

What Explains the Great Resignation?

Quits typically rise in a tight labor market, but analysts were surprised by what happened in 2021.

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During economic booms, more workers quit their jobs. Some transition directly to other employers. Others leave the workforce to return to school or spend time with family, perhaps because they can use the income they gained during the boom to cover their bills while they are not working.

But what happened after COVID-19 took many analysts aback. The quit rate began 2021 at its prepandemic level but kept climbing. By the end of the year, 3 percent of employees were quitting per month—the highest level since current surveying of quits began.¹ In this article, I examine this wave of quits, which came to be called the Great Resignation.

First, I unpack the average quit rate to obtain a fuller picture of quitting patterns. For instance, the average quit rate reflects quits that lead directly to another job as well as (voluntary) transitions out of the workforce. What did each of these components do in the Great Resignation? How did these patterns vary across workers of different ages, races, and educational backgrounds? And did they also vary across industries?

Drawing on these findings, I can then examine why the Great

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Resignation happened. For instance, where a worker goes *after* a quit–do they move immediately to another employer or leave the workforce?–sheds light on the factors that led the worker to quit in the first place. And because workers experienced the labor market recovery in different ways, *who* tended to quit reveals the forces behind the Great Resignation.

But first, I must examine how a "quit" is measured in each of my data sources, because these differences in measurement imply somewhat different quitting patterns.

Measuring Quits

The most cited source of data on quits is the Bureau of Labor Statistics' (BLS's) monthly Job Openings and Labor Turnover Survey (JOLTS). The roughly 21,000 establishments surveyed by the BLS employ a little under 250,000 workers, in total, in a typical month. The BLS asks each employer to report that month's worker turnover, including the total number of quits. The BLS defines a quit as a voluntary separation *excluding* retirements and resignations for health reasons. (By contrast, the BLS defines a layoff as an involuntary separation initiated by the employer.)

The JOLTS data show that the average quit rate—that is, the share of employees who quit per month—rose from 2.3 percent in late 2020 to nearly 3 percent one year later, its highest point in the survey's 20-year history (Figure 1). As we will see, other measures do not reach a (meaningfully) new peak in 2021-2022 even though they rose sharply in that period. However, because JOLTS is the standard source for worker turnover data, analysts mark its late-2021 peak as the apex of the Great Resignation.² I will generally set the starting date to late 2020, by which point the JOLTS quit rate had recovered to its prepandemic level.

Although JOLTS is my benchmark, it does not identify which *workers* quit, nor does it measure *where* workers went after they quit. To complement JOLTS, I turned to two other data sources.

The first is the Longitudinal Employer and Household Dynamics (LEHD) data set, a near-census of workers and firms compiled by the U.S. Census Bureau. The LEHD offers two advantages. First, it reports the number of workers who switch from one employer directly to another. These *employer-to-employer* (E-to-E) transitions are often interpreted as quits, but they are not identified separately from other quits in JOLTS. Second, given the data set's worker- and firm-level detail, I can compute E-to-E transitions by worker attributes–age, sex, and race, for instance–and by the attributes (for example, the industry) of the employer from which the worker resigned and the employer to which the worker moved.

We should not expect the E-to-E rate—that is, the share of employees who transition from one employer directly to another—to move as much as the total quit rate. There are at least two reasons for this. First, E-to-E transitions in the LEHD do not capture *all* quits; some quits include transitions *out of the workforce* (not to other employers). Second, some E-to-E transitions are not quits; they may instead be layoffs, as when a worker given advanced notice lines up a new position before termination. Because some E-to-E transitions are layoffs, and because layoffs tend to fall when quits rise, the measured increase in the E-to-E

FIGURE 1

The Rate at Which Workers Left Their Jobs Surged During COVID

Percent of nonfarm employees quitting their job for any reason (the quit rate) or quitting for another job (the employer-to-employer rate), quarterly, 2001–2023



Data Sources: The Bureau of Labor Statistics' Job Openings and Labor Turnover Survey (JOLTS), the U.S. Census Bureau's Longitudinal Employer and Household Dynamics (LEHD) data set, and the U.S. Census Bureau's Current Population Survey (CPS)

Note: LEHD data are only available quarterly. Therefore, I express the JOLTS and CPS results as quarterly averages of monthly data, and I divide the LEHD E-to-E transitions by three to express them on a monthly basis.

rate will understate the rise in the overall quit rate.³

Consistent with these points, the E-to-E rate in the LEHD rose by about half as much in 2021 as did the JOLTS quit rate. This small an increase only nudges the E-to-E rate to just above its prior peak in the first quarter of 2001. Thus, unlike the quit rate, the E-to-E rate does not reach a new height.

