Population Prospects 2015](#), published by the Population Division of the Department of Economic and Social Affairs of the United Nations, accessed 2016-09-05.

The World and US death rates came from [the World Bank](#), accessed 2016-09-05.

[Human Mortality Database](#). University of California, Berkeley (USA), and Max Planck Institute for Demographic Research (Germany).

### References

Robert Pape, Keven Ruby, Vincent Bauer and Gentry Jenkins, "How to fix the flaws in the Global Terrorism Database and why it matters", *The Washington Post*, August 11, 2014 (accessed 2016-01-09).

**Examples**

```

data(terrorism)
##
## plot deaths per million population
##
plot(kill.pmp~year, terrorism,
     pch=method, type='b')
plot(kill.pmp.us~year, terrorism,
     pch=method, type='b',
     log='y', las=1)

# terrorism as parts per 10,000
# of all deaths

plot(pkill*1e4~year, terrorism,
     pch=method, type='b',
     las=1)
plot(pkill.us*1e4~year, terrorism,
     pch=method, type='b',
     log='y', las=1)

# plot number of incidents, number killed,
# and proportion NA

plot(incidents~year, terrorism, type='b',
     pch=method)

plot(nkill.us~year, terrorism, type='b',
     pch=method)
plot(nkill.us~year, terrorism, type='b',
     pch=method, log='y')

plot(pNA.nkill.us~year, terrorism, type='b',
     pch=method)
abline(v=1997.5, lty='dotted', col='red')

##
## by country by year
##
data(incidents.byCountryYr)
data(nkill.byCountryYr)

yr <- as.integer(colnames(
  incidents.byCountryYr))
str(maxDeaths <- apply(nkill.byCountryYr,
  1, max) )
str(omax <- order(maxDeaths, decreasing=TRUE))
head(maxDeaths[omax], 8)
tolower(substring(
  names(maxDeaths[omax[1:8]]), 1, 2))
pch. <- c('i', 'g', 'f', 'l',
          's', 'c', 'u', 'p')

```

```

cols <- 1:4

matplot(yr, sqrt(t(
  nkill.byCountryYr[omax[1:8], ])),
  type='b', pch=pch., axes=FALSE,
  ylab='(square root scale) ', xlab='',
  col=cols,
  main='number of terrorism deaths\nby country')
axis(1)
(max.nk <- max(nkill.byCountryYr[omax[1:8], ]))
i.nk <- c(1, 100, 1000, 3000,
         5000, 7000, 10000)
cbind(i.nk, sqrt(i.nk))
axis(2, sqrt(i.nk), i.nk, las=1)
ip <- paste(pch., names(maxDeaths[omax[1:8]]))
legend('topleft', ip, cex=.55,
       col=cols, text.col=cols)

```

---

Tobacco

*Households Tobacco Budget Share*


---

### Description

a cross-section from 1995-96  
*number of observations* : 2724  
*observation* : individuals  
*country* : Belgium

### Usage

data(Tobacco)

### Format

A dataframe containing :

**occupation** a factor with levels (bluecol,whitecol,inactself), the last level being inactive and self-employed  
**region** a factor with levels (flanders,wallon,brussels)  
**nkids** number of kids of more than two years old  
**nkids2** number of kids of less than two years old  
**nadults** number of adults in household  
**lnx** log of total expenditures  
**stobacco** budgetshare of tobacco  
**salcohol** budgetshare of alcohol  
**age** age in brackets (0-4)

**Source**

National Institute of Statistics (NIS), Belgium.

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons, chapter 7.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

 Train

*Stated Preferences for Train Traveling*


---

**Description**

a cross-section from 1987

*number of observations* : 2929

*observation* : individuals

*country* : Netherland

**Usage**

`data(Train)`

**Format**

A dataframe containing :

**id** individual identifier

**choiceid** choice identifier

**choice** one of choice1, choice2

**pricez** price of proposition z (z=1,2) in cents of guilders

**timez** travel time of proposition z (z=1,2) in minutes

**comfortz** comfort of proposition z (z=1,2), 0, 1 or 2 in decreasing comfort order

**changez** number of changes for proposition z (z=1,2)

**Source**

Meijer, Erik and Jan Rouwendal (2005) “Measuring welfare effects in models with random coefficients”, *Journal of Applied Econometrics*, **forthcoming**.

Ben-Akiva, M., D. Bolduc and M. Bradley (1993) “Estimation of travel choice models with randomly distributed values of time”, *Transportation Research Record*, **1413**, 88–97.

Carson, R.T., L. Wilks and D. Imber (1994) “Valuing the preservation of Australia’s Kakadu conservation zone”, *Oxford Economic Papers*, **46**, 727–749.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

TranspEq

*Statewide Data on Transportation Equipment Manufacturing*

---

**Description**

a cross-section

*number of observations* : 25

*observation* : regional

*country* : United States

**Usage**

data(TranspEq)

**Format**

A dataframe containing :

**state** state name

**va** output

**capital** capital input

**labor** labor input

**nfirm** number of firms

**Source**

Zellner, A. and N. Revankar (1970) "Generalized production functions", *Review of Economic Studies*, **37**, 241-250.

