Package 'ech'

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Title Downloading and Processing Microdata from ECH-INE (Uruguay)

Version 0.1.3

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Description A consistent tool for downloading ECH data, processing them and generating new indicators: poverty, education, employment, etc. All data are downloaded from the official site of the National Institute of Statistics at <https://www.gub.uy/instituto-nacional-estadistica/datos-y-estadisticas/encuestas/encuesta-continua-hogares>.

License GPL-3

Depends R (>= 3.5.0)

Imports assertthat, curl, dplyr (>= 1.0.0), fs, geouy, glue, haven (>= 2.3.0), janitor, labelled, laeken, rlang, srvyr (>= 0.4.0), statar, stringr, survey, tidyr, utils

Suggests knitr, rmarkdown, testthat (>= 2.1.0)

VignetteBuilder knitr

ByteCompile true

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

SystemRequirements 'unrar' (Linux/macOS) or '7-Zip' (Windows) to work with '.rar' files, GDAL (>= 3.0.2), GEOS (>= 3.8.0), PROJ (>= 6.2.1)

NeedsCompilation no

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R **topics documented:**

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age_groups   *This function allows you to calculate age groups*

Description

This function allows you to calculate age groups

Usage

```
age_groups(data = ech::toy_ech_2018, cut = c(0, 4, 11, 17, 24), e27 = "e27")
```

Arguments

data	data.frame
cut	breaks points to cut a numeric variable
e27	Variable name of age

Value

data.frame

See Also

Other demographic: [household_type](#)()

Examples

```
#' toy_ech_2018 <- age_groups(data = ech::toy_ech_2018, cut = c(0, 4, 11, 17, 24))
```

---

archive_extract   *Extract compressed archives*

Description

Extract compressed archives

Usage

```
archive_extract(archive.path = NULL, dest.path = NULL)
```

Arguments

archive.path   Ruta de origen del archivo comprimido

dest.path   Ruta destino del archivo descomprimido

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de
INE.

Value

No return value, called for side effects

See Also

Other utils: [dates_ech](), [ech](), [unlabelled](), [unrarPath]

---

basket_goods   *This function allows you to get the Basket goods*

Description

This function allows you to get the Basket goods

Usage

```
basket_goods(data = ech::cba_cbna_mdeo, year = NULL)
```

Arguments

data   data.frame with the price of the basket of goods from Montevideo, Interior or
            Rural region

year   the ECH year

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other income: `deflate()`, `income_constant_prices()`, `income_quantiles()`, `labor_income_per_capita()`, `labor_income_per_hour()`, `organize_ht11()`

Examples

```
df <- basket_goods(data = ech::cba_cbna_mdeo, year = 2018)
```

---

branch_ciiu   *This function allows you to identify activity branches*

Description

This function allows you to identify activity branches

Usage

```
branch_ciiu(
  data = ech::toy_ech_2018,
  f72_2 = "f72_2",
  group = TRUE,
  disaggregated = FALSE
)
```

Arguments

data	data.frame
f72_2	Variable name of ciiu code rev.4
group	logical to define 12 or 18 categories, if FALSE code 18. Default: TRUE
disaggregated	logical to define disaggregated branches or not. Default: FALSE

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other employment: `employment_restrictions()`, `employment()`, `underemployment()`

Examples

```
toy_ech_2018 <- branch_ciiu(data = ech::toy_ech_2018)
```

---

cba_cbna_int *A dataset containing the CBA and CBNA for the Interior Urbano region*

Description

A dataset containing the CBA and CBNA for the Interior Urbano region

Usage

```
cba_cbna_int
```

Format

A data frame with 234 rows and 4 variables:

fecha date from 2001 to 2020

cba_li CBA

cbna CBNA

cbt_lp CBT

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

https://www.gub.uy/instituto-nacional-estadistica/

See Also

Other dataset: `cba_cbna_mdeo`, `cba_cbna_rur`, `dic`, `ipab_base2010_int`, `ipab_base2010_mdeo`, `ipab_base2010`, `ipc_base2010_int`, `ipc_base2010_mdeo`, `ipc_base2010`, `toy_ech_2018_income`, `toy_ech_2018`, `urls_ine`

---

cba_cbna_mdeo *A dataset containing the CBA and CBNA for the Montevideo region*

Description

A dataset containing the CBA and CBNA for the Montevideo region

Usage

```
cba_cbna_mdeo
```

Format

A data frame with 234 rows and 4 variables:

fecha date from 2001 to 2020

cba_li CBA

cbna CBNA

cbt_lp CBT

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

<https://www.gub.uy/instituto-nacional-estadistica/>

See Also

Other dataset: `cba_cbna_int`, `cba_cbna_rur`, `dic`, `ipab_base2010_int`, `ipab_base2010_mdeo`, `ipab_base2010`, `ipc_base2010_int`, `ipc_base2010_mdeo`, `ipc_base2010`, `toy_ech_2018_income`, `toy_ech_2018`, `urls_ine`

---

cba_cbna_rur *A dataset containing the CBA and CBNA for the Interior Rural region*

Description

A dataset containing the CBA and CBNA for the Interior Rural region

Usage

```
cba_cbna_rur
```

Format

A data frame with 234 rows and 4 variables:

fecha date from 2001 to 2020

cba_li CBA

cbna CBNA

cbt_lp CBT

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

https://www.gub.uy/instituto-nacional-estadistica/

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, dic, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018, urls_ine

---

dates_ech   *This function allows you to organize dates*

Description

This function allows you to organize dates

Usage

```
dates_ech(data)
```

Arguments

data   data frame with an 'yy' variable for the year, and a 'mm' variable for the month

Value

data.frame

See Also

Other utils: archive_extract(), ech, unlabelled(), unrarPath

---

deflate   *This function allows you to calculate a deflator coefficient*

Description

This function allows you to calculate a deflator coefficient

Usage

```
deflate(
  base_month = NULL,
  base_year = NULL,
  index = "IPC",
  level = "G",
  df_year = NULL
)
```

Arguments

base_month	baseline month
base_year	baseline year
index	IPC or IPAB
level	General index ('G'), Montevideo index ('M') or Interior index ('I')
df_year	ECH year

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

vector

See Also

Other income: basket_goods(), income_constant_prices(), income_quantiles(), labor_income_per_capita(), labor_income_per_hour(), organize_ht11()

---

dic   *A dataset containing variables names change of the ECH 2006-2018*

Description

A dataset containing variables names change of the ECH 2006-2018

Usage

```
dic
```

Format

A data frame with 976 rows and 21 variables:

codigos Code oh label

descripcion Description of label

modulo Module in the form 2017

obs Observations

unidad Level of variable household (H) individual (P) or general (G)

var06 ECH variables names 2006

var07 ECH variables names 2007

var08 ECH variables names 2008

var09 ECH variables names 2009

var10 ECH variables names 2010

var11 ECH variables names 2011

var12 ECH variables names 2012

var13 ECH variables names 2013

var14 ECH variables names 2014

var15 ECH variables names 2015

var16 ECH variables names 2016

var17 ECH variables names 2017

var18 ECH variables names 2018

var19 ECH variables names 2019

var21 ECH variables names 2021 segundo semestre

var22 ECH variables names 2022 primer semestre ...

