

Worker mobility in practice

Is quitting a right, or a luxury?

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Unequal Power

Part of the **Unequal Power** project, an EPI initiative to reestablish the understanding in law, politics, economics, and philosophy, that equal bargaining power between workers and employers does not exist. Recognizing this inherent workplace inequality will bolster freedom, economic fairness, workplace protections and democracy.

Executive summary

Worker mobility—the ability to find and take another job—is at the core of worker power, and, conversely, worker immobility is at the core of employer power. But how easy is it for a worker to leave a job and look for another?

In this paper, we present evidence of barriers to worker mobility along two dimensions: labor market considerations (can a worker find another job?) and financial considerations (can a worker afford to transition to another job?).

With regard to labor market barriers, we assess each step in the job search and job match process and find that worker mobility is greatly limited by the availability of jobs to which workers can move; the time it takes to search for and secure another job, if it's available; and the quality of the available jobs and quality of the new job, if secured. Moreover, limitations in labor market mobility are often dependent on the current job: Does it have hours or working conditions that make on-the-job search difficult? Does it have the scheduling or time-off policy that supports interviewing? Does it provide a positive or negative signal about the worker? The existence of these kinds of constraints suggests that worker immobility can be a reinforcing process. Finally, mobility is contingent on the degree of labor market discrimination. We illustrate, in a stylized model, how a Black worker would need to devote nearly four times the effort to receive the same number of offers as a similar white worker.

With regard to financial barriers to mobility, we find that, even in a job-to-job transfer—the best-case scenario for worker mobility because unpaid time off is minimized—workers can experience gaps in benefit coverage or compensation. Even noncompensation aspects of a new job can carry financial costs, such as commuting, and a change in job location can require a new child care arrangement. Workers facing unemployment spells between jobs must usually finance the spells on their own, a major hurdle for the huge share of U.S. households whose savings add up to just several hundred dollars. Workers willing to enhance their labor market prospects by moving must not only pay the costs of the move but also

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have access to considerable savings to cover advance rent and security deposits or to cover expenses while awaiting the sale of a home. And much like in the labor market, there is persistent and well-documented discrimination in the housing market that raises these costs for people of color. Finally, access to credit can smooth out job transition costs, but it is not universal and reflects clear racial differences. Black and Hispanic Americans also have considerably less wealth to tap into than white Americans.

Our assessment of these and other labor market and financial considerations illustrates the extent to which barriers to mobility can make moving jobs a luxury, rather than a right. The theoretical context of these findings is dynamic monopsony: the harder it is for a worker to leave, the more power an employer has over that worker's wages.

I. Introduction

How easy is it for a worker to leave a job and look for another? In the “at-will” employment framework, an employer cannot legally prevent a worker from leaving a job, but what does the concept say about the right, or even the ability, to find a new one?

In this paper, we present evidence of barriers to worker mobility along two dimensions: labor market considerations (can a worker find another job?) and financial considerations (can a worker afford to transition to another job?). With regard to labor market barriers, we assess each step in the job search and job match process and find:

- Worker mobility is greatly limited by the availability of jobs to which workers can move; the time it takes to search for and secure another job, if it's available; and the quality of the available jobs and quality of the new job, if secured.
- Limitations in labor market mobility are often dependent on the current job: Does it have hours or working conditions that make on-the-job search difficult? Does it have the scheduling or time-off policy that supports interviewing? Does it provide a positive or negative signal about the worker? The existence of these kinds of constraints suggests that worker immobility can be a reinforcing process.
- Mobility is contingent on the degree of labor market discrimination. We illustrate, in a stylized model, how a Black worker would need to devote nearly four times the effort to receive the same number of offers as a similar white worker.

With regard to financial barriers to mobility, we find:

- Even in a job-to-job transfer—the best-case scenario for worker mobility because unpaid time off is minimized—workers can experience gaps in benefit coverage or compensation. Even noncompensation aspects of a new job can carry financial costs, such as commuting, and a change in job location can require a new child care arrangement.
- Workers facing unemployment spells between jobs must usually finance the spells on their own, a major hurdle for the huge share of U.S. households whose savings add

up to just several hundred dollars.

- Workers willing to enhance their labor market prospects by moving must not only pay the costs of the move but also have access to considerable savings to cover advance rent and security deposits or to cover expenses while awaiting the sale of a home. And much like in the labor market, there is persistent and well-documented discrimination in the housing market that raises these costs for people of color.
- Access to credit can smooth out job transition costs, but it is not universal and reflects clear racial differences. Black and Hispanic Americans also have considerably less wealth to tap into than white Americans.

Our assessment of these and other labor market and financial considerations illustrates the extent to which barriers to mobility can make moving jobs a luxury, rather than a right. The ability, or inability, to find new employment has both practical and theoretical implications. Workers would likely call a lack of job options a real hardship and a barrier to higher wages, better living standards, and basic economic security. Economists would call an inability to search for or find a new job an example of a search friction and trace its origins and effects in a theoretical framework. Indeed, worker mobility is at the core of worker power, and, conversely, worker immobility is at the core of employer power. Hence, we start with a discussion of monopsony and how researchers define and identify the concentration of employer power.

II. Monopsony in practice

Worker mobility—the ability to find and take another job—exists on a spectrum, from those who can easily move to those who cannot. What explains the variation? One could ascribe the reason to the worker and his or her education, experience, occupation, or industry. But that is just another way of saying that workers with different educations, experience, occupations, or industries face different labor markets, and, again, some labor markets have more mobility than others. Hence, the real question is, what explains the variation in mobility in labor markets?

Perfect monopsony is defined as the presence of a single buyer in a market (the inverse of a perfect monopoly, in which there is a single seller). In labor markets, monopsony, or monopsonistic power, is the term given to describe a market-disrupting concentration of employer power that allows the employer to pay workers less than a competitive wage. A competitive wage is a worker's marginal productivity; paying less than a competitive wage means paying a worker less than what the worker contributes to the firm. We often conceptualize monopsony in a *static* framework, in which a single dominant employer—a mining company or a manufacturing plant in a rural area—controls the labor market. But researchers have found diffuse and pervasive evidence of monopsony beyond this static framework; workers are paid below a competitive wage in many geographies, markets, and industries (Ashenfelter, Farber, and Ransom 2010; Dube, Manning, and Naidu 2018; Sokolova and Sorensen 2021; Stansbury and Summers 2020; Webber 2015). Instead, concentration of employer power today is conceptualized as *dynamic* monopsony

(Manning 2003, 2021; Naidu and Carr 2022), in which the difficulty or inability to leave a position that pays less than a competitive wage gives an employer monopsonistic power to lower wages.

