

## The Historical Behavior of Worker Flows and Job Vacancies

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### Abstract

We construct quarterly measures of hires, separations, and vacancies back to 1990 for the U.S. private sector and back to 1972 for the manufacturing sector. We use the new measures to explore three issues. First, we compare the cyclical behavior of our vacancy measures to widely used proxies for vacancies based on an index of newspaper help-wanted advertisements. Second, we investigate the cyclical behavior of hires and separations, with particular attention to their behavior around recessions. Third, we examine the cyclicity of layoffs, quits and other separations. The second and third issues are closely related to recent debates about the relative importance of hiring rates and job loss rates in cyclical unemployment dynamics.

We construct our new time series using establishment data from the Job Openings and Labor Turnover Survey (JOLTS) and the Business Employment Dynamics (BED) program of the Bureau of Labor Statistics and the Longitudinal Research Database (LRD) of the Census Bureau. The JOLTS data yield estimates of hires, quits, layoffs, and vacancies as functions of establishment-level growth rates and other characteristics. The BED and LRD provide us with historical data for the distribution of establishment-level growth rates at a quarterly frequency. Our baseline empirical exercise generates a longer time-series of aggregate worker flows by estimating the time-invariant worker flow-growth relations from the JOLTS data and interacting them with the quarterly growth rate distributions that we derive from the BED and LRD data. The new, longer time series on worker flows and vacancies allow us to observe their behavior over several recessions and to shed new light on cyclical dynamics in U.S. labor markets.

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