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

<https://www.gub.uy/instituto-nacional-estadistica/>

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018, urls_ine

---

| ech | ech *package* |

Description

Toolbox for Downloading and Processing Microdata from the Continuous Household Survey of Uruguay (ECH)

See the README on Github

See Also

Other utils: archive_extract(), dates_ech(), unlabelled(), unrarPath

---

| employment | *This function allows you to calculate the variables: PEA, PET, PO, PD* |

Description

This function allows you to calculate the variables: PEA, PET, PO, PD

Usage

```
employment(data = ech::toy_ech_2018, pobpcoac = "pobpcoac")
```

Arguments

data	data.frame with microdata
pobpcoac	Variable name of definition of population by activity status. Default: "pobpcoac"

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame, tbl and tbl_df object

See Also

Other employment: branch_ciiu(), employment_restrictions(), underemployment()

Examples

```
toy_ech_2018 <- employment(data = ech::toy_ech_2018, pobpcoac = "pobpcoac")
```

---

employment_restrictions

This function allows you to identify workers with employment restrictions

---

Description

This function allows you to identify workers with employment restrictions

Usage

```
employment_restrictions(
  data = ech::toy_ech_2018,
  f82 = "f82",
  underemployment = "underemployment"
)
```

Arguments

data	data.frame
f82	Variable name of contribution to the pension fund
underemployment	
	Variable name of underemployment

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other employment: `branch_ciiu()`, `employment()`, `underemployment()`

Examples

```
toy_ech_2018 <- underemployment(data = ech::toy_ech_2018)
toy_ech_2018 <- employment_restrictions(data = toy_ech_2018)
```

---

enrolled_school *This function allows you to calculate the people enrolled in school*

Description

This function allows you to calculate the people enrolled in school

Usage

```
enrolled_school(
  data = ech::toy_ech_2018,
  e27 = "e27",
  e193 = "e193",
  e197 = "e197",
  e201 = "e201",
  e212 = "e212",
  e215 = "e215",
  e218 = "e218",
  e221 = "e221",
  e224 = "e224"
)
```

Arguments

data	data.frame with necessary variables Defaults to ech.
e27	Variable name of age
e193	Variable name of attendance school
e197	Variable name of attendance primary
e201	Variable name of attendance secondary
e212	Variable name of attendance technical school (non-university)
e215	Variable name of attendance magisterio
e218	Variable name of attendance university
e221	Variable name of attendance tertiary
e224	Variable name of attendance postgrade

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other education: `level_completion()`, `level_education()`, `organize_educ()`, `years_of_schooling()`

Examples

```
toy_ech_2018 <- enrolled_school(data = ech::toy_ech_2018)
```

---

get_estimation_gini   *This function allows you to estimate the Gini coefficient*

Description

This function allows you to estimate the Gini coefficient

Usage

```
get_estimation_gini(
  data = ech::toy_ech_2018,
  variable = NULL,
  by = NULL,
  level = NULL,
  ids = NULL,
  numero = "numero",
  estrato = NULL,
  pesoano = "pesoano",
  bootstrap = FALSE,
  r = NULL
)
```

Arguments

data	ech data frame
variable	Variable name of income without rental value per capita deflated
by	data frame column
level	is household ("h") or individual ("i").

ids	Variable name of cluster
numero	Variable name of household id
estrato	Variable name of strata
pesoano	Variable name of weights
bootstrap	Logical value
r	A number of replicas

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

table

See Also

Other estimation: `get_estimation_gpg()`, `get_estimation_mean()`, `get_estimation_median()`, `get_estimation_qsr()`, `get_estimation_ratio()`, `get_estimation_total()`, `set_design()`

Examples

```
toy_ech_2018 <- income_constant_prices(data = ech::toy_ech_2018, index = "IPC", level = "R",
                                       base_month = "01", base_year = "2005")
get_estimation_gini(data = toy_ech_2018, variable = "y_wrv_pc_d_r", level = "i")
```

---

get_estimation_gpg   *This function allows you to estimate the Gender Pay Wage Gap (GPG)*

Description

This function allows you to estimate the Gender Pay Wage Gap (GPG)

Usage

```
get_estimation_gpg(
  data = ech::toy_ech_2018,
  variable = "total_income_per_hour",
  e26 = "e26",
  by = NULL,
  ids = NULL,
  estrato = NULL,
  pesoano = "pesoano",
  stat = "media"
)
```

Arguments

data	data.frame
variable	Variable name of total income per hour
e26	Variable name of sex
by	data frame column
ids	Variable name of cluster
estrato	Variable name of strata
pesoano	Variable name of weights
stat	Media or Median

Value

table

See Also

Other estimation: `get_estimation_gini()`, `get_estimation_mean()`, `get_estimation_median()`, `get_estimation_qsr()`, `get_estimation_ratio()`, `get_estimation_total()`, `set_design()`

Examples

```
toy_ech_2018 <- labor_income_per_hour(data = ech::toy_ech_2018, base_month = 6, base_year = 2018)
get_estimation_gpg(data = toy_ech_2018, variable = "total_income_per_hour", e26 = "e26")
```

---

get_estimation_mean   *This function allows you to estimate mean variable at universe level.*

Description

This function allows you to estimate mean variable at universe level.

Usage

```
get_estimation_mean(
  data = ech::toy_ech_2018,
  variable = NULL,
  by.x = NULL,
  by.y = NULL,
  domain = NULL,
  level = NULL,
  ids = NULL,
  numero = "numero",
  estrato = NULL,
  pesoano = "pesoano",
  name = "estimacion"
)
```

Arguments

`data`	data frame with ECH microdata
`variable`	data frame column to estimate
`by.x`	data frame column
`by.y`	data frame column
`domain`	subpopulation reference setted as character expresion of logical evaluation
`level`	is household ("h") or individual ("i").
`ids`	ids
`numero`	household id
`estrato`	strata
`pesoano`	weights
`name`	name for the estimation new column

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

table

See Also

Other estimation: `get_estimation_gini()`, `get_estimation_gpg()`, `get_estimation_median()`, `get_estimation_qsr()`, `get_estimation_ratio()`, `get_estimation_total()`, `set_design()`

Examples

```
get_estimation_mean(data = ech::toy_ech_2018, variable = "pobre06", by.x = "dpto", level = "h")
```

---

get_estimation_median   *This function allows you to estimate median variable at universe level.*

Description

This function allows you to estimate median variable at universe level.