**References**

Greene, W.H. (2003) *Econometric Analysis*, Prentice Hall, <http://www.prenhall.com/greene/greene1.html>, Table F9.2.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Treatment

*Evaluating Treatment Effect of Training on Earnings*

---

### Description

a cross-section from 1974  
*number of observations* : 2675  
*country* : United States

### Usage

`data(Treatment)`

### Format

A dataframe containing :

**treat** treated ?  
**age** age  
**educ** education in years  
**ethn** a factor with levels ("other", "black", "hispanic")  
**married** married ?  
**re74** real annual earnings in 1974 (pre-treatment)  
**re75** real annual earnings in 1975 (pre-treatment)  
**re78** real annual earnings in 1978 (post-treatment)  
**u74** unemployed in 1974 ?  
**u75** unemployed in 1975 ?

### Source

Lalonde, R. (1986) "Evaluating the Econometric Evaluations of Training Programs with Experimental Data", *American Economic Review*, 604–620.  
Dehejia, R.H. and S. Wahba (1999) "Causal Effects in Nonexperimental Studies: reevaluating the Evaluation of Training Programs", *Jasa*, 1053–1062.  
Dehejia, R.H. and S. Wahba (2002) "Propensity-score Matching Methods for Nonexperimental Causal Studies", *Restat*, 151–161.

### References

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 889–95.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Tuna

*Choice of Brand for Tuna*

---

### Description

a cross-section

*number of observations* : 13705

*observation* : individuals

*country* : United States

### Usage

```
data(Tuna)
```

### Format

A dataframe containing :

**hid** individuals identifiers

**id** purchase identifiers

**choice** one of skw (Starkist water), cosw (Chicken of the sea water), pw (store-specific private label water), sko (Starkist oil), coso (Chicken of the sea oil)

**price.z** price of brand z

### Source

Kim, Byong-Do, Robert C. Blattberg and Peter E. Rossi (1995) "Modeling the distribution of price sensitivity and implications for optimal retail pricing", *Journal of Business Economics and Statistics*, **13**(3), 291.

### References

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)



---

UnempDur                      *Unemployment Duration*

---

**Description**

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>

*number of observations* : 3343

**Usage**

```
data(UnempDur)
```

**Format**

A time serie containing :

**spell** length of spell in number of two-week intervals

**sensor1** = 1 if re-employed at full-time job

**sensor2** = 1 if re-employed at part-time job

**sensor3** 1 if re-employed but left job: pt-ft status unknown

**sensor4** 1 if still jobless

**age** age

**ui** = 1 if filed UI claim

**reprate** eligible replacement rate

**disrate** eligible disregard rate

**logwage** log weekly earnings in lost job (1985\\$\)

**tenure** years tenure in lost job

**Source**

McCall, B.P. (1996) "Unemployment Insurance Rules, Joblessness, and Part-time Work", *Econometrica*, **64**, 647–682.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp. 603–8, 632–6, 658–62, 671–4 and 692.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

 Unemployment

*Unemployment Duration*


---

**Description**

a cross-section from 1993

*number of observations* : 452

*observation* : individuals

*country* : United States

**Usage**

`data(Unemployment)`

**Format**

A dataframe containing :

**duration** duration of first spell of unemployment, t, in weeks

**spell** 1 if spell is complete

**race** one of nonwhite, white

**sex** one of male, female

**reason** reason for unemployment, one of new (new entrant), lose (job loser), leave (job leaver), reentr (labor force reentrant)

**search** 'yes' if (1) the unemployment spell is completed between the first and second surveys and number of methods used to search > average number of methods used across all records in the sample, or, (2) for individuals who remain unemployed for consecutive surveys, if the number of methods used is strictly nondecreasing at all survey points, and is strictly increasing at least at one survey point

**pubemp** 'yes' if an individual used a public employment agency to search for work at any survey points relating to the individuals first unemployment spell

**ftp1** 1 if an individual is searching for full time work at survey 1

**ftp2** 1 if an individual is searching for full time work at survey 2

**ftp3** 1 if an individual is searching for full time work at survey 3

**ftp4** 1 if an individual is searching for full time work at survey 4

**nobs** number of observations on the first spell of unemployment for the record

**Source**

Romeo, Charles J. (1999) "Conducting inference in semiparametric duration models under inequality restrictions on the shape of the hazard implied by the job search theory", *Journal of Applied Econometrics*, **14**(6), 587–605.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

University

*Provision of University Teaching and Research*

---

**Description**

a cross-section from 1988  
*number of observations* : 62  
*observation* : schools  
*country* : United Kingdom

**Usage**

data(University)

**Format**

A dataframe containing :