The second source of data is the Current Population Survey (CPS), a monthly survey of roughly 60,000 households. As a household-level survey, it gathers even more extensive demographic data than the LEHD. In addition, the CPS enables me to estimate both total quits *and* its two components: E-to-E transitions and quits to *non*employment, the latter of which means the worker has left the workforce.⁴ Quits to nonemployment include unemployed workers who are actively looking for a job, but nearly all (90 percent) of these quits are the formerly employed who do *not* report searching for work. The CPS can identify quits to nonemployment because, unlike the LEHD, it asks for the *reason* for the transition.⁵ The CPS's drawback is its small sample size. As a result, its month-to-month variation in samples causes its estimated quit rates to bounce around more than in our other sources.

Despite this "noise" in the CPS-based series, some basic patterns in the data are clear.⁶ First, the rates in the CPS-based series are generally higher than in the other sources. For example, the total quit rate in the CPS is, on average, 1.5 percentage points higher than in the JOLTS series. And the E-to-E rate in the CPS is roughly double the rate in the LEHD. These significant differences are worthy of further research, but discrepancies in the series' *average levels* are less important here than their movements *over time*. The movements in the CPS's quit and E-to-E rates are in fact similar to what we see in, respectively, JOLTS and the LEHD. For instance, each series shows a steep decline during the Great Recession (2007-2009) and then a substantial if gradual recovery. It is worth noting, though, that the CPS series do not set a new peak in 2021-2022–a feature at odds with JOLTS though in line with the LEHD.

Now that I've examined where my three data sources differ and agree, I can zero in on how the E-to-E and total quit rates evolved in the pandemic recovery and varied across workers and industries.

Breaking Down the Great Resignation

Here I move beyond the average quit rate to reveal a more detailed and richer picture of quitting patterns during the Great Resignation. Specifically, I address three questions: What did workers do *after* they quit? How did quitting patterns vary across different *workers*? And how did quitting patterns vary across different *jobs*?

How Quit Rates Varied by Destination

A quit is the start of a transition in the labor market. But how does it end? By transitioning directly to a new employer? Or by leaving the workforce?

The CPS offers the most direct answers to these questions. E-to-E flows in the CPS represent two-thirds of total quits on average. In addition, variation over time in the E-to-E rate has generally accounted for a significant share of fluctuations in the overall quit rate. In the pandemic recovery, however, movements in the E-to-E rate were subdued relative to the rise in the overall quit rate, which increased around 0.7 percentage point between late 2020 and mid-2022. Therefore, there must have been a significant rise in the rate at which workers quit the workforce altogether. Indeed, the increase in the quit rate to *non*employment throughout 2021-2022 represented around three-quarters of the rise in the overall quit rate.⁷

Because the LEHD does not chart the quit rate to nonemployment, I cannot use it alone to estimate the contribution E-to-E flows made to the rise in total quits. Instead, I use data on the (total) quit rate from JOLTS (while acknowledging that the LEHD is only a proxy for the E-to-E flows embedded in the JOLTS numbers). The E-to-E rate in the LEHD is on average around half the total quit rate in JOLTS. In addition, *changes* in the LEHD's E-to-E rate are typically one-half as large as changes in JOLTS' overall quit rate both before and throughout the 2021-2022 period. Thus, E-to-E flows contributed more to the Great Resignation than suggested by the CPS.

Nevertheless, it's clear that quits to nonemployment must be accounted for in any narrative of the Great Resignation. Based on these data, the rise in the rate at which workers left the workforce likely represented a significant share of the increase in the total quit rate.

How Quit Rates Varied by Demographics

Movements in the average quit and E-to-E rates may mask important variation across different types of workers. Were quits broad-based or concentrated among certain groups? The answer yields additional clues as to what lies behind the rise in the overall quit rate.