There are many potential contributors to dynamic monopsony. Card (2022) discusses the concentration of employers in labor markets, collusive “no poaching” agreements between firms, and noncompete clauses attached to hiring contracts. The latter two can be interpreted as evidence of monopsony in addition to contributors to monopsony. Moreover, all of these contributors have a common theme of restricting worker movement, either through the reduced number of alternative employers, reduced access to those employers, or restricted movement to those employers. Hence, the crux of monopsony is the limitation of a worker’s outside options and the ability to exercise them (Schubert, Stansbury, and Taska 2021). Worker mobility, then, can be seen as a study of search friction—anything that prevents a worker from immediately starting a new job, from the time needed to find another position to the ability to accept it. Because it is hard for workers to leave, and employers know this, they can exercise monopsonistic power and pay lower than competitive wages.

Often, researchers look for evidence of monopsony in observed wages and the distribution of wages across firms, time, industries, or geographies that reflect rising employer power or the decline in worker power. The proof of monopsonistic power is found in the resulting wages. In this paper, we take the reverse approach. Rather than look for evidence of the result, we assess evidence of the cause, namely, search frictions. Are workers mobile? Are they able to move jobs? We take a practical approach to this question and discuss the many barriers and difficulties workers face in leaving a job.

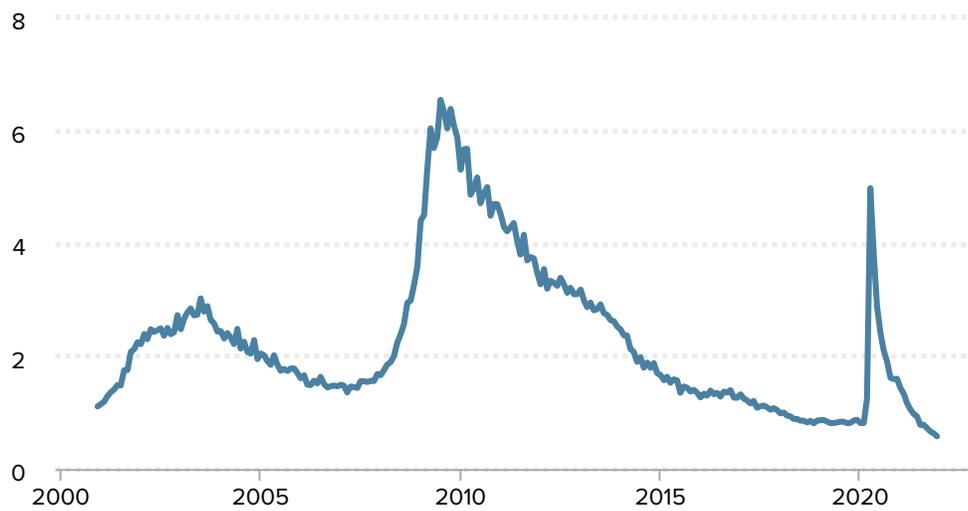
III. Labor market constraints

The primary component of worker mobility is whether the worker can find a job. The job-finding process is conceptually straightforward: workers decide to look for a job, perform the job search, and, if another job is found, decide whether to accept it. However, each of these steps carries its own assumption: that there is a job available, that the worker has the ability to dedicate time to search for it, and that a new job will be of sufficient quality and not result in disruptions to the worker’s income or standard of living. As we will show, these assumptions are not trivial.

A. Available jobs

To start, we consider the first step in the job-finding process and its associated assumption: workers decide to look for a job, which assumes that another job is available. The primary barometer of job availability is the unemployment rate, which measures the share of workers who are not employed but actively looking for a job. There are numerous means of assessing job availability, but most derive from, or incorporate in some way, the number of unemployed workers. Unemployment itself, or a positive rate of unemployment, is not an indication of no available jobs; it can take time to look for and decide on a

Figure A

Job seeker ratio, 2000–2021

Source: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey, and U.S. Census Bureau, Current Population Survey.

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position. Even in a market with many available jobs, some unemployment would be expected. However, elevated unemployment rates, or prolonged unemployment durations, are stronger indicators of job unavailability.

Figure A shows the job seeker ratio—the number of unemployed workers in a given month as a share of the number of job openings—from 2000 to 2021. A ratio greater than 1 indicates there are more unemployed workers than available jobs. The ratio spikes during recessions (peaking here at 6.5 in July 2009) and falls during recoveries.

Job availability is not a fixed feature of the labor market and instead fluctuates with the business cycle. In the 252 months of available data since December 2000, there have been just 33 in which jobs outnumbered searching workers, or just 13% of the time. Indeed, periods of full employment are rare. When unemployment is higher, workers are less likely to quit their jobs, transitions to new jobs are fewer, and wage growth is lower (Mishel 2022). At the same time, employers can fill vacancies with less effort and even raise expected education and experience requirements for new hires (Modestino, Shoag, and Ballance 2020). Varying job availability means worker mobility is dependent on the broader economy, which is far beyond the control or influence of a single worker.

Trends in the broader economy, though relevant, may matter less than a worker's local labor market. Although the U.S. is an expansive labor market of over 150 million workers and boasts nearly every combination of industry and occupation, workers are mostly confined to their local labor markets, which comprise the jobs they are qualified for within the geographical boundary of where they are willing to work. (Workers could move across labor markets for a job, but, as we will discuss, that is not financially feasible for many). Local labor markets should not be conflated with a city or locality; rather, a local labor

market is defined by where a worker can commute on a daily basis. An individual in a rural area might spend an hour commuting 50 miles to a job, across many towns, while an individual in an urban area might commute for an hour by bus within the same city or borough. For reference, 12% of workers in 2019 had a commute time of less than 10 minutes, and 10% had a commute time of over an hour (Burd, Burrows, and McKenzie 2021).

