

Package ‘qdmean’

November 3, 2021

Title Automatically quasi-demean regressors following a random effects regression

Version 0.1.1

Maintainer Soren Jordan <sorenjordanpols@gmail.com>

Description

qdmean is a package to automatically quasi-demean regressors following the estimation of a random effects model. Model estimation can be done with either plm or lmer. The function will automatically obtain theta and generate regressors, which are useful for post-estimation analysis.

URL <https://github.com/andyphilips/REquasidemean/>

BugReports <https://github.com/andyphilips/REquasidemean/issues>

Imports plm, lme4

Suggests knitr, rmarkdown, testthat (>= 2.0.0)

Depends R (>= 4.0.0)

License GPL (>=2)

Encoding UTF-8

LazyData true

BuildManual yes

RoxygenNote 7.1.1

VignetteBuilder knitr

Config/testthat/edition 2

NeedsCompilation no

Author Soren Jordan [aut, cre, cph],
Andrew Q. Philips [aut]

R topics documented:

nlswork	2
qdmean	2
Index	4

nlswork	<i>Data on wages and unemployment over time. From Stata: please see (and cite) https://www.stata-press.com/data/r16/</i>
---------	--

Description

Data on wages and unemployment over time. From Stata: please see (and cite) <https://www.stata-press.com/data/r16/>

Usage

```
data(nlswork)
```

Format

A data frame with 18858 rows and 5 variables. Complete observations from the original data, owned and released by Stata:

ln_wage Natural log of wage

idcode Respondent idcode

year Year

wks_work Amount worked

union Union member (dummy)

Source

<https://www.stata-press.com/data/r16/>

qdmean	<i>Quasi-demean a variable, based on estimate of theta</i>
--------	--

Description

Quasi-demean a variable, based on estimate of theta

Usage

```
qdmean(model, predictor, group, data, dv)
```

Arguments

model	an estimated random effects model
predictor	the predictor variable to quasi-demean
group	the grouping variable to use to quasi-demean
data	if a lmer model, the dataset used to estimate the model
dv	if a lmer model, the dependent variable (as a string in quotes)

Details

if using a lmer model, pass the data with no NA observations

Value

the quasi-demeaned independent variable

Author(s)

Soren Jordan and Andrew Q. Philips

Examples

```
## Not run:
# using plm
model.plm <- plm(ln_wage ~ wks_work + union, index = c("idcode", "year"),
  data = nlswork,
  model = "random", random.method = "swar", effect = "individual")
# quasi-demean wks_work
wkswork.plm <- qdmean(model = model.plm, predictor = "wks_work", group = "idcode")
summary(wkswork.plm)

# using lmer
model.lmer <- lmer(ln_wage ~ wks_work + union + (1 | idcode),
  data = data)
# quasi-demean wks_work
wkswork.lmer <- qdmean(model = model.lmer, predictor = "wks_work", group = "idcode",
  data = nlswork, dv = "ln_wage")
summary(wkswork.lmer)

## End(Not run)
```

Index

- * **datasets**
 - nlswork, [2](#)
- * **demean**
 - qdmean, [2](#)
- nlswork, [2](#)
- qdmean, [2](#)