Homework 5

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Please find the link to my GitHub repository here: https://github.com/nsgand2/ECON-470-HWK 5.git

Question 1

Plot the share of the adult population with direct purchase health insurance over time.

```
 [1] "State"        "year"         "adult_pop"    "ins_employer" "ins_direct"
 [6] "ins_medicare" "ins_medicaid" "uninsured"    "expand_ever"  "date_adopted"
[11] "expand_year"  "expand"
```


Share of Adult Population with Direct-Purchase Health Insu...
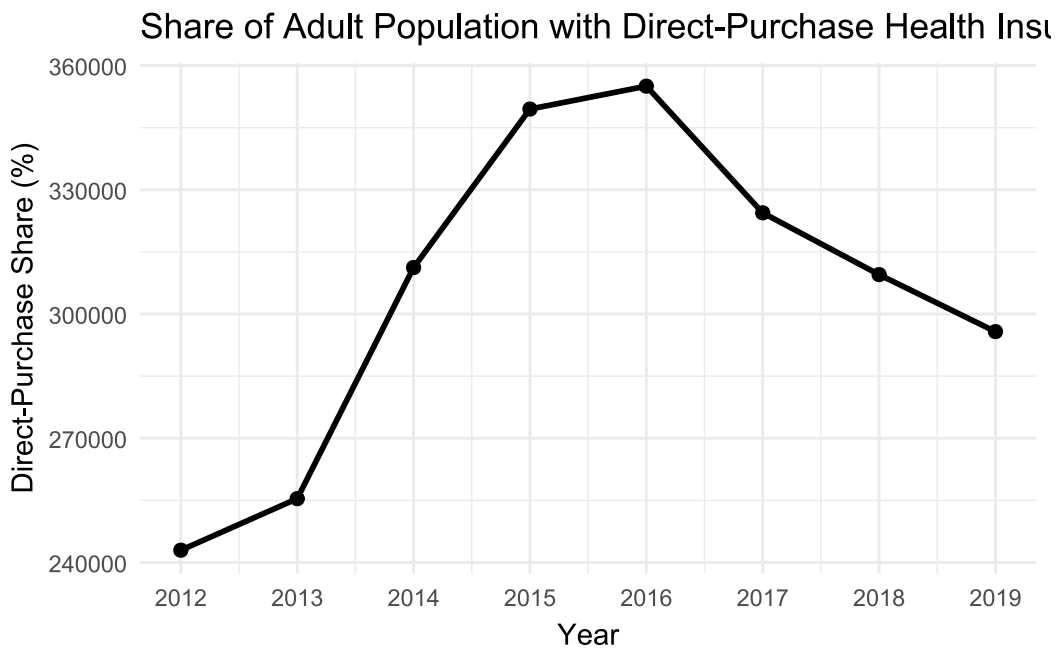
Question 2

Discuss the reduction in direct purchase health insurance in later years. Can you list a couple of policies that might have affected the success of the direct purchase insurance market?

In the later years (especially post-2016), there was a noticeable decline in direct-purchase health insurance. This decline can be attributed to several key policy changes:

1. Repeal of the Individual Mandate Penalty (2017 Tax Cuts and Jobs Act) This penalty was a core component of the Affordable Care Act (ACA).

Repealing it reduced the incentive for healthy individuals to purchase insurance, which led to adverse selection in the individual market (higher premiums, fewer enrollees).

2. Expansion of Short-Term and Association Health Plans (Trump Admin, 2018) These alternatives were often cheaper but offered fewer benefits and protections.

They siphoned younger, healthier consumers out of ACA-compliant plans, destabilizing the risk pool in the individual market.

3. Cuts to ACA Outreach and Enrollment Assistance Federal support for advertising and enrollment assistance was slashed between 2017–2019.