**undstudents** undergraduate students  
**poststudents** postgraduate students  
**nassets** net assets  
**acnumbers** academic numbers  
**acrelnum** academic related numbers  
**clernum** clerical numbers  
**compop** computer operators  
**techn** technicians  
**stfees** student fees  
**acpay** academic pay  
**acrelpay** academic related pay  
**secrpay** secretarial pay  
**admpay** admin pay  
**agresrk** aggregate research rank  
**furneq** furniture and equipment  
**landbuild** land and buildings  
**resgr** research grants

**Source**

Glass, J.C., D.G. McKillop and N. Hyndman (1995) "Efficiency in the provision of university teaching and research : an empirical analysis of UK universities", *Journal of Applied Econometrics*, **10(1)**, january–march, 61–72.

**References**

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

USClassifiedDocuments *Official Secrecy of the United States Government*

---

**Description**

Data on classification activity of the United States government.

Fitzpatrick (2013) notes that the dramatic jump in derivative classification activity (`DerivClassActivity`) that occurred in 2009 coincided with "New guidance issued to include electronic environment". Apart from the jump in 2009, the `DerivClassActivity` tended to increase by roughly 12 percent per year (with a standard deviation of the increase in the natural logarithm of `DerivClassActivity` of 0.18).

**Usage**

```
data(USClassifiedDocuments)
```

**Format**

A dataframe containing :

**year** the calendar year

**OCAuthority** Number of people in the government designated as Original Classification Authorities for the indicated year.

**OCActivity** Original classification activity for the indicated year: These are the number of documents created with an original classification, i.e., so designated by an official Original Classification Authority.

**TenYearDeclass** Percent of `OCActivity` covered by the 10 year declassification rules.

**DerivClassActivity** Derivative classification activity for the indicated year: These are the number of documents created that claim another document as the authority for classification.

**Details**

The lag 1 autocorrelation of the first difference of the logarithms of `DerivClassActivity` through 2008 is  $-0.52$ . However, because there are only 13 numbers (12 differences), this negative correlation is not statistically significant.

**Source**

Fitzpatrick, John P. (2013) *Annual Report to the President for 2012*, United States Information Security Oversight Office, National Archives and Record Administration, June 20, 2013 (<https://www.archives.gov/isoo/reports>)

**Examples**

```
##
## 1. plot DerivClassActivity
##
plot(DerivClassActivity~year, USClassifiedDocuments)
# Exponential growth?

plot(DerivClassActivity~year, USClassifiedDocuments,
      log='y')
# A jump in 2009 as discussed by Fitzpatrick (2013).
# Otherwise plausibly a straight line.

##
## 2. First difference?
##
plot(diff(log(DerivClassActivity))~year[-1],
      USClassifiedDocuments)
# Jump in 2009 but otherwise on distribution

##
## 3. autocorrelation?
##
sel <- with(USClassifiedDocuments,
            (1995 < year) & (year < 2009) )
acf(diff(log(USClassifiedDocuments$
          DerivClassActivity[sel])))
# lag 1 autocorrelation = (-0.52).
# However, with only 12 numbers,
# this is not statistically significant.
```

---

USFinanceIndustry

*US Finance Industry Profits*


---

**Description**

A data frame giving the profits of the finance industry in the United States as a proportion of total corporate domestic profits.

**Usage**

```
data(USFinanceIndustry)
```

**Format**

A data.frame with the following columns:

**year** integer year starting with 1929

**CorporateProfitsAdj** Corporate profits with inventory valuation and capital consumption adjustments in billions of current (not adjusted for inflation) US dollars

**Domestic** Domestic industries profits in billions

**Financial** Financial industries profits in billions

**Nonfinancial** Nonfinancial industries profits in billions

**restOfWorld** Profits of the "Rest of the world" in their contribution to US Gross Domestic Product in billions

**FinanceProportion** = Financial/Domestic

**Details**

This is extracted from Table 6.16 of the National Income and Product Accounts (NIPA) compiled by the Bureau of Economic Analysis of the United States federal government. This table comes in four parts, A (1929-1947), B (1948-1987), C (1987-2000), and D (1998-present). Parts A, B, C and D contain different numbers of data elements, but the first five have the same names and are the only ones used here. The overlap between parts C and D (1998-2000) have a root mean square relative difference of 0.7 percent; there were no differences between the numbers in the overlap period between parts B and C (1987).

