

Hair and Eye Color of Statistics Students

Description

Distribution of hair and eye color and sex in 592 statistics students.

Usage

```
HairEyeColor
```

Format

A 3-dimensional array resulting from cross-tabulating 592 observations on 3 variables. The variables and their levels are as follows:

No Name Levels

- 1 Hair Black, Brown, Red, Blond
- 2 Eye Brown, Blue, Hazel, Green
- 3 Sex Male, Female

Details

The Hair x Eye table comes from a survey of students at the University of Delaware reported by Snee (1974). The split by Sex was added by Friendly (1992a) for didactic purposes.

This data set is useful for illustrating various techniques for the analysis of contingency tables, such as the standard chi-squared test or, more generally, log-linear modelling, and graphical methods such as mosaic plots, sieve diagrams or association plots.

Source

<http://euclid.psych.yorku.ca/ftp/sas/vcd/catdata/haireye.sas>

Snee (1974) gives the two-way table aggregated over Sex. The Sex split of the ‘Brown hair, Brown eye’ cell was changed to agree with that used by Friendly (2000).

References

- Snee, R. D. (1974) Graphical display of two-way contingency tables. *The American Statistician*, **28**, 9–12.
- Friendly, M. (1992a) Graphical methods for categorical data. *SAS User Group International Conference Proceedings*, **17**, 190–200. <http://www.math.yorku.ca/SCS/sugi/sugi17-paper.html>
- Friendly, M. (1992b) Mosaic displays for loglinear models. *Proceedings of the Statistical Graphics Section*, American Statistical Association, pp. 61–68. <http://www.math.yorku.ca/SCS/Papers/asa92.html>

Friendly, M. (2000) *Visualizing Categorical Data*. SAS Institute, ISBN 1-58025-660-0.

See Also

`chisq.test`, `loglin`, `mosaicplot`

Examples

```
require(graphics)
## Full mosaic
mosaicplot(HairEyeColor)
## Aggregate over sex (as in Snee's original data)
x <- apply(HairEyeColor, c(1, 2), sum)
x
mosaicplot(x, main = "Relation between hair and eye color")
```