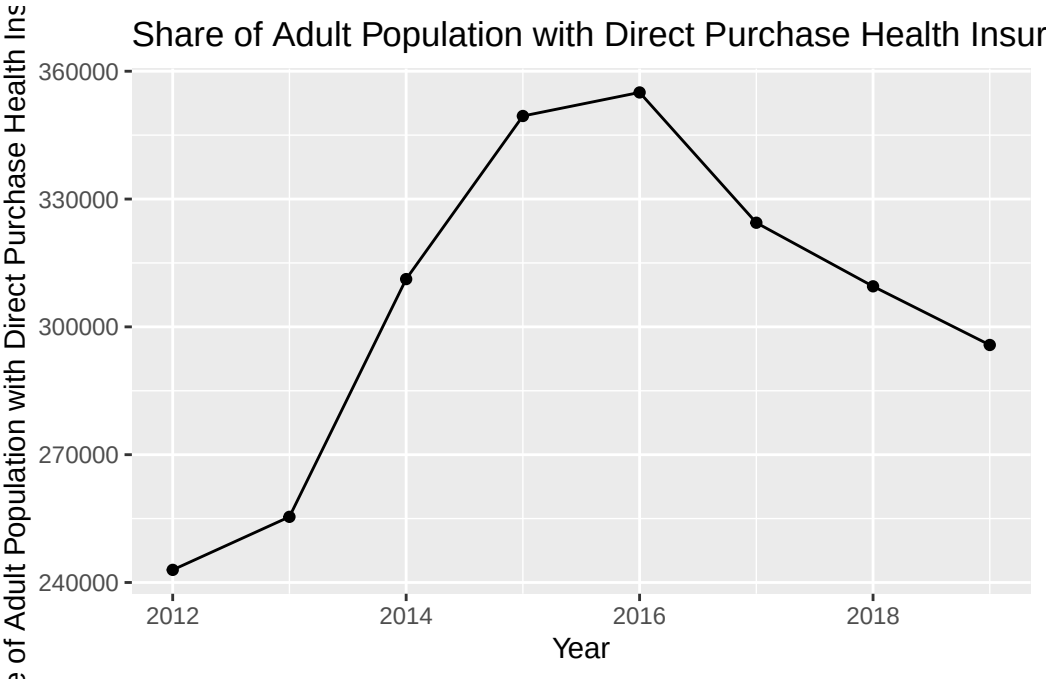
Git Repository: https://github.com/AlekhyaPidugu/Homework5

Question 1


Share of Adult Population with Direct Purchase Health Insur
e of Adult Population with Direct Purchase Health Ins
360000
330000
300000
270000
240000
2012
2014
2016
2018
Year

