Worker Perceptions of Employment Risk: Consequences for Wages, Job Search, and Separation Rates
PRE-ANALYSIS PLAN

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This document describes the intervention design, analysis plan, intended subsamples, and intended outcomes of this project.

1 Background

Job loss is one of the most costly economic risks individuals are exposed to throughout their lifetimes. If workers do not fully perceive how their employment risk varies by firm, this will have important allocative consequences in the job search process. Risk-averse workers may wrongly end up at riskier firms and in riskier industries, and compensation may not fully reflect the risk taken on. In this project, we study individuals' perceptions of employment risk and its consequences for job search behavior. Do job seekers accurately perceive how observable firm traits correlate with employment risk? Does providing information about employment risk shift these beliefs? Does this affect their job search behavior? We leverage an information provision design among job seekers in Austria to answer these questions.

2 Study design

In this section, we describe our sample and treatment as well as our intended outcomes and subsample/heterogeneity.

2.1 Primary sample selection

The participants include all non-employed job-seekers with the status of Unemployed (AL) and Job Seeking (AS), who are registered with AMS Lower Austria on October 31, 2024.[1] We will exclude those whose completion time is less than 3 minutes (if they have had a job before) or less than 1 minute (if they have not had a job before or do not say) in the first survey.[2] We will only include those who speak German with a native or fluent proficiency.[3]. This is our first primary sample. Since our survey requires a high degree of numerical literacy and attention, our second primary

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[1]Employed individuals and those who have accepted but not started a job are excluded from this analysis. They are discussed below.

[2]The survey is longer for those who say they have had a job before

[3]Exclude A-B levels of proficiency in Common European Framework of Reference for Languages

sample adds two additional restrictions: participants must correctly recall the information they were anchored to when asked (within +-1) and participants must pass the "percent test" question which tests understanding of percentages.

2.2 Treatment assignment

The randomization will be implemented by Qualtrics. Participants will be randomly assigned to one of three treatment arms[4]. Within the arm, all participants will be anchored to the average 2023 layoff rate associated with one trait ("trait 1") and then asked their beliefs about the historical layoff rate of the other trait ("trait 2"). Treated individuals will be provided with the accurate historical layoff rate for trait 2. Which of the two traits is the anchor and which trait is the treatment will be randomly selected for each participant. E.g., some participants may be anchored to large firms and some participants may be anchored to the layoff rate for small firms.

1. Size
    (a) Large: average 2023 layoff rate of workers hired out of unemployment for firms with 250 or more employees
    (b) Small: average 2023 layoff rate of workers hired out of unemployment for firms with 249 or fewer employees (but at least 2)
2. Industry
    (a) Average 2023 layoff rate of workers hired out of unemployment for firms in the industry of most recent job (reported by the participant)
    (b) Average 2023 layoff rate of workers hired out of unemployment for firms in the most common industry transition[5]
3. Temp agency
    (a) Average 2023 layoff rate for workers hired out of unemployment in the industry of most recent job (reported by the participant)
    (b) Average 2023 layoff rate for workers at temp agencies who had previously worked in the participant's former industry before unemployment (and then transitioned to working at a temp agency)

3 Outcomes

We hypothesize that the information treatment will shift beliefs about personal layoff risk at different types of jobs. We can then use treatment to instrument to for beliefs to study the effect of beliefs about layoff on our primary and secondary outcomes. We will instrument for beliefs in survey 1 when studying outcomes collected in survey 1. We will instrument for beliefs in survey 2 when studying outcomes collected in survey 2. We will run both version when studying outcomes collected in administrative data (survey 1 beliefs will have less attrition, whereas survey 2 beliefs may be more relevant).

