## Environmental HW 5

## sholmes34 Holmes

February 2025

## 1 1 Hourly Data (Stata)

Below is the table of results from the twowayfeweights syntax:

```
. twowayfeweights energy id devicegroup treatment, type(feTR)
The treatment variable in the regression varies within some group * period cells.

The results in de Chaisemartin, C. and D'Haultfoeuille, X. (2020) apply to two-way fixed effects regression:
with a group * period level treatment.
The command will replace the treatment by its average value in each group st period.
The results below apply to the two-way fixed effects regression with that treatment variable.
Under the common trends assumption,
the TWFE coefficient beta, equal to 0.0000, estimates a weighted sum of 997 ATTs.
288 ATTs receive a positive weight, and 709 receive a negative weight.
1000 (g,t) cells receive the treatment, but the ATTs of 3 cells receive a weight equal to zero.
Treat. var: treatment # ATTs
                                       Σ weights
Positive weights
                                        1.6308
Negative weights
                           709
                                        -0.6308
Total
                          997
                                        1.0000
```

The number of treated cohorts is 288,000. This was obtained from a query of the count of non-missing variables for each cohort.

There are 709 negative weights.

I was unable to estimate the ATT when attempting to execute the following syntax:

 $xtdidregress\ (energy\ temperature\ precipitation\ relative humidity\ id)\ (treatment),$   $group(cohort)\ time(date)\ vce(cluster\ zip)$ 

The errors received was " 'id not nested within cohort;" I am unsure how to resolve this but I suspect it's a result of how I generated the treatment cohort variable, called cohort.

## 2 2 Daily Data (Stata)

The first problem is that I do not have 30,000 observations! I now know for a fact that something is gravely wrong with my cohort treatment variable. This prevents me from running the TWFE regression and from proceeding to the event study. I will work with the prof to get solutions to my mistakes.