

Discussing “Disentangling Stigma  
from Firm Effect on Wage Losses for  
Laid-off Workers” by Corseuil et al  
(2011)

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# Main result of Paper

Using Brazilian administrative data from 2000 to 2005 (from tax paying establishments) authors build employer-employee matches to conform a panel database to study percentage wage difference (pre and post wage variation) at individual level between laid-off workers and displaced workers from a plant closing, controlling for firm fixed effects and tenure from previous employer, type of industry, reemployment spell, same occupation, age squared.

They find that laid-off workers fare worse relative to second group since they receive on average a wage between 14 to 18% less of the pre displacement wage. This is interpreted as a stigma effect.

The effect is similar for three samples: all displaced workers, all displaced workers from closed plants and all displaced workers from closed plants near the closing date.

# Identifying the Stigma Effect

Gibbons-Katz model (1991): no firm effect

Adverse selection story: firms hire workers in first period but do not know their productivity level  $\eta$ , they observe it if it survives productivity shock into the second period (meaning it does not close down)

Wage offer to  $i$  by  $j$  at time 1 =  $E[\eta_{ij}] + \delta_{j1}$

Authors define in two ways stigma:

- Stigma of worker  $i = E[\eta_i \leq \eta_R] - E[\eta_i]$
- Stigma of worker  $i = E[\eta_i \leq \eta_R] - E[\eta_i > \eta_R]$

where  $\eta_R$  is minimum required productivity by firm.

Gibbons-Katz propose identifying stigma by

$$\text{stigma}_i = E[\Delta w_i | T=1] - E[\Delta w_i | T=0]$$

Authors consider that this does not identify stigma since there is a firm effect missing

$$E[\Delta w_i | T=1] - E[\Delta w_i | T=0] = \{E[\eta_i \leq \eta_R] - E[\eta_i]\} - \\ \{E[\delta_{j1} | T=1] - E[\delta_{j1} | T=0]\}$$

Strategy is then to estimate

$$E[\Delta w_i | T=1, j, t-\varepsilon] - E[\Delta w_i | T=0, j, t]$$

comparing for the same plant  $j$  workers who lost their job due to plant closing with laid off workers who were fired almost at same time ( $\varepsilon$  difference) of the plant closing.

# Estimating Stigma Effect

Identifying strategy suggests then

$$\ln w_{ijt} = E[\eta_i] + \ln A_t + \{E[\eta_i \leq \eta_R] - E[\eta_i]\} T_{it} + X'_{it} \beta + E[\delta_{jt}] + \varepsilon_{it}$$

Which differenced in two time periods yields estimable equation

$$\Delta \ln w_{ijt} = \Delta \ln A_t + \gamma T_{it} + (\Delta X'_{it}) \beta + \Delta E[\delta_{jt}] + \Delta v_{it}$$

where  $T_{it}$  and  $\Delta E[\delta_{jt}]$  could be correlated which would yield Gibbons and Katz strategy invalid

# Sample and Specifications

Three samples: displaced workers, displaced workers from closed plants and displaced workers from closed plants at the near closing dates

Two specifications:

- i) **benchmark**: that controls for aged squared of worker and reemployment spell (between 1 month to 11 months)
- ii) **Full set of covariates**: adding tenure with previous employer, dummy reemployed same occupation (interacted with laid off dummy), dummy reemployed in same industry, dummy same establishment class size and moved across establishment class size dummies.

# Results

Authors find across samples and specifications that laid-off workers receive from 14 to 18% less wages once reemployed relative to those who lost their jobs due to plant closing.

For last sample effect is 14% which is the sample authors believe to be the more adequate for their research question.

Do not find statistical evidence that effect varies with being reemployed in same occupation.



# Comments

- Good theoretical discussion motivating the reader
- Good discussion of identifying strategy under the presumed story
- Good to think about main story and an alternative one that authors do not offer
  - Stigma story of authors: punishment by market due to being fired (signaling low productivity but still noisy) as opposed to being displaced due to plant closing (which does not convey signal of low productivity to market).

➤ Alternative story: (good to have alternative story, but maybe mine is wrong)

If workers are rational and foresee stigma if fired wouldn't they resign before actually being fired?

Would there be then an optimal time to resign for a worker? Given that they could have expectations if plant will eventually close.

Question: do establishments pay benefits to laid off workers (unfairly fired) while not doing so or paying less benefits for displaced workers due to establishment announcing it has to leave the market?

Maybe due to law that allows them not to pay so much if they announce that they are bankrupt or are going out of the market. (Don't know Brazil's case)

Maybe laid off workers are two groups: unfairly and fairly fired workers. Maybe can't distinguish them but if they are different then results are contaminated with bias.

If answer is yes to previous question then surviving establishments bid less for laid off workers because they know that these unemployed workers are less worse off than second group due to these extra benefits.

## Minor Comments

- Sample descriptive statistics:
  - 55 cutoff seems ad hoc and did not seem to be totally justified in the written version of paper
- Table 1: By cause of displacement laid off workers have pre displacement wage of 1189 while plant closing workers have 976. Are they statistically different?
- Point wise they are different but always good to have conclusion relative to a standard deviation. Same true for all the descriptive statistics.

- Table 4 could improve by adding number of observations, an R squared F stats on covariates.

Also consider *cluster* standard errors at establishment level or industry-establishment level. Also due to persistence of unemployment spells there might be serial correlation so adjusting std errors could potentially be beneficial

- Interaction of laid-off dummy with industry dummies could be interesting since manufacturing sector has higher lay off rates in general. So firm effect could alter the marginal effect estimated.

- Robustness checks and functional form specifications might be important for this paper since it relies on structural equations under precise assumptions.
- Stigma effect could vary among workers. Effect could be smaller for low skilled workers than for high skilled workers.
- Positive effect of stigma might be there after all but then what policy implications could we get from this finding? Not clear to me, maybe authors could think about this issue.