

Expenditure and Default Data

Description

Cross-section data on the credit history for a sample of applicants for a type of credit card.

Usage

```
data("CreditCard")
```

Format

A data frame containing 1,319 observations on 12 variables.

`card`

Factor. Was the application for a credit card accepted?

`reports`

Number of major derogatory reports.

`age`

Age in years plus twelfths of a year.

`income`

Yearly income (in USD 10,000).

`share`

Ratio of monthly credit card expenditure to yearly income.

`expenditure`

Average monthly credit card expenditure.

`owner`

Factor. Does the individual own their home?

`selfemp`

Factor. Is the individual self-employed?

`dependents`

Number of dependents.

`months`

Months living at current address.

majorcards

Number of major credit cards held.

active

Number of active credit accounts.

Details

According to Greene (2003, p. 952) dependents equals $1 + \text{number of dependents}$, our calculations suggest that it equals number of dependents.

Greene (2003) provides this data set twice in Table F21.4 and F9.1, respectively. Table F9.1 has just the observations, rounded to two digits. Here, we give the F21.4 version, see the examples for the F9.1 version. Note that age has some suspiciously low values (below one year) for some applicants. One of these differs between the F9.1 and F21.4 version.

Source

Online complements to Greene (2003). Table F21.4.

<http://pages.stern.nyu.edu/~wgreene/Text/tables/tablelist5.htm>

References

Greene, W.H. (2003). *Econometric Analysis*, 5th edition. Upper Saddle River, NJ: Prentice Hall.

See Also

Greene2003

Examples

```
data("CreditCard")

## Greene (2003)
## extract data set F9.1
ccard <- CreditCard[1:100,]
ccard$income <- round(ccard$income, digits = 2)
ccard$expenditure <- round(ccard$expenditure, digits = 2)
ccard$age <- round(ccard$age + .01)
## suspicious:
CreditCard$age[CreditCard$age < 1]
## the first of these is also in TableF9.1 with 36 instead of 0.5:
ccard$age[79] <- 36

## Example 11.1
ccard <- ccard[order(ccard$income),]
ccard0 <- subset(ccard, expenditure > 0)
cc_ols <- lm(expenditure ~ age + owner + income + I(income^2), data = ccard0)

## Figure 11.1
plot(residuals(cc_ols) ~ income, data = ccard0, pch = 19)
```

```
## Table 11.1
mean(ccard$age)
prop.table(table(ccard$owner))
mean(ccard$income)

summary(cc_ols)
sqrt(diag(vcovHC(cc_ols, type = "HC0")))
sqrt(diag(vcovHC(cc_ols, type = "HC2")))
sqrt(diag(vcovHC(cc_ols, type = "HC1")))

bptest(cc_ols, ~ (age + income + I(income^2) + owner)^2 + I(age^2) + I(income^4), data = ccard0)
gqtest(cc_ols)
bptest(cc_ols, ~ income + I(income^2), data = ccard0, studentize = FALSE)
bptest(cc_ols, ~ income + I(income^2), data = ccard0)

## More examples can be found in:
## help("Greene2003")
```