**PROJECT 2 – MEASURING THE EFFECT OF A SUGAR TAX**

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| --- | --- | --- | --- |
| ***Students to complete*** | | ***Tutor to complete*** | |
| Workshop group |  | Name |  |
| Team number |  | Date of Feedback |  |
| Student Names: |  | Grade |  |
|  |
|  |
|  |

**Students to complete:** Briefly, what caused you the biggest problem in completing this project?

**Tutor’s comments**

**Tutor’s advice for how to improve future submissions**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Excellent | Good | Satisfactory | Needs more  work | Needs much  more work | Not  applicable |
| Completion of Excel tasks |  |  |  |  |  |  |
| Description of methods (Excel tasks) |  |  |  |  |  |  |
| Production of graphics |  |  |  |  |  |  |
| Interpretation of results |  |  |  |  |  |  |
| Discussion of results and methods |  |  |  |  |  |  |
| Overall presentation |  |  |  |  |  |  |

Use this handout to write your answers

* Questions on the handout refer to the tasks you will access online (see links below).
* When your produce a graph, make sure it has a title, axis labels and a legend. To copy/paste in the handout choose “picture”.
* To copy/paste a table in the handout choose “keep source formatting” or paste as a picture
* When you write an Excel formula, briefly explain how it works (which function do you use, to which variables or values the cells refer to). E.g. *=AVERAGE(A2:A25) calculates the mean for the values in column A (average temperature in Summer) from row 2 to 25 (period 1981-2004).*

Submit one report per team on the VLE by Tuesday 7 February 2023 2pm (UK time).

# Part 3.1 Before-and-after comparisons of retail prices [50 marks]

Download the data Berkeley Store Price Survey (*sps\_public\_balancedpanel.xlsx*) **from the EDA VLE page**.

Access the tasks online – [**CORE Doing Economics Empirical Project 3.1**](https://www.core-econ.org/doing-economics/book/text/03-02.html#part-31-before-and-after-comparisons-of-retail-prices)

## Question 1(a-b) [5]

Max 250 words

## Question2 (a-c) [5]

Paste your frequency tables and comment on the results (max 150 words overall)

For questions 3-5, use the variable “sample” to only include products that are present in all time periods. “sample=1” indicates that the product was present in Dec 2014, June 2015 and March 2016. Have a look at the discussion board if you want to know how this variable was built.

## Question 3(a) [5]

Paste your table. Briefly explain how you built the Pivot table in Excel (rows, columns, values filters)

## Question 3(b) [5]

Max 150 words

## Question 3(c) [5]

Max 200 words

## Question 4(a) [5]

Paste your table. Briefly explain how you calculated the differences in mean.

## Question 4(b) [5]

Paste your column chart

## Question 5 [5]

Max 150 words

## Bonus Question [10]

Using the same representation as we used in Lecture 2 to illustrate the concept of differences in differences, draw a diagram that shows the average value of the outcome (price) for the control and treatment group (large stores), before and after the tax. On your diagram, identify the selection bias, trend and average treatment effect.

Using the differences in differences method, calculate the estimated value of the average treatment effect for large stores.

# Part 3.2 Before-and-after comparisons with prices in other areas [50 marks]

Download the data file *Empirical-Project-3-datafile.xlsx* on the EDA VLE page and access the tasks online - [**CORE Doing Economics Empirical project 3.2**](https://www.core-econ.org/doing-economics/book/text/03-02.html#part-32-before-and-after-comparisons-with-prices-in-other-areas)

## Question 1 [5]

Max 250 words

## Question 2(a) [5]

Paste your table and briefly explain how you built it.

## Question 2(b) [8]

Paste your line charts. Comment - max 150 words.

## Question 2(c) [8]

Max 200 words – [Hint: define what are the treatment and control groups and express the average treatment effect using the differences in differences formula: ]

## Question 3 [8]

Max 200 words [Hint: define what are the treatment and control groups and express the average treatment effect using the differences in differences formula].

## Question 4 [5]

Max 200 words

## Question 5 [5]

Max 250 words

## Question 6 [6]

Max 250 words

**END OF PROJECT**