Usage

```
get_estimation_median(
  data = ech::toy_ech_2018,
  variable = NULL,
  by.x = NULL,
  by.y = NULL,
  domain = NULL,
  level = NULL,
  ids = NULL,
  numero = "numero",
  estrato = NULL,
  pesoano = "pesoano",
  name = "estimacion"
)
```

Arguments

data	data frame with ECH microdata
variable	data frame column to estimate
by.x	data frame column
by.y	data frame column
domain	subpopulation reference setted as character expresion of logical evaluation
level	is household ("h") or individual ("i").
ids	ids
numero	household id
estrato	strata
pesoano	weights
name	name for the estimation new column

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

table

See Also

Other estimation: get_estimation_gini(), get_estimation_gpg(), get_estimation_mean(), get_estimation_qsr(), get_estimation_ratio(), get_estimation_total(), set_design()

Examples

```
get_estimation_median(data = ech::toy_ech_2018, variable = "ht11", by.x = "dpto", level = "h")
```

---

get_estimation_qsr   *This function allows you to estimate de Income Quintile Share Ratio*

Description

This function allows you to estimate de Income Quintile Share Ratio

Usage

```
get_estimation_qsr(
  data = ech::toy_ech_2018,
  variable = "y_pc_d_r",
  by = NULL,
  ids = NULL,
  estrato = NULL,
  pesoano = "pesoano"
)
```

Arguments

data	data.frame
variable	Variable name of total income per hour
by	data frame column
ids	Variable name of cluster
estrato	Variable name of strata
pesoano	Variable name of weights

Value

table

See Also

Other estimation: [get_estimation_gini()](), [get_estimation_gpg()](), [get_estimation_mean()](),
[get_estimation_median()](), [get_estimation_ratio()](), [get_estimation_total()](), [set_design()]()

Examples

```
toy_ech_2018 <- income_constant_prices(data = ech::toy_ech_2018, index = "IPC", level = "R",
                                       base_month = "01", base_year = "2005")
get_estimation_qsr(data = toy_ech_2018, variable = "y_pc_d_r", pesoano = "pesoano")
```

---

get_estimation_ratio   *This function allows you to estimate ratio variables at universe level.*

Description

This function allows you to estimate ratio variables at universe level.

Usage

```
get_estimation_ratio(
  data = ech::toy_ech_2018,
  variable.x = NULL,
  variable.y = NULL,
  by.x = NULL,
  by.y = NULL,
  domain = NULL,
  level = NULL,
  ids = NULL,
  numero = "numero",
  estrato = NULL,
  pesoano = "pesoano",
  name = "estimacion"
)
```

Arguments

`data`	data frame with ECH microdata
`variable.x`	data frame column to estimate
`variable.y`	data frame column to estimate
`by.x`	data frame column
`by.y`	data frame column
`domain`	subpopulation reference setted as character expresion of logical evaluation
`level`	is household ("h") or individual ("i")
`ids`	Variable name of cluster
`numero`	Variable name of household id
`estrato`	Variable name of strata
`pesoano`	Variable name of weights
`name`	name for the estimation new column

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

table

See Also

Other estimation: `get_estimation_gini()`, `get_estimation_gpg()`, `get_estimation_mean()`, `get_estimation_median()`, `get_estimation_qsr()`, `get_estimation_total()`, `set_design()`

Examples

```
toy_ech_2018 <- employment(data = ech::toy_ech_2018, pobpcoac = "pobpcoac")
get_estimation_ratio(data = toy_ech_2018, variable.x = "po", variable.y = "pea", level = "i")
```

---

get_estimation_total   *This function allows you to estimate total variable at universe level.*

Description

This function allows you to estimate total variable at universe level.

Usage

```
get_estimation_total(
  data = ech::toy_ech_2018,
  variable = NULL,
  by.x = NULL,
  by.y = NULL,
  domain = NULL,
  level = NULL,
  ids = NULL,
  numero = "numero",
  estrato = NULL,
  pesoano = "pesoano",
  name = "estimacion"
)
```

Arguments

data	data frame with ECH microdata
variable	data frame column to estimate
by.x	data frame column
by.y	data frame column
domain	subpopulation reference setted as character expresion of logical evaluation
level	is household ("h") or individual ("i").

ids	ids
numero	household id
estrato	strata
pesoano	weights
name	name for the estimation new column

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

table

See Also

Other estimation: `get_estimation_gini()`, `get_estimation_gpg()`, `get_estimation_mean()`, `get_estimation_median()`, `get_estimation_qsr()`, `get_estimation_ratio()`, `set_design()`

Examples

```
get_estimation_total(variable = "pobre06", by.x = "dpto", level = "h")
```

---

get_microdata   *This function allows you to download and read ECH from INE website*

Description

This function allows you to download and read ECH from INE website

Usage

```
get_microdata(year = NULL, folder = tempdir(), toR = TRUE)
```

Arguments

year	allows download data from 2011 to 2019. Default the last year
folder	Folder where are the files or be download
toR	write data frame in R format and delete download file and unpack files

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

unrar files from INE web and the respective data frame in tibble format

See Also

Other dwnld_read: read_microdata()

---

household_type	*This function allows you to calculate the household type for each household in the survey. A household is composed of one or more people who occupy a housing unit.*

Description

This function allows you to calculate the household type for each household in the survey. A household is composed of one or more people who occupy a housing unit.

Usage

```
household_type(
  data = ech::toy_ech_2018,
  numero = "numero",
  e26 = "e26",
  e27 = "e27",
  e30 = "e30"
)
```

Arguments

data	data frame with ECH microdata
numero	Variable name of household id
e26	Variable name of sex
e27	Variable name of age
e30	Variable name of householder

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other demographic: age_groups()

Examples

```
toy_ech_2018 <- household_type(data = ech::toy_ech_2018)
```

---

housing_conditions   *This function allows you to calculate the housing conditions*

Description

This function allows you to calculate the housing conditions

Usage

```
housing_conditions(data = ech::toy_ech_2018, c2 = "c2", c3 = "c3", c4 = "c4")
```

Arguments

data	data.frame
c2	Variable name of predominant material on external walls
c3	Variable name of predominant roofing material
c4	Variable name of predominant flooring material

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other dwelling: housing_deprivation(), housing_situation(), housing_tenure(), overcrowding()

Examples

```
toy_ech_2018 <- housing_conditions(data = ech::toy_ech_2018)
```

---

housing_deprivation   *This function allows you to calculate the housing status*

Description

This function allows you to calculate the housing status

Usage

```
housing_deprivation(
  data = ech::toy_ech_2018,
  n = 1,
  ht19 = "ht19",
  d9 = "d9",
  d10 = "d10",
  d11 = "d11",
  d12 = "d12",
  d13 = "d13",
  d16 = "d16",
  d18 = "d18",
  d19 = "d19",
  c2 = "c2",
  c3 = "c3",
  c4 = "c4",
  quintil = "quintil",
  region_4 = "region_4"
)
```