Two examples illustrate some of the constraints of local labor markets and how they can exhibit monopsonistic features, regardless of size. In *Janesville*, journalist Amy Goldstein wrote about the 2008 closing of the General Motors manufacturing plant in Janesville, Wis., a town of around 60,000 (Goldstein 2018). The plant employed about 1,200 workers when it closed, and it was not the largest employer in Janesville and the workers did not represent a majority or even a large share of the total labor force. Yet, for the GM workers there were no alternative employers in the city who paid a similar wage for workers with their education and experience levels. Few of the laid-off workers returned to manufacturing in Janesville after the plant closed. Some took retirement buyouts; some commuted weekly to another GM plant hundreds of miles away, returning home to Janesville each weekend; and others pursued retraining at the local community college. Those different jobs, however, did not pay wages at the GM level.

In *No Shame in My Game*, anthropologist Katherine Newman studied the employees of a fast-food restaurant in Harlem over a two-year period (Newman 2000). Though New York City is one of the largest and wealthiest cities in the world, with millions of jobs, the job options for the Harlem workers were not as vast as the city itself. Most walked to work and could not afford daily subway fare, most had no education beyond a high school degree, and most had little prior job experience. Thus, the fast-food restaurants within their neighborhood were one of their only employment options. With low wages and long hours (at least in the time in which Newman was studying), the workers struggled to find the time or money to finance a job search outside their neighborhood.

The narratives of the laid-off auto workers in Janesville and the fast-food workers in Harlem illustrate what research has found to be the case: worker outcomes are conditioned on the local labor market, and one's labor market does not have the same geographic boundaries that demarcate cities or counties (Enrico 2011; Manning and Petrongolo 2017). Further, the determinants that make a labor market more or less favorable to workers in terms of availability of jobs or level of pay are vast and outside of the worker's control. For example, a Walmart opening up in a county is associated with a reduction in both retail employment and retail earnings (Neumark, Zhang, and Ciccarella 2008; Wilshire 2022). Comparing across local labor markets, researchers have found differences in employer concentration and market power, and those differences are associated with differences in worker outcomes: markets with more employer power have lower wages and more wage inequality (Azar et al. 2020; Benmelech, Bergman, and Kim 2020; Rinz 2018). An individual worker would have little influence on these and other features of the local labor market, but those features would greatly influence the worker's own earnings and mobility.

It is possible that the importance of local labor markets will erode in the future as more

workers work remotely and are therefore not tethered to the labor market in which they reside. In the beginning of the COVID-19 pandemic in May 2020, efforts to contain community spread via social distancing resulted in 35.4% of workers in the U.S. working from home (Bureau of Labor Statistics 2020). Researchers estimate that 37% of jobs in the U.S. economy could be performed at home (Dingel and Neiman 2020). Before the pandemic, in January 2020, just 2.5% of job postings were for remote work; that share increased to roughly 7% by the end of 2021 (Judes, Adrjan, and Sinclair 2021; Kolko 2021). However, the ability to work remotely is associated with workers who have higher educational attainment and higher earnings (Desilver 2020; Dingel and Neiman 2020; Kolko 2021). While some workers may see fewer constraints from local labor markets as a result of working remotely, that will not be the case for all or even most workers.

B. Ability to search for jobs

Aside from the availability of jobs, a worker must dedicate time to search for a new position. This is not a trivial undertaking, nor is job searching equally accessible or successful for all workers. We can see this immediately if we think of three contexts for job searching: searching on-the-job during work hours, searching on-the-job after work hours, and searching while unemployed. Each context supports a different level of effort and has a different cost for the searching worker.

Workers who want to change jobs without having a gap in income maintain their current employment while searching. Practically speaking, some workers, particularly those with access to the internet and with low levels of active supervision or monitoring, will be able to search during the workday. A paralegal at a law firm, for example, uses a computer all day, and, though he or she may need to be available for calls or emails, it is unlikely a lawyer is constantly or even frequently examining the paralegal's screen. But workers without computers or phones on hand who are actively engaged in a task would find search during the workday difficult to impossible. A child care worker, for example, has little access to a computer or internet at work, and is occupied with a physical task of minding children.

Employed workers who cannot sufficiently search on the job must search outside of work hours, but they face logistical challenges. Most job postings and applications are completed over the internet, yet according to the American Community Survey 15% of individuals do not have an internet subscription (Martin 2018). But the limiting factor for most workers is time. People with jobs work on average 8.1 hours a day, and people who are job searching search on average 2.8 hours a day (Bureau of Labor Statistics 2019). It would not be appropriate to add those estimates together, as they vary too much across individuals and work statuses or situations, but they illustrate the considerable time commitment job search requires and how difficult that can be to accommodate when one has a full-time job.

Securing an interview request takes considerable effort. According to a 2018 survey, nearly 40% of seekers who submitted 1–10 applications failed to receive any interview requests, compared with 26% who submitted 11–20 applications and 19% who submitted

21–80 (Dalton and Groen 2020). A separate survey of employed workers found that, of workers who received an offer over the prior four months (whether they were searching or not), the majority received only one (Federal Reserve Bank of New York 2022).

Compared with employed workers, unemployed workers have fewer time commitments that might interfere with their job search, but also no earned income to support themselves until a job is found. Workers can become unemployed through layoffs or firm closings or by newly entering or reentering the labor market. Unemployment in a discussion of *at-will* work arrangements, however, refers to those who voluntarily quit in order to find a new job. The only workers who can exercise this option, then, are those who can afford a period without earned income.

Each of these contexts of job search imply significant disparities in income. Occupations that support search during the workday are higher paid, on average, than those that do not. A reasonable approximation for the share of occupations that can be performed primarily on a computer with access to the internet is the share of occupations that can be performed remotely, and, according to Dingel and Neiman (2020), discussed above, that share is 37%—and those jobs pay more than jobs that can't be performed remotely. A separate study estimated that a higher share, around 44% of jobs, could be performed remotely, yet the share was much higher (67–70%) among those with a bachelor's degree than among those without a high school diploma (11–17%). It is safe to assume, then, that search during the workday is a luxury and more likely an option for the highest earning and the highest educated.