This was created using the following command:

```
demoDir <- system.file('demoFiles', package='Ecdat') demoCsv <- dir(demoDir, pattern='csv$', full.names=TRUE)
```

```
nipa6.16 <- readNIPA(demoCsv) USFinanceIndustry <- as.data.frame(nipa6.16) names(USFinanceIndustry) <- c('year', 'CorporateProfitsAdj', 'Domestic', 'Financial', 'Nonfinancial', 'restOfWorld') USFinanceIndustry$FinanceProportion <- with(USFinanceIndustry, Financial/Domestic)
```

**Source**

<http://www.bea.gov>: Under "U.S. Economic Accounts", first select "Corporate Profits" under "National". Then next to "Interactive Tables", select, "National Income and Product Accounts Tables". From there, select "Begin using the data...". Under "Section 6 - income and employment by industry", select each of the tables starting "Table 6.16". As of February 2013, there were 4 such tables available: Table 6.16A, 6.16B, 6.16C and 6.16D. Each of the last three are available in annual and quarterly summaries. The USFinanceIndustry data combined the first 4 rows of the 4 annual summary tables.

**See Also**

[readNIPA](#)

**Examples**

```

data(USFinanceIndustry)
plot(FinanceProportion~year, USFinanceIndustry, type='b',
      ylim=c(0, max(FinanceProportion, na.rm=TRUE)),
      xlab='', ylab='', las=1, cex.axis=2, bty='n', lwd=2,
      col='blue')

# Write to a file for Wikimedia Commons
## Not run:
svg('USFinanceIndustry.svg')
plot(FinanceProportion~year, USFinanceIndustry, type='b',
      ylim=c(0, max(FinanceProportion, na.rm=TRUE)),
      xlab='', ylab='', las=1, cex.axis=2, bty='n', lwd=2,
      col='blue')
dev.off()

## End(Not run)

```

---

USGDPpresidents

*US GDP per capita with presidents and wars*


---

**Description**

It is commonly claimed that Franklin Roosevelt (FDR) did not end the Great Depression: World War II (WW2) did. This is supported by the 10.6 percent growth per year in real Gross Domestic Product (GDP) per capita seen in the standard GDP estimates from 1940 to 1945. It is also supported by the rapid decline in unemployment during the war.

However, no comparable growth spurts in GDP per capita catch the eye in a plot of log(GDP per capita) from 1790 to 2015, whether associated with a war or not, using the [Measuring Worth](#) data. The only other features of that plot that seem visually comparable are the economic disaster of Herbert Hoover's presidency (when GDP per capital fell by 10 percent per year, 1929-1932), the impressive growth of the US economy during the first seven years of Franklin Roosevelt's presidency (6.4 percent per year, 1933-1940), and the post-World War II recession (when GDP per capita fell by 7.9 percent per year, 1945-1947).

Closer inspection of this plot suggests that the US economy has generally grown faster after FDR than before. This might plausibly be attributed to "[The Keynesian Ascendancy 1939-1979](#)".

Unemployment dropped during the First World War as it did during WW2. Comparable unemployment data are not available for the U.S. during other major wars, most notably the [American Civil War](#) and the [Mexican-American War](#).

This data set provides a platform for testing the effects of presidency, war, and Keynes. It does this by combining the numbers for US population and real GDP per capital dollars from [Measuring Worth](#) with the presidency and a list of major wars and an estimate of the battle deaths by year per million population. [US unemployment is also considered](#).

**Usage**

```
data(USGDPpresidents)
```

**Format**

A [data.frame](#) containing 259 observations on the following variables:

**Year** integer: the year, `c(seq(1610, 1770, 10), 1774:2015)`

**CPI** Numeric: U. S. Consumer Price Index per Officer and Williamson (2015). Average 1982-84 = 100.

**GDPdeflator** numeric: Implicit price deflators for Gross Domestic Product with 2012s = 100 per Johnston and Williamson.

**population.K** integer: US population in thousands.

Population figures for 1610 to 1780 came from Springston (2013). The rest came from Johnston and Williamson. (The early population figures reflect only the European settlers in the British colonies that eventually became the US.)

**realGDPperCapita** numeric: real Gross Domestic Product per capita in 2012 dollars

**executive** [ordered](#): Crown of England through 1774, followed by the "ContinentalCongress" and the "ArticlesOfConfederation" until Washington, who became President under the current base constitution in 1789. Two nineteenth century presidents are not listed here (William Henry Harrison and James A. Garfield), because they died so soon after inauguration that any contribution they made to the economic growth of the nation might seem too slight to measure accurately in annual data like this; their contributions therefore appear combined with their replacements (John Tyler and Chester A. Arthur, respectively). The service of two other presidents is officially combined here: "Taylor-Fillmore" refers to the 16 months served by Zachary Taylor with the 32 months of Millard Fillmore. These modifications make [Barack Obama](#) number 41 on this list, even though he's the 44th president of the U.S.

**war** [ordered](#): This lists the major wars in US history by years involving active hostilities. A war is "major" for present purposes if it met two criteria:

(1) It averaged at least 10 battle deaths per year per million US population.

(2) It was listed in one of two lists of wars: For wars since 1816, it must have appeared in the [Correlates of War](#). For wars between 1790 and 1815, it must have appeared in the Wikipedia ["List of wars involving the United States"](#).

The resulting list includes a few adjustments to the list of wars that might come readily to mind for people moderately familiar with US history.