I organized the data by four demographic characteristics: age, sex, race, and educational attainment. For each characteristic, I computed the E-to-E rate and overall quit rate in the CPS. Specifically, I zeroed in on how these rates evolved in 2021-2022 (Figure 2).

We can draw a few key conclusions from this exercise. First, the (total) quit rate rose unevenly across demographic groups.

FIGURE 2

Quit Rates Varied by Demographic Group

Younger, nonwhite, and non-college-educated workers all experienced a sharper increase in quits. Percentage point change in the quit rate and the employer-to-employer rate, by demographic group, fourth quarter 2020 to mid-2022



Data Sources: JOLTS, LEHD, and CPS

Younger, nonwhite, and non-college-educated workers all experienced a sharper increase in quits.⁸ In addition, the quit rate among women rose more than among men. Although groups whose quit rates rose the most also tended to have higher quits on average, the differences were still present (though modest) when I adjusted for the initial level of quits. For instance, the 1.35 percentage point increase in the quit rate among workers under age 35 ("young") was over four times larger than the percentage-point increase among workers over age 35 ("older"). However, the initial, fourth quarter 2020 quit rate among young workers was also substantially higher than among older workers. If we express the subsequent movements *relative* to their initial values, they imply a 30 percent gain in quits among young workers, which is still twice as large as the 15 percent gain among older workers.

Second, among groups whose quit rates rose the most, we see little movement in the E-to-E rate. For instance, the increase in the E-to-E rate among nonwhite workers is negligible. Thus, the results for these groups highlight the higher propensity to quit the workforce as a crucial driver of the rise in the overall quit rate. The rise in the E-to-E rate for the other groups (for example, white workers) was also subdued but larger as a *share* of the increase in their overall quit rate.

Although E-to-E rates tend to move more in the LEHD than in the CPS, differences across demographic groups were limited in both. The increase in the E-to-E rate across all demographic categories lies within a narrow range between 0.25 and 0.5 percentage point. Thus, even if the E-to-E rate is more active in the LEHD, any differences in total quit rates across demographic groups seem to reflect differences in the propensity to quit the workforce rather than the frequency of E-to-E moves.

How Quit Rates Varied by Industry

Just as quit rates vary across different types of workers, they also vary across different types of jobs, as seen by the variation across industries. For this analysis, I turn to JOLTS and the LEHD because there are relatively few observations on quits at the industry level in the CPS.

According to JOLTS, certain industries stood out during the Great Resignation. For example, in 2021 the quit rate rose by over a full percentage point in the retail trade sector and by over 0.8 percentage point in the leisure and hospitality sector, which consists of entertainment, food service, and hotel establishments (Figure 3).

However, quit rates rose in *every* industry. The median increase across industries, which is not affected by the largest or smallest changes, was one-half of a percentage point. Moreover, quit rates in most industries reached their highest recorded levels during the pandemic recovery. Finally, as we saw for demographic groups, several of the industries that reported a large increase already had a high average quit rate. In late 2020, the quit rate in the leisure and hospitality sector was 4.6 percent, so a 0.8 percentage point increase is not especially large *relative* to this initial level. By contrast, the 0.5 percentage point increase in the information sector (which includes publishing and broadcasting) is substantial relative to its initial value of 1.3 percent. In other words, after I account for differences in initial values, sectors such as retail and leisure no longer stand out, and changes in quit rates are more uniformly distributed across sectors. Thus, in considering the cross-section of quits in the economy, I see more dispersion corresponding to differences in workers (as discussed above) than in jobs.

When I repeat this analysis with the LEHD's data on E-to-E rates, a few results emerge. First, regardless of how changes in the E-to-E rates are measured, they appear to be roughly uniformly distributed across industries.⁹ Second, sectors with high quit rates in 2021 did *not* necessarily have high E-to-E rates. A prominent example is the retail trade sector, in which the quit rate rose 1 percentage point but the E-to-E rate climbed by just one-third of a percentage point. In this and several other sectors, such as leisure and hospitality, the change in the overall quit rate seems to have stemmed from an increase in workers leaving the workforce.

