

# Short PDF example of R Markdown

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## One Click! Knit PDF and you're done.

You only have to install a package once, but you have to load the library every time you want to use it. You'll see that a bunch of ugly commands and output gets displayed. You probably wouldn't really want that in your actual paper.

Which is why you can turn off code (with `echo=FALSE`) and/or results (with `results='hide'`). You're not going to see anything from this chunk here:

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
##      speed      dist
## Min.   : 4.0    Min.   :  2.00
## 1st Qu.:12.0    1st Qu.: 26.00
## Median :15.0    Median : 36.00
## Mean   :15.4    Mean   : 42.98
## 3rd Qu.:19.0    3rd Qu.: 56.00
## Max.   :25.0    Max.   :120.00
```

## Loading the data

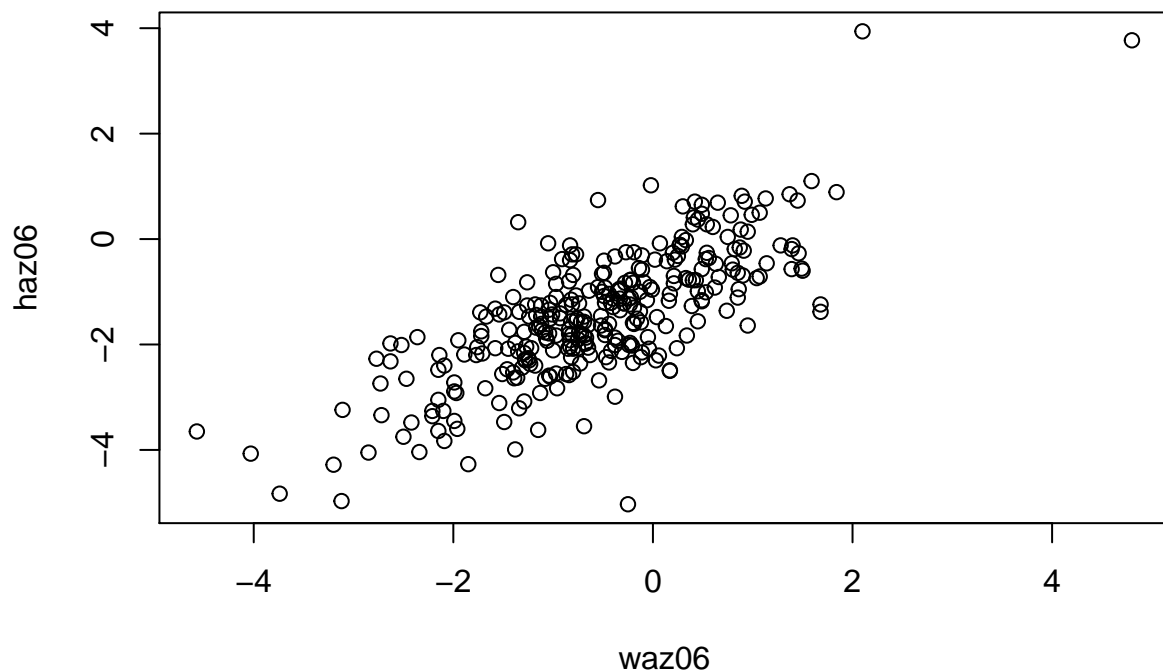
You can bring in the Stata data directly with the 'foreign' package.

## Running Analysis

I ran some regression analysis. The results are good.

## Graphics

Graphics can be easily inlaid. Here, I'll make a scatter plot of the WAZ vs HAZ for the children in the wASHB dataset.



## Equations

Equations written with LaTeX syntax works, so you can write short reports all in one file.

$$\frac{dN}{dt} = r * N * (1 - \frac{N}{K})$$

## Refer to Values

You can refer to values calculated in R by just surrounding “r” and the code with single accent marks. For example, the mean frequency is 0.4822888.

The mean frequency rounded to two decimal place is 0.48.

## Simple Output

You can just use built in R functionality.

## Fancier Output

Markdown is designed to be simple and also readable by humans in marked-up form. Like I said, *markdown*, not *markup*. But you can still get really nicely formatted regression output with a couple of R packages, `xtable` or `stargazer`. (Very similar to `estout` or `outreg2` in Stata.)

Stargazer has three types of output (text, html, and LaTeX).

## TeX->PDF

When we Knit a Markdown as a PDF, it actually makes that PDF using LaTeX. (See [here](#).) So you can use the `.tex` output option from `stargazer` and get nice PDF documentation.

Table 1: Made Automatically in R

	<i>Dependent variable:</i>		
	free_chl_yn		
	(1)	(2)	(3)
treatw	0.364*** (0.040)	0.364*** (0.043)	0.365*** (0.041)
kiswahili			-0.011 (0.076)
english			0.034 (0.064)
Constant	0.013 (0.027)	0.013 (0.009)	-0.003 (0.053)
Observations	284	284	284
R <sup>2</sup>	0.223	0.223	0.224
Adjusted R <sup>2</sup>	0.220	0.220	0.216
Residual Std. Error	0.340 (df = 282)	0.340 (df = 282)	0.340 (df = 280)
F Statistic	81.002*** (df = 1; 282)	81.002*** (df = 1; 282)	26.982*** (df = 3; 280)

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Everything All in One Place?

You can do citations. Plots, graphs, and citations, what else do you need for a research paper?

You could also maybe try Sweave (direct combo of LaTeX and R). Or, just like in Stata, you could send your output to `.tex` files, and include those in your master paper file.