

Worker Types, Job Displacement, and Duration Dependence

Victoria Gregory, Economist

Guido Menzio, Professor of Economics, New York University

David Wiczer, Assistant Professor of Economics, Stony Brook University

Recent economic research documents the existence of worker types that vary in their tendencies to switch jobs and flow in and out of unemployment (Gregory, Menzio, and Wiczer, 2021). Splitting up [worker types](#) in this way reveals interesting differences in how each type's earnings recover after a job loss. The type-composition of the unemployment pool is key for understanding labor market phenomena that have been active topics of research for decades.

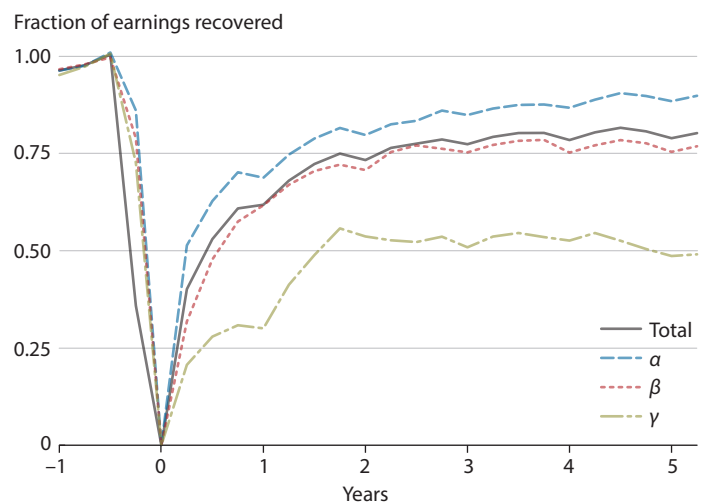
As in Gregory, Menzio, and Wiczer (2021), we draw on the labor market experiences of three types of workers in the Census Bureau's Longitudinal Employer-Household Dynamics dataset.¹ Alphas (57 percent of the workforce) tend to remain in stable employment and only exhibit short spells of unemployment. Gammas (17 percent of the workforce) tend to cycle through many short-lived jobs and are the most likely to become long-term unemployed. Betas (26 percent) are in between alphas and gammas.

The composition of the workforce has implications for the earnings consequences of a job loss and patterns in the job-finding rate.

When a worker loses their job, how long does it take them to recover their pre-displacement earnings level? A literature going back to Jacobson, Lalonde, and Sullivan (1993) has studied this question by comparing the earnings paths of workers who lost a job with those who did not. We show in Figure 1 that the average losses hide substantial heterogeneity, as the effect of a job loss varies dramatically across worker types.

To create Figure 1, we focus on workers with three or more years of tenure at an employer who then move into non-employment. For each of these workers, we locate their first such transition that occurs in our dataset and follow them in the years after the initial job loss, through other employers and potential subsequent non-employment spells. We plot on the horizontal axis the time since the initial job loss, and we show on the vertical axis each type's

Figure 1
Earnings Consequences of Job Displacement

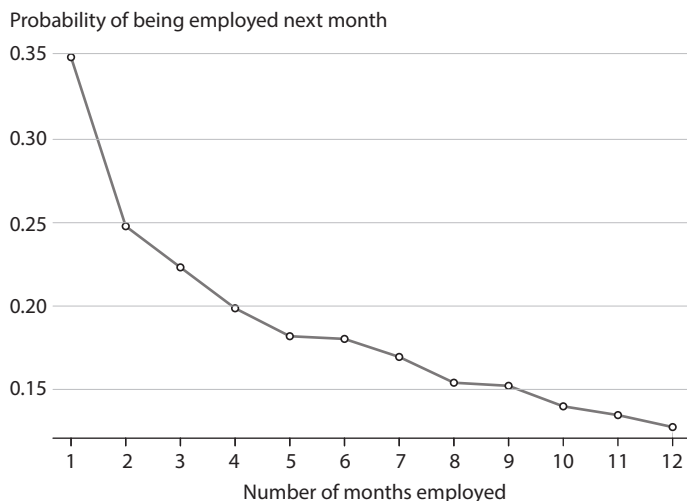


NOTE: The fraction of earnings recovered is relative to pre-displacement earnings.
SOURCE: Census Bureau's Longitudinal Employer-Household Dynamics program and authors' calculations.

average earnings relative to their earnings in the year prior to the loss. The chart shows that the alphas recover more quickly than the gammas. One year after the job loss, alphas regain almost three-fourths of their pre-displacement earnings on average. Gammas recover only one-third; their earnings losses are substantial even five years out, earning only about half of what they did before the job loss. One reason for this is that gammas find jobs at a slow rate and tend to remain unemployed longer than alphas. The other reason is that even once gammas find a new job, it is very likely to be short-lived and end in another unemployment spell, slowing down their journey toward finding a stable match as good as the pre-displacement job.

The existence of these three worker types can also shed light on why, on average, it appears to become harder to find a job the longer a worker is unemployed. Figure 2 uses data from the Current Population Survey to show the monthly probability that an unemployed worker finds a job the following month as a function of unemployment duration. This probability declines from around 35 percent

Figure 2
Job-Finding Rate by Unemployment Duration



NOTE: The job-finding probability is conditional on the number of months unemployed.
SOURCE: Bureau of Labor Statistics' Current Population Survey and authors' calculations.

if the worker has been unemployed for a month to 13 percent if the worker has been unemployed for a year.

Our research points to the composition of the unemployment pool as being a major driver of this decline. The workers with the highest propensity to find jobs (the alphas) exit the unemployment pool shortly after they enter it. At longer durations, there are comparatively more gammas left in the pool, who take much longer to find jobs. In sum, as the composition of the unemployment pool shifts from alphas to gammas, the overall job-finding rate declines as a function of duration.

The findings outlined here suggest that the composition of the unemployment pool alone goes a long way toward understanding both the earnings losses of workers who lose their job and why the job-finding rate is lower for the long-term unemployed. For the former, we attribute the differences in recovery rates to disparities in the job search conditions each worker type faces. For the latter, we show how these differences contribute to changes in the composition of the unemployment pool. Past research has rationalized these empirical facts by appealing to human capital losses or stigmatization of the long-term unemployed; we demonstrate here that this dimension of worker heterogeneity is also a major part of the story. ■

Notes

¹ This research uses data from the Census Bureau's Longitudinal Employer-Household Dynamics program, which was partially supported by National Science Foundation Grants SES-9978093, SES-0339191, and ITR-0427889; National Institute on Aging Grant AG018854; and grants from the Alfred P. Sloan Foundation.

References

Gregory, Victoria; Menzio, Guido and Wiczer, David G. "The Alpha Beta Gamma of the Labor Market." NBER Working Paper No. 28663, National Bureau of Economic Research, 2021; <https://www.nber.org/papers/w28663>.
Jacobson, Louis S.; Lalonde, Robert J. and Sullivan, Daniel G. "Earnings Losses of Displaced Workers." *American Economic Review*, 1993, pp. 685-709.