[4]with the exception of participants who have never been employed before or who report their former industry as "Other." These individuals will be assigned to the size treatment arm (which does not require knowing a prior industry)

[5]We determine the most common industry transition in admin data based on workers who were in the former industry, became unemployed, and then were re-employed in a new industry

3.1 First Stage

- Beliefs about personal future layoff risk at trait 2 firms in survey 1
- Beliefs about personal future layoff risk at trait 2 firms in survey 2

3.2 Primary outcomes

Outcomes from Survey 1

1. **Search effort index**: 1 if you do 2 of 3 of the possible search effort for trait 2 behaviors (request resume tips for trait 2, request job postings for trait 2, send any applications to trait 2), 0 otherwise.
2. **Choice of resume tips** for trait 2
3. **Choice of being sent job postings** for trait 2
4. **Application intentions**[6]
   (a) Number of intended applications to trait 2
   (b) Log number of intended applications to trait 2
   (c) Share of intended application to trait 2

Outcomes from Survey 2

1. **Application behavior**[7]
   (a) Number of applications submitted to trait 2
   (b) Log number of applications submitted to trait 2
   (c) Share of application submitted to trait 2

3.3 Secondary outcomes

Outcomes from Survey 1

1. Choice of tips, job postings, and number of intended applications to trait 1

Outcomes from Survey 2

1. Number of applications to trait 1
2. Index: 1 if received an offer from trait 2 company OR accepted OR declined an offer, 0 otherwise
3. Accepted an offer from a company with trait 2
4. Declined an offer from a company with trait 2
5. Perceived historical layoff rate of a new employer with trait 2

[6] top 2 percent trimmed
[7] top 2 percent trimmed

Outcomes from Administrative Data Real labor market outcomes are secondary because they are downstream of the primary outcomes and we may, therefore, not be well-powered to detect effects.

1. Employed within one month of receiving survey
2. Began working at employer with trait 2

4 Heterogeneity analysis

We will analyze heterogeneity by:

1. The three different traits we treat (size, industry, temp agencies)
2. Reported confidence level in priors
3. Whether at baseline, they are able to change their job search behavior. Measured by:
    - Whether they answer "yes" for both traits when asked about whether there are jobs available for them
    - Baseline predicted value of "transitioning between trait 1 and 2" for someone of their observables (past industry, past firm size, age, gender, previous wage, location).

5 Survey quality control: sample cuts

Since our survey requires a high degree of numerical literacy and attention, and since our completion incentives may drawn in low effort responses, we will also conduct our main analysis on the following subsamples. The heterogeneity section describes dimensions of heterogeneity that may be of economic interest. By contrast, this section details ways we can control for the quality of survey responses.

1. Those who pass a percent comprehension test
2. Those who ultimately start a job within three months of receiving our survey
    - This allows us to remove participants who will eventually be leaving the labor force and are not active job seekers
3. Those who correctly recall the anchored information provided immediately after (within +-1).
4. Those whose time spent taking the survey spend is in the top 40 percent on the first survey (trimming the top 2 percent longest)
5. Those whose reported industry for their former job matches admin data
6. Those whose reported "time they spent in previous job" matches admin data

6 Employed participants

The primary purpose of this treatment is to understand whether the treatment affects the job search of unemployed job seekers. All of the above discussion pertains to the analysis of this population. However, our sample may include some employed individuals.[8] We still treat these individuals, but we collect different outcomes. This entire analysis is secondary, as we may have very few employed respondents and thus be underpowered. Employed individuals only receive the size treatment. The first stage is defined by information relative to their prior as well as by which type of firm they currently work at.[9]

6.1 Outcomes

1. Risk of being laid off from their current job in the next 12 months
2. Job search intentions

7 Publication agreement

This evaluation is designed and conducted by the researchers Lukas Lehner, Ishaana Talesara, and Arthur Wickard. It is based on a formal agreement between the research institute Economics of Inequality at Vienna University of Economics and Business representing the researchers with the AMS Niederösterreich. A key component of this agreement is that the researchers are guaranteed to be entitled to publish the findings of their study in academic outlets without any interference by the AMS.

8 IRB approval

The experimental work described in this pre-analysis plan was reviewed and approved by the WU Ethics Board, Vienna University of Economics and Business (Approval Number: WU-RP-2024-023).

[8] We treat those who have accepted but not started a new job as employed as well

[9] E.g., do those who work at small firms think their layoff probably is higher if they learn that small firms are riskier than they thought.