A traditional list might start with the American Revolution, the War of 1812, the Mexican-American war, the Civil War, the Spanish-American war, World Wars I and II, Korea, and Vietnam. In addition, the [Northwest Indian War](#) involved very roughly 30 battle deaths per year per million population 1785-1795. This compares with the roughly 100 battle deaths per year 1812-1815 for the [War of 1812](#).

For present purposes, the Spanish-American War is combined with the lesser-known American-Philippine War: The latter involved 50 percent more battle deaths but over a longer period of time and arguably with less impact on the stature of the US as a growing world power. However, its magnitude suggest it might have impacted the US economy in a way roughly comparable to the Spanish-American war. The two are therefore listed here together as "Spanish-American-Philippine" war.

[The Correlates of War \(COW\)](#) data include multiple US uses of military force during the Vietnam War era. It starts with "Vietnam Phase 1", 1961-65, with 506 battle deaths in the COW data base. It includes the "Second Laotian" war phases 1 and 2, plus engagement with



a "Communist Coalition" and Kmer Rouge as well as actions in the Dominican Republic and Guatemala. The current [data.frame](#) includes only "Vietnam", referring primarily to COW's "Vietnam War, Phase 2", 1965-1973. The associated battle deaths include battle deaths from these other, lesser concurrent conflicts.

The COW data currently ends in 2007. However, the post-2000 conflicts in Afghanistan and Iraq averaged less than 1,000 battle deaths per year or roughly 3 battle deaths per year per million population. This is below the threshold of 10 battle deaths per year per million population. This in turn suggests that any impact of those conflicts on the US economy might be small and difficult to estimate.

**battleDeaths** numeric: Numbers of battle deaths by year estimated by allocating to the different years the totals reported for each major war in proportion to the number of days officially in conflict each year. The totals were obtained (in August-September 2015) from [The Correlates of War](#) data for conflicts since 1816 and from Wikipedia for previous wars, as noted above.

**battleDeathsPMP** numeric: battle deaths per million population =  $1000 * \text{battleDeaths} / \text{population.K}$ .

**Keynes** integer taking the value 1 between 1939 and 1979 and 0 otherwise, as suggested by the section entitled "The Keynesian Ascendancy 1939-1979" in the Wikipedia article on [John Maynard Keynes](#).

**unemployment** Estimated US unemployment rate

**unempSource** [ordered](#) giving the source for US unemployment:

**1800-1889** Lebergott

**1890-1929** Romer

**1930-1939** Coen

**1940-present** BLS

Clearly, the more recent numbers should be more accurate.

## Details

`rownames(USGDPpresidents) = Year`

## Author(s)

Spencer Graves

## Source

Louis Johnston and Samuel H. Williamson, "What Was the U.S. GDP Then?", [Measuring Worth](#), accessed 2015-09-08.

Lawrence H. Officer and Samuel H. Williamson (2015) 'The Annual Consumer Price Index for the United States, 1774-2014,' [MeasuringWorth](#), accessed 2015-09-19.

Sarkees, Meredith Reid; Wayman, Frank (2010). "The Correlates of War Project: COW War Data, 1816 - 2007 (v4.0)", accessed 2015-09-02.

Wikipedia, "[List of wars involving the United States](#)", accessed 2015-09-13.

Wikipedia, "[Unemployment in the United States](#)". See also [https://en.wikipedia.org/wiki/User\\_talk:Peace01234#Unemployment\\_Data](https://en.wikipedia.org/wiki/User_talk:Peace01234#Unemployment_Data). Accessed 2016-07-08.

Stanley Lebergott (1964). Manpower in Economic Growth: The American Record since 1800. Pages 164-190. New York: McGraw-Hill. Cited from [Wikipedia, "Unemployment in the United States"](#), accessed 2016-07-08.

Christina Romer (1986). "Spurious Volatility in Historical Unemployment Data", The Journal of Political Economy, 94(1): 1-37.

Robert M. Coen (1973) Labor Force and Unemployment in the 1920's and 1930's: A Re-Examination Based on Postwar Experience", The Review of Economics and Statistics, 55(1): 46-55.

The unemployment data since 1940 are from series LNS14000000 from the Current Population Survey. These data are available as a monthly series from the [Current Population Survey of the Bureau of Labor Statistics](<https://www.bls.gov/cps/>).

