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Navigating the labor mismatch in US logistics and supply chains

Structural shifts in the labor market have left companies struggling to recruit and retain workers. But a set of concrete actions can help address this imbalance across value chains.

by Dilip Bhattacharjee, Felipe Bustamante, Andrew Curley, and Fernando Perez

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As the US economy recovers postpandemic, demand for labor has outstripped supply. Companies are facing the "Great Attrition," coupled with increased competition for labor. The transportation and logistics sector has been particularly hard hit, with the impact of worker-retention challenges and rising labor costs being felt across the entire value chain.

The labor mismatch has pushed private-sector wages to increase at more than double the long-term pre-COVID-19 growth rates, yet positions remain unfilled. There are several underlying factors for this imbalance. Some are directly related to the impact of the COVID-19 pandemic and are therefore likely to be temporary. There are indications, however, that deeper structural shifts are at play that could have a longer-lasting impact on labor supply and demand. On the supply side, evolving work preferences and accelerated retirement may continue for some time; likewise, demand shifts from services to goods also appear to have some staying power.

Addressing the challenges is not easy, and focusing on recruitment and pay may not be sufficient to resolve the issue. Successfully navigating the current labor mismatch requires a comprehensive set of coordinated actions that address labor issues and their effects across the value chain. Nevertheless, there are actions executives can take to respond.

The 2021 labor mismatch has had a profound impact on US businesses

The United States' post-COVID-19 economic recovery has seen an unusual reduction in labor-force participation. Jobs are available—the job-openings rate is around 50 percent above prepandemic levels—but the workforce to fill them has contracted. About four million people have left the civilian workforce (Exhibit 1).

With demand for workers exceeding supply, the cost of labor has increased accordingly. Private-

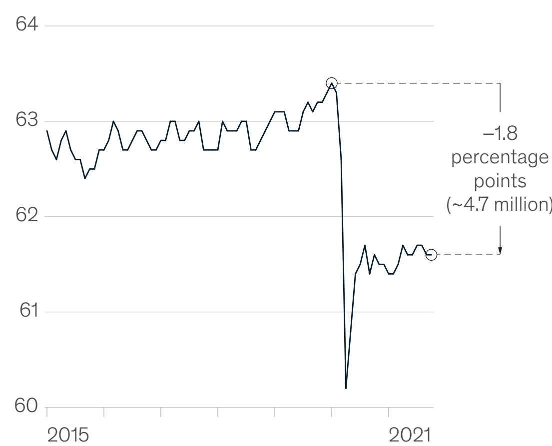
Exhibit 1

Labor mismatches have become prominent across the United States.

US job openings, index (Feb 2020 = 100)

Job openings have risen beyond pre-COVID-19 levels as the economy bounces back.

US civilian labor-force participation rate,[1] %



However, the labor force is about 4.7 million smaller than it was prepandemic.

Source: Federal Reserve Bank of Philadelphia March survey; US Bureau of Labor Statistics sector nominal-wage growth is more than double the long-term pre-COVID-19 pace—more than triple when adjusted for the consumer price index (CPI). Transport and warehousing labor has been most affected in terms of cost, with wages increasing four times faster than before the pandemic.

Despite wage increases, logistics operations are still having difficulty hiring and retaining frontline workers, while also seeing increased absenteeism, causing knock-on effects across the supply chain. Suppliers' on-time delivery rates are falling, a situation exacerbated by supply shortages. "On orders" are being cut at greater rates and experiencing significant delays, driving even further volatility in order patterns. Companies that employ third-party logistics services are also experiencing considerable challenges, such as transport rates increasing by up to 30 percent.

The labor mismatch is unlikely to dissipate on its own

What's striking about the current labor challenge is that, unlike in the past, higher wages alone have not led to positions being filled. There are several underlying factors for this imbalance—some may be temporary, while others are long lasting. There are also regional differences, and in some cases labor availability varies significantly at different zip-code and skill-level combinations.