Trying to Understand the Great Resignation

I now consider three possible narratives for the rise (and fall) of the Great Resignation. All three may be at work to some degree, as each is grounded in a novel and distinct feature of the pandemic economy. According to the *fast-growth* narrative, the rise in quits was a byproduct of the fast economic recovery in 2021-2022. According to the *telework* narrative, quits rose because more workers transitioned to remote-work occupations. And according to the *wealth* narrative, the sharp increase in household savings during the pandemic enabled workers to spend more time away from paid work, and thereby induced quits. I use the facts presented thus far to assess each narrative.

The Fast-Growth Narrative

The fast-growth narrative builds on two observations. First, the recovery in employment in 2021 was exceptionally fast. In that year alone, the nonfarm sectors added 7 million jobs—and demand for labor was still far from satisfied, with the number of job openings at a record-breaking level. Second, an E-to-E tran-

sition is both a quit (from the initial firm) *and a hire* (by the new firm). Therefore, when employers seek to quickly expand, hires via E-to-E transitions rise.¹⁰ In other words, an increase in quits–notably in E-to-E transitions–is a natural byproduct of a boom in hires.¹¹

See An Alternative Explanation for Elevated E-to-E Transitions

This narrative suggests that, even if the E-to-E rate rose, it did not necessarily rise any faster than the overall hiring rate. Therefore, E-to-E transitions *as a share* of total hires didn't look unusually high. This claim does appear to be true (Figure 4). The E-to-E share in each data set returns to its prepandemic level (except for a third quarter 2022 "blip" in the LEHD's data). This result is consistent with the fast-growth narrative–namely, that the rise in E-to-E transitions reflected a general boom in the demand for labor rather than the presence of some factor that favored E-to-E hires over other hires.

Although the fast-growth narrative explains the E-to-E flows

FIGURE 3

Quits Rose Across all Industries During the Great Resignation

Percentage point change in employer-to-employer rate and quit rate, fourth quarter 2020 to fourth quarter 2021, and for 2020–2021 relative to 2020 level

2020-2021 change relative to 2020 level Fourth quarter 2020 to fourth quarter 2021



Data Sources: JOLTS, LEHD, and CPS

in the data, there is more to quits than E-to-E moves. Transitions out of the workforce likely played a significant role in the rise in overall quits in 2021-2022. Since the fast-growth narrative assumes that quits become hires, it would interpret these transitions as delays on the way to a new job.

But did total quits, as with E-to-E transitions, really grow in line with (total) hires? JOLTS suggests otherwise. According to the JOLTS data, total quits did rise *relative* to hires. Moreover, this increase is notably not matched by an increase in the E-to-E share; the two series do not generally deviate from one another in the manner observed after the pandemic. In this sense, the 2021-2022 rise in quits does not look like the increase one might anticipate when the economy is strong.¹²

In addition, although the fast-growth narrative views a spell outside the workforce as a brief waystation between jobs, the CPS data suggest that these quits were not bound for a job in the near term. In the CPS, a large majority of workers who quit the workforce left for reasons that do not suggest an imminent return to employment. Instead, these workers reported that they planned to return to school or spend more time with family.¹³

In short, the fast-growth narrative is best (if imperfectly) applied to E-to-E transitions but unlikely to provide a full account of the pandemic-era rise in *total* quits.

The Telework Narrative

The pandemic lockdowns forced a sudden shift to remote work. However, long after the worst days of the pandemic, around 30 percent of workdays are still done remotely. These remote-work opportunities are not uniformly distributed across the labor market. The share of jobs with at least some remote work option currently varies from 20 percent in the leisure and hospitality sector to 70 percent in the information sector.¹⁴ In this context, workers who prefer remote work may have to quit to other occupations or industries. This raises the possibility that the burst of quits in 2021-2022 reflected attempts by workers to move into telework-friendly jobs. By this logic, quits receded as workers settled into their new careers.

Within the CPS, we can examine the telework narrative using questions introduced during the pandemic period. The CPS inaugurated a telework question in May 2020. Given its timing, this question linked remote work to the pandemic–that is, survey participants were asked if they worked from home *because* of COVID-19. But as the pandemic receded in 2021, remote work, although it persisted, became less mandatory. As a result, this question may lead us to underestimate the prevalence of remote work. To address this problem, the CPS revised the question in fall 2022 and now simply asks whether the survey participant did any work from home (and if so, the number of days worked from home).