[Chuck Springston, "Population of the 13 Colonies 1610-1790", October 28, 2013](#)

## Examples

```
##
## GDP, Presidents and Wars
##
data(USGDPpresidents)
(wars <- levels(USGDPpresidents$war))
nWars <- length(wars)
plot(realGDPperCapita/1000~Year,
     USGDPpresidents, log='y', type='l',
     ylab='average annual income (K$)',
     las=1)
abline(v=c(1929, 1933, 1945), lty='dashed')
text(1930, 2.5, "Hoover", srt=90, cex=0.9)
text(1939.5, 30, 'FDR', srt=90, cex=1.1, col='blue')

# label wars
(logGDPrange <- log(range(USGDPpresidents$realGDPperCapita,
                        na.rm=TRUE)/1000))
(yrRange <- range(USGDPpresidents$Year))
(yrMid <- mean(yrRange))
for(i in 2:nWars){
  w <- wars[i]
  sel <- (USGDPpresidents$war==w)
  yrs <- range(USGDPpresidents$Year[sel])
  abline(v=yrs, lty='dotted', col='grey')
  yr. <- mean(yrs)
  w.adj <- (0.5 - 0.6*(yr.-yrMid)/diff(yrRange))
  logy <- (logGDPrange[1]+w.adj*diff(logGDPrange))
  y. <- exp(logy)
  text(yr., y., w, srt=90, col='red', cex=0.5)
}

##
## CPI v. GDPdeflator
##
plot(GDPdeflator~CPI, USGDPpresidents, type='l',
     log='xy')
```

```
##  
## Unemployment  
##  
plot(unemployment~Year, USGDPpresidents, type='l')
```

---

USstateAbbreviations *Standard abbreviations for states of the United States*

---

### Description

The object returned by `readUSstateAbbreviations()` on May 20, 2013.

### Usage

```
data(USstateAbbreviations)
```

### Format

A data.frame containing 10 different character vectors of names or codes for 76 different political entities including the United States, the 50 states within the US, plus the District of Columbia, US territories and other political designation, some of which are obsolete but are included for historical reference.

**Name** The standard name of the entity.

**Status** description of status, e.g., state / commonwealth vs. island, territory, military mail code, etc.

**ISO, ANSI.letters, ANSI.digits, USPS, USCG, Old.GPO, AP, Other** Alternative abbreviations used per different standards. The most commonly used among these may be the 2-letter codes officially used by the US Postal Service (USPS).

### Details

This was read from [the Wikipedia article on "List of U.S. state abbreviations"](#)

### Source

[the Wikipedia article on "List of U.S. state abbreviations"](#)

### See Also

[readUSstateAbbreviations](#) [showNonASCII](#) [grepNonStandardCharacters](#) [subNonStandardCharacters](#)

**Examples**

```
##
## to use
##
data(USstateAbbreviations)

##
## to update
##
## Not run:
USstateAbb2 <- readUSstateAbbreviations()

## End(Not run)
```

---

UStaxWords

*Number of Words in US Tax Law*


---

**Description**

Thousands of words in US tax law for 1995 to 2015 in 10 year intervals. This includes income taxes and all taxes in the code itself (written by congress) and regulations (written by government administrators). For 2015 only "EntireTaxCodeAndRegs" is given; for other years, this number is broken down by income tax vs. other taxes and code vs. regulations.

**Usage**

```
data(UStaxWords)
```

**Format**

A data.frame containing:

**year** tax year

**IncomeTaxCode** number of words in thousands in the US income tax code

**otherTaxCode** number of words in thousands in US tax code other than income tax

**EntireTaxCode** number of words in thousands in the US tax code

**IncomeTaxRegulations** number of words in thousands in US income tax regulations

**otherTaxRegulations** number of words in thousands in US tax regulations other than income tax

**IncomeTaxCodeAndRegs** number of words in thousands in both the code and regulations for the US income tax

**otherTaxCodeAndRegs** number of wrds in thousands in both code and regulations for US taxes apart from income taxes.

**EntireTaxCodeAndRegs** number of words in thousands in US tax code and regulations

## Details

Thousands of words in the US tax code and federal tax regulations, 1955-2015. This is based on data from the Tax Foundation (taxfoundation.org), adjusted to eliminate an obvious questionable observation in otherTaxRegulations for 1965. The numbers of words in otherTaxRegulations was not reported directly by the Tax Foundation but is easily computed as the difference between their Income and Entire tax numbers. This series shows the numbers falling by 48 percent between 1965 and 1975 and by 1.5 percent between 1995 and 2005. These are the only declines seen in these numbers and seem inconsistent with the common concern (expressed e.g., in Moody, Warcholik and Hodge, 2005) about the difficulties of simplifying any governmental program, because vested interest appear to defend almost anything. Lessig (2011) notes that virtually all provisions of US law that favor certain segments of society are set to expire after a modest number of years. These sunset provisions provide recurring opportunities for incumbent politicians to extort campaign contributions from those same segments to ensure the continuation of the favorable treatment.

The decline of 48 percent in otherTaxRegulations seems more curious for two additional reasons: First, it was preceded by a tripling of otherTaxRegulations between 1955 and 1965. Second, it was NOT accompanied by any comparable behavior of otherTaxCode. Instead, the latter grew each decade by between 17 and 53 percent, similar to but slower than the growth in IncomeTaxCode and IncomeTaxRegulations.

