0.1 `zelig`: Estimating a Statistical Model

Description

The `zelig` command estimates a variety of statistical models. Use `zelig` output with `setx` and `sim` to compute quantities of interest, such as predicted probabilities, expected values, and first differences, along with the associated measures of uncertainty (standard errors and confidence intervals).

Usage

```
z.out <- zelig(formula, model, data, by, ...)
```

Arguments

formula   a symbolic representation of the model to be estimated, in the form `y`
           `~\, x1 + x2`, where `y` is the dependent variable and `x1` and `x2` are the
           explanatory variables, and `y`, `x1`, and `x2` are contained in the same dataset.
           (You may include more than two explanatory variables, of course.) The `+`
           symbol means "inclusion" not "addition." You may also include interaction
           terms and main effects in the form `x1*x2` without computing them in prior
           steps; `I(x1*x2)` to include only the interaction term and exclude the main
           effects; and quadratic terms in the form `I(x1^2)`.

model   the name of a statistical model, enclosed in `""`. Type `help.zelig("models")`
           to see a list of currently supported models.

data   the name of a data frame containing the variables referenced in the for-
           mula, or a list of multiply imputed data frames each having the same
           variable names and row numbers (created by `mi`).

by   a factor variable contained in `data`. Zelig will subset the data frame
           based on the levels in the `by` variable, and estimate a model for each
           subset. This a particularly powerful option which will allow you to save
           a considerable amount of effort. For example, to run the same model
           on all fifty states, you could type: `z.out <- zelig(y ~ x1 + x2, data`
           `= mydata, model = "ls", by = "state")` You may also use `by` to run
           models using MatchIt subclass.

...   additional arguments passed to `zelig`, depending on the model to be
           estimated.

Value

Depending on the class of model selected, `zelig` will return an object with elements including **coefficients**, **residuals**, and **formula** which may be summarized using

summary(`z.out`) or individually extracted using, for example, `z.out$coefficients`. See the specific models listed above for additional output values, or simply type `names(z.out)`.

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See Also

The full Zelig manual is available at `http://gking.harvard.edu/zelig`.