

Histogram of a Randomly Generated Variable

We ran the following commands in R, displayed using the `verbatim` environment.

```
R> # Generate a random variable.
  epsilon <- rnorm(1000)

  # Plot a histogram.
  fig_ext <- 'eps'
  fig_dir <- 'Figures'
  fig_file_name <- sprintf('name_of_figure.%s', fig_ext)
  out_file_name <- sprintf('%s/%s', fig_dir, fig_file_name)

  setEPS()
  postscript(out_file_name)

  hist(epsilon, col = 'blue')

  dev.off()
```

It looks boring, is not as easy to read as code in a good text editor but it does get the message across.

Instead, we can display the code block using the `lstlisting` environment from the `listings` package.

```
R> # Generate a random variable.
  epsilon <- rnorm(1000)

  # Plot a histogram.
  fig_ext <- 'eps'
  fig_dir <- 'Figures'
  fig_file_name <- sprintf('name_of_figure.%s', fig_ext)
  out_file_name <- sprintf('%s/%s', fig_dir, fig_file_name)

  setEPS()
  postscript(out_file_name)

  hist(epsilon, col = 'blue')

  dev.off()
```

Notice that the code above is highlighted according to the color scheme set in the `\lstset` command in the preamble to this document.¹

¹The command `\lstset` above was displayed using the `\texttt{}` command, with the backslash displayed using the `\textbackslash` command, to avoid any confusion with another \LaTeX command. In the previous sentence, the commands `\texttt{}` and `\textbackslash` were displayed using the `\verb|` command, which is an inline version of the `verbatim` environment. Note that the argument of `\verb|` in the first instance of `\verb|` is enclosed in vertical bars or “pipes” `|` instead of braces or curly brackets `{}`, in case you want to display \LaTeX commands inline and want to prevent any braces from interfering with the `\texttt{}` command itself. You can also replace the pipes with many other repeated characters, as long as the character you choose is the first character after the `\verb` in the `\verb{}` command. Normally, you can use the `\verb` command anywhere in the main text of a document; however, the instances of `\verb` in this footnote were enabled by the `\usepackage{fancyvrb}` package declared in the preamble and the command `\VerbatimFootnotes` anywhere in the document before the command `\verb` is used in a footnote.

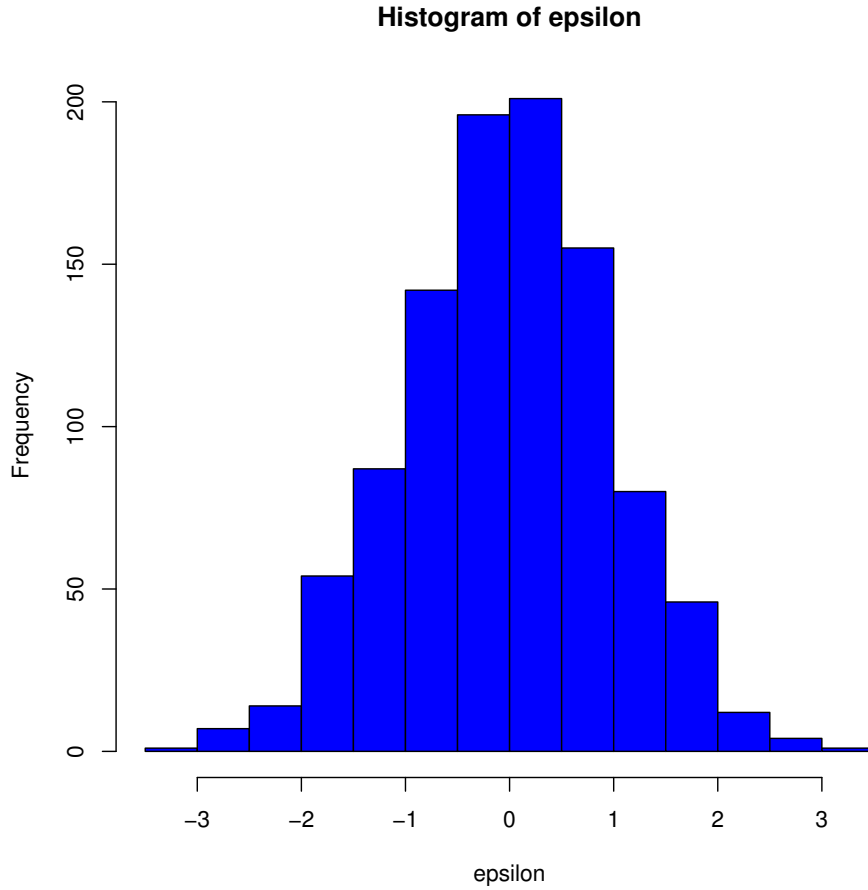


Figure 1: Caption Goes Here

In any case, the histogram in Figure 1 shows the result of these commands. Figures can be rendered in L^AT_EX using the `includegraphics` command from the `graphicx` package.