

# Introduction to L<sup>A</sup>T<sub>E</sub>X

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## 1 Introduction

First rule: You can find everything about L<sup>A</sup>T<sub>E</sub>X on Google.

Make text **bold**.

Make text *italics*.

Make text underline.

### 1.1 Different font size

Hello Hello Hello Hello Hello Hello Hello Hello Hello

#### 1.1.1 Different font families

Kobe Bryant

Kobe Bryant

Kobe Bryant

## 2 Mathematical expressions

Microsoft Word is *terrible* at math!

You can insert math in text  $\lim_{x \rightarrow \infty} \exp(-x) = 0$  or put it individually as below.

$$k_{n+1} = n^2 + k_n^2 - k_{n-1} \quad (1)$$

Even with multiple lines:

$$Q(\lambda, \hat{\lambda}) = -\frac{1}{2} P(O \mid \lambda) \sum_s \sum_m \sum_t \gamma_m^{(s)}(t) \left( n \log(2\pi) + \log |C_m^{(s)}| \right. \\ \left. + (\mathbf{o}_t - \hat{\mu}_m^{(s)})^T C_m^{(s)-1} (\mathbf{o}_t - \hat{\mu}_m^{(s)}) \right) \quad (2)$$

### 3 Table

Table function is based on tabular, which allow us to customize every element in it.

A	B	cell3	hi
cell4	cell5	cell6	a
cell7	cell8	cell9	a

cell1	cell2	cell3
cell4	cell5	cell6
cell7	cell8	cell9

Now, see some complicated examples:

2017-2022	<b>Florida State University, Askew School of Public Administration</b> PhD in Public Administration and Policy <i>Committee:</i> XXX, XXX, XXX, XXX
2014-2016	<b>Rutgers University, Bloustein School of Planning and Public Policy</b> Master in Public Policy <i>Advisor:</i> XXX
2009-2013	<b>Hong Kong Baptist University</b> BA in Communication

Table 1: Descriptive Statistics

	Obs.	Mean	SD	Min	Max
Crime number	651	710.78	3193.29	0.00	28429.00
Turnover ratio	651	7.71	14.94	0.00	100.00
Total collaborators	651	18.35	9.44	0.00	44.00
New collaborators	651	1.11	2.71	0.00	20.00
Terminated Collaborators	651	1.02	2.74	0.00	21.00
Population	651	19806.34	63691.70	342.00	546877.00
Median household income	651	49154.21	7031.21	32292.00	79549.00
Unemployment rate	651	3.15	0.75	1.90	8.70
Ethnic diversity index	651	10.30	10.11	0.54	52.72
Officers coverage	651	1.68	0.96	0.00	8.80
Election	651	0.57	0.50	0.00	1.00
Mobility	651	1342.19	4102.07	8.00	32385.00
Property tax	651	6300551.30	13127090.21	427953.00	120208368.00

## 4 Figure

L<sup>A</sup>T<sub>E</sub>X allows EPS format figure.

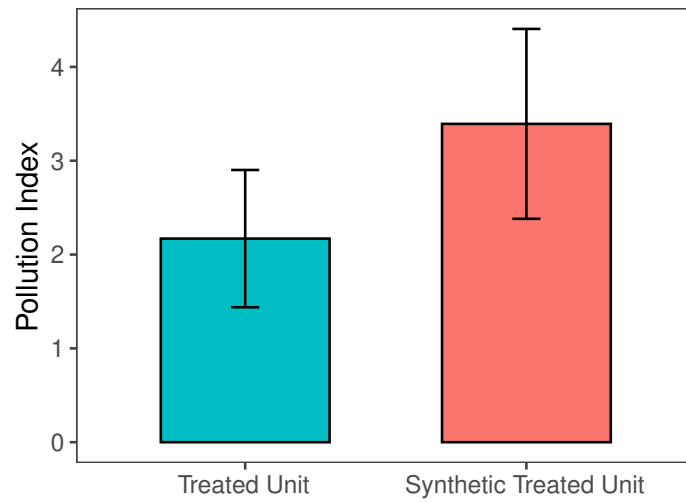


Figure 1: Average Treatment Effect

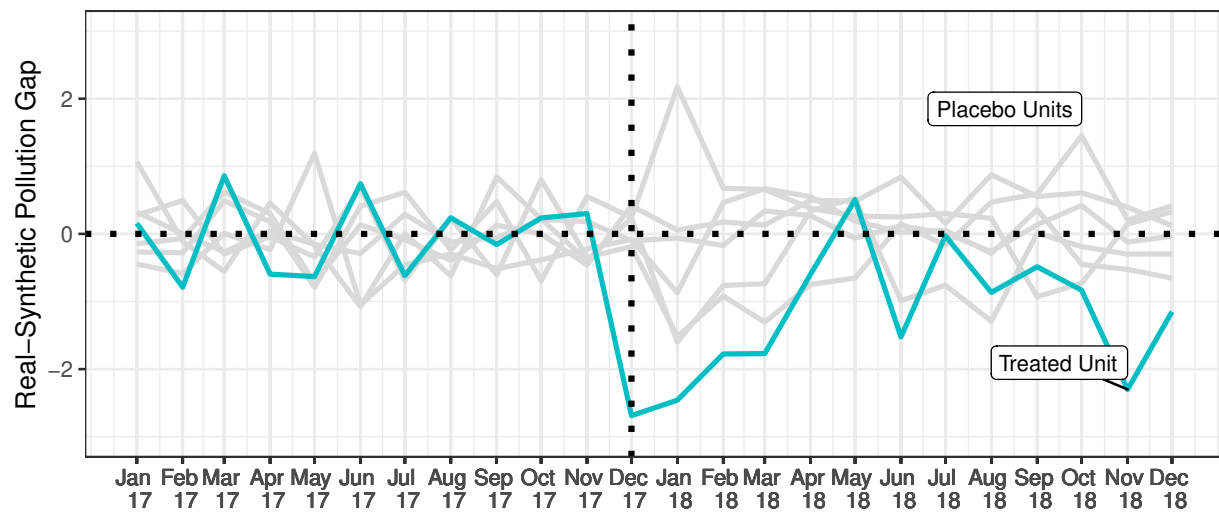


Figure 2: PI Gaps in The Real Treated Unit and Placebo PI Gaps in Control Units

## 5 Itemize

### 5.1 Basic

- One entry in the list
- Another entry in the list

## 5.2 Use number label

1. The labels consists of sequential numbers.
2. The numbers starts at 1 with every call to the enumerate environment.

## 5.3 Nest list

1. The labels consists of sequential numbers.
  - The individual entries are indicated with a black dot, a so-called bullet.
  - The text in the entries may be of any length.
2. The numbers starts at 1 with every call to the enumerate environment.

## 6 Assignment

Now, try to use  $\text{\LaTeX}$  to polish your resume. And add  $\text{\LaTeX}$  into your professional skill section.