

1 **An Rarticles Template for the Transport Research Board Annual Meeting**

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24 Word Count: 684 words + 1 table(s) × 250 = 934 words

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1 ABSTRACT

2 The Transportation Research Board (TRB) has unique and seemingly arbitrary requirements for
3 manuscripts submitted for review. These requirements make it difficult to write the manuscripts
4 quickly, and no existing \LaTeX style comes close to fooling the guidelines. This represents an ini-
5 tial effort at creating a template to meet the requirements of TRB authors using \LaTeX , R, Sweave,
6 and/or other literate programming software.

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8 *Keywords:* Transportation, Travel Behavior,

1 TRANSPORTATION RESEARCH BOARD ANNUAL MEETINGS

2 TRB has greatly simplified the submissions to its system, meaning that this template is no longer
3 strictly required. However, there is a typical format that most people still use by default, and this
4 template implements that change.

5 FEATURES

6 The template has a number of features that enable quick and painless manuscript authoring.

7 Mathematics

8 Standard pandoc / \LaTeX math environments are available. For example, the probability of an indi-
9 vidual choosing alternative i in a multinomial logit model is

$$10 P_i = \frac{\exp(V_i)}{\sum_{i,j \in J} \exp(V_j)} \quad (1)$$

11 Equations with a `\label{eq:label}` can be referred to later in the text with `\ref{eq:label}`,
12 such as Equation 1.

13 Title Page

14 The template will automatically create a title page with the authors in the listed order. Near the
15 bottom of the title page, TRB requires a count of the manuscript's words and tables. The YAML
16 header information contains a `wordcount` key where this can be encoded. The number of ta-
17 bles is counted automatically on build; a default 250 words per table can be overridden with the
18 `wordspertable` YAML key.

19 The LaTeX template available from https://github.com/chiehrosswang/TRB_LaTeX_
20 `tex` contain automatic word counters that have not been implemented in this `rticles` template.
21 Authors can use the R Studio word count add-in available from <https://github.com/benmarwick/>
22 `wordcountaddin`.

23 Page Layout

24 The document has 1 inch margins as required, with the author's names in the left heading and the
25 page number in the right. The running header information is set with the `runningheader` YAML
26 key. Paragraphs leading sections and subsections are not indented, while all subsequent paragraphs
27 in that section are. Section heading types are defined as outlined by the old TRB Author's Guide.

28 The document is single-spaced in 12 point Times font. Times New Roman is a proprietary
29 font and is therefore not available by installation in open-source software. While the differences
30 between Times variants are negligible, Times New Roman itself can be used in Mac OSX by
31 compiling under `xelatex`.

32 Figure and Table references

33 The document can use standard pandoc referencing tools for in-text citations to figures and tables.
34 If an R code chunk outputs a figure, the figure number can be referred to with `\@ref(fig:chunkname)`
35 where `chunkname` is the name of the chunk that prints the figure. For example, Figure `@ref(fig:figure-`
36 `example)` shows a default figure made by the R chunk below.

```
# Generate some sample data, then compute mean and standard deviation
# in each group
```