Accordingly, otherTaxRegulations for 1965 is replaced by the average of the numbers for 1955 and 1975, and EntireTaxRegulations for 1965 is comparably adjusted. This replaces (1322, 2960) for those two variables for 1965 with (565, 2203). In addition, otherTaxCodeAndRegs and EntireTaxCodeAndRegulations are also changed from (1626, 3507) to (870, 2751).

Independent of whether this adjustment is correct or not, it's clear that there have been roughly 3 words of regulations for each word in the tax code. Most of these are income tax regulations, which have recently contained 4.5 words for every word in code. The income tax code currently includes roughly 50 percent more words than other tax code.

## Author(s)

Spencer Graves

## Source

[Tax Foundation: Number of Words in Internal Revenue Code and Federal Tax Regulations, 1955-2005](#) Scott Greenberg, "Federal Tax Laws and Regulations are Now Over 10 Million Words Long", October 08, 2015

## References

J. Scott Moody, Wendy P. Warcholik, and Scott A. Hodge (2005) "The Rising Cost of Complying with the Federal Income Tax", The Tax Foundation Special Report No. 138.

## Examples

```
data(UStaxWords)
plot(EntireTaxCodeAndRegs/1000 ~ year, UStaxWords,
     type='b',
     ylab='Millions of words in US tax code & regs')
```

```

# Write to a file for Wikimedia Commons
## Not run:
svg('UStaxWords.svg')

## End(Not run)
matplot(UStaxWords$year, UStaxWords[c(2:3, 5:6)]/1000,
        type='b', bty='n', ylab='',
        ylim=c(0, max(UStaxWords$EntireTaxCodeAndRegs)/1000),
        las=1, xlab="", cex.axis=2)
lines(EntireTaxCodeAndRegs/1000~year, UStaxWords, lwd=2)
## Not run:
dev.off()

## End(Not run)
# lines 1:4 = IncomeTaxCode, otherTaxCode,
# IncomeTaxRegulations,
# and otherTaxRegulations, respectively

##
## Plotting the original numbers
## without the adjustment
##
UStax. <- UStaxWords
UStax.[2,c(6:7, 9:10)] <- c(1322, 2960, 1626, 3507)
matplot(UStax.$year, UStax.[c(2:3, 5:6)]/1000,
        type='b', bty='n', ylab='',
        ylim=c(0, max(
            UStax.$EntireTaxCodeAndRegs)/1000),
        las=1, xlab="", cex.axis=2)
lines(EntireTaxCodeAndRegs/1000~year, UStax.,
      lwd=2)
# Note especially the anomalous behaviour of
# line 4 = otherTaxRegulations. As noted with
# "details" above, otherTaxRegulations could have
# tripled between 1955 and 1965, then fallen by 48
# percent between 1965 and 1975. However, that
# does not seem credible, especially since there
# was no corresponding behavior in otherTaxCode.

##
## linear trend
##
(newWdsPerYr <- lm(EntireTaxCodeAndRegs~year,
                  UStaxWords))
plot(UStaxWords$year, resid(newWdsPerYr))
# Roughly 150,000 additional words added each year
# since 1955.
# No indication of nonlinearity.
# adusted R-squared exceeds 99 percent.

##
## linear trend with increased slope

```

```

## during the Reagan years
##
# linear spline with knots at
# 1981 and 1989
Reagan <- pmax(0, pmin(
  (UStaxWords$year-1981)/8, 1))
plot(Reagan~year, UStaxWords, type='b')
UStaxWords$Reagan <- Reagan

ReaganMdl <-
  EntireTaxCodeAndRegs~year + Reagan
fitReagan <- lm(ReaganMdl, UStaxWords )
summary(fitReagan)

```

---

 VietNamH

*Medical Expenses in Viet-nam (household Level)*


---

### Description

a cross-section from 1997  
*number of observations* : 5999  
*observation* : households  
*country* : Vietnam

### Usage

data(VietNamH)

### Format

A dataframe containing :

**sex** gender of household head (male,female)  
**age** age of household head  
**educyr** schooling year of household head  
**farm** farm household ?  
**urban** urban household ?  
**hhsiz** household size  
**Intotal** log household total expenditure  
**Inmed** log household medical expenditure  
**Inrlfood** log household food expenditure  
**Inexp12m** log of total household health care expenditure for 12 months  
**commune** commune

**Source**

Vietnam World Bank Livings Standards Survey.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp.88–90.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

VietNamI

*Medical Expenses in Viet–nam (individual Level)*

---

**Description**

a cross-section from 1997

*number of observations* : 27765

*observation* : individuals

*country* : Vietnam

**Usage**

`data(VietNamI)`

**Format**

A dataframe containing :

**pharvis** number of direct pharmacy visits

**lnhhexp** log of total medical expenditure

**age** age of household head

**sex** gender (male,female)

**married** married ?

**educ** completed diploma level ?

**illness** number of of illnesses experiences in past 12 months

**injury** injured during survey period ?

**illdays** number of illness days

**actdays** number of days of limited activity

**insurance** respondent has health insurance coverage ?

**commune** commune



**Source**

Vietnam World Bank Livings Standards Survey.

