Homework 3

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Repository https://github.com/varunsaxena2/saxena-v-hwk3-1/upload 1. Here is the bar graph showing the proportion of states with a change in their cigarette tax in each year from 1970 to 1985.

2. Here is the line graph showing the average tax (in 2012 dollars) on cigarettes and the average price of a pack of cigarettes from 1970 to 2018.

3.

This figure is blank, and I was unable to figure out why this is the case. Please reference my code to see my attempt of this question.

4. This figure is blank, and I was unable to figure out why this is the case. Please reference my code to see my attempt of this question.

5. As it stands right now, the trends are for some reason not displaying on my graphs, so I cannot compare the trends. Please reference my code to see my attempt of this question.

6. It seems like there is a significant negative association between the ln(sales) and the ln(price).

Edit: This model is no longer working even though I did not change the code. The N/A issues presented in the other regressions below are presenting here as well.

7. The instrumental variable regression did not run. Please reference my code to see my attempt of this question. There was an issue with removing N/A values, which prevented this regression from running. I attempted to use na.omit() to solve this issue, but it did not work.

8. This regression did not run. Please reference my code to see my attempt of this question. Similar to question 7, I was unable to remove N/A values from the dataset, which prevented this regression from running.

9. The third figure returns a blank graph due to it having very similar underlying code to question 3, which also returns a blank graph. Please reference my code to see my attempt of this question.

10. Unfortunately, none of the graphs ran well enough for me to analyze the results. However, I can note that the 1991-2015 range displays higher tax rates across the years with a decline in the early 2000s and recent years. While I do not have elasticity estimates, I can gather that this good is relatively inelastic due to the addictive quality of cigarettes.