I used the CPS's original, May 2020 remote-work question to look for a link between quits and remote work. This is straightforward for E-to-E transitions because an employed worker's current and past telework status is readily observable. (By contrast, I cannot generally follow workers' labor market activity after they quit into nonemployment.) Specifically, I computed the share of E-to-E moves that involved a transition into a teleworkable job from a position in which no remote work was reported. This share is small: On average, take-up of telework is involved in 5 percent of E-to-E moves, which amounts to 0.1 percentage point of the E-to-E rate. To put this in context, the CPS's overall quit rate rose by 0.7 percentage point in 2021-2022. Thus, by this measure, take-up of telework represents 10-15 percent of the increase in the quit rate. This understates the role of telework to the extent that some workers who quit to search for teleworkable jobs first leave the workforce (and so are not captured as E-to-E transitions). At the same time, though, the result overstates remote work's role to the extent that some of the transitions that happen to involve the take-up of telework would have occurred even in the absence of a work-from-home option.

Next, I used the CPS's revised question to examine the role of remote work from a different angle. Because the revised question was introduced in October 2022, after the quit rate peaked, I do not link it directly to contemporaneous labor market transitions. Rather, I used the revised question to determine which occupations "stuck" with remote work into 2022-2023. These are the occupations that were most likely to signal to workers in 2021 that they offered long-term telework opportunities. I then computed how the quit rate evolved during the pandemic among those occupations in which work-from-home is common and a second group in which it is not. If the availability of remote work drives quits, we should see an increased propensity to quit from the occupations in which remote work is unavailable. While firm conclusions can be difficult to draw with such noisy data, it seems that more workers generally left jobs in occupations in which telework is uncommon. Between late 2020 and mid-2022, the overall quit rate in these occupations rose 0.3 percentage

point more than in telework-friendly jobs.15

A similar exercise could be used to estimate transitions out of jobs in *industries* in which telework is uncommon. Using industry-level data from JOLTS, recent research has indeed found that industries with lower rates of telework experienced higher quit rates in 2021-2022.¹⁶ Together with the findings that use occupation detail from the CPS, this research presents a stronger case for a role for telework in the Great Resignation. The counterargument emphasizes that, in the CPS, we often do not see an individual worker make an E-to-E transition from an onsite-only job to a telework-capable position. Future research should revisit this debate by using more comprehensive data to track the future telework status of all quitting workers.

The Wealth Narrative

Over the first year or so of the pandemic, households accumulated savings at a rate unseen since modern record-keeping began. Between 2019 and 2021, real (inflation-adjusted) checking and savings deposits grew 30 percent, or by \$3.3 trillion. This development reflected a surge in federal government income support amounting to over \$2 trillion of spending above 2019 levels. In addition, some of the increase in savings was "forced," insofar as access to certain services (such as in-person dining and concert venues) was restricted, limiting spending.

With elevated levels of savings, more workers were able to meet required expenses (such as rent) without having to work. Taking care of family or pursuing further schooling became affordable. Accordingly, the *wealth* narrative predicts a higher propensity to quit the workforce in 2021-2022. As households depleted their stock of wealth in later years, quits should have fallen (as they do in the data).

This is an appealing narrative. First, it addresses the importance of quits to nonemployment. This source of quits is quantitatively important but not necessarily accounted for by the factors driving up E-to-E transitions.

Second, this narrative sheds light on the distribution of quitting patterns across demographic groups. Quit rates rose most prominently among young, nonwhite, and non-college-educated workers. Weekly earnings of these groups tend to be low (compared with their white, middle-aged, college-educated counterparts). However, workers with below-median earnings experienced faster wage growth during the pandemic.17 Why would groups facing higher wage opportunities quit more often? Maybe the growth in wealth was also relatively high among low-earnings workers. In fact, data from the J.P. Morgan Chase Institute show that the growth rate of the cash balances of account holders in the bottom quarter of earnings was twice as high as those in the top quarter of earnings.¹⁸ The faster growth in wealth could temper the propensity to work even at higher wages. In fact, the reduction in the labor supply could have contributed to the increase in wages in the first place, a point to which I return below.