As a result, fewer people signed up for Marketplace plans, contributing to a decline in coverage via direct purchase.
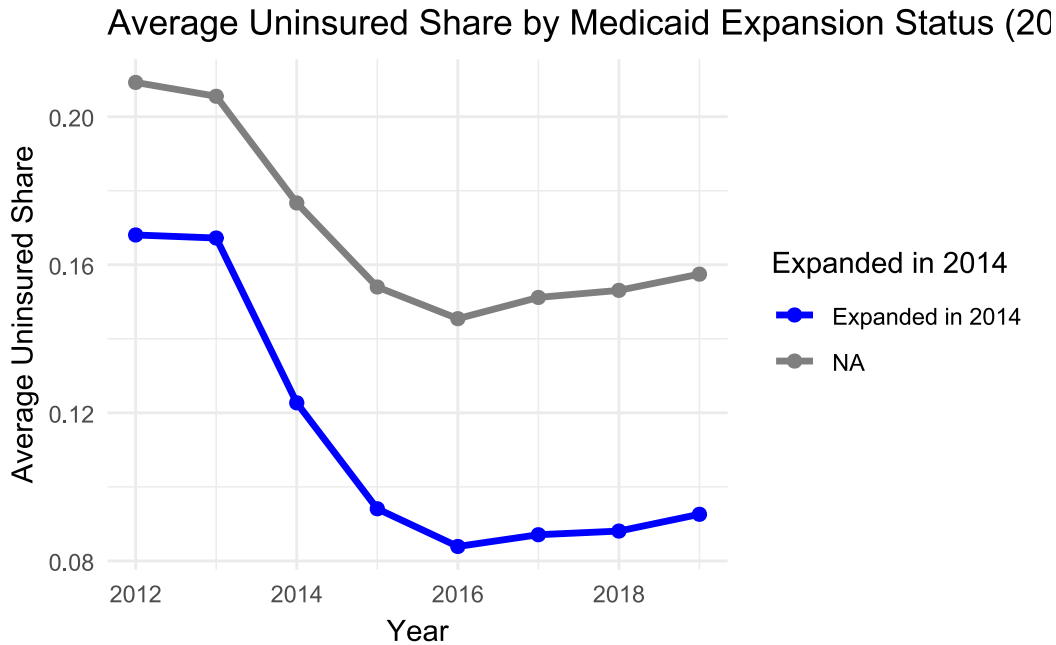
Question 3

Plot the share of the adult population with Medicaid over time.

Share of Adult Population with Medicaid Coverage
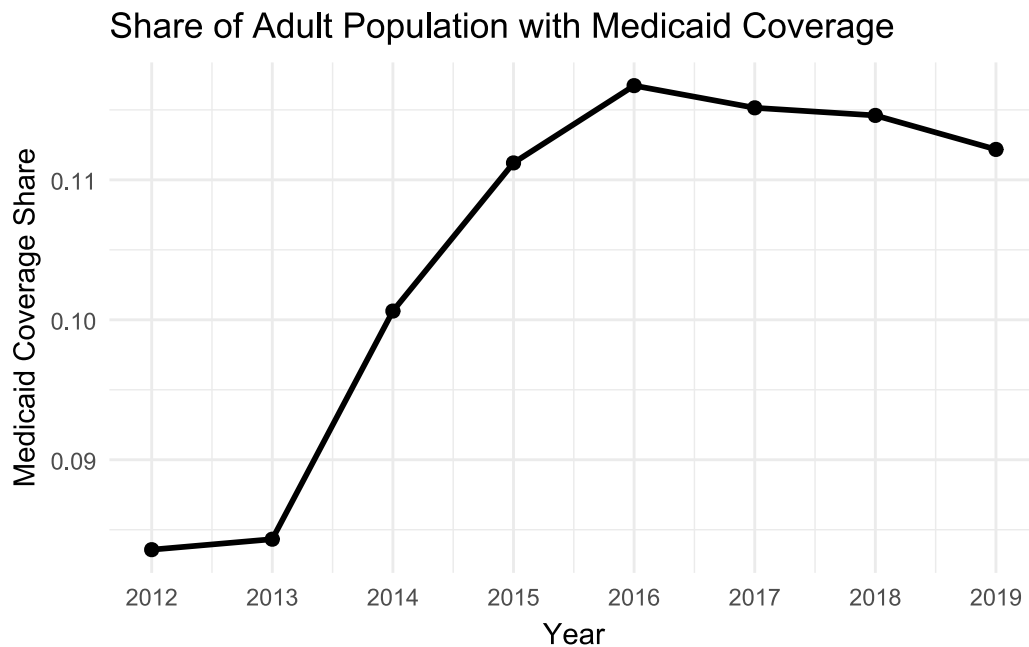
Question 4

Plot the share of uninsured over time, separately by states that expanded Medicaid in 2014 versus those that did not. Drop all states that expanded after 2014.