Arguments

data	data.frame
n	number of deprivations to consider. Default 1
ht19	Variable name of number of individuals in the household
d9	Variable name of number of rooms
d10	Variable name of number of rooms to sleep
d11	Variable name of principal source of potable water
d12	Variable name of water supply network / water access
d13	Variable name of sanitary facilities
d16	Variable name of sewerage facilities
d18	Variable name of energy source for lighting
d19	Variable name of cooking space
c2	Variable name of predominant material on external walls
c3	Variable name of predominant roofing material

c4	Variable name of predominant flooring material
quintil	Variable name of income quintil
region_4	Variable name of region

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other dwelling: housing_conditions(), housing_situation(), housing_tenure(), overcrowding()

Examples

```
toy_ech_2018 <- income_constant_prices(data = ech::toy_ech_2018)
toy_ech_2018 <- income_quantiles(data = toy_ech_2018)
toy_ech_2018 <- housing_deprivation(data = toy_ech_2018)
```

---

housing_situation   *This function allows you to calculate the housing situation*

Description

This function allows you to calculate the housing situation

Usage

```
housing_situation(
  data = ech::toy_ech_2018,
  c5_1 = "c5_1",
  c5_2 = "c5_2",
  c5_3 = "c5_3",
  c5_4 = "c5_4",
  c5_5 = "c5_5",
  c5_6 = "c5_6",
  c5_7 = "c5_7",
  c5_8 = "c5_8",
  c5_9 = "c5_9",
  c5_10 = "c5_10",
  c5_11 = "c5_11",
  c5_12 = "c5_12"
)
```

Arguments

data	data.frame
c5_1	Variable name of roof condensation
c5_2	Variable name of roof drips
c5_3	Variable name of walls cracks
c5_4	Variable name of broken doors or windows
c5_5	Variable name of floors cracks
c5_6	Variable name of plaster drop on walls
c5_7	Variable name of detached ceilings
c5_8	Variable name of poor sunlight
c5_9	Variable name of poor ventilation
c5_10	Variable name of floods when it rains
c5_11	Variable name of in danger of collapse
c5_12	Variable name of dampness in the foundations

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other dwelling: `housing_conditions()`, `housing_deprivation()`, `housing_tenure()`, `overcrowding()`

Examples

```
toy_ech_2018 <- housing_situation(data = ech::toy_ech_2018)
```

---

housing_tenure	*This function allows you to calculate the housing tenure*

Description

This function allows you to calculate the housing tenure

Usage

```
housing_tenure(data = ech::toy_ech_2018, d8_1 = "d8_1")
```

Arguments

data	data.frame
d8_1	Variable name of housing_tenure (owner, renter, rent-free occupancy, etc.)

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other dwelling: housing_conditions(), housing_deprivation(), housing_situation(), overcrowding()

Examples

```
toy_ech_2018 <- housing_tenure(data = ech::toy_ech_2018)
```

---

income_constant_prices

This function allows you to calculate the household income constant prices

---

Description

This function allows you to calculate the household income constant prices

Usage

```
income_constant_prices(
  data = ech::toy_ech_2018,
  base_month = 6,
  base_year = 2018,
  index = "IPC",
  level = "G",
  mes = "mes",
  ht11 = "ht11",
  ht13 = "ht13",
  ht19 = "ht19"
)
```

Arguments

`data`	data.frame with ECH microdata
`base_month`	baseline month
`base_year`	baseline year
`index`	IPC or IPAB
`level`	General ("G") or Regional ("R")
`mes`	month
`ht11`	Variable name of income. Default: ht11
`ht13`	Variable name of rental value. Default: ht13
`ht19`	Variable name of number of individuals in the household. Default: ht19

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other income: `basket_goods()`, `deflate()`, `income_quantiles()`, `labor_income_per_capita()`, `labor_income_per_hour()`, `organize_ht11()`

Examples

```
toy_ech_2018 <- income_constant_prices(data = ech::toy_ech_2018)
```

---

income_quantiles *This function allows you to calculate the Household Income Quantiles*

Description

This function allows you to calculate the Household Income Quantiles

Usage

```
income_quantiles(
  data = ech::toy_ech_2018,
  quantile = 5,
  weights = "pesoano",
  income = "y_pc_d"
)
```

Arguments

data	data.frame
quantile	Variable name of quintil (5) or decil (10). Default: 5
weights	Variable name of ponderation variable. Default: "pesoano"
income	Variable name of income constant price. Default: "y_pc_d"

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other income: basket_goods(), deflate(), income_constant_prices(), labor_income_per_capita(), labor_income_per_hour(), organize_ht11()

Examples

```
toy_ech_2018 <- income_constant_prices(data = ech::toy_ech_2018)
toy_ech_2018 <- income_quantiles(data = toy_ech_2018)
```

---

integrated_poverty_measure

This function allows you to calculate an integrated poverty measure

---

Description

This function allows you to calculate an integrated poverty measure

Usage

```
integrated_poverty_measure(
  data = ech::toy_ech_2018,
  pobre06 = "pobre06",
  UBN_q = "UBN_q"
)
```

Arguments

data	data.frame
pobre06	Variable name of poverty
UBN_q	Variable name of UBN

Value

data.frame

See Also

Other poverty: poverty(), unsatisfied_basic_needs()

Examples

```
toy_ech_18 <- enrolled_school(data = ech::toy_ech_2018)
toy_ech_18 <- years_of_schooling(toy_ech_18)
toy_ech_18 <- unsatisfied_basic_needs(toy_ech_18)
toy_ech_18 <- integrated_poverty_measure(data = toy_ech_18)
```

---

ipab_base2010 *A dataset containing the IPAB*

Description

A dataset containing the IPAB

Usage

ipab_base2010

Format

A data frame with 286 rows and 2 variables:

fecha date from 1997 to 2020

indice IPAB

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

https://www.gub.uy/instituto-nacional-estadistica/

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010_mdeo, ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018, urls_ine

---

ipab_base2010_int   *A dataset containing the IPAB for the Interior region*

Description

A dataset containing the IPAB for the Interior region

Usage

    ipab_base2010_int

Format

A data frame with 108 rows and 2 variables:

fecha date from 2011 to 2019

indice IPAB

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de
INE.