Job searching outside of work hours is more time consuming, a fact that disadvantages mothers who already work a “second shift” of child care and housekeeping (Hochschild and Machung 2012). Even in 2019, full-time employed married mothers spent an average of 75 minutes more per day on household activities, purchasing goods and services, and caring for children than full-time employed married fathers (Bureau of Labor Statistics 2019). In addition, job searching requires a computer and an internet connection, and the 15% of households without broadband skews with income: only 3% of households with annual incomes of more than \$150,000 lacked broadband, compared with 25% with income less than \$25,000. And taking time off for a job search requires significant savings, which we discuss in the next section.

Further, a significant share of job matches comes through an individual's network (Granovetter 1973). Researchers have investigated many aspects of networks and how they relate to the probability of being hired, wages, and tenure in the job, and whether the importance of networks is found across the wage distribution (Simon and Warner 1992; Ioannides and Datcher Loury 2004; McDonald 2015; Schmutte 2015, 2016; Brown, Setren, and Topa 2016). A key finding relevant to the investigation of worker mobility is that networks are often a channel of labor market inequality. The more white men there are in someone's network, for example, the more job leads an individual can be expected to have (McDonald 2011). Jobs found through friends tend to pay more, but the premium is higher if the friend is white rather than Black (Tenev 2020). In terms of worker mobility, the interpretation of these findings is that networks aid in mobility, but the extent of the assistance varies along key dimensions of inequality. It is not clear whether new forms of

networking via social platforms such as LinkedIn or Indeed augment or diffuse the inequality aspects of network connections or create new ones. LinkedIn's own research claims that 85% of jobs are filled via networking (Adler 2016), but the use of social networking sites has various implications for success, ranging from whether the person is an extrovert (Davis et al. 2020) to how old they are and how they look in their profile photo (Krings et al. 2021).

Applications, moreover, are just the beginning. The vast majority of job offers come only after an interview (Dalton and Groen 2020). Again, employed workers are not equally able to accommodate a job interview, given that most interviews occur during the workday and that not all workers have paid time off. In 2021, 23% of private-sector workers did not have paid sick leave, 21% did not have paid vacations, and 54% did not have paid personal leave (Bureau of Labor Statistics 2021). Workers without paid leave would have to take a pay cut if the interview fell during the workday. Yet even workers with paid leave may need permission to miss work. Interviews can also be difficult to schedule if workers do not have control over their shifts. Only about 45% of workers know their work schedule less than a month in advance, and about 20% know their work schedule less than one week in advance (Reeves 2020). Hourly retail and food service workers face even more unpredictability: one-third had less than one week's notice of their schedules, and their schedules varied in total hours week-to-week (Schneider and Harknett 2019). Even a single interview can be difficult to arrange, but many jobs require multiple interviews.

In conclusion, the tasks, pay, scheduling, and benefits of certain jobs make it difficult to find another one. The exigencies of job search are not equally accommodated by every job, and thus worker mobility is highly varied based on the current job and whether it affords search, how the work schedule is set, and whether it offers time off.

One could argue that as long as the worker has *some* ability to move to another position, potentially with features that enable easier mobility, limits to worker mobility are short term or job specific. However, workers of color are discriminated against in the hiring process, a barrier that is neither short term nor job specific.

Researchers test for labor market discrimination through audit studies, in which resumes are generated and sent in response to job postings and callback rates are measured. Critically, the resumes feature some intentional but specific variation, and the callback rate for interviews is a test of that feature's labor market penalty. One prominent audit study, for example, changed the names on resumes to Black-sounding names (such as Lakisha and Jamal) or white-sounding names (such as Emily and Greg); white names received 50% more callbacks (Bertrand and Mullainathan 2004). Audit studies have been tested in numerous settings and iterations, but the findings are remarkably consistent and have not changed in the past 30 years: Black and Hispanic workers are called back less for job interviews than white workers (Quillian et al. 2017). Discrimination applies to both the high-wage and low-wage segments of the labor market. Audit studies have found that Black Harvard graduates have callback rates on par with white public university graduates (Gaddis 2015), and Black and Hispanic workers with clean records have similar callback rates as white workers with felony records (Pager, Western, and Bonikowski 2009). A recent study, which sent out 83,000 applications to the largest 108 employers in the U.S.,

found that discrimination against Black applicants was present and driven by highly discriminatory firms representing about a quarter of the firm sample (Kline, Rose, and Walters 2021).

The differential difficulty in job finding contributes to the persistent differences in Black and white economic outcomes. The differences in hiring rates can explain half of the unemployment rate differences between Black and white workers (Forsythe and Wu 2021), and these differences, along with wealth disparities and others, push down wages (Stelzner and Bahn 2021).

Figure B uses a stylized, hypothetical model of job search results to illustrate how prolonged a search can be. We assume two success rates—17.5% and 35%—of each application securing an interview and securing an offer, and map out how many applications are necessary to receive five job offers. The climbing lines, scaled on the left axis, show the number of interviews per application. The bars, scaled on the right axis, show the number of job offers per application. For example, at 25 applications at a 35% success rate, the applicant has garnered nine interviews and three offers, compared with just four interviews and one offer at a 17.5% success rate. The relative steepness of the lines shows how quickly applications are converted to interviews, and the differential height of the bars shows how many offers are associated with application rates. At a 35% success rate, an individual would need to apply for 40 jobs in order to get 14 interviews that yielded five job offers. To get those five offers at a 17.5% success rate, an individual would need to apply for 150 jobs in order to get 26 interviews. These differences are not trivial—being half as likely to be called back results in a job search process three times longer. Assuming two hours per application and four hours per interview, this is the difference between 136 hours and 404.

Job search is not equally or easily accomplished for workers in different occupations, but discrimination in the labor market adds a pernicious and permanent disparity in the success of that search.