Third, the narrative is consistent with other salient facts about the pandemic-era labor market. For instance, as much as hiring grew during 2021, job openings rose (much) faster. Indeed, the number of hires per opening *fell* to historic lows, suggesting that employers were struggling to fill positions. This fact is con-

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sistent with the wealth narrative: A higher level of wealth enables a job seeker to spend more time looking for a job they prefer, and thereby slows the rate at which open positions are filled.

One major challenge for this narrative, though, is that the increase in quit rates seems *very* large relative to the increase in wealth. Among the lowest quarter of wage earners, the average checking account balance was \$1,200 higher in 2021 than prior to the pandemic, according to J.P. Morgan Chase Institute data. Suppose this induced an increase of just 0.5 percentage point in the quit rate to nonemployment. Even this seemingly modest response runs counter to findings from recent research. For instance, evidence of the willingness to work among lottery winners shows that it takes a windfall roughly *10 times larger* to induce the same reduction in work.¹⁹

Conclusion

The pandemic recovery ushered in a labor market unlike anything seen in well over a generation. One salient development was the wave of quits in 2021-2022. Higher quit rates were observed for all industries and demographic groups, but the rise in quits was particularly sharp for younger, female, nonwhite, and non-college-educated workers. Many of these workers transitioned directly to another employer, but a majority left the workforce altogether. This suggests that changes in both the supply of labor (as illustrated

An Alternative Explanation for Elevated E-to-E Transitions

Rather than a rising tide of hires lifting E-to-E transitions, a specific factor could have elevated E-to-E flows without increasing hiring more generally. But if so, we should see hires via E-to-E transitions rise *relative* to other hires. In other words, E-to-E hires *as a share of all hires* should be unusually high. By contrast, the fast-growth narrative stresses that E-to-E hires may grow in line with other hires. Therefore, according to the fast-growth narrative, the E-to-E *share* of hires may look no different in 2021–2022 than it did prior to the pandemic.

To assess these competing perspectives, I looked at the LEHD and the CPS, each of which measures E-to-E transitions and total hires. I then computed the E-to-E share of hires as the ratio of E-to-E transitions to total hires (Figure 4). Notably, the share is *procyclical*: It rises during economic expansions and falls during recessions, in part because, in a weak labor market, there are more unemployed people competing for jobs. As employment grows and unemployment falls, the E-to-E share climbs. This suggests that, *even if there had been no Great Resignation*, we should still expect the E-to-E share to respond to the economic shocks during the pandemic. Indeed, the share fell during the brief 2020 recession and then rebounded.

FIGURE 4

Quits to Other Employers Make Up a Larger Share of Hires in Good Times

But this share wasn't unusually high during the Great Resignation. Employer-to-employer share of hires and quits relative to hires, 2001–2023



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by the wealth narrative) and the demand (as illustrated by the fast-growth narrative) contributed to the rise in quits.

A next step in the analysis of the Great Resignation would look at its broader implications for labor market dynamics. Consider the behavior of wages. Over the course of 2021 and into 2022, wage inflation accelerated. It's probably not a coincidence that this overlaps with the Great Resignation. The rise in quits was fueled by both stronger labor demand and weaker labor supply—a combination that should put upward pressure on wages. The acceleration in wage inflation appears to have in turn fed into higher price inflation.²⁰ This nexus of quits, wages, and prices will likely interest researchers in the years ahead.²¹

NOTES

1 At that rate, up to 40 percent of the workforce would turn over during a calendar year. Of course, quits did not stay so high for that long; the quit rate began descending in the spring of 2022.

2 Federal Reserve Bank of Chicago Senior Economist and Economic Advisor Bart Hobijn notes that, in an older survey of manufacturers, quit rates above 3 percent were not uncommon in a strong labor market. That survey was discontinued at the end of 1981. A detailed comparison of the two surveys is beyond the scope of this article. See Hobijn (2022).

3 A final concern is that the LEHD excludes transitions away from jobs that start and end within a quarter. The effect of this omission on the E-to-E rate is mitigated because these jobs are also excluded from measured employment, that is, they are excluded from the denominator of the rate. Therefore, the measured E-to-E rate is understated only if short-term jobs are more likely to end via an E-to-E transition than via a movement out of the workforce.

