

Pre-Analysis Plan for an Audit Study

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1 Introduction

In this pre-analysis plan, we describe the implementation and analysis of an audit study on the minimum wage and discrimination in the labor market.

2 Experimental Design

Our experimental design closely follows the previous literature using correspondence studies, except that it will be done in three waves: (1) pre-election 2018 before several states and cities vote whether to change their minimum wage; (2) post-election 2018 after voters decided whether the minimum wage will change; and (3) 2019 after the new minimum wage laws have gone into effect, where applicable. During each wave of the study, we will create fictitious resumes and we will use these fictitious resumes to apply to likely minimum wage jobs in each city. Resumes will be sent out in labor markets in municipalities voting on minimum wage initiatives.

2.1 Resumes

Randomized Characteristics: The focus of our experiment is on differential effects by race and unemployment duration. We will randomize the names on the resumes to elicit race (black or white). Names are generated using combinations of first and last names used in Agan and Starr (2018). We will only use male names to minimize residual variation in response to our applications. The resumes will also receive a random low (1 month) or high (12 months) duration unemployed. These lengths are chosen based on the findings of Kroft et al. (2013) that there is a significant callback penalty for being unemployed that levels off after about 1 year. To vary unemployment duration while holding age and work experience constant, resumes with 1 year of unemployment will be for 20 year olds with 1 year of work experience, resumes with 1 month of unemployment will be for either 19 year olds with 1 year of work experience or 20 year olds with 2 years of work experience. Finally, resumes will be randomized to have a high school diploma from a local high school or a GED.

Contact Information: To mimic the procedure in Kroft et al. (2013), each resume will be associated with a phone number, email address, and physical address. Local phone numbers will uniquely identify resumes at each employer so that callbacks can be linked to resumes. All phone

numbers will use the local area code. Email addresses are created to reflect the name on the resume. Representative addresses of local minimum wage employees are found using online databases and altered to include a nonexistent street number. Phone number, email address, and physical address will be randomly assigned to resumes.

Applications: We will send 2 resumes to each online job posting in each wave. We will randomly select race or unemployment duration to vary for each pair of resumes sent during a wave. The remaining characteristics will be randomly determined. Additionally, we will follow the procedures outlined in Agan and Starr (2018) for additional characteristics requested by firms. We will limit our search to jobs where: (1) we can apply online; (2) the job states that it pays minimum wage or is similar to other posted minimum wage jobs; (3) workers do not customarily earn tips. We will submit up to 15,000 applications over the course of the study.

2.2 IRB

The experimental procedures outlined in this pre-analysis plan have been approved by the IRB at the University of Chicago.

3 Main Empirical Analysis

Within each wave, fixing the minimum wage policy, we can look at the callback gaps for our three randomized characteristics. We do this to document the baseline and the gaps found in the previous literature. For resume r sent to firm f at time t , we estimate:

$$\text{Callback}_{rft} = X_r \beta + \varepsilon_{rft}$$

where X_r is a vector of race and duration unemployed on resume r .

Our design allows us to measure the impact of the changing the minimum wage across waves using an event study. In each of our three waves, we estimate the callback gap for each of our randomized characteristics.

$$\text{Callback}_{rft} = \sum_{w=-1}^1 \sum_{p=0}^1 \mathbb{1}(\text{Wave} = w, \text{Pass} = p) X_r \gamma_{w,p} + \varepsilon_{rft}$$

where Pass denotes whether the vote passes; Wave is indexed such that -1 is pre-vote, 0 is post-vote but before the potential policy change, and 1 is after potential policy implementation. γ are the coefficients of interest. Since the current outcomes of the November propositions are unknown, some of the γ terms are not necessarily identified. In those cases, we will not estimate the corresponding terms.

To assess whether the gap changed as a function of the minimum wage change, we test whether $\gamma_{1,1} > \gamma_{0,1} > \gamma_{-1,1}$. If some, but not all, ballot measures pass, then we will conduct a difference-in-

differences specification to test $\gamma_{1,1} - \gamma_{1,0} > \gamma_{0,1} - \gamma_{0,0} > \gamma_{-1,1} - \gamma_{-1,0}$.

Furthermore, our analysis will augment the empirical model above by including fixed effects for firm and time and other characteristics. Since our fixed effect strategy relies on potential future job postings that we cannot predict, we may need to consider others, such as industry or job type. We assume that randomization makes X_r orthogonal to ε_{rft} and we conduct inference using standard errors robust to heteroskedasticity and firm-level correlations.

4 References

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