C. Match of job and worker

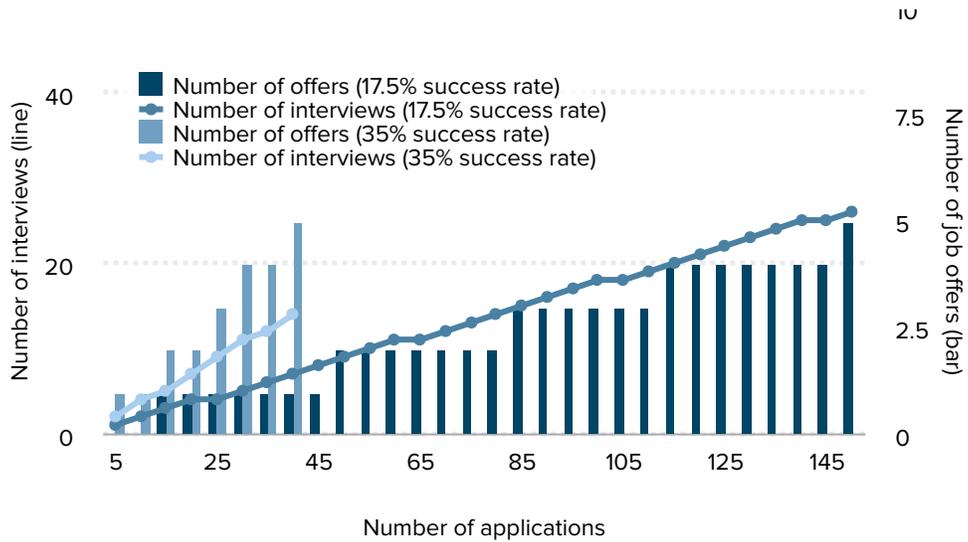
The final step and the accompanying assumption in worker mobility is that the worker find and can find a job of sufficient quality. That is, conditional on jobs being available and conditional on workers being able to search for those available jobs, the offered job must match the worker.

Match is multidimensional. It encompasses skill, pay, benefits, location, schedule, working conditions, on-the-job growth, and earnings potential, among other factors. It is not the case that there is a consistent ranking across workers of which attribute is most important. Working mothers who manage child care responsibilities, for example, have been found to be very sensitive to commute times in assessing employment opportunities, even turning down higher-paying offers that might disrupt the commute, and by extension child pickup and drop-off (Manning and Petrongolo 2017). The nonwage attributes of a job, whether they are the working conditions or other amenities, are key determinants of job

Figure B

Hypothetical model of job search

Applications, interviews, and offers at two success rates



Source: Illustration of hypothetical application and offer rates in two populations.

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preferences (Maestas et al. 2018) and job satisfaction (Sockin 2021).

Hence, the quality of the match is determined by the worker, workers are not uniform in what they value in a match and how they assess a match, and, as a result, it is difficult for a researcher to determine the quality of matches in assessing barriers to worker mobility. How large an assumption it is that a worker can find a suitable job and, similarly, how limiting match quality is in worker mobility are difficult to measure. We could, for example, look to the rejection rate of job offers to get a sense of match quality and mobility. Glassdoor, a job search website, finds that the rejection rate of job offers varies with broader macroeconomic conditions, but generally is in the range of 15–19% (Sockin and Zhao 2020). This rejection rate would suggest that match quality is an issue but not a large one—the majority of job offers are accepted. However, individuals presumably limit their search to jobs that they would want, so the acceptance rate is conditional on the application rate, and we do not observe both. The details of the job, and the wage and nonwage features, may be withheld until an offer is made. As noted previously, the majority of workers receive only one job offer, making rejection less likely, and individuals who feel that there are few suitable jobs available may be discouraged from searching at all.

Observing workers who move from one job to another—job switchers—does not necessarily yield information on job match either, because workers with limited mobility may move to a worse, low-quality job. Earnings are a fundamental indicator of job quality and likely an important aspect of job match. Models of lifetime earnings have found that switching to higher-paying jobs is a key contributor to total earnings growth over a worker’s career (Topel and Ward 1992). But in fact, only about half of job switchers

between 1996 and 2010 went into a higher-paying job (Wiczer 2016). The average wage increase between jobs was 2.6%, and a fair share of switchers lost half of their earnings from the prior job. Part of the reason is that a voluntary job switch is not free of negative aspects. Workers could switch because they were warned that they would be fired, they could have had a negative experience with a colleague, or they could have experienced sexual harassment (Nyström and Zhetibaeva Elvung 2015; Willness, Steel, and Lee 2007).

Indeed, interpreting switching to lower-quality jobs (at least measured by earnings) introduces the question of whether quality is a limiting condition to mobility at all. That is, does switching into a lower-paying job support the conclusion that pay (or other measures of quality) does not always inform a worker's assessment of a match or that pay (or other measures of quality) does not limit mobility? Workers either do not care about quality or they do care about quality, but do not let it function as a limit to mobility. Both could be, and likely are, true to an extent. A key aspect of this question, though, is how well a searching worker would be able to assess quality before starting the job.

As a theoretical aside, the requirements of match in job search could be interpreted as a search friction and evidence of dynamic monopsony (as we present it here) or, as an alternative, could be interpreted as product differentiation, a separate channel for monopsony. As Naidu, Posner, and Weyl (2018) explain, employers have preferences over workers regarding such factors as their skills, education, and experience but also their personality and work style. At the same time, workers have preferences over jobs, as noted above. The labor market's two-sided preferences mean that it is "doubly differentiated" and therefore naturally thinner than a single-differentiated market would be. For example, a person shopping for clothing, like a pair of jeans, can have many different preferences: cut, fit, style, material, and even sourcing and sustainability. The store selling the jeans, on the other hand, only cares that any potential buyer pay the posted price, and it does not discern between buyers based on their age, height, hair color, commitment to fashion, or even their intention to actually wear the clothes. If stores had to meet those preferences before selling, it would be much harder to buy clothing. Two-sided preferences make matching more difficult.

Critically, in the labor market's two-sided preference match, workers know less than employers and thus there is information asymmetry in job search, a factor that tilts labor markets toward monopsony. Learning about a job's features, especially the culture of the workplace, during the search process can be difficult. Research has found that an employer's reputation is important to worker's preferences (Benson, Sojourner, and Umyarov 2020), yet employers actively try to discourage transparency about working conditions via nondisclosure agreements (Sockin, Sojourner, and Starr 2022), and fear of retaliation can be a deterrent to workers commenting at sites like Glassdoor about former employers (Sockin and Sojourner 2020). Even while employed, workers often have little information about their wages relative to those of their coworkers, and learning that they are paid less decreases job satisfaction (Card et al. 2012). Observed job switches into lower-quality jobs, therefore, cannot be assumed to be a worker's specific intention: the worker may not know that the job is of lower quality.