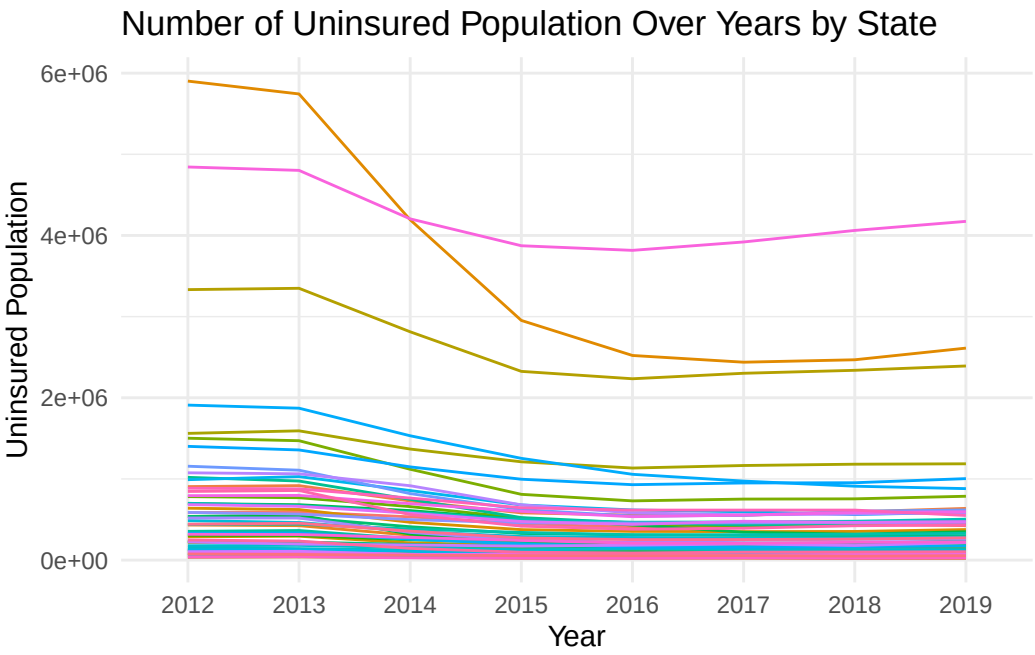
Question 2

The expansion of Medicaid eligibility under the ACA provided coverage to millions of low-income individuals who might have otherwise purchased insurance directly from the market. This could have reduced the pool of potential customers for direct purchase insurance plans.

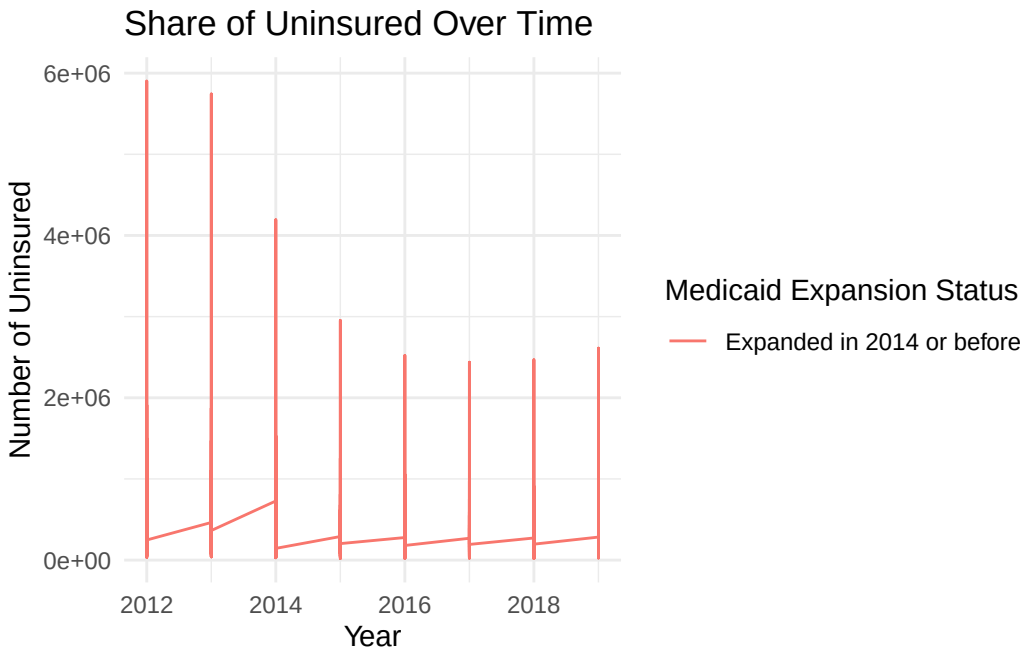
The ACA prohibits insurance companies from denying coverage or charging higher premiums based on pre-existing conditions. This provision made it easier for individuals with pre-existing conditions to obtain coverage through ACA-compliant plans offered in the marketplaces, potentially reducing the demand for direct purchase plans.

State-level regulations regarding insurance market practices, such as rate review requirements, benefit mandates, and network adequacy standards, can influence the availability and affordability of direct purchase insurance plans. Regulatory changes that increase the cost of offering or purchasing direct purchase plans could impact their viability in the market.