Average Uninsured Share by Medicaid Expansion Status (20

Question 5

Calculate the average percent of uninsured individuals in 2012 and 2015, separately for expansion and non-expansion states. Present your results in a basic 2x2 DD table.

Expansion Status	2012	2015
Expanded in 2014	0.1680521	0.0940897
NA	0.2092539	0.1539941

Question 6

Estimate the effect of Medicaid expansion on the uninsurance rate using a standard DD regression estimator, again focusing only on states that expanded in 2014 versus those that never expanded.

	DD Estimate (2014 vs Never)
post	-0.054***
	(0.003)
expand_everTRUE	-0.046**
	(0.016)

	DD Estimate (2014 vs Never)
treat	-0.019**
	(0.007)

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Question 7

Include state and year fixed effects in your estimates. Try using the lfe or fixest package to estimate this instead of directly including the fixed effects.

	Simple DD	TWFE DD
post	-0.054***	
	(0.008)	
expand_everTRUE	-0.046***	
	(0.009)	
treat	-0.019+	-0.019*
	(0.010)	(0.007)

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Question 8

Repeat the analysis in question 7 but include all states (even those that expanded after 2014). Are your results different? If so, why?

	DD (2014 only)	TWFE (2014 only)	DD (All States)	TWFE (All States)
post	-0.054***		-0.054***	
	(0.008)		(0.008)	
expand_ev-erTRUE	-0.046***		-0.040***	
	(0.009)		(0.009)	
treat	-0.019+	-0.019*	-0.017+	-0.017**
	(0.010)	(0.007)	(0.010)	(0.006)

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Question 9

Provide an "event study" graph showing the effects of Medicaid expansion in each year. Use the specification that includes state and year fixed effects, limited to states that expanded in 2014 or never expanded.
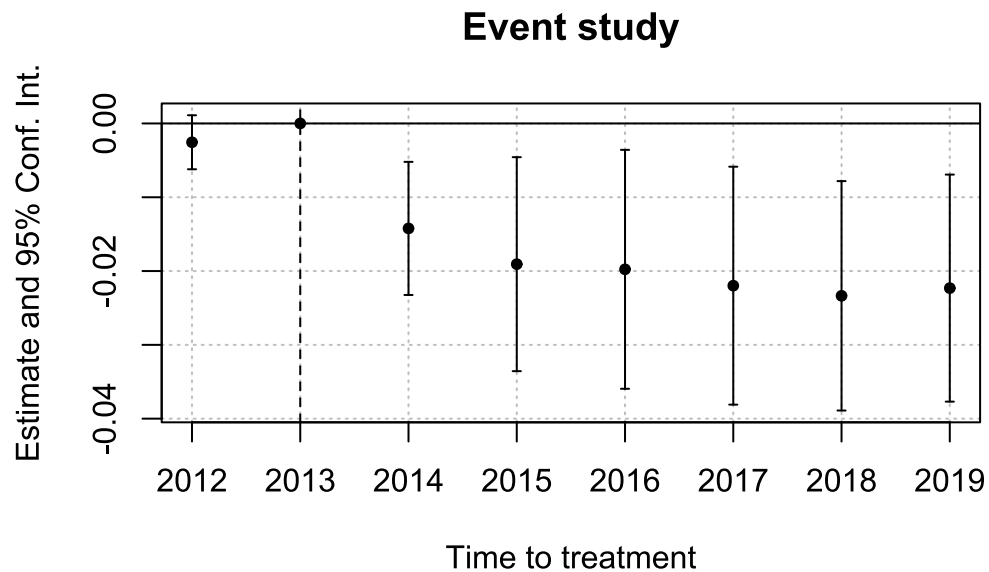
Event study

Question 10

Repeat part 9 but again include states that expanded after 2014. Note: this is tricky...you need to put all states onto "event time" to create this graph.

Event Study: Uninsured Rate Response to Medicaid Expan