Some would argue that match is not a barrier to leaving jobs. In theory, so long as *any* job

is available, worker mobility is not limited. The first half of that statement is certainly true: a worker may not prefer to move from being a teacher to, say, a cashier, but the worker can move. The latter half is problematic: moves have consequences, for both future mobility and trajectories, as well as for the power of monopsony. These consequences are illustrated by the low-wage labor market, where there is often an available job.

Analysis of the employment and earnings trajectories of workers in the low-wage labor market suggests that low-wage employment can be a trap. For one thing, low-wage jobs have a much higher likelihood of leading to unemployment than do high-wage jobs, creating a “low-pay/no-pay” cycle of employment (Fok, Scutella, and Wilkins 2015; Mosthaf, Schank, and Schnabel 2014). Second, low-wage jobs don’t pay sufficient wages to support savings, so if workers becomes unemployed they can’t afford a nonworking break and must take the next available job, which is also low wage. Third, many low-wage jobs offer little on-the-job training or investment, so that unemployed low-wage workers are less qualified for different, better jobs (Cuesta and Salverda 2009). Finally, and particularly important to downward mobility, low-wage employment has a scarring effect, similar to unemployment or resume gaps, that reduces future employment prospects (Stewart 2007).

Taken together, low-wage employment greatly increases the chance of future unemployment and decreases the chance of future high-wage employment (Mosthaf, Schank, and Schnabel 2014). Critically, mobility out of low-wage employment into high-wage employment has declined over the last 30 years (Schultz 2019), and research consistently finds that the trap is particularly deep for women (Mosthaf, Schnabel, and Stephani 2011). The ability to move *down* the job ladder is not proof of worker mobility unless there is demonstrated ability to move back *up*.

Further, having access to any available job versus a suitable job can augment employer power and decrease wages. Being in an occupation in a labor market with more outside options—defined as the full set of jobs that workers in that occupation move from or to—is associated with higher wages than being in the same occupation in a labor market with fewer outside options (Schubert, Stansbury, and Taska 2021). This finding helps delineate between movement and mobility; even monopsonistic labor markets will feature movement across jobs, but that movement is not the same as competitive mobility. Hence, match quality may limit some movement and will limit mobility.

D. Immobility and labor policy

Our approach so far in demonstrating that worker mobility is limited in practice has been to examine how difficult it is to leave a current situation. A complementary approach to interrogating the feasibility of leaving an employment situation is to assess if workers do not leave when there is reason they should.

Consider a perfectly competitive labor market. Not only are workers competing for jobs, but employers are competing for workers. If a job has features that workers do not like, employers must either raise wages to compensate for that feature or eliminate it. If they do

not, workers—perfectly mobile in this perfectly competitive market—will leave. The ability to leave any employment situation freely would thus force employers to improve working conditions and wages or lose their workers. It also follows that in a perfectly competitive labor market there is no need for labor regulation; competition is the regulation that marries working conditions to workers' standards.

The introduction of labor regulations and their effect is one kind of indication of worker mobility: the greater the lack of mobility, the less power workers have to improve working conditions and the more regulatory intervention is necessary (Stelzner and Paul 2020). The U.S. labor regulatory regime spans multiple pieces of legislation, including the Fair Labor Standards Act, the Occupational Safety and Health Act, the Civil Rights Act, and the Equal Pay Act. In a sense, the existence of these laws is an *explicit* acknowledgment of lack of worker power in improving working conditions and an *implicit* acknowledgment of lack of worker mobility.

Not everyone agrees with the need for or use of regulation in labor or other markets, and not everyone would interpret its existence and application as proof of shortcomings in the market. However, the continued use of regulation and enforcement is fresh evidence that leaving for a similar or better job is not always a feasible option. For example, since the passage of the Occupational Safety and Health Act (OSHA) of 1970, the rate of workplace injury has decreased fivefold (Brown 2020). Some of this decrease is attributed to the changing industrial composition of the workforce in the past five decades, but research into the effect of OSHA inspections on safety finds that they reduce the incidence of on-the-job injuries and days away from work (Levine, Toffel, and Johnson 2012; Li and Singleton 2019).

Further, employer power is a key moderator of regulatory effectiveness. Researchers have found that where employer power is stronger, such as in workplaces with high numbers of Hispanic workers in areas where immigration enforcement has increased (Grittner and Johnson 2021), regulation is less effective. Conversely, where employer power is weaker, such as in union-organized workplaces (Sojourner and Yang 2022), regulation is more effective. Worker mobility drives the effectiveness of labor regulations as well. A study of sexual harassment reporting found that reports decreased in number, but increased in severity, based on the unemployment rate at the time and the value of unemployment insurance benefits. The authors concluded that workers with fewer outside options are less likely to report sexual harassment (Dahl and Knepper 2021). Thus, the need for regulations and the struggle to enforce them are indicators of limits to worker mobility.

IV. Financial constraints

The corollary to the labor market constraints that limit worker mobility are the financial constraints. The former concerns the availability of alternative jobs and the difficulty in finding them, the latter concerns the cost of finding and taking them.

Job mobility for established workers (excluding here job search and finding by new entrants or re-entrants to the labor market who have not worked for a considerable period

and those who were laid off) occurs under two circumstances. Either they move job-to-job (JTJ) or they quit, have a period of unemployment dedicated to search, and find a new job, i.e., move job-to-unemployment-to-job (JUJ). A worker can take time off between positions in a JTJ move, but that time off is not dedicated to, or motivated by, the search for work because the worker already has a position. The period of time off in a JUJ move is to support job search. We have discussed previously the practical needs of both JTJ and JUJ in terms of job search. Here we discuss the financial costs of job transitions.

A. Job-to-job transitions

Financially the best-case scenario for worker mobility is to transition between jobs without needing to finance time off between paid employment. However, even this type of transition can entail costs for a worker, aside from a potentially negative difference in wages.

As long as a firm is not violating federal nondiscrimination standards, nonwage compensation like retirement contributions, health insurance, and transportation benefits are not required to be offered uniformly to all employees. And a new employee does not have to be offered the same benefits as more tenured employees; for example, a worker might not be able to enroll in the firm's retirement plan until after 12 months of tenure, or a worker might have to restart accrual of paid time off for sick days or vacation days. So workers can experience gaps in coverage or compensation, and this transition cost is greater if the moving worker also lost benefits from leaving, left during an early step in the vesting schedule, or was not paid unused time off.

