Impacts of the Minimum Wage Policy on Wage Level and Wage Inequality in Mexico

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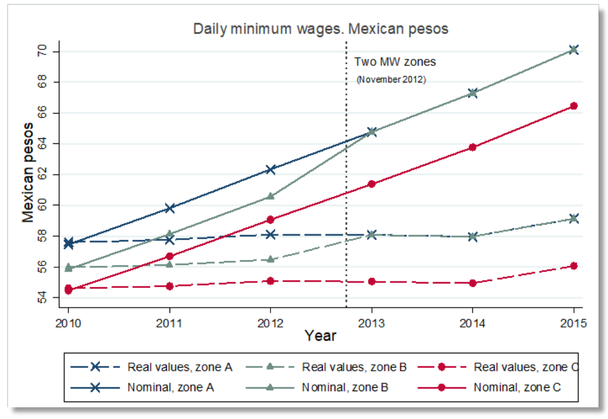
Introduction

- **Minimum wage (MW)** is a tool generally motivated by the objective of **raising the earnings of the lower-paid worker**
- Use as a **wage floor system** to improve welfare, **lessen inequality**, and **alleviate poverty** among low-income households
- The research analyses the role of the **MW intervention introduced in 2012** in **Mexico** on wage inequality
- The Legislation **streamlined the MW geographic areas into two** and **up-rate the MW in the zone with the lowest wage** (zone c)

Figure 1: Nominal and Real values of Daily Minimum Wage



Source: CONASAMI 2010-2015, January of each year. Real values in 2010 Mexican pesos. Daily general MW refers to eight daily hours worked.

Empirical Strategy

- Use cross-sectional data from 2010 to 2015 to estimate **Unconditional Quantile (UQ) regressions** based on the **Re-centred Influence Function (RIF)** originally popularized by Firpo et al. (2009) and in spirits of Hernaes (2018) and Firpo et al. (2018)
- Provide a simple and direct way to estimate the treatment effects (MW intervention) at all points of the wage distribution, and inform on the presence of inequality effects
- RIF-quantiles are the dependent variables for each τ^{th} quantiles from the 5^{th} to the 95^{th} percentiles in this study
- For comparing observations **pre-treatment and post-treatment** due to the policy, the **Difference-in-differences (D-i-D)** approach is used
- The differences in means indicate that the intervention may have positive effects in raising hourly wages of the treated group by 2.5%, on average, as a consequence of this policy
- RIF-Gini within a D-i-D approach is also implemented using a similar specification in equation (1) for an insight into the overall impacts of the MW policy on wage inequality

RIF-quantile regressions within a D-i-D approach are implemented using the following equation:

$$\widehat{RIF}\,(w_i, \widehat{q_\tau})_i = \beta_{0\tau} + \beta_{1\tau}\,(POST12_i) + \beta_{2\tau}\,(POST12_i * TREAT_i) + \beta_{3\tau}\,(POST12_i * Misc_i) + \beta_{4\tau} X_i + \delta_{k\tau} + e_{i\tau} \quad (1)$$

$POST12_i$ is a dummy variable assuming the value of one for all the observations on and after November 2012. $TREAT_i$ is a dummy variable indicating whether the individual i belongs to the municipalities treated after November 2012. $Misc_i$ takes the value of one if individual i belongs to the municipalities in the miscellaneous group after 2012. X_i comprises a set of covariates; years of education, age and its square, urban settlement status, marital status, the employment sector. δ_k are municipality fixed effects, and e_i is a random idiosyncratic error term.

Results

- The exposure to MW up-rating increased wages from the **10^{th} to the 90^{th} percentiles between 3.3% and 5.5%, respectively**
- Overall, **the policy is not associated with reducing wage inequality**
- The effects **below the median** of the wage distribution could be a consequence of the **MW located at the bottom end of the distribution**, influencing the pay of workers
- High degree of **re-benchmarking wages**, **beyond the median of the wage distribution**, would not fully explain the effects detected at the top end of it. They have **not been alluded** to extensively in the literature
- **Confounders in the labour market** could have coincided with the introduction of this MW intervention
- **Private and public sector workers** were analysed, the policy appears to be a mechanism that plays a crucial role in widening wage inequality for the latter by 4.4 percentage points
- These findings may reflect the role of the **MW as numeraire** for increments in salary payments across the public sector pay scales

