Package: genderstat (via r-universe)

October 27, 2024

Type Package

Title Quantitative Analysis Tools for Gender Studies

Version 0.1.5

Description Provides tools for quantitative analysis in gender
studies, including functions to calculate various gender
inequality metrics such as the Gender Pay Gap, Gender
Inequality Index (GII), Gender Development Index (GDI), and
Gender Empowerment Measure (GEM). Also includes extracted
secondary example datasets for practice and learning purposes,
which were obtained from the UNDP Human Development Reports
Data Center and the World Bank Gender Data Portal by the author
the dataset is available on <doi:10.34740/kaggle/dsv/6359326>.
References: Miller, Kevin; Vagins, Deborah J. (2021)
<https://eric.ed.gov/?id=ED596219>. Jacques Charmes & Saskia
Wieringa (2003) <doi:10.1080/1464988032000125773>. Gaëlle
Ferrant (2010) <https://shs.hal.science/halshs-00462463/>.

License MIT + file LICENSE

Encoding UTF-8

LazyData true

RoxygenNote 7.3.2

Suggests testthat (>= 3.0.0), knitr, rmarkdown

Config/testthat/edition 3

VignetteBuilder knitr

Depends R (>= 3.5.0)

NeedsCompilation no

Author S M Mashrur Arafin Ayon [aut, cre]
(<https://orcid.org/0000-0002-3659-2891>)

Maintainer S M Mashrur Arafin Ayon <mashrur399@gmail.com>

Date/Publication 2024-07-07 19:40:02 UTC

Repository https://mashrur-ayon.r-universe.dev

RemoteUrl https://github.com/cran/genderstat

RemoteRef HEAD

RemoteSha 74a789bda6fe5a6d109d54f576ded5316f434841

Contents

gender_development_index

Gender Development Index (GDI)

Description

Computes the Gender Development Index (GDI) based on the given dataset. The GDI measures gender disparities in three dimensions of human development: health, education, and standard of living.

Usage

```
gender_development_index(data)
```

Arguments

data   A data frame containing the required metrics for GDI computation. The data
               frame must include the following columns: female_life_expectancy, male_life_expectancy,
               female_mean_schooling, male_mean_schooling, female_gni_per_capita,
               and male_gni_per_capita.

Value

A data frame containing the GDI values for each country, along with the individual HDI values for females and males.

Examples

```
data(real_data_GDI) # Load example dataset
gdi_results <- gender_development_index(real_data_GDI)
print(gdi_results)
```

---

gender_empowerment_measure

Gender Empowerment Measure (GEM)

Description

Computes the Gender Empowerment Measure (GEM) based on the provided dataset. The GEM measures gender inequality in political representation, professional positions, and income.

Usage

```
gender_empowerment_measure(data)
```

Arguments

data   A data frame containing the required metrics for GEM computation. The data
                frame must include the following columns: `female_parliament_seats`, `female_professional_positi`
                and `female_to_male_earned_income_ratio`.

Value

A data frame with two columns: `country` and `GEM`, representing the GEM values for each country.

Examples

```
data(real_data_GEM) # Load example dataset
gem_results <- gender_empowerment_measure(real_data_GEM)
print(gem_results)
```

---

gender_inequality_index

Gender Inequality Index (GII)

Description

Computes the Gender Inequality Index (GII) based on the provided dataset. The GII measures gender disparities in reproductive health, empowerment, and labor market participation.

Usage

```
gender_inequality_index(data)
```

Arguments

data   A data frame containing the required metrics for GII computation. The data
                  frame must include the following columns: maternal_mortality_ratio, adolescent_birth_rate,
                  female_parliament_seats, female_secondary_education, male_secondary_education,
                  female_labor_force, and male_labor_force.

Value

A data frame with two columns: country and GII, representing the GII values for each country.

Examples

```
data(real_data_GII) # Load example dataset
gii_results <- gender_inequality_index(real_data_GII)
print(gii_results)
```

---

gender_pay_gap   *Gender Pay Gap (GPG)*

Description

Computes the Gender Pay Gap (GPG) based on the provided dataset. The GPG is calculated as the
percentage difference between male and female incomes, providing insight into income disparities
between genders.