4 When employed workers report to the CPS that they have switched employers, the CPS counts it as an E-to-E transition. Due to a change in survey administration, I use an adjusted and methodologically consistent estimate of the E-to-E rate. See Fujita et al. (forthcoming) for a description of the method. The data can be accessed at https://www.philadel-phiafed.org/surveys-and-data/macroeconomic-data/employer-to-employer-transition-probability.

5 The unemployed, who are by definition actively searching for work, are asked simply if they "quit" or were "laid off." Those who do not search— the labor force nonparticipants—are asked why they left their last job. I judge workers to have quit if they left to return to school, to spend time with family, or because the conditions of their last job were "unsatisfactory." See Graves et al. (2023) for details on the construction of CPS quit rates.

6 Whereas the BLS and Census publish seasonally adjusted data from, respectively, JOLTS and the LEHD, calculations from the CPS require seasonal adjustment. I use the implementation of the X-13-ARIMA-SEATS algorithm written by Yvan Lengwiler for MATLAB.

7 In keeping with my dating of the Great Resignation, I calculate changes in CPS quit rates starting from late 2020. When examining the CPS, though, I use mid-2022 as the ending date because the rates did not

peak until then. Because of differences in the timing of (total) quit and E-to-E series, choosing an earlier starting date implies a bigger role for E-to-E transitions for certain demographic groups.

8 This result echoes Hobijn's 2022 analysis of the CPS.

9 This similarity could be overstated if the measurement error differs across sectors—for example, if the LEHD "misses" more E-to-E transitions in sectors in which the true E-to-E rate rose more. See footnote 3 for more on the potential measurement error in the LEHD.

10 The employer losing a worker via an E-to-E transition will often seek to replace that worker, perhaps by poaching from still another firm. In this sense, an initial E-to-E transition kicks off a "hiring chain," with one firm after another making hires. The chain stops when a job opening is filled by a nonemployed worker. For theoretical models of hiring chains, see Mercan and Schoefer (2020), Elsby et al. (2023), and Clymo et al. (2023).

11 One driving factor behind the general boom in hiring appears to have been a sharp rise in new business formation in 2021. Ryan Decker and John Haltiwanger show that, across U.S. states, higher rates of business formation went together with higher E-to-E rates.

12 Once again, though, the analogous variable in the CPS does not reach a new high in 2021–2022. I generally defer to the JOLTS series but a reconciliation of these sources should be a high priority for future research.

13 Unfortunately, it is not possible in the CPS to track the future labor market outcomes of quits who leave the labor force. The identification of a "quit" is based on questions asked to a subsample of workers who are not followed over the subsequent months.

14 These estimates are from Barrero et al. (2021).

15 E-to-E dynamics may account for as much as half of this difference in total quit rates, but the contribution of E-to-E transitions depends heavily on the exact dates used to measure the change in transition rates.

16 This analysis is reported by Bagga et al. (2023).

17 See Autor et al. (2023) for a review of real wage trends in the pandemic. These authors also report on the link between E-to-E rates and wages. They find that, in 2021–2022, a non-college-educated worker with a relatively low wage became more likely to make an E-to-E move relative to a higher-wage worker also in the noncollege group. This result is not necessarily at odds with an increased propensity to quit the workforce for the noncollege group as a whole.

18 See Wheat and Deadman (2023) for an analysis of the J.P. Morgan Chase data.

19 See Cesarini et al. (2017), whose results are based on a sample of lottery winners in Sweden. By contrast, the cross-sectional correlation of initial wealth and labor force outcomes suggests that higher wealth has a (much) bigger impact on the propensity to quit. See for instance Algan

et al. (2003). However, the lottery studies better capture the abrupt increase in wealth experienced in the pandemic period.

20 The annualized growth in the Employment Cost Index rose from 3.4 percent in the fourth quarter of 2020 to 5.5 percent in the first quarter of 2022. The simultaneous rise in (price) inflation was broad-based and specifically observed in the services sector, where labor is a large share of overall costs. Inflation in core personal consumption expenditures services (excluding housing) rose from 2.5 percent to 5 percent.

21 This work has already begun. See Moscarini and Postel-Vinay (2023), who present a theory of how a higher E-to-E rate fuels a rise in wages and, therefore, prices.

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