Some factors related to the COVID-19 pandemic are beginning to dissipate. For example, the federally enhanced unemployment-benefits program wound down in September. Workers who left their jobs because of health concerns or to take care of family members or children at home due to school or childcare-facility closures may return to work.[1] And training programs that were suspended due to the pandemic, such as those provided by driving schools, have largely resumed.

Other factors, however, could lead to more permanent shifts in the labor supply. The relationship between job openings and unemployment has departed from past trends and appears to be driven by fundamental shifts in labor supply-and-demand curves (Exhibit 2). Further evidence that the drop in labor-force participation is underpinned by systemic causes is the fact that the decline in labor supply can be seen across all worker types and demographics, including gender, age, marital status, and whether the person works part time or full time.

Furthermore, since the start of the pandemic, more than 15.9 million people have relocated within the United States. In the same time period, there has been a noticeable increase in the number of people taking early retirement, as 1.7 million workers retired from the labor force earlier than expected.[2] Immigration rates also have a lasting impact on labor supply, and the net immigration rate in the United States fell by 1.3 percent between 2020 and 2021.[3]

Last, a change in mindset toward work may also be an underlying factor of long-term shifts in labor supply. McKinsey research indicates a disconnect between why employers think their staff are leaving and why employees are actually leaving their jobs.[4] Employers are looking at transactional factors, such as compensation or alternative job offers, but these are not the primary drivers of attraction or attrition. Employees place greater value on relational elements, such as a sense of belonging or having caring and trusting teammates at work.

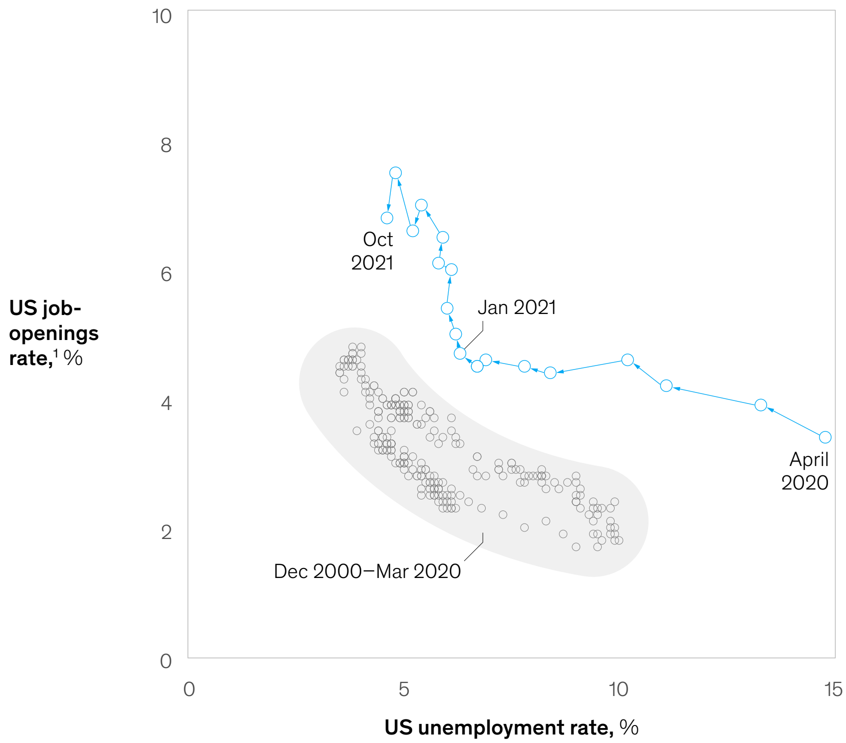
There is also uncertainty over how supply-chain labor demand will continue to evolve. The growth in e-commerce, for example, has driven new demand for supply-chain labor that is likely to remain postpandemic. Recently signed infrastructure legislation is projected to further increase labor demand: industries within the construction value

[1] A McKinsey survey found that among respondents who had left their jobs, 45 percent cited the need to take care of family as an influential factor in their decision. See "'Great Attrition' or 'Great Attraction'? The choice is yours," *McKinsey Quarterly*, September 8, 2021, McKinsey.com.
[2] Owen Davis et al., "The pandemic retirement surge increased retirement inequality," The New School Schwartz Center for Economic Policy Analysis, June 1, 2021, economicpolicyresearch.org.
[3] "U.S. net migration rate 1950–2021," United Nations World Population Prospects, accessed on November 2, 2021, macrotrends.net.
[4] "'Great Attrition' or 'Great Attraction'? The choice is yours," September 8, 2021.

