Homework3 Submission2

https://github.com/modugbe/homework3

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#Question 1

Proportion of States with Cigarette Tax Change (1970–1985)

#Question 2

Average Tax and Price of Cigarettes (1970–2018)

Amount (2012 dollars) vs Year

colour
- Average Price
- Average Tax
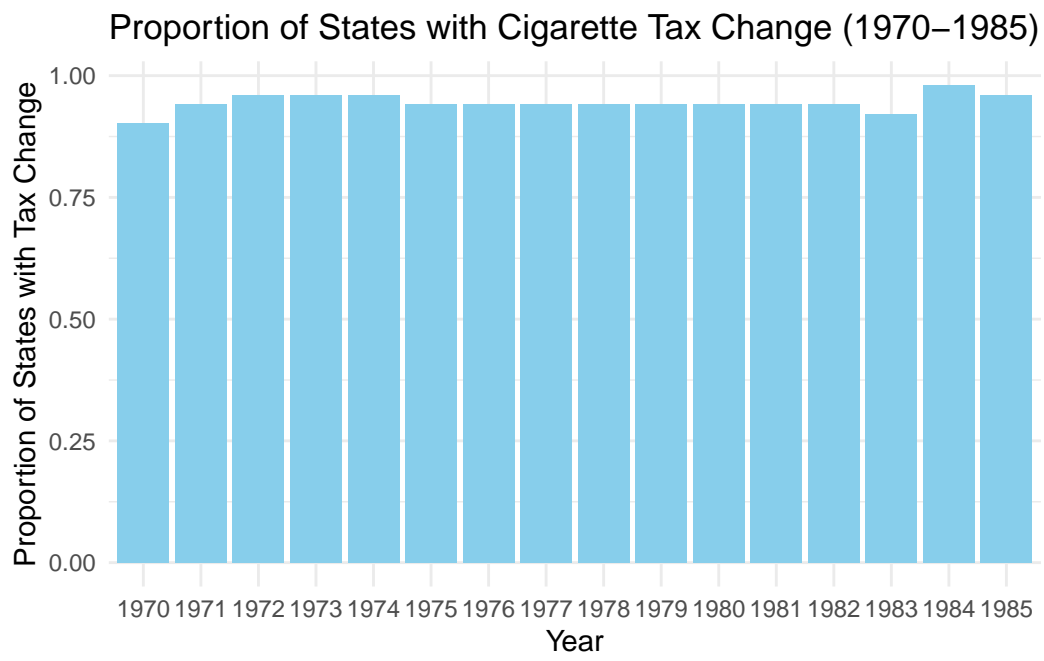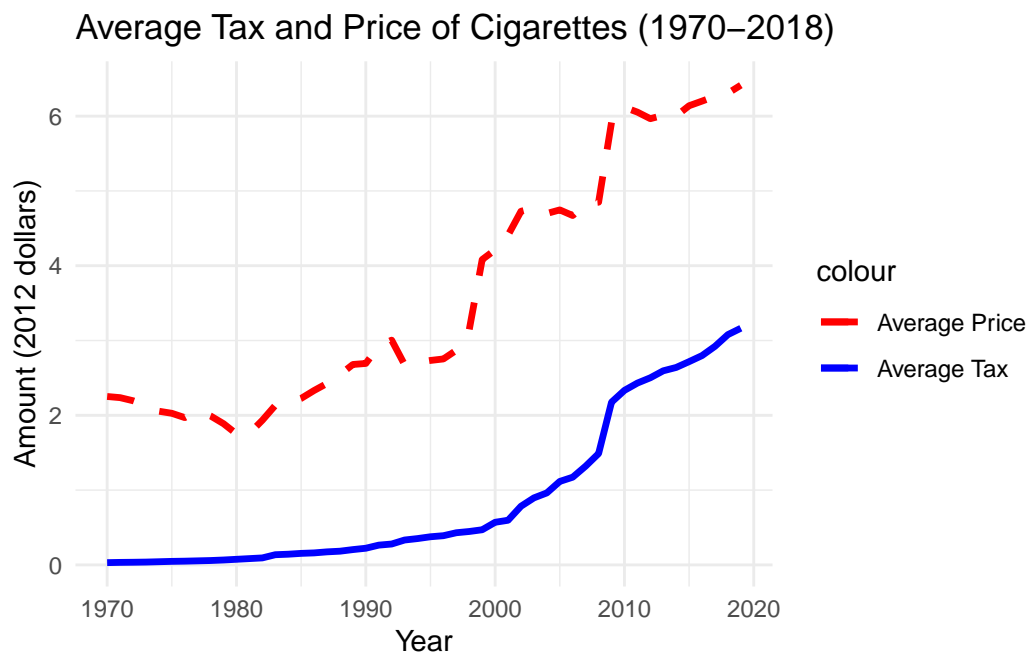
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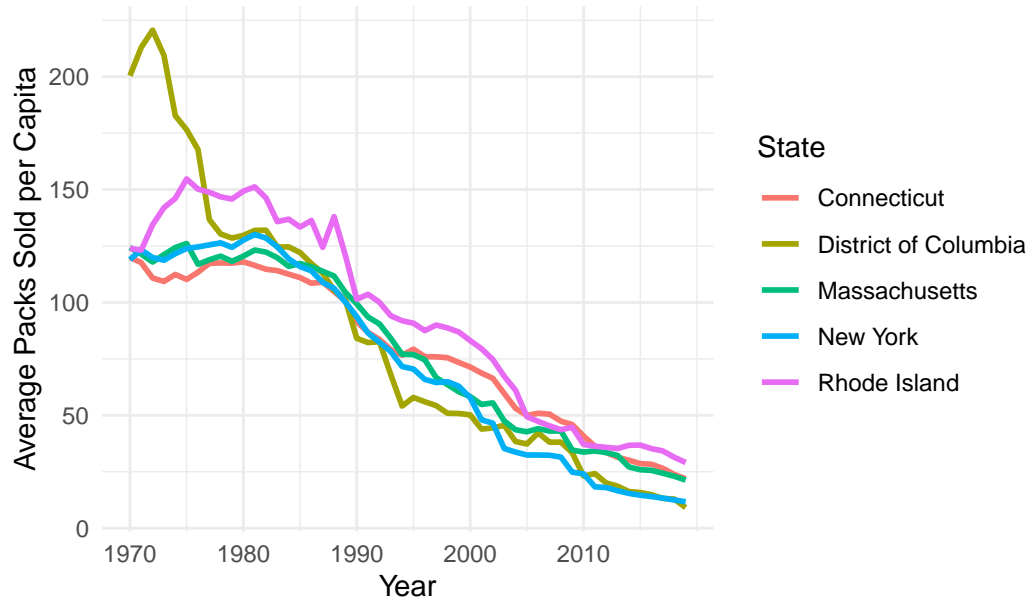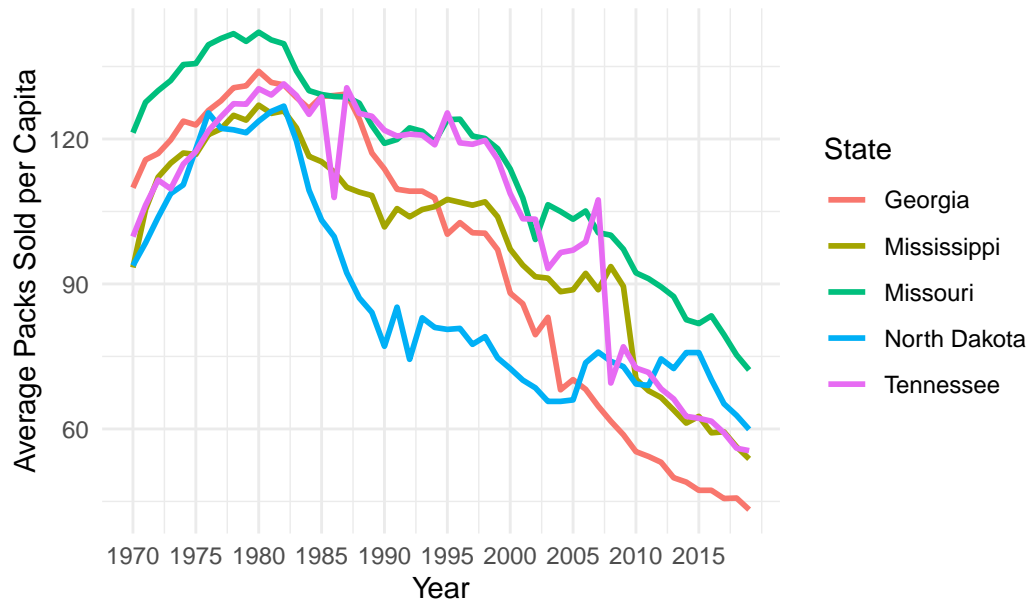
Average Packs Sold per Capita for States with Highest Cigaret

#Question 4

Average Packs Sold per Capita for States with Lowest Cigarett

#Question 5 Both groups of states have similar sales on average that decrease as years or as the taxes increase. This somewhat uniform trend between the groups can be explained by the type of good cigarette is.

#Question 6 See Table 1

Call: lm(formula = log(sales_per_capita) ~ log(price_cpi), data = subset_data)

Coefficients: (Intercept) log(price_cpi)
5.4274 -0.8094

#Question 7 See Table 1

#Question 8 See Table 1

#Question 9 See Table 1

#Question 10

Table 1: Estimation results

	Period	Price_Elasticity	IV_Elasticity	First_Stage_R2	Reduced_Form_R2
log(price_cpi)	1970-1990	-0.8094384	-0.9230776	0.6174372	0.2360606
log(price_cpi)1	1991-2015	-0.8094384	-1.1129433	0.8682626	0.6076822

While the naive regression estimates are the same, the IV estimates are different. The estimates
have the same signs that can tell us about elasticity.