**References**

Cameron, A.C. and P.K. Trivedi (2005) *Microeconometrics : methods and applications*, Cambridge, pp.848–853.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Wages

*Panel Datas of Individual Wages*

---

**Description**

a panel of 595 observations from 1976 to 1982

*number of observations* : 4165

*observation* : individuals

*country* : United States

**Usage**

data(Wages)

**Format**

A dataframe containing :

**exp** years of full-time work experience

**wks** weeks worked

**bluecol** blue collar ?

**ind** works in a manufacturing industry ?

**south** resides in the south ?

**smsa** resides in a standard metropolitan statistical are ?

**married** married ?

**sex** a factor with levels (male,female)

**union** individual's wage set by a union contract ?

**ed** years of education

**black** is the individual black ?

**lwage** logarithm of wage

**Source**

Cornwell, C. and P. Rupert (1988) “Efficient estimation with panel data: an empirical comparison of instrumental variables estimators”, *Journal of Applied Econometrics*, **3**, 149–155.

Panel study of income dynamics.

**References**

Baltagi, Badi H. (2003) *Econometric analysis of panel data*, John Wiley and sons, <http://www.wiley.com/legacy/wileychi/baltagi/>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Wages1

*Wages, Experience and Schooling*

---

**Description**

a panel of 595 observations from 1976 to 1982

*number of observations* : 3294

*observation* : individuals

*country* : United States

**Usage**

`data(Wages1)`

**Format**

A time serie containing :

**exper** experience in years

**sex** a factor with levels (male,female)

**school** years of schooling

**wage** wage (in 1980 \(\$) per hour

**References**

Verbeek, Marno (2004) *A Guide to Modern Econometrics*, John Wiley and Sons.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),  
[Index.Time.Series](#)

---

Workinghours

*Wife Working Hours*

---

### Description

a cross-section from 1987  
*number of observations* : 3382  
*observation* : individuals  
*country* : United States

### Usage

```
data(Workinghours)
```

### Format

A dataframe containing :

**hours** wife working hours per year  
**income** the other household income in hundreds of dollars  
**age** age of the wife  
**education** education years of the wife  
**child5** number of children for ages 0 to 5  
**child13** number of children for ages 6 to 13  
**child17** number of children for ages 14 to 17  
**nonwhite** non-white ?  
**owned** is the home owned by the household ?  
**mortgage** is the home on mortgage ?  
**occupation** occupation of the husband, one of mp (manager or  
**unemp** local unemployment rate in %

### Source

Lee, Myoung-Jae (1995) "Semi-parametric estimation of simultaneous equations with limited dependent variables : a case study of female labour supply", *Journal of Applied Econometrics*, **10(2)**, april-june, 187-200.

### References

Journal of Applied Econometrics data archive : <http://qed.econ.queensu.ca/jae/>.

### See Also

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

---

Yen *Yen-dollar Exchange Rate*

---

**Description**

weekly observations from 1975 to 1989

*number of observations* : 778

*observation* : country

*country* : Japan

**Usage**

data(Yen)

**Format**

A dataframe containing :

**date** the date of the observation (19850104 is January, 4, 1985)

**s** the ask price of the dollar in units of Yen in the spot market on friday of the current week

**f** the ask price of the dollar in units of Yen in the 30-day forward market on friday of the current week

**s30** the bid price of the dollar in units of Yen in the spot market on the delivery date on a current forward contract

**Source**

Bekaert, G. and R. Hodrick (1993) "On biases in the measurement of foreign exchange risk premiums", *Journal of International Money and Finance*, **12**, 115-138.

**References**

Hayashi, F. (2000) *Econometrics*, Princeton University Press, [http://fhayashi.fc2web.com/hayashi\\_econometrics.htm](http://fhayashi.fc2web.com/hayashi_econometrics.htm), chapter 6, 438-443.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#),

[Index.Time.Series](#)

---

Yogurt

*Choice of Brand for Yogurts*

---

**Description**

a cross-section

*number of observations* : 2412

*observation* : individuals

*country* : United States

**Usage**

data(Yogurt)

**Format**

A dataframe containing :

**id** individuals identifiers

**choice** one of yoplait, dannon, hiland, weight (weight watcher)

**feat.z** is there a newspaper feature advertisement for brand z ?

**price.z** price of brand z

**Source**

Jain, Dipak C., Naufel J. Vilcassim and Pradeep K. Chintagunta (1994) "A random-coefficients logit brand-choice model applied to panel data", *Journal of Business and Economics Statistics*, **12(3)**, 317.

**References**

Journal of Business Economics and Statistics web site : <http://amstat.tandfonline.com/loi/ubes20>.

**See Also**

[Index.Source](#), [Index.Economics](#), [Index.Econometrics](#), [Index.Observations](#)

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