

# HOUSE PRICE AND AFFORDABILITY IN REGIONS OF ENGLAND AND WALES

*Junsong Yang*

4274056

psyjy3@nottingham.ac.uk

## 1. INTRODUCTION

House price has changes dramatically over the past few years. Such changes are drawing attentions as they are leading to housing affordability issues. For example, house price in London increased drastically these years, as a result, house price is becoming unaffordable to most of the residents. Analysis of how the house price changed and to what extent the affordability is affected by that changes is provided.

The dataset, obtained from office for national statistics, contains annual data from 1997 to 2018 about the median house price across regions of England and Wales, the median gross annual earnings based on working place associated with different regions and the ratio of median house price to median gross annual earnings.[1] [2]

## 2. RESEARCH QUESTIONS

As mentioned above, the increase of house price lead affordability concerns. A better understanding of the house market, and affordability of the locals are necessary to study this issue. For instance, how the house price changed and to what extent that change has influenced affordability. Hence the research questions are proposed as follow.

1. How the mean house price across the regions changed from 2000 onward and Which region has cheapest house.
2. How the ratio of house price to workplace-based earnings changed from 2000 onward and which region has the most affordable houses.
3. How the house price changes across different region correlated to each other. (what is the correlation coefficient of house price between different regions.)

### 2.1. Subheadings

Subheadings should appear in lower case (initial word capitalized) in boldface. They should start at the left margin on a separate line.

#### 2.1.1. Sub-subheadings

Sub-subheadings, as in this paragraph, are discouraged. However, if you must use them, they should appear in lower case (initial word capitalized) and start at the left margin on a separate line, with paragraph text beginning on the following line. They should be in italics.

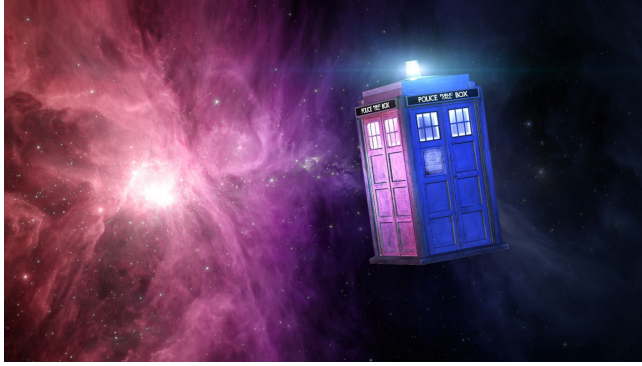
## 3. PAGE NUMBERING

Please do **not** paginate your paper. Page numbers, session numbers, and conference identification will be inserted when the paper is included in the proceedings.

## 4. ILLUSTRATIONS, GRAPHS, AND PHOTOGRAPHS

Illustrations must appear within the designated margins. They may span the two columns. If possible, position illustrations at the top of columns, rather than in the middle or at the bottom. Caption and number every illustration. All halftone illustrations must be clear black and white prints. Colors may be used, but they should be selected so as to be readable when printed on a black-only printer.

Since there are many ways, often incompatible, of including images (e.g., with experimental results) in a LaTeX document, below is an example of how to do this.



(a) Result 1



(b) Results 3



(c) Result 4

**Fig. 1.** Example of placing a figure with experimental results.

## References

- [1] N. Henretty, *Housing affordability in england and wales: 2018*, Mar. 2019. [Online]. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housingaffordabilityinenglandandwales/2018>.
- [2] —, *Dataset:house price to workplace-based earnings ratio*, Mar. 2019. [Online]. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian>.