Source

<https://www.gub.uy/instituto-nacional-estadistica/>

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_mdeo, ipab_base2010,
ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018,
urls_ine

---

ipab_base2010_mdeo   *A dataset containing the IPAB for the Montevideo region*

Description

A dataset containing the IPAB for the Montevideo region

Usage

    ipab_base2010_mdeo

Format

A data frame with 108 rows and 2 variables:

fecha date from 2011 to 2019

indice IPAB

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010, ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018, urls_ine

---

ipc_base2010 *A dataset containing the IPC base 2010*

Description

A dataset containing the IPC base 2010

Usage

```
ipc_base2010
```

Format

A data frame with 990 rows and 5 variables:

fecha date from 1937 to 2019

indice IPC

mensual mensual value of IPC

trimestre three-month period value of IPC

cuatrimestre four-month period value of IPC

semestre six-month period value of IPC

acum_ano acumulated IPC

acum_12_meses acumulated IPC last 12 month

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

https://www.gub.uy/instituto-nacional-estadistica/

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_int, ipc_base2010_mdeo, toy_ech_2018_income, toy_ech_2018, urls_ine

---

ipc_base2010_int   *A dataset containing the IPC base 2010 only for the Interior region*

Description

A dataset containing the IPC base 2010 only for the Interior region

Usage

    ipc_base2010_int

Format

A data frame with 120 rows and 2 variables:

fecha date from 2011 to 2019

indice IPC

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

https://www.gub.uy/instituto-nacional-estadistica/

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018, urls_ine

ipc_base2010_mdeo
A dataset containing the IPC base 2010 only for the Montevideo region

Description

A dataset containing the IPC base 2010 only for the Montevideo region

Usage

```
ipc_base2010_mdeo
```

Format

A data frame with 120 rows and 2 variables:

fecha date from 2011 to 2019

indice IPC

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

<https://www.gub.uy/instituto-nacional-estadistica/>

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_int, ipc_base2010, toy_ech_2018_income, toy_ech_2018, urls_ine

---

labor_income_per_capita
This function allows you to calculate the labor income per capita

Description

This function allows you to calculate the labor income per capita

Usage

```
labor_income_per_capita(
  data = ech::toy_ech_2018,
  numero = "numero",
  pobpcoac = "pobpcoac",
  g126_1 = "g126_1",
  g126_2 = "g126_2",
  g126_3 = "g126_3",
  g126_4 = "g126_4",
  g126_5 = "g126_5",
  g126_6 = "g126_6",
  g126_7 = "g126_7",
  g126_8 = "g126_8",
  g127_3 = "g127_3",
  g128_1 = "g128_1",
  g129_2 = "g129_2",
  g130_1 = "g130_1",
  g131_1 = "g131_1",
  g133_1 = "g133_1",
  g133_2 = "g133_2",
  g134_1 = "g134_1",
  g134_2 = "g134_2",
  g134_3 = "g134_3",
  g134_4 = "g134_4",
  g134_5 = "g134_5",
  g134_6 = "g134_6",
  g134_7 = "g134_7",
  g134_8 = "g134_8",
  g135_3 = "g135_3",
  g136_1 = "g136_1",
  g137_2 = "g137_2",
  g138_1 = "g138_1",
  g139_1 = "g139_1",
  g141_1 = "g141_1",
  g141_2 = "g141_2",
  g142 = "g142",
  g144_1 = "g144_1",
  g144_2_1 = "g144_2_1",
  g144_2_3 = "g144_2_3",
  g144_2_4 = "g144_2_4",
  g144_2_5 = "g144_2_5"
)
```

Arguments

`data`	data frame
`numero`	Variable name of household id
`pobpcoac`	Variable name of definition of population by activity status

g126_1	Variable name of net salary
g126_2	Variable name of commissions, incentives, overtime payment, fringe benefits
g126_3	Variable name of non-surrendering expenses
g126_4	Variable name of tips
g126_5	Variable name of annual complementary salary
g126_6	Variable name of vacation pay
g126_7	Variable name of delayed payments
g126_8	Variable name of transportation tickets
g127_3	Variable name of received food or drink
g128_1	Variable name of received food tickets
g129_2	Variable name of received housing or accommodation
g130_1	Variable name of another type of compensation
g131_1	Variable name of received another type of supplement paid by the employer
g133_1	Variable name of the right to cultivate goods for own-consumption
g133_2	Variable name of the right to cultivate goods for own-consumption (amount received from the sale)
g134_1	Variable name of net salary
g134_2	Variable name of commissions, incentives, overtime payment, fringe benefits
g134_3	Variable name of non-surrendering expenses
g134_4	Variable name of tips
g134_5	Variable name of annual complementary salary
g134_6	Variable name of vacation pay
g134_7	Variable name of delayed payments
g134_8	Variable name of transportation tickets
g135_3	Variable name of received food or drink
g136_1	Variable name of received food tickets
g137_2	Variable name of received housing or accommodation
g138_1	Variable name of another type of compensation
g139_1	Variable name of received another type of supplement paid by the employer
g141_1	Variable name of the right to cultivate goods for own-consumption
g141_2	Variable name of the right to cultivate goods for own-consumption (amount received from the sale)
g142	Variable name of withdrawals for business household expenses you have or had
g144_1	Variable name of collected products for own consumption (non-agricultural worker)
g144_2_1	Variable name of collected products for own consumption (non-agricultural worker)
g144_2_3	Variable name of collected products for own consumption (non-agricultural worker)
g144_2_4	Variable name of collected products for own consumption (non-agricultural worker)
g144_2_5	Variable name of collected products for own consumption (non-agricultural worker)

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other income: `basket_goods()`, `deflate()`, `income_constant_prices()`, `income_quantiles()`, `labor_income_per_hour()`, `organize_ht11()`

Examples

```
toy_ech_2018 <- labor_income_per_capita(data = ech::toy_ech_2018)
```

---

labor_income_per_hour   *This function allows you to calculate the labor income per hour*

Description

This function allows you to calculate the labor income per hour

Usage

```
labor_income_per_hour(
  data = ech::toy_ech_2018,
  numero = "numero",
  f85 = "f85",
  pobpcoac = "pobpcoac",
  pt4 = "pt4",
  base_month = 6,
  base_year = 2018,
  mes = "mes"
)
```

Arguments

data	data frame
numero	Variable name of household id
f85	Variable name of hours worked per week
pobpcoac	Variable name of definition of population by activity status
pt4	Variable name of total employment income

base_month	baseline month
base_year	baseline year
mes	month

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other income: basket_goods(), deflate(), income_constant_prices(), income_quantiles(), labor_income_per_capita(), organize_ht11()

Examples

```
toy_ech_2018 <- ech::toy_ech_2018
toy_ech_2018 <- labor_income_per_hour(data = toy_ech_2018, base_month = "06", base_year = "2018")
```

---

level_completion	*This function allows you to calculate the level of school completion*

Description

This function allows you to calculate the level of school completion

Usage

```
level_completion(
  data = ech::toy_ech_2018,
  e197 = "e197",
  e197_1 = "e197_1",
  e201 = "e201",
  e51_4 = "e51_4",
  e51_5 = "e51_5",
  e51_6 = "e51_6",
  e51_7_1 = "e51_7_1",
  e51_7 = "e51_7",
  e51_8 = "e51_8",
  e51_9 = "e51_9",
  e51_10 = "e51_10",
```

```
  e212 = "e212",
  e215 = "e215",
  e218 = "e218",
  e221 = "e221",
  n = 4
)
```