Question 3


Number of Uninsured Population Over Years by State
Uninsured Population
6e+06
4e+06
2e+06
0e+00
2012
2013
2014
2015
2016
2017
2018
2019
Year

Question 4


Share of Uninsured Over Time
Number of Uninsured
6e+06
4e+06
2e+06
0e+00
2012
2014
2016
2018
Year
Medicaid Expansion Status
Expanded in 2014 or before

Question 5

```
# A tibble: 3 x 3
# Groups:   expand_ever [3]
  expand_ever `2012` `2015`
  <lgl>        <dbl>  <dbl>
1 FALSE        0.216 0.158
2 TRUE         0.175 0.104
3 NA           0.100 0.0824
```

Question 6

```
Call:
lm(formula = uninsured/adult_pop ~ expand_ever + post_treatment +
    expansion_post, data = filtered_data)

Residuals:
      Min        1Q    Median        3Q       Max
-0.115254 -0.029382 -0.007719  0.028173  0.102290

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      0.21228    0.01077  19.701  < 2e-16 ***
expand_everTRUE -0.04505    0.01375  -3.275  0.00136 **
post_treatment  -0.04218    0.01320  -3.197  0.00175 **
expansion_post  -0.01664    0.01685  -0.988  0.32501
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.04443 on 128 degrees of freedom
  (3 observations deleted due to missingness)
Multiple R-squared:  0.4176,    Adjusted R-squared:  0.4039
F-statistic: 30.59 on 3 and 128 DF,  p-value: 5.608e-15
```

Question 7

```
Warning in chol.default(mat, pivot = TRUE, tol = tol): the matrix is either
rank-deficient or not positive definite
```

```
   uninsured        adult_pop
 Min.   :-59616   Min.   :-59616
 1st Qu.:-59616   1st Qu.:-59616
 Median :-59616   Median :-59616
 Mean   :-59616   Mean   :-59616
 3rd Qu.:-59616   3rd Qu.:-59616
 Max.   :-59616   Max.   :-59616
 NA's   :2        NA's   :2
```

