

# **Submission1-HW3**

**Research Methods, Spring 2024**

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<https://github.com/carolinezhansen/tobacco/tree/main>

## **Answers for Homework 3: Submission 1**

## Problem 1

1. Present a bar graph showing the proportion of states with a change in their cigarette tax in each year from 1970 to 1985.

	[,1]
[1,]	0.7
[2,]	1.9
[3,]	3.1
[4,]	4.3
[5,]	5.5
[6,]	6.7
[7,]	7.9
[8,]	9.1
[9,]	10.3
[10,]	11.5
[11,]	12.7
[12,]	13.9
[13,]	15.1
[14,]	16.3
[15,]	17.5
[16,]	18.7
[17,]	19.9
[18,]	21.1
[19,]	22.3
[20,]	23.5
[21,]	24.7
[22,]	25.9
[23,]	27.1
[24,]	28.3
[25,]	29.5
[26,]	30.7
[27,]	31.9
[28,]	33.1
[29,]	34.3
[30,]	35.5
[31,]	36.7
[32,]	37.9
[33,]	39.1
[34,]	40.3
[35,]	41.5
[36,]	42.7

[37,] 43.9  
[38,] 45.1  
[39,] 46.3  
[40,] 47.5  
[41,] 48.7  
[42,] 49.9  
[43,] 51.1  
[44,] 52.3  
[45,] 53.5  
[46,] 54.7  
[47,] 55.9  
[48,] 57.1  
[49,] 58.3

## Problem 2

2. Plot on a single graph the average tax (in 2012 dollars) on cigarettes and the average price of a pack of cigarettes from 1970 to 2018.

Warning: Use of ``final.data$tax_percent`` is discouraged.  
i Use ``tax_percent`` instead.

Warning: Use of ``final.data$cost_per_pack`` is discouraged.  
i Use ``cost_per_pack`` instead.

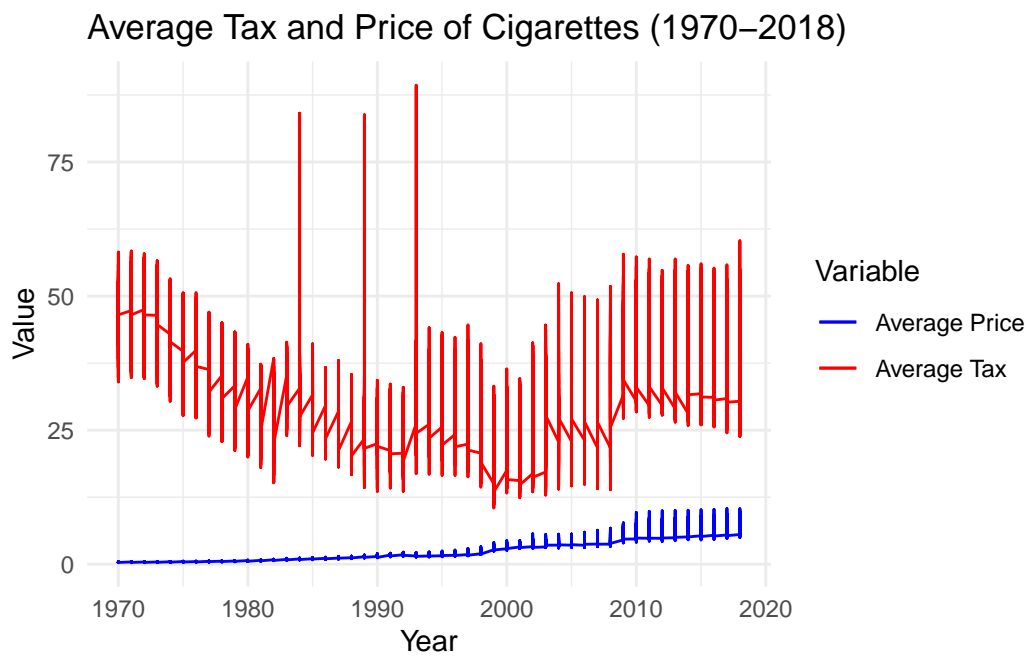


Figure 1: Average Tax and Average Price of Cigarettes from 1970 to 2018