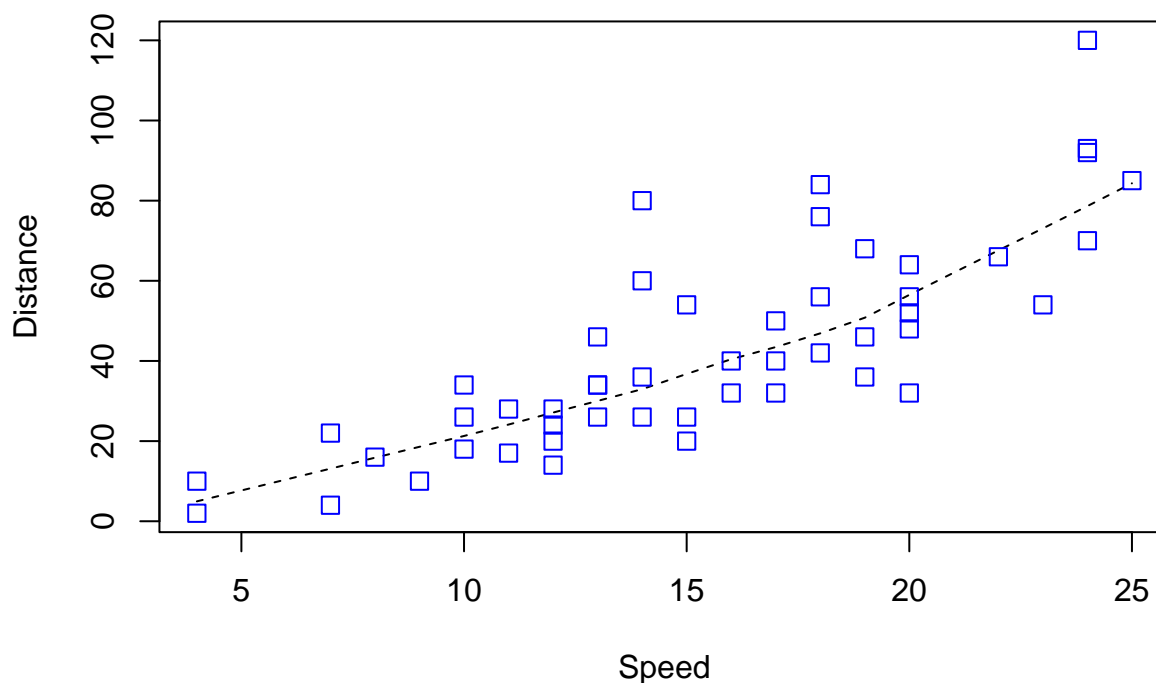


FIGURE 1 Generic plot.

```
Speed <- cars$speed
Distance <- cars$dist
plot(Speed, Distance,
     panel.first = lines(stats::lowess(Speed, Distance), lty = "dashed"),
     pch = 0, cex = 1.2, col = "blue")
```

1 The template setup chunk sets `echo = FALSE` for the entire document, as printing code
2 listings would not usually be appropriate or needed for a TRB article. But the option is there!

3 The same referencing logic works for tables, with the `tab:` prefix on the chunk name
4 instead of `fig:` used for figures. Table `@ref(tab:table-example)` has a basic table. We recommend
5 the `kableExtra` package for formatting publication-ready tables with greater control than the
6 default `knitr::kable()` function.

7 Bibliography styles

8 TRB still wants numbered, unsorted citations beginning on a new page. The template is configured
9 to use `natbib` with the `unsrtnat` citation style, with some additional logic to use parentheses in-
10 stead of brackets. The YAML key `bibliostyle` will allow the authors to select a different citation
11 format, but this is not recommended at the moment. Citations use the `pandoc` logic. Including the
12 reference in brackets `[@reference]` will print only the numeric reference; e.g. (1, 2). Including

TABLE 1 Example Table

	mpg	cyl	disp	hp	drat	wt
Mazda RX4	21.0	6	160	110	3.90	2.620
Mazda RX4 Wag	21.0	6	160	110	3.90	2.875
Datsun 710	22.8	4	108	93	3.85	2.320
Hornet 4 Drive	21.4	6	258	110	3.08	3.215
Hornet Sportabout	18.7	8	360	175	3.15	3.440

1 the reference without brackets @reference will print the authors and then the numeric reference;
 2 e.g. Feynman and Vernon Jr. (1).

3 **AUTHOR CONTRIBUTION STATEMENT**

4 The authors confirm contribution to the paper as follows: study conception and design: A. Anony-
 5 mous, D. Zoolander; data collection: B. Security; analysis and interpretation of results: A. Anony-
 6 mous, B. Security; draft manuscript preparation: A. Anonymous. All authors reviewed the results
 7 and approved the final version of the manuscript.

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9 David Pritchard posted the original versions of this template in 2009 and updated it in 2011, soon
 10 after TRB began allowing PDF submissions. Gregory Macfarlane and Ross Wang made adjust-
 11 ments to the template, and Ross Wang now maintains the \LaTeX template at [https://github.com/](https://github.com/chiehrosswang/TRB_LaTeX_tex)
 12 chiehrosswang/TRB_LaTeX_tex. Gregory Macfarlane created the rarticles template in 2021.

1 References

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3 with a linear dissipative system. *Annals of Physics*, 24:118–173, 1963. doi: 10.1016/
4 0003-4916(63)90068-X.
- 5 2. P.A.M. Dirac. The lorentz transformation and absolute time. *Physica*, 19(1–12):888–896,
6 1953. doi: 10.1016/S0031-8914(53)80099-6.