Usage

```
gender_pay_gap(data)
```

Arguments

data   A data frame containing the required metrics for GPG computation. The data
                  frame must include the columns: female_income and male_income.

Value

A data frame with two columns: country and gpg, representing the GPG values for each country.

Examples

```
data(real_data_GPG) # Load example dataset
gpg_results <- gender_pay_gap(real_data_GPG)
print(gpg_results)
```

---

real_data_GDI   *Original Data of GDI (Gender Development Index)*

Description

A dataset containing observed values for the GDI analysis. This data includes metrics for evaluating gender disparities in health, education, and economic resources across different countries.

Usage

```
data(real_data_GDI)
```

Format

A data frame with 191 rows and 7 columns:

country A character vector representing the name of the country.

female_life_expectancy A numeric vector representing the life expectancy of females in the respective country, measured in years.

male_life_expectancy A numeric vector representing the life expectancy of males in the respective country, measured in years.

female_mean_schooling A numeric vector representing the average number of schooling years for females in the respective country.

male_mean_schooling A numeric vector representing the average number of schooling years for males in the respective country.

female_gni_per_capita A numeric vector representing the Gross National Income per capita for females in the respective country, measured in international dollars.

male_gni_per_capita A numeric vector representing the Gross National Income per capita for males in the respective country, measured in international dollars.

Source

Data obtained from Kaggle.

---

real_data_GEM   *Original Data for Gender Empowerment Measure (GEM)*

Description

A dataset containing observed values for the GEM analysis. This data includes metrics for evaluating gender disparities in political representation, professional positions, and income across different countries.

Usage

```
data(real_data_GEM)
```

Format

A data frame with 191 rows and 4 columns:

country A character vector representing the name of the country.

female_parliament_seats A numeric vector representing the ratio of parliamentary seats occupied by females in the respective country. Measured as a proportion (0-1).

female_professional_positions A numeric vector representing the ratio of professional and technical job roles occupied by females in the respective country. Measured as a proportion (0-1).

female_to_male_earned_income_ratio A numeric vector representing the income ratio for females in the respective country in comparison to males. Measured as a proportion (0-1), where 1 indicates equal income with males.

Source

Data obtained from Kaggle.

---

real_data_GII   *Original Data for Gender Inequality Index (GII)*

Description

A dataset containing observed values for the GII analysis. This data includes metrics for evaluating gender disparities in reproductive health, empowerment, and labor market participation across different countries.

Usage

```
data(real_data_GII)
```

Format

A data frame with 191 rows and 8 columns:

country A character vector representing the name of the country.

maternal_mortality_ratio A numeric vector representing the maternal mortality ratio.

adolescent_birth_rate A numeric vector representing the adolescent birth rate.

female_parliament_seats A numeric vector representing the proportion of parliamentary seats occupied by females in the respective country. Measured as a proportion (0-1).

female_secondary_education A numeric vector representing the proportion of females with secondary education in the respective country. Measured as a proportion (0-1).

male_secondary_education A numeric vector representing the proportion of males with secondary education in the respective country. Measured as a proportion (0-1).

female_labor_force A numeric vector representing the proportion of females in the labor force in the respective country. Measured as a proportion (0-1).

male_labor_force A numeric vector representing the proportion of males in the labor force in the respective country. Measured as a proportion (0-1).

Source

Data obtained from [Kaggle](#).

---

real_data_GPG   *Original Data for Gender Pay Gap (GPG)*

Description

A dataset containing observed values for the GPG analysis. This data includes metrics for evaluating income disparities between genders across different countries.

Usage

```
data(real_data_GPG)
```

Format

A data frame with 191 rows and 3 columns:

country A character vector representing the name of the country.

female_income A numeric vector representing the per capita female National Income in the respective country.

male_income A numeric vector representing the per capita male National Income in the respective country.

Source

Data obtained from [Kaggle](#).

Index