Preliminary

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Data summary

- (I don't really know how to make a summary table... so here is the ugly one)

```
#libraries
library(tidyverse)
library(foreign)
library(lmtest)

#read data
data<-read.dta("cleaned_v1.dta")
```

```
data %>%
  summarise(
        count = n(),
        mean_d_wage = mean(d_mhrwageactive, na.rm = TRUE),
        sd_d_wage = sd(d_mhrwageactive, na.rm = TRUE),
        mean_w_covid_apr = mean(w_covid_apr, na.rm = TRUE),
        sd_w_covid_apr = sd(w_covid_apr, na.rm = TRUE))
```

```
##   count mean_d_wage sd_d_wage mean_w_covid_apr sd_w_covid_apr
## 1    37   0.6018542  11.58796         2181.928       838.4911
```

Preliminary regressions

- First, let's assess whether the Covid exposure of the Mexican migrants in US has any impacts on the local wages (W) in the Mexican cities

$$\Delta W_c = \alpha + \beta \sum_s \theta_{sc} Covid_s + \varepsilon_c$$

where

$$\Delta W_c = W_{c,2020q4} - W_{c,2019q4}$$

$$\theta_{sc} = \frac{\text{Number of travelers from city } c \text{ to state } s}{\text{Total number of travels from city } c}$$

and $Covid_s$ is the number of cases in state s (per million people).

```
#regression
reg1<-lm(d_mhrwageactive~w_covid_apr, data=data)
coeftest(reg1)
```

```
##
## t test of coefficients:
##
```

```
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 16.3771725  5.5299734  2.9615 0.005936 **
## w_covid_apr -0.0069460  0.0023705 -2.9301 0.006421 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

- Second, let's assess whether there are differential effects between agricultural and non-agricultural sectors:

$$\Delta W_c = \alpha + \beta_1 \sum_s \theta_{sc} Covid_s + \beta_2 \sum_s \theta_{sc} Ag_s Covid_s + \varepsilon_c$$

where Ag_s is the share of Mexican-born agricultural workers over total agricultural workers in state s.

```
#regression2
reg2<-lm(d_mhrwageactive~w_covid_apr+w_covid_apr_ag, data=data)
coeftest(reg2)
```

```
##
## t test of coefficients:
##
##                  Estimate Std. Error t value Pr(>|t|)
## (Intercept)    14.1762750  6.4987427  2.1814 0.037407 *
## w_covid_apr    -0.0074778  0.0025245 -2.9621 0.006044 **
## w_covid_apr_ag  0.0303088  0.0458163  0.6615 0.513495
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Considerations

- Small sample: Number of cities=37
- Other sectors?
- Mexico local Covid exposure?
- Control for the importance of the migration in city c?