## Introducing LATEX and Sweave

Marc and Kyle June 28, 2017

- 1 What is LATEX?
- 1.1 Why use LATEX?
- 2 Creating LATEX Documents
- 2.1 Document Structure: Preamble
- 2.2 Begin and End

Special blocks are developed within \begin{} and \end{} commands. For every block, both the begin and end must be present or you will generate errors.

In fact, after the premable, the documents text is initiated by the \begin{document} and ends at \end{document}.

## 2.3 Special Characters that Cause Problems

Most special characters are reserved for LaTeXtype setting – see table for some important ones. These often create errors for beginners and experienced users alike, but for beginners the frustration generated by these errors can be overwhelming!

Review the table below to appreciate some of these characters (Table 1).

If you are trying to use the characters in the text, then put a backslash in front of them. If you are using them in a type-setting capacity, you should look up how to use them online.

Table 1: Write a Caption here.

Type Setting Function Associated Error

 $\begin{array}{c} {\rm Character} \\ \% \end{array}$ 

&

\$

## 3 Integrating R Commands with Sweave

## 3.1 Compile PDF workflow

 $\operatorname{Rnw} \operatorname{->} \operatorname{TeX} \operatorname{->} \operatorname{PDF}$ 

- 3.2 R Blocks
- 3.3 Creating Figures