Nonwage benefits, or losses associated with transitioning from one job to another, might seem marginal, especially relative to potential wage gains. However, benefits constrain worker mobility. Job lock refers to workers who do not leave their firms because doing so would disrupt or cause a loss in their health insurance coverage. Early estimates of job lock suggested that it reduced voluntary departures by 25% (Madrian 1994) and affected workers who had, or whose spouses or children had, preexisting conditions (Gruber and Madrian 1994; Madrian 1994). The inverse is also true; easier access to health insurance is associated with moves to higher-paying jobs (Farooq and Kugler 2022). Of course, the health insurance landscape has evolved since job lock was first estimated, but even after the preexisting coverage mandate of the Affordable Care Act of 2010, job lock continues to affect certain workers who are concerned with switching out a doctor's network with a new insurer (Kent et al. 2020).

Finally, even noncompensation aspects of a new job can carry financial costs, such as commuting. Three-fourths of American workers drive alone to work, and the daily cost of a driving commute is \$8-13 (U.S. Census Bureau 2018, 2020). Over a full-time work year, that equates to \$2,080-3,380; moving could increase that cost. Similarly, longer shifts or longer commutes could incur a need for additional child care. If work extends beyond the hours a licensed home care provider or center-based care is open, a worker might have to find different care, pay for extended care, or hire a part-time caregiver like a nanny or babysitter to fill in the hours before the parent's work ends. In addition, a change in job

location could require a new child care situation if the worker previously had an arrangement at or near the former employer; note that 7% of employers offer onsite child care (Matos, Galinsky, and Bond 2017). Disruption of care is stressful. Surveys of parents have long established that finding affordable child care for their preschool children is difficult, the options are limited, and, even when found, the cost is burdensome (Care.com 2021; Harvard T.H. Chan School of Public Health 2016; Pew Research Center 2015). Up to half of all spending on children goes toward child care (Hubener, Rojas, and Tseng 2018); affording child care is a key stressor among parents of young children and reduces maternal mental health (Lyons-Ruth et al. 2002; Mistry et al. 2007). Hence, any job change that requires a corresponding change in care can be financially costly and mentally difficult.

For high-income workers, job-to-job costs such as health insurance, transportation, or child care could be larger in number but smaller in relative financial burden, greatly diminishing the inhibitions on their mobility in the labor market. Yet, for certain workers—low-income workers, those with preexisting conditions, mothers—those costs can be prohibitive. Health insurance job lock is not only an example of this type of constraint to worker mobility but also an excellent way to conceptualize it: there is a financial component of a job that is not guaranteed or maintained with a new employer, and some components are valued by the worker above their strict monetary value.

B. Job-to-unemployment-to-job transitions

Workers can quit their jobs and search while unemployed, but it's a risky move without earnings and no definitive timeframe. Studies of unemployed workers find that the more financial cushion one has in unemployment, the better the job upon reemployment (Farooq, Kugler, and Muratori 2020; McCall and Chi 2008).

Though workers who voluntarily quit their jobs are generally not eligible for unemployment insurance benefits, some states make exceptions for quits for medical reasons that are related to the job; quits related to domestic violence; quits to care for an ill family member; quits for a job that did not pan out (because of, say, a rescinded offer); quits by a worker who had to quit to relocate for a spouse's job; and quits made under "constructive discharge," i.e., a situation in which a worker enduring harassment or unsafe working conditions cannot continue in the position. Applying for unemployment for any of these reasons requires appealing an initially denied claim, which can be a difficult-to-prove and protracted process. In 2021, an average of 26.4% of claimant appeals were awarded by lower authorities, ranging from 10.7% in Texas to 58.3% in California; at the end of that year, 75% of all pending appeals cases were 41–360 days old, and 9% were more than 360 days old (U.S. Department of Labor 2021).

Without help from unemployment insurance, workers must finance the spell on their own (though it is important to note that unemployment insurance benefits are not generous, and beneficiaries would not likely be able to cover all expenses without additional financial resources). Most workers would likely seek help from their families (Edwards 2020; Edwards and Wenger 2019), and some might move in with a family member during

the process (Wiemers 2014). But not every worker has a family relationship that includes financial support, and not every spouse earns enough to support two workers. Family support is a privilege, not a given.

The median duration of unemployment in the U.S. ranges from nine to 20 weeks, depending on the overall unemployment rate (Bureau of Labor Statistics 2021). Even assuming the shortest duration of nine weeks, a worker must cover two months of living expenses: rent or a mortgage, utilities, food, health insurance, and perhaps child care. In 2019, the median family had \$5,300 across savings accounts, checking accounts, prepaid cards, and money market funds. However, the median family income was also \$58,000, and those with lower incomes would have much less or even nothing saved (Bhutta, Bricker, et al. 2020). Also in 2019, 37% of families did not have enough cash on hand to cover a \$400 emergency expense, a proximate indication of having less than \$400 in savings (Federal Reserve 2021).

Having two months of living expenses saved can be difficult for cash-strapped households, even with assistance. The JP Morgan Chase Institute analyzed the balances of its account holders in the months after the U.S. government, in response to the COVID-19 pandemic, sent economic impact payments to American households in April 2020 and January 2021. Account balances grew after the payments, with the largest increases occurring in the accounts of the lowest-income households. But within six months, balances were steadily declining, with larger increases and steeper falls for the lowest income (Farrell et al. 2020; Greig, Deadman, and Noel 2021). The advanced child tax credit payments in place from July to December 2021 further buoyed account balances, particularly for low-income households (Greig, Deadman, and Sonthalia 2022), but throughout this period balances for the lowest-income households (with incomes from \$12,000 to \$26,000) ranged from \$1,000 to \$2,000.

