The Impact of Distance Working to Workers' Well-being

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Research Topic

- During the COVID-19 pandemic, there are a lot of workers were asked to work form home because of lock-down.
- The question I want to examine is:
  During the pandemic, is the **well-being index** of home workers lower?

Data & Sample

Data
IPUMS Time Use data 2021

Sample

- \# of obs: 3281
- I collected a cross-sectional individual-level survey data.
- I dropped all the observations do not answer whether they are working from home or not, as well as excluded those observations with no job and no income.

Empirical Specification

▶ Propensity score:

$$p(X_i) = E(D_i|X_i) = Pr(D_i = 1|X_i)$$

▶ Assume CIA holds:

$$(Y_i^1, Y_i^0) \perp D_i | p(X_i)$$

  ▶ Where Y_i^d represents the potential outcome when $D_i = d$

▶ Estimate the propensity score using logit regression:

$$\hat{p}(X) = \hat{Pr}(D_i = 1|X_i) = \frac{1}{1 + e^{-(\hat{\beta}_0 + \hat{\beta}_1 x_1 + ... + \hat{\beta}_k x_k)}}$$

Variables

- Y_i represents an outcome of interest:
  - `Well-being index: 0~10`, 0 for the worst life, 10 for the best life
- D_i represents a binary treatment of interest:
  - `Distance working or not` : 1 for distance worker, 0 for commuter
- X_i represents the a set of control variables:
  - `Occupation, marrital status,age, race, sex, have child or not, full-time or part-time, earning per week, State`

Summary statistics

```
sort distance_work
by distance_work : sum wbladder
```

```
-> distance_work = 0
```

Variable	Obs	Mean	Std. Dev.	Min	Max
wbladder	2,452	7.307912	1.831601	0	10

```
-> distance_work = 1
```

Variable	Obs	Mean	Std. Dev.	Min	Max
wbladder	829	7.221954	1.616327	1	10

PSCORE Matching Results

```
global X i.statefip age female hh_child i.occ2 ///
        earnweek i.race i.fullpart
global D distance_work
global Y wbladder
psmatch2 $D $X, out($Y) n(3) ai(3)
```

Variable	Sample	Treated	Controls	Difference	S.E.	T-stat
wbladder	Unmatched	7.21980676	7.31010309	-.090296329	.071507743	-1.26
	ATT	7.21980676	7.40901771	-.18921095	.098001126	-1.93

Note: Sample S.E.

Future Work

Subgroup analysis

- Male vs. Female
- Have child vs. No child
- Married vs. Single