

# Package ‘pomcheckr’

July 23, 2025

**Title** Graphical Check for Proportional Odds Assumption

**Version** 0.1.1

**Description** Implements the method described at the UCLA Statistical Consulting site <<https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/>> for checking if the proportional odds assumption holds for a cumulative logit model.

**License** MIT + file LICENSE

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.1.1

**Suggests** testthat (>= 3.0.0), knitr, rmarkdown

**Config/testthat/edition** 3

**Imports** dplyr, tidyr (>= 1.0.0), ggplot2, assertthat, stats, rlang, magrittr, stringr

**Depends** R (>= 2.10)

**VignetteBuilder** knitr

**NeedsCompilation** no

**Author** Melissa Wong [aut, cre] (ORCID: <<https://orcid.org/0000-0002-2973-6279>>)

**Maintainer** Melissa Wong <[melissa.wong.stats@gmail.com](mailto:melissa.wong.stats@gmail.com)>

**Repository** CRAN

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nhanes

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National Health and Nutrition Examination Survey 2011-2012

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## Description

A dataset used in the UCLA Statistical Consulting Survey Analysis in R guide <https://stats.idre.ucla.edu/r/seminars/survey-data-analysis-with-r/>

## Usage

nhanes

## Format

A data frame with 9756 rows and 16 variables:

**seqn** Respondent sequence number  
**ridageyr** Age in years at screening  
**riagendr** Gender  
**dmdmartl** Marital status  
**dmddeduc2** Education level - Adults 20+  
**sdmvpsu** Masked variance pseudo-PSU  
**sdmvstra** Masked variance pseudo-stratum  
**wtint2yr** Full sample 2 year interview weight  
**female** Gender  
**hsq496** How many days feel anxious  
**hsq571** SP donated blood in the past 12 months  
**hsd010** General health condition  
**pad630** Minutes moderate-intensity work  
**pad675** Minutes moderate recreational activities  
**paq665** Moderate recreational activities  
**pad680** Minutes sedentary activity

## Source

<https://wwwn.cdc.gov/nchs/nhanes/Search/DataPage.aspx?Component=Demographics&CycleBeginYear=2011>

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|        |                                                                |
|--------|----------------------------------------------------------------|
| ologit | <i>Simulated data for ordinal logistic regression example.</i> |
|--------|----------------------------------------------------------------|

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**Description**

A dataset used in the UCLA Statistical Consulting Ordinal Logistic Regression Example <https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/>

**Usage**

```
ologit
```

**Format**

A data frame with 400 rows and 4 variables:

**apply** Likelihood of applying to graduate school

**pared** Indicator for whether at least 1 parent has a graduate degree

**public** Indicator for whether undergraduate institution is public or private

**gpa** Student's grade point average

**Source**

<https://stats.idre.ucla.edu/stat/data/ologit.dta>

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|               |                                                         |
|---------------|---------------------------------------------------------|
| plot.pomcheck | <i>Graphical check for proportional odds assumption</i> |
|---------------|---------------------------------------------------------|

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**Description**

Generates the plots described in <https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/> for checking if the proportional odds assumption holds for a cumulative logit model.

**Usage**

```
## S3 method for class 'pomcheck'
plot(x, legend.position = "none", ...)
```

**Arguments**

|                 |                                                                                                   |
|-----------------|---------------------------------------------------------------------------------------------------|
| x               | a pomcheck object                                                                                 |
| legend.position | the position of legends ("none", "left", "right", "bottom", "top", or two-element numeric vector) |
| ...             | currently unused                                                                                  |

**Value**

None

**See Also**

[pomcheck](#)

**Examples**

```
plot(pomcheck(Species ~ Sepal.Width, iris))
```

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pomcheck

*Graphical check for proportional odds assumption*

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**Description**

Implements the method described in <https://stats.idre.ucla.edu/r/dae/ordinal-logistic-regression/> for checking if the proportional odds assumption holds for a cumulative logit model.

**Usage**

```
pomcheck(object, ...)

## Default S3 method:
pomcheck(object, x, data, ...)

## S3 method for class 'formula'
pomcheck(formula, data, ...)
```

**Arguments**

|         |                                                           |
|---------|-----------------------------------------------------------|
| object  | character string for response                             |
| ...     | currently unused                                          |
| x       | vector of character string(s) for explanatory variable(s) |
| data    | data frame containing the variables                       |
| formula | formula of the form $y \sim x_1 + x_2 + \dots$            |

**Value**

an object of class 'pomcheck'

**Methods (by class)**

- default: default
- formula: supports formula specification

**See Also**[plot.pomcheck](#)**Examples**

```
pomcheck(Species ~ Sepal.Length, iris)
pomcheck(Species ~ Sepal.Length + Sepal.Width, iris)
pomcheck(object="Species", x="Sepal.Length", iris)
pomcheck(object="Species", x=c("Sepal.Length", "Sepal.Width"), iris)
```

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## \* **datasets**

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