Arguments

data	data.frame
e197	Variable name of attends primary school
e197_1	Variable name of completed primary
e201	Variable name of attends secondary
e51_4	Variable name of years passed in lower secondary
e51_5	Variable name of years passed in upper secondary
e51_6	Variable name of years passed in technical upper secondary
e51_7_1	Variable name of technical education requirements
e51_7	Variable name of years passed in technical education
e51_8	Variable name of years passed in magisterio/profesorado
e51_9	Variable name of years passed in university or similar
e51_10	Variable name of years passed in tertiary (non-university)
e212	Variable name of attendance technical school (non-university)
e215	Variable name of attendance magisterio
e218	Variable name of attendance university
e221	Variable name of attendance tertiary
n	years of tertiary

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other education: enrolled_school(), level_education(), organize_educ(), years_of_schooling()

Examples

```
toy_ech_2018 <- level_completion(data = ech::toy_ech_2018)
```

level_education	*This function allows you to calculate the highest level of education achieved*

Description

This function allows you to calculate the highest level of education achieved

Usage

```
level_education(
  data = ech::toy_ech_2018,
  e51_2 = "e51_2",
  e51_3 = "e51_3",
  e51_4 = "e51_4",
  e51_5 = "e51_5",
  e51_6 = "e51_6",
  e51_7 = "e51_7",
  e51_7_1 = "e51_7_1",
  e51_8 = "e51_8",
  e51_9 = "e51_9",
  e51_10 = "e51_10",
  e51_11 = "e51_11",
  e193 = "e193",
  e49 = "e49"
)
```

Arguments

data	data.frame
e51_2	Variable name of years passed in primary
e51_3	Variable name of years passed in special primary
e51_4	Variable name of years passed in lower secondary
e51_5	Variable name of years passed in upper secondary
e51_6	Variable name of years passed in technical upper secondary
e51_7	Variable name of years passed in technical school
e51_7_1	Variable name of technical school requirements
e51_8	Variable name of years passed in magisterio/profesorado
e51_9	Variable name of years passed in university or similar
e51_10	Variable name of years passed in tertiary (non-university)
e51_11	Variable name of years passed in postgrade
e193	Variable name of attendance school
e49	Variable name of attendance school ever

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other education: enrolled_school(), level_completion(), organize_educ(), years_of_schooling()

Examples

```
toy_ech_2018 <- level_education(data = ech::toy_ech_2018)
```

---

organize_educ   *This function allows you to fix education variables from 2021*

Description

This function allows you to fix education variables from 2021

Usage

```
organize_educ(data, year, e49 = "e49", e579 = "e579", numero = "numero")
```

Arguments

data	data.frame
year	survey year
e49	Variable name of e49
e579	Variable name of e579
numero	Variable name of numero

Value

data.frame

See Also

Other education: enrolled_school(), level_completion(), level_education(), years_of_schooling()

---

organize_ht11 *This function allows you to fix ht11 from 2013 to 2015*

Description

This function allows you to fix ht11 from 2013 to 2015

Usage

```
organize_ht11(data, year, ht11 = "ht11", numero = "numero")
```

Arguments

data	data.frame
year	survey year
ht11	Variable name of ht11
numero	Variable name of numero

Value

data.frame

See Also

Other income: [basket_goods](), [deflate](), [income_constant_prices](), [income_quantiles](),
[labor_income_per_capita](), [labor_income_per_hour]()

Examples

```
toy_ech_2018 <- organize_ht11(data = ech::toy_ech_2018, year = 2018)
```

---

organize_names *This function allows you to organize the variables names of ECH with reference in 2017.*

Description

This function allows you to organize the variables names of ECH with reference in 2017.

Usage

```
organize_names(data, year, level = "hyp")
```

Arguments

`data`	data.frame contains the ECH microdata
`year`	numeric reference year of the data. Available from 2011 to 2019
`level`	(string) indicates whether the base to be labelled is of the type "household", "h", "individual", "i" or both, "hyp". Default "hyp"

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other organize: `to_ascii()`

Examples

```
toy_ech_2018 <- organize_names(data = ech::toy_ech_2018, year = 2018, level = "h")
```

---

overcrowding	*This function allows you to calculate overcrowding in the household*

Description

This function allows you to calculate overcrowding in the household

Usage

```
overcrowding(data = ech::toy_ech_2018, ht19 = "ht19", d10 = "d10")
```

Arguments

`data`	data.frame
`ht19`	Variable name of umber of individuals in the household
`d10`	Variable name of number of rooms to sleep

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other dwelling: housing_conditions(), housing_deprivation(), housing_situation(), housing_tenure()

Examples

```
toy_ech_2018 <- overcrowding(data = ech::toy_ech_2018)
```

---

poverty	*This function allows you to calculate poor and indigent people or household*

Description

This function allows you to calculate poor and indigent people or household

Usage

```
poverty(
  data = ech::toy_ech_2018,
  scale = 0.8,
  region_4 = "region_4",
  dpto = "dpto",
  ht11 = "ht11",
  ht19 = "ht19",
  numero = "numero"
)
```

Arguments

data	data.frame
scale	equivalency scale
region_4	Variable name of region. Default: region_4
dpto	Variable name of departamento. Default: dpto
ht11	Variable name of income. Default: ht11
ht19	Variable name of number of individuals in the household. Default: ht19
numero	household id

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other poverty: [integrated_poverty_measure()](), [unsatisfied_basic_needs()]()

Examples

```
toy_ech_2018 <- poverty(data = ech::toy_ech_2018)
```

---

read_microdata   *This function allows you to read ECH from a local folder*

Description

This function allows you to read ECH from a local folder

Usage

```
read_microdata(path = NULL)
```

Arguments

path   Folder where are the files or be download

Details

Disclaimer: El script no es un producto oficial de INE.