Of course, the expenses arising from deciding to become unemployed are not unexpected. A worker could save for that goal, but how reasonable is it to assume that a worker is able to do so? Lower-income families are less likely to save and, if saving, save at lower rates, due not to a preference against saving but to practical limitations in doing so (Dyran, Skinner, and Zeldes 2004). For example, rent often rises much faster than incomes, presenting an acute challenge to accruing savings. The price for average rents in U.S. cities increased 73% between 2000 and 2019, while median income rose by just 10%. Just before the pandemic, 38% of renting households were rent burdened, meaning that they spent more than 30% of their income on rent, and 17% were severely rent burdened, spending more than 50%. Of these rent-burdened households, two-thirds did not have \$400 in savings and half had functionally nothing in savings (Pew Research Center 2018). Rent is just one part of the household budget, but illustrative of the overall challenges in maintaining savings under the financial pressure of expenses and the often unpredictability of income (Morduch and Schneider 2019).

C. Moving

Many of the labor market constraints a worker faces could be lifted or lessened if the

worker were willing to move.

Moving is not uncommon. Between 2015 and 2019, roughly 13% of Americans moved residence each year, though the vast majority of those moves (65%) were within the same county. For our purposes, that means they were likely (though not necessarily, as noted in the example of Harlem labor markets) within the same labor market. Within-state cross-county moves accounted for an additional 17% of moves, and cross-state moves accounted for 14% (Frost 2020). Together, that means only 2% of Americans move out of their county (in-state) and an additional 2% move out of their state in a year. Across all moves, just one in five are job related, and moving within the U.S. for job-related reasons has been declining (Jia et al. 2022; Molloy, Smith, and Wozniak 2011, 2017).

Moving is not costless, and it may not be feasible even if a higher-paying job awaits. Renters must often pay two months of rent upfront—one for the first month’s rent and one for a security deposit—and although a security-deposit refund may be due from their prior residence, states vary in how quickly a landlord is required to pay over the funds (some states allow as many as 60 days). For the 65% of Americans in households who own their primary home, the timing frictions are greater, since they often must sell their current home (which could incur risks, as it is often the largest component of total wealth (Bhutta, Bricker, et al. 2020; Bricker et al. 2020). Homeowners could be paying for housing in both locations for a long period.

Moving also entails material and time costs. According to recent data the cost to hire movers for an in-town move of a studio apartment can be \$400 (Perry and Allen 2021), and though renting a truck could be as low as \$20 plus mileage (U-Haul International n.d.), not all workers have the physical capability to move themselves. About 20.1 million Americans age 18–64 have disabilities, half of which are ambulatory disabilities (U.S. Census Bureau 2021). Moreover, moving may entail the loss of social or family networks.

And much like in the labor market, there is persistent and well-documented discrimination in the housing market. The Department of Housing and Urban Development, using paired testing in which two prospective renters or buyers are sent to find housing in a locality, has found that Black, Hispanic, and Asian renters are told about and shown fewer units than white renters, and Black and Asian home buyers are shown fewer homes (U.S. Department of Housing and Urban Development 2014; Urban Institute 2015). Discrimination also occurs in the home appraisal process, reducing the equity individuals receive from their homes (Gunderson 2021; Kamin 2021; McMullen 2021; Rothstein 2017). While this loss may not prevent a worker from moving to take a job, it can increase the opportunity cost of selling.

D. Borrowing and wealth

One strategy for dealing with financial constraints of job switching is borrowing. With access to credit, workers should be able to smooth out job transition costs.

Access to credit, however, is not universal: 5% of Americans are “unbanked,” meaning they do not have access to a bank account and must rely on alternative financial services, and 17% do not have access to a credit card. For individuals in households with less than

Table 1

Share of adults who were denied credit, by race, ethnicity, and family income

Family income	White	Black	Hispanic
Less than \$50,000	33%	52%	47%
\$50,000–\$99,000	17%	30%	30%
\$100,000 or more	7%	23%	16%

Source: Table 9 of *Report on the Economic Well-Being of Households in 2020*, Federal Reserve Board.

Economic Policy Institute

\$25,000 in income, 16% are unbanked and 44% do not have a credit card (Federal Reserve 2021). For reference, \$25,000 of annual income for a full-time, full-year worker translates to an hourly wage of \$12.02, or \$4.77 higher than the federal minimum wage of \$7.25 and higher than the minimum wage in 37 states as of January 1, 2022 (U.S. Department of Labor 2022).

Access to credit also reflects clear racial differences. Blacks and Hispanics are denied credit at roughly twice the rate of whites, even within the same income groups. As shown in **Table 1**, which summarizes findings from the Federal Reserve’s annual report on the economic well-being of U.S. households, the share of Black and Hispanic adults denied credit is nearly twice and in some cases three times as high as the denial rate for white adults, regardless of income. Among families with \$100,000 or more in income, only 7% of white adults were denied credit compared with nearly one in four—23%—of Black adults.

Black and Hispanic Americans also have considerably less wealth than white Americans. In 2019, the median wealth of white families was \$188,200, about eight times higher than the median wealth of Black families, at \$24,100, and five times higher than Hispanic wealth, at \$36,100. Differences in average wealth are wide as well: \$983,400 for white families, \$142,500 for Black families, and \$165,500 for Hispanic families (Bhutta, Chang, et al. 2020). Research has found that being Black is a stronger predictor of wealth than the type of job an individual has (Addo and Darity 2021).

Disparities in banking, credit, and wealth are directly related to a workers’ ability to smooth out financial constraints. For example, in an emergency, families can draw on their cash and their near-liquid equity assets such as stocks, mutual funds, and retirement accounts. Among white families, virtually all (98.8%) hold cash, averaging \$8,100, and 60.8% have equity holdings, averaging \$50,600. Extremely high shares of Black and Hispanic families have cash (96.8% and 95.5%, respectively), but their average balances are much lower, at \$1,500 and \$2,000. Only 33.5% of Black families have equity holdings (average value \$14,400), as do just 24.2% of Hispanic families (average value \$14,900) (Bhutta, Chang, et al. 2020).

Access to credit, liquid assets, and equity is a key component of preventing financial hurdles from becoming financial constraints. Not all Americans have credit, cash, or equity, and those disparities are present by income and race. Translated to the financial hurdles of

worker mobility, lower-wage earners and workers of color are less mobile than their higher-income or white peers.

V. Conclusion

The evidence presented here shows how worker mobility is limited in the U.S. Searching for and securing another job requires time and endurance, and switching to another job can be costly. The theoretical context of these findings is dynamic monopsony: the harder it is for a worker to leave, the more power an employer has over that worker's wages.

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