

New Hires, Quits, and Churning in Low-Wage Labor Markets: Evidence from a Spatial Discontinuity Research Design

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In this project, we plan to use hitherto underutilized data to investigate the dynamics of low-wage labor markets and thereby better understand the effects of minimum wages on employment and job quality. In particular, we use detailed data (“Quarterly Workforce Indicators,” or QWI) at the county-quarter-industry level to see how workforce dynamics (such as new hires and separations) respond to an exogenous change in the wage due to minimum wage policies.

As part of our research design, we will compare counties straddling both sides of a border with different minimum wages to obtain credible identification of causal effects of the policy. We call this the “spatial discontinuity design.” Comparisons among local areas have an intuitive appeal and provide more credible control groups than the state and time fixed effects method used by some in the minimum wage literature (notably, Neumark and Wascher 2008).

Our research will jointly estimate the effect of minimum wages on employment levels and on “flow” outcomes, such as separations and accessions, using a credible research design. At a theoretical level, we will relate the separation and accession elasticities of minimum wages to the presence of labor market frictions, which in turn will also shed light on minimum wage employment elasticities. These issues have been alluded to in numerous works. But to date, only one study (it uses Portuguese data) jointly estimates turnover and employment behavior using credible identification strategies, and only a few address the theoretical underpinnings for these relationships. The work here also relates to the labor supply elasticity facing individual firms – an area of much interest. But as Manning (2003) notes, there is surprisingly little evidence on the topic.

Additionally, we will be able to estimate employment and turnover elasticities for different demographic groups (such as teens, young adults, women, etc.), which allows us to comment on the nature of labor market competition in various labor market segments.

Extant Literature

Research examining the nature of frictions in low-wage labor markets is very limited. The Burdett-Mortensen tradition examines equilibria for hiring and separations, but it has not looked at how market-wide hiring and separation elasticities respond to minimum wage effects, and under what conditions – something we derive theoretically and evaluate empirically. Card and Krueger (1994) were the first to posit how a “frictional” model of labor supply facing a firm could explain the lack of significant disemployment effects predicted by the canonical friction-free competitive model. They could not test their model, as their data did not include any measures of new hires or separations. At a

theoretical level, Manning (2003) examines the crucial empirical issues involved in identifying the labor supply function facing an individual firm.

In previous work (joint with Suresh Naidu, 2007), we found that when the minimum wage rose through a city-wide ordinance in San Francisco, job tenure rates increased substantially at affected establishments. The study closest to ours is on Portuguese data (Cardoso and Portugal 2007). To date, however, no U.S. study has examined how hiring and separation rates evolve dynamically to a minimum wage increase using national-level data and a credible research design.

Methods

We will use a “spatial discontinuity” research design to identify the effect of minimum wages on churning (i.e., separation and accession) for different types of workers in highly affected sectors. This design builds on our published work (Dube Lester and Reich, *Review of Economics and Statistics*, forthcoming). It allows us to control for otherwise unobservable factors that may be spatially heterogeneous across states in different parts of the country. The use of this approach to identify the effects of minimum wages on labor market churning constitutes a major innovation of this project.

Another key innovation of this work is to use “churning” measures (separation, accession) from the Quarterly Workforce Indicators – which provides a near census of all workers in the United States. This relatively new dataset has experienced scant use by researchers. We have already constructed a balanced panel and obtained some preliminary results using these indicators for the period 1998 to 2008.

The research questions, the theoretical modeling, the empirical methodology, and the dataset represent innovations in the field. They build on work previously done by the authors, while breaking substantial new ground.