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

an object called df

See Also

Other dwnld_read: [get_microdata()]()

set_design | *This function allows you to set the survey desing*

Description

This function allows you to set the survey desing

Usage

```
set_design(
  data = ech::toy_ech_2018,
  level = "i",
  numero = "numero",
  ids = NULL,
  estrato = NULL,
  pesoano = "pesoano"
)
```

Arguments

data	data frame with ECH microdata
level	is household ("h") or individual ("i")
numero	variables specifying the householder ids
ids	variables specifying the unit primary sampling (it's not a public variable)
estrato	variable specifying strata
pesoano	variable specifying weights

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

a list

See Also

Other estimation: `get_estimation_gini()`, `get_estimation_gpg()`, `get_estimation_mean()`, `get_estimation_median()`, `get_estimation_qsr()`, `get_estimation_ratio()`, `get_estimation_total()`

Examples

```
set_design(data = ech::toy_ech_2018, level = "h")
```

toy_ech_2018	*A dataset containing only 1000 raws of the ECH 2018*

Description

A dataset containing only 1000 raws of the ECH 2018

Usage

```
toy_ech_2018
```

Format

A data frame with 1000 rows and 579 variables:

numero household id

nper

anio

mes

dpto

nomdpto

secc

segm

loc_agr_13

nom_loc_agr_13

ccz

barrio

nombarrio

estred13

region_3

region_4

pesoano

pesotri

pesomen

c1

c2

c3

c4

c5_1

c5_2

c5_3

c5_4

c5_5

c5_6

c5_7

c5_8

c5_9

c5_10

c5_11

c5_12

c6

d8_1

d8_2

d8_3

d8_4

d9

d10

d11

d12

d13

d14

d15

d16

d18

d260

d19

d20

d21_1

d21_2

d21_3

d21_4

d21_4_1

d21_5

d21_5_1

d21_6

d21_20

d21_7

d21_8

d21_9

d21_10

d21_11

d21_12

d21_13

d21_14

d21_14_1

d21_15

d21_15_1

d21_15_2

d21_15_3

d21_15_4

d21_15_5

d21_15_6

d21_16

d21_16_1

d21_16_2

d21_17

d21_18

d21_18_1

d21_19

d21_19_1

d181

d229

d230

d231

d232

d184

d184_1

d23

d24

d25

h155

h155_1

h156

h156_1

h252

h252_1

h158_1

h158_2

h159

h160

h160_1

h160_2

h161

h162

h163_1

h163_2

h164

h165

h227

h166

h269

h269_1

h167_1

h167_1_1

h167_1_2

h167_2

h167_2_1

h167_2_2

h167_3

h167_3_1

h167_3_2

h167_4

h167_4_1

h167_4_2

h169

h170_1

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h271

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h171_1

h171_2

h172

h172_1

h173

h173_1

i228

i174

i259

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ht10

ht11

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ht14

ht19

yhog

ysvl

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li_06

e557

e558

e26

e27

e29_1

e29_2

e29_3

e29_4

e29_5

e29_5_1

e29_6

e30

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e32

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e35

e36

e185

e186_1

e186_2

e186_3

e186_4

e37

e37_2

e234_2

e38

e38_1

e39

e39_2

e235_2

e236

e236_2

e236_4

e45_1

e45_1_1

e45_1_1_1

e45_1_2

e45_1_2_1

e45_2

e45_2_1

e45_2_1_1

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e45_4_2

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e45_4_3_1

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e45_5_1

e45_5_1_1

e45_6

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e190_1_1

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e190_2_1

e190_3

e190_3_1

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e243_1

e243_2

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e196_1

e196_2

e196_3

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e197_1

e51_2

e51_3

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e200

e200_1

e200_2

e200_3

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e202_1

e202_2

e202_3

e202_4

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e202_6

e202_6_1

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e211_2
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e212
e212_1
e213
e51_7
e51_7_1
e214_1
e215
e215_1
e216
e51_8
e217_1
e218
e218_1
e219
e51_9
e220_1
e221
e221_1
e222
e51_10
e223_1
e224
e224_1
e225
e51_11
e226_1
e559
e559_1
e559_2
e560
e560_1
e560_1_1

e560_2

e560_2_1

e561

e561_1

e59

e246

e246_1

e247

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e61

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e62

e249

e250

e64_1

e64_2

e64_3

e64_4

e64_5

e64_6

e64_7

e65

f66

f67

f261

f68

f69

f70

f71_2

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f73

f74

f75

f76_2

f262

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f264

f264_1

f265

f265_1

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f78

f79

f79_1

f80

f80_2

f81

f82

f83

f84

f266

f267

f268

f85

f86

f87

f88_1

f88_2

f89

f90_2

f91_2

f92

f93

f94

f94_2

f95

f96

f97

f98

f99

f100

f101

f102

f103

f104

f105

f106

f107

f108

f109

f110

f111

f112

f113

f114

f115

f116

f117

f118_1

f118_2

f119_2

f120_2

f121

f122

f123

f124_1

f124_2

f124_3

f124_4

f124_5

f125

g_id_1

g_id_2

g_id_3

g_id_1a

g_id_2a

g_id_3a

g126_1

g126_2

g126_3

g126_4

g126_5

g126_6

g126_7

g126_8

g250_1

g250_2

g250_5

g250_3

g250_4

g127

g127_1

g127_2

g127_3

g128

g128_1

g129

g129_1

g129_2

g130

g130_1

g131

g131_1

g132

g132_1

g132_2

g132_3

g133

g133_1

g133_2

g_st_1

g134_1

g134_2

g134_3

g134_4

g134_5

g134_6

g134_7

g134_8
g251_1
g251_2
g251_3
g251_4
g251_5
g135
g135_1
g135_2
g135_3
g136
g136_1
g137
g137_1
g137_2
g138
g138_1
g139
g139_1
g140
g140_1
g140_2
g140_3
g141
g141_1
g141_2
g_itnd_1
g142
g_itnd_2
g143
g144
g144_1
g144_2_1
g144_2_2
g144_2_3
g144_2_4
g144_2_5

g_itnd_3
g145
g146
g147
g_it_1
g148_1_1
g148_1_2
g148_1_3
g148_1_4
g148_1_5
g148_1_6
g148_1_7
g148_1_8
g148_1_9
g148_1_12
g148_1_10
g148_1_11
g_it_2
g148_2_1
g148_2_2
g148_2_3
g148_2_4
g148_2_5
g148_2_6
g148_2_7
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g148_2_11
g148_3
g148_4
g148_5_1
g148_5_2
g149
g149_1
g150

g255

g256

g152

g151_5

g151_1

g151_2

g151_3

g151_3_1

g151_4

g257

g153

g153_1

g153_2

g258

g258_1

g154

g154_1

pobpcoac

subempleo

mto_cuota

mto_emer

mto_hogcon

mto_desay

mto_almue

mto_vacas

mto_oveja

mto_caball

lecheenpol

indaceliac

indaucc

indaemer

pt1

pt2

pt4

pobre06

indigente06

upm_id

estrato ...

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

<https://www.gub.uy/instituto-nacional-estadistica/>

See Also

Other dataset: `cba_cbna_int`, `cba_cbna_mdeo`, `cba_cbna_rur`, `dic`, `ipab_base2010_int`, `ipab_base2010_mdeo`, `ipab_base2010`, `ipc_base2010_int`, `ipc_base2010_mdeo`, `ipc_base2010`, `toy_ech_2018_income`, `urls_ine`

`toy_ech_2018_income`	*A dataset containing only 1000 raws of the ECH 2018 income variables*

Description

A dataset containing only 1000 raws of the ECH 2018 income variables

Usage

```
toy_ech_2018_income
```

Format

A data frame with 1000 rows and 9 variables:

numero household id

mes

ht11

ysvl

ht13

ht19

dpto

pesoano

estred13

anio

region_4 ...

