

Financial Frictions & the Cost of Job Displacement

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One of the most intriguing findings in modern labor economics is the persistence of earnings losses following unemployment events. Across many different contexts, researchers have consistently found that the earnings of displaced workers do not fully recover for many years after a job loss (Jacobson et al. (1993)). While recent research highlights that long-run earnings losses are particularly large when unemployment events occur during a crisis (Davis and von Wachter (2011)), the underlying mechanism is still not fully understood.

In this project, we propose and empirically test a mechanism whereby financial frictions mediate the long-run costs of job losses. Unemployed workers partly rely on credit to smooth consumption as unemployment benefits do not fully compensate earnings losses, and liquid savings are typically insufficient to sustain consumption for a longer period. When banks are distressed and restrict access to credit, displaced workers cannot smooth their consumption and experience particularly strong incentives to leave unemployment. They may hence be willing to accept poorly-matched jobs, and as a consequence, fall down the job ladder.

This analysis will help design policies that alleviate the to cost of job loss for workers, which is particularly crucial in times of economic crises like today. We will quantify the welfare gains from giving unemployed workers temporary access to liquidity in alternative ways (e.g. by allowing them to withdraw funds from pension accounts or postpone payments on mortgage loans), or from increasing unemployment insurance during economic crises. More generally, our findings will be valuable for the design of policies for unemployed workers (e.g. counselling and training) by quantifying the potential long-term cost of hasty job search. Finally, to the extent that financial frictions account for some of the long-run costs of job losses, our results would also strengthen the case for supporting distressed banks during a crisis.

Our empirical design exploits variation in credit access in Denmark during the Great Recession. Recent research highlights that the financial crisis spread from banks to households through the credit supply channel: banks that were more exposed to the global credit crunch differentially reduced credit to their customers compared to banks that were less exposed (Jensen and Johannesen (2017)). As the customers in the two types of banks were ex ante identical, this offers an excellent quasi-experimental setting to identify the causal impact of financial frictions.

The empirical analysis will proceed in several steps. We will split the sample of individuals between those who are customers in banks with above-median exposure to the financial crisis (i.e. individuals who experienced a decrease in credit access) customers in banks with below-median exposure (i.e. individuals with normal credit access). The first

group is considered as “treated”, i.e. rationed in credit, while the latter serves as a “control group”, as they conserve the same access to credit as before. First, we will estimate the impact of this credit rationing on the probability to lose one’s job and on the re-employment outcomes for those who do. Second, we will focus on workers who were displaced between 2007 and 2009, and follow them longitudinally from the date of job loss onward using an event study approach. We will estimate differences in the timing of recovery after job loss between credit-constrained individuals and non-credit-constrained individuals: we expect credit-constrained individuals to find a new job faster, but at a lower pay, and therefore take longer to get back to their pre-displacement earning level. Third, we will investigate the mechanisms behind potential differences in earnings trajectories: in particular, we will examine if financial resources help displaced workers get better matched jobs, work at better firms, or switch to more promising occupations.

We will link data from the Danish tax authorities about the balance of all loan accounts in Danish financial institutions for the period 2003–2011 with information on the financial and labor market situation of banks’ account holders, from various administrative sources. Most importantly, we will track individual earning, employment status and wage for up to 10 years following job loss: given that the effect on earnings might look different in the short-run and the long-run, it is critical for this analysis to observe long-term outcomes. To investigate the determinants of earnings, we will build detailed measures of labor market trajectories, such as measures of occupational changes and firms’ quality.

Our article will be complementary to the growing literature on the sources of the cost of job loss (in particular Schmieder et al. (2020)) and on the impact of financial constraints on labor market outcomes (Braxton et al. (2020)). We will provide one of the first causal analyses of financial constraints for unemployed workers. Prior descriptive analyses include Chetty (2008) and Phillips et al. (2020). Card et al. (2007) estimate that receiving an inflow of liquidity at job loss through severance payment increases workers’ unemployment duration, but has no clear effect on job quality at re-employment. But the authors do not directly observe individuals’ financial situation. Recently, He and le Maire (2020) have shown that the mortgage reform which expanded borrowing possibilities for homeowners in Denmark in 1992 had a negative effect on the employment rate of liquidity-constrained homeowners, but a positive effect on their earnings. In contrast to this project, their study focuses on wealthy hand-to-mouth individuals and analyses a market level variation in financial constraints.

Given the importance of the research question and the promising empirical design, we believe that this project will lead to a paper with a chance of publication in a top economics journal. Although the project borrows some elements from previous research, the data work we envisage is highly time consuming and our application for financial support therefore primarily concerns the cost of our working time. With this financial support, we expect to be able to complete a first draft of the paper by Fall 2021.

Bibliography

- Andersen, Asger Lau, Amalie Sofie Jensen, Niels Johannesen, Claus Thustrup Kreiner, Søren Leth-Petersen, and Adam Sheridan**, “How do Households Respond to Unemployment Shocks? Lessons from Multiple High-Frequency Data Sets,” *Working Paper*, 2018.
- Braxton, J. Carter, Gordon Phillips, and Kyle Herkenhoff**, “Can the Unemployed Borrow? Implications for Public Insurance,” *R&R in Journal of Political Economy*, 2020.
- Card, David, Raj Chetty, and Andrea Weber**, “Cash-on-Hand and Competing Models of Intertemporal Behavior: New Evidence from the Labor Market,” *The Quarterly Journal of Economics*, 2007.
- Chetty, Raj**, “Moral hazard versus liquidity and optimal unemployment insurance,” *Journal of Political Economy*, 2008.
- Davis, Steven J and Till von Wachter**, “Recessions and the Costs of Job Loss,” *Brookings Papers on Economic Activity*, 2011, 2.
- He, Alex Xi and Daniel le Maire**, “Household Liquidity Constraints and Labor Market Outcomes: Evidence from A Danish Mortgage Reform,” *Working Paper*, 2020.
- Jacobson, Louis S., Robert J. LaLonde, and Daniel G. Sullivan**, “Earnings Losses of Displaced Workers,” *American Economic Review*, 1993, 83(4), 685–709.
- Jensen, Thais Lærkholm and Niels Johannesen**, “The Consumption Effects of the 2007–2008 Financial Crisis: Evidence from Households in Denmark,” *American Economic Review*, 2017.
- Phillips, Gordon, Ethan Cohen-Cole, and Kyle Herkenhoff**, “How Credit Constraints Impact Job Finding Rates, Sorting & Aggregate Output,” *R&R Review of Economic Studies*, 2020.
- Schmieder, Johannes F., Till von Wachter, and Joerg Heining**, “The Costs of Job Displacement over the Business Cycle and Its Sources: Evidence from Germany,” *Working paper*, 2020.

Timeline

- Fall semester 2020: Start of empirical analysis with available data, and extension of dataset
- Spring semester 2021: Completion of data analysis with full dataset, presentation in seminars and conference, first preliminary draft
- Fall semester 2021: Completion of draft, submission for publication