Figure 2: Effects of the MW up-rating on the lower half of the wage distribution

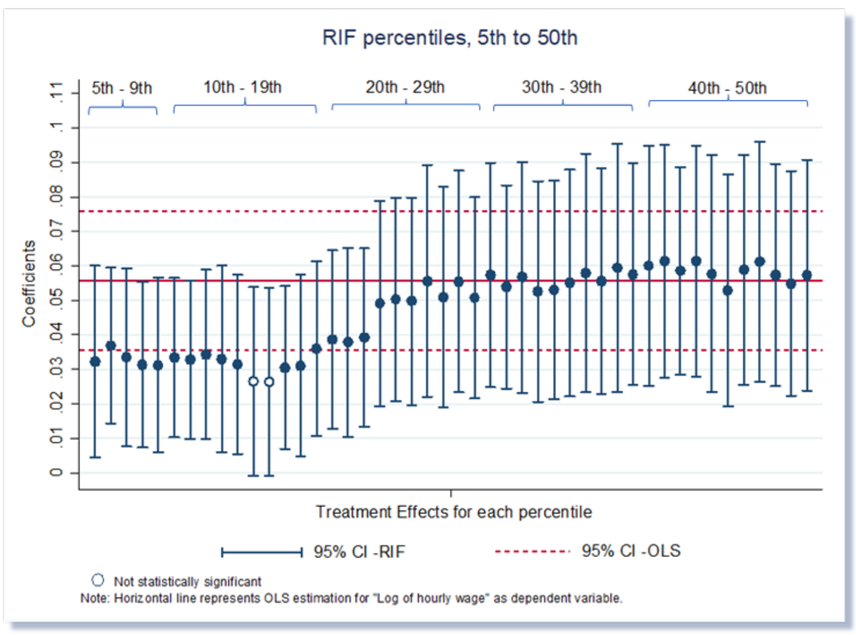


Figure 3: Effects of the MW up-rating on the upper half of the wage distribution

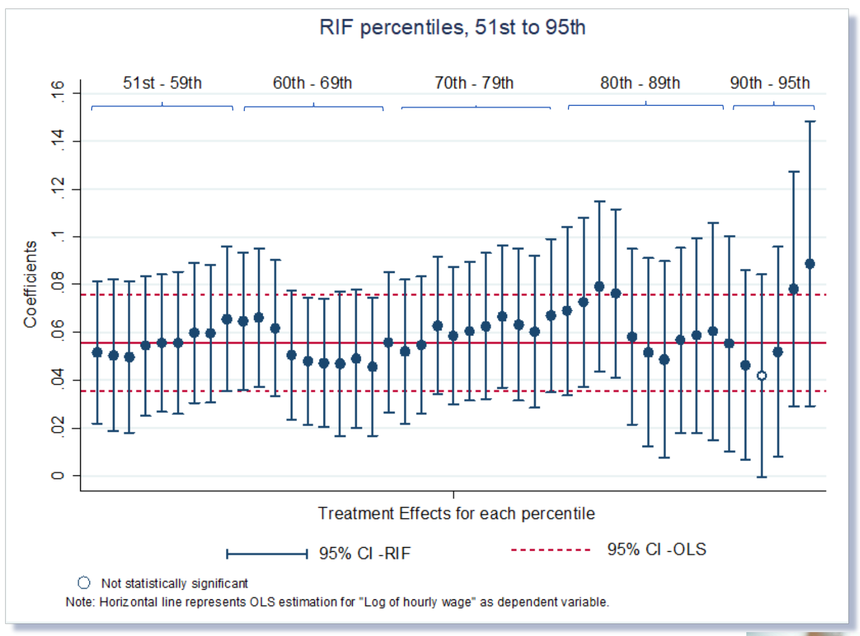


Table 1: MW Treatment effects for selected percentiles

	(1) Log hourly wage	(2) RIF-Gini	(3) RIF 10	(4) RIF 25	(5) RIF 50	(6) RIF 75	(7) RIF 90
Treatment effects	0.056***	0.011	0.033***	0.050***	0.057***	0.063***	0.055**
	(0.010)	(0.009)	(0.012)	(0.015)	(0.017)	(0.016)	(0.023)
Obs.	173,669	173,669	173,669	173,669	173,669	173,669	173,669
Covariates	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: ** p<0.05, *** p<0.01
The sample is constructed from the 2010-2015 Mexican National Occupations and Employment Survey.
Municipality Fixed effects. Standard errors adjusted for 780 clusters at municipality level in parentheses.
Model (1) OLS standard estimation.

References
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