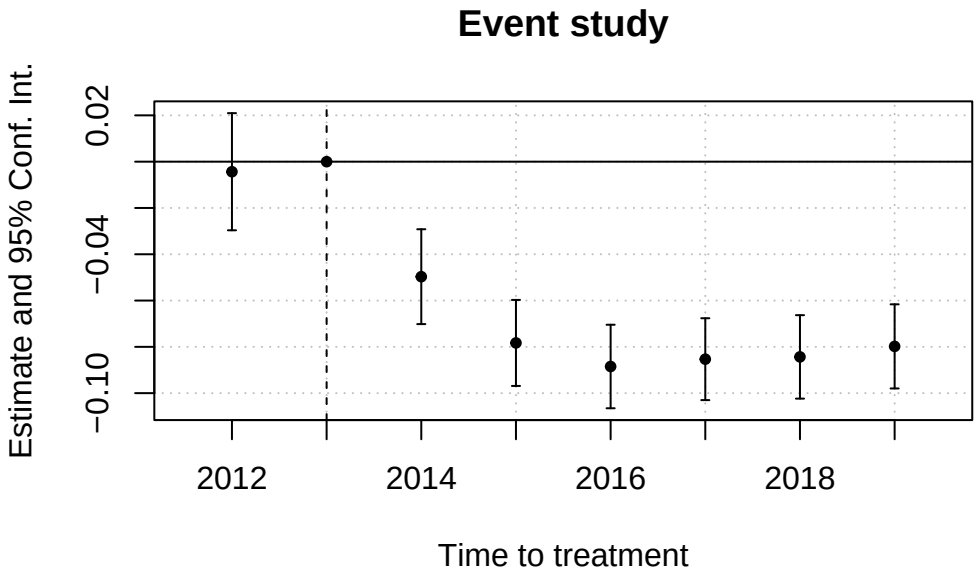
Question 8

```
Warning in chol.default(mat, pivot = TRUE, tol = tol): the matrix is either
rank-deficient or not positive definite

Warning in chol.default(mat, pivot = TRUE, tol = tol): the matrix is either
rank-deficient or not positive definite


Call:
   felm(formula = uninsured ~ expand + factor(State) + factor(year) |      factor(State) + fa

Residuals:
     Min       1Q   Median       3Q      Max
-1052778   -49943    10352    63302  2063351

Coefficients:
                                 Estimate Std. Error t value Pr(>|t|)
expandTRUE                        -89881      45592  -1.971   0.0494 *
factor(State)Alaska                  NaN         NA     NaN      NaN
factor(State)Arizona                 NaN         NA     NaN      NaN
factor(State)Arkansas                NaN         NA     NaN      NaN
factor(State)California              NaN         NA     NaN      NaN
factor(State)Colorado                NaN         NA     NaN      NaN
factor(State)Connecticut             NaN         NA     NaN      NaN
factor(State)Delaware                NaN         NA     NaN      NaN
factor(State)District of Columbia    NaN         NA     NaN      NaN
factor(State)Florida                 NaN         NA     NaN      NaN
factor(State)Georgia                 NaN         NA     NaN      NaN
factor(State)Hawaii                  NaN         NA     NaN      NaN
factor(State)Idaho                   NaN         NA     NaN      NaN
factor(State)Illinois                NaN         NA     NaN      NaN
factor(State)Indiana                 NaN         NA     NaN      NaN
factor(State)Iowa                    NaN         NA     NaN      NaN
factor(State)Kansas                  NaN         NA     NaN      NaN
factor(State)Kentucky                NaN         NA     NaN      NaN
factor(State)Louisiana               NaN         NA     NaN      NaN
factor(State)Maine                   NaN         NA     NaN      NaN
factor(State)Maryland                NaN         NA     NaN      NaN
factor(State)Massachusetts           NaN         NA     NaN      NaN
factor(State)Michigan                NaN         NA     NaN      NaN
factor(State)Minnesota               NaN         NA     NaN      NaN
```

```
factor(State)Mississippi                NaN         NA     NaN      NaN
factor(State)Missouri                   NaN         NA     NaN      NaN
factor(State)Montana                    NaN         NA     NaN      NaN
factor(State)Nebraska                   NaN         NA     NaN      NaN
factor(State)Nevada                     NaN         NA     NaN      NaN
factor(State)New Hampshire              NaN         NA     NaN      NaN
factor(State)New Jersey                 NaN         NA     NaN      NaN
factor(State)New Mexico                 NaN         NA     NaN      NaN
factor(State)New York                   NaN         NA     NaN      NaN
factor(State)North Carolina             NaN         NA     NaN      NaN
factor(State)North Dakota               NaN         NA     NaN      NaN
factor(State)Ohio                       NaN         NA     NaN      NaN
factor(State)Oklahoma                   NaN         NA     NaN      NaN
factor(State)Oregon                     NaN         NA     NaN      NaN
factor(State)Pennsylvania               NaN         NA     NaN      NaN
factor(State)Puerto Rico                NaN         NA     NaN      NaN
factor(State)Rhode Island               NaN         NA     NaN      NaN
factor(State)South Carolina             NaN         NA     NaN      NaN
factor(State)South Dakota               NaN         NA     NaN      NaN
factor(State)Tennessee                  NaN         NA     NaN      NaN
factor(State)Texas                      NaN         NA     NaN      NaN
factor(State)Utah                       NaN         NA     NaN      NaN
factor(State)Vermont                    NaN         NA     NaN      NaN
factor(State)Virginia                   NaN         NA     NaN      NaN
factor(State)Washington                 NaN         NA     NaN      NaN
factor(State)West Virginia              NaN         NA     NaN      NaN
factor(State)Wisconsin                  NaN         NA     NaN      NaN
factor(State)Wyoming                    NaN         NA     NaN      NaN
factor(year)2013                        NaN         NA     NaN      NaN
factor(year)2014                        NaN         NA     NaN      NaN
factor(year)2015                        NaN         NA     NaN      NaN
factor(year)2016                        NaN         NA     NaN      NaN
factor(year)2017                        NaN         NA     NaN      NaN
factor(year)2018                        NaN         NA     NaN      NaN
factor(year)2019                        NaN         NA     NaN      NaN
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 220100 on 356 degrees of freedom
Multiple R-squared(full model): 0.9409   Adjusted R-squared: 0.9311
Multiple R-squared(proj model): 0.0108   Adjusted R-squared: -0.1531
F-statistic(full model):96.04 on 59 and 356 DF, p-value: < 2.2e-16
F-statistic(proj model): 0.06587 on 59 and 356 DF, p-value: 1
```

Question 9

```
Warning: There was 1 warning in `mutate()`.
i In argument: `post = (year >= 2014)`.
Caused by warning in `Ops.factor()`:
! '>=' not meaningful for factors
```



Question 10

```
Warning: There was 1 warning in `mutate()`.
i In argument: `post = year >= 2014`.
Caused by warning in `Ops.factor()`:
! '>=' not meaningful for factors
```