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

https://www.gub.uy/instituto-nacional-estadistica/

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018, urls_ine

---

to_ascii	*to_ascii*

Description

to_ascii

Usage

```
to_ascii(x, upper = TRUE)
```

Arguments

x	a column
upper	logic. Default TRUE

Value

vector

See Also

Other organize: organize_names()

Examples

```
d <- lapply(dic, to_ascii)
```

---

underemployment   *This function allows you to identify underemployed people*

Description

This function allows you to identify underemployed people

Usage

```
underemployment(
  data = ech::toy_ech_2018,
  pobpcoac = "pobpcoac",
  f85 = "f85",
  f98 = "f98",
  f101 = "f101",
  f102 = "f102",
  f103 = "f103",
  f104 = "f104"
)
```

Arguments

data	data.frame
pobpcoac	Variable name of definition of population by activity status. Default: "pobpcoac"
f85	Variable name of number of hours worked in the main job
f98	Variable name of Number of hours worked at the secondary job
f101	Variable name of reasons why you want another job
f102	Variable name of want to work more hours
f103	Variable name of are available to work more hours at this time
f104	Variable name of reasons why you dont work more hours

Details

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Value

data.frame

See Also

Other employment: branch_ciiu(), employment_restrictions(), employment()

Examples

```
toy_ech_2018 <- underemployment(data = ech::toy_ech_2018)
```

unlabelled *This function allows you to labelled variables*

Description

This function allows you to labelled variables

Usage

```
unlabelled(data = NULL)
```

Arguments

data   data frame

Value

data.frame

See Also

Other utils: [archive_extract](), [dates_ech](), [ech](), [unrarPath]

Examples

```
df <- unlabelled(data = ech::toy_ech_2018)
```

unrarPath *The known path for unrar or 7z*

Description

The known path for unrar or 7z

Usage

```
.unrarPath
```

Format

An object of class NULL of length 0.

See Also

Other utils: [archive_extract](), [dates_ech](), [ech](), [unlabelled]()

---

unsatisfied_basic_needs

This function allows you to calculate de Unsatisfied Basic Needs

---

Description

This function allows you to calculate de Unsatisfied Basic Needs

Usage

```
unsatisfied_basic_needs(
  data = ech::toy_ech_2018,
  c2 = "c2",
  c3 = "c3",
  c4 = "c4",
  d9 = "d9",
  d11 = "d11",
  d12 = "d12",
  d13 = "d13",
  d14 = "d14",
  d15 = "d15",
  d16 = "d16",
  d18 = "d18",
  d19 = "d19",
  d21_1 = "d21_1",
  d21_2 = "d21_2",
  d21_3 = "d21_3",
  d260 = "d260",
  ht19 = "ht19",
  pobre06 = "pobre06",
  e27 = "e27",
  school_enrollment = "school_enrollment",
  years_schooling = "years_schooling",
  e238 = "e238",
  anio = "anio"
)
```

Arguments

data	data.frame
c2	Variable name of predominant material on external walls
c3	Variable name of predominant roofing material
c4	Variable name of predominant flooring material
d9	Variable name of number of rooms
d11	Variable name of principal source of potable water

d12	Variable name of water supply network / water access
d13	Variable name of sanitary facilities
d14	Variable name of bathroom presence
d15	Variable name of private bathroom use
d16	Variable name of sewerage facilities
d18	Variable name of energy source for lighting
d19	Variable name of cooking space
d21_1	Variable name of heater or termophon presence
d21_2	Variable name of instantaneous water heater presence
d21_3	Variable name of fridge presence
d260	Variable name of energy source for heating
ht19	Variable name of number of individuals in the household
pobre06	Variable name of poverty
e27	Variable name of age
school_enrollment	
	Variable name of school_enrollment
years_schooling	
	Variable name of years_schooling
e238	Variable name of attendance to initial education
anio	Variable name of survey year

Details

Based on [Fascículo I: Las Necesidades Básicas Insatisfechas a partir de los Censos 2011](https://www5.ine.gub.uy/document
Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de
INE.

Value

data.frame

See Also

Other poverty: [integrated_poverty_measure](), [poverty]()

Examples

```
toy_ech_18 <- enrolled_school(data = ech::toy_ech_2018)
toy_ech_18 <- years_of_schooling(toy_ech_18)
toy_ech_18 <- unsatisfied_basic_needs(toy_ech_18)
```

---

urls_ine   *A dataset containing the urls of INE datasets and diccionaries*

Description

A dataset containing the urls of INE datasets and diccionaries

Usage

```
urls_ine
```

Format

A data frame with 9 rows and 4 variables:

yy date from 2011 to 2019

md_sav url for microdata download

upm_sav url for upm download

dic url for dictionary download

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Source

<https://www.gub.uy/instituto-nacional-estadistica/>

See Also

Other dataset: cba_cbna_int, cba_cbna_mdeo, cba_cbna_rur, dic, ipab_base2010_int, ipab_base2010_mdeo, ipab_base2010, ipc_base2010_int, ipc_base2010_mdeo, ipc_base2010, toy_ech_2018_income, toy_ech_2018

---

years_of_schooling   *This function allows you to calculate the years of schooling*

Description

This function allows you to calculate the years of schooling

Usage

```
years_of_schooling(
  data = ech::toy_ech_2018,
  e193 = "e193",
  e51_2 = "e51_2",
  e51_3 = "e51_3",
  e51_4 = "e51_4",
  e51_5 = "e51_5",
  e51_6 = "e51_6",
  e51_7 = "e51_7",
  e51_7_1 = "e51_7_1",
  e51_8 = "e51_8",
  e51_9 = "e51_9",
  e51_10 = "e51_10",
  e51_11 = "e51_11",
  max_years = 22
)
```

Arguments

data	data.frame
e193	Variable name of attendance school
e51_2	Variable name of years passed in primary
e51_3	Variable name of years passed in special primary
e51_4	Variable name of years passed in lower secondary
e51_5	Variable name of years passed in upper secondary
e51_6	Variable name of years passed in bachillerato tecnologico
e51_7	Variable name of years passed in technical education
e51_7_1	Variable name of technical education requirements
e51_8	Variable name of years passed in magisterio/profesorado
e51_9	Variable name of years passed in university or similar
e51_10	Variable name of years passed in tertiary (non-university)
e51_11	Variable name of years passed in postgrade
max_years	Maximum years of schooling

Details

Disclaimer: This script is not an official INE product. Aviso: El script no es un producto oficial de INE.

Value

data.frame

See Also

Other education: enrolled_school(), level_completion(), level_education(), organize_educ()

Examples

```
toy_ech_2018 <- years_of_schooling(data = ech::toy_ech_2018)
```

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