Exhibit 2

The labor mismatch has been driven by fundamental shifts in labor supply-and-demand curves.

Labor supply and demand



[1] The job-openings rate is the number of job openings divided by the sum of total employment and the number of job openings.
Source: Federal Reserve Chair press conference; US Bureau of Labor Statistics; McKinsey analysis

chain are likely to require an additional one million workers if the projected 30 percent of Infrastructure Investment and Jobs Act (IIJA) funds are spent by 2025.[5] Since the logistics and construction industries typically attract similar pools of labor supply, the impact of such legislation would extend multiple years into the future. Additionally, the shift in consumer spending from services toward goods during the COVID-19 pandemic, which added supply-chain pressure to refill fast-selling products, may also stick.

Several industries are also experiencing drastic changes in demand. The travel and food-services industries, for example, saw severe demand drops and responded by furloughing or laying off workers and accelerating early retirements. These measures may have contributed to structural shifts in the labor market for these industries. The trucking industry was facing falling numbers of drivers before the pandemic because of multiple factors, including generational demographics, age limits, time away from home, and drug tests. The pandemic compounded the problem: on one hand, more people ordered goods to their homes, which changed how the deliveries were made and further increased the demand for truck drivers—and on the other, the closure of truck-driving schools, combined

[5] Infrastructure Investment and Jobs Act draft, August 2021; EMSI; US Bureau of Labor Statistics.

with a pull of labor supply away from driving toward construction, reduced the supply of labor.

A meaningful intervention for the mismatch

Together, these factors mean that the labor mismatch in US supply chains is unlikely to dissipate quickly, with imbalances in supply and demand persisting. So what can companies do to address this imbalance now? In this unprecedented environment, companies may have to look beyond the traditional levers of recruitment and retention, and also implement a comprehensive set of coordinated actions to address the labor shortage. For interventions to be meaningful, they need to address the full value chain.

This seems challenging, but there are reasons to be optimistic. Companies are seeing meaningful shifts in their labor-supply profiles by taking the following steps.

Ensuring viability of the supplier base. Companies can engage suppliers with large labor forces—for example, temporary labor, food services, janitorial services, and third-party transportation—to ensure operational viability or identify alternative suppliers that can reduce first- and second-tier supplier risk.

Reimagine the employee value proposition—beyond wages. Companies that solved for competitive wages and built attractive value propositions for employees have found it easier to retain their workforces. In addition to proactively adjusting wages to stay ahead of competitors (especially in highly competitive markets), or embarking on aggressive recruitment campaigns, companies can deploy analytics to pinpoint drivers of attrition—and make bold changes where it matters most (see sidebar “Reimagining the job of a driver and warehouse worker”).

Create capability to identify the stressed nodes and adjust labor flows. Companies can take measures to shift network flow away from labor-stressed nodes, especially where labor supply varies across regions. For example, orders could be rerouted to other warehouses, or products could be manufactured in locations that are less stressed from a labor-supply standpoint. Reformulating or redesigning products can help as well by reducing the need for labor-constrained components and ingredients.

Reduce complexity and labor content of products and services. Companies can reassess their product and service portfolios by building a robust understanding of each offering’s operational and

Reimagining the job of a driver and warehouse worker

One logistics company used advanced analytics, including machine-learning techniques and web scraping more than 50,000 reviews, to identify causes of worker attrition among its drivers and distribution-center employees. It found that the physical nature of the job, lack of work–life balance, and scheduling issues were key drivers of attrition.

The company then designed a range of interventions to mitigate these issues, including a leadership training program for supervisors and managers to address frontline grievances. It also provided greater flexibility in scheduling and pay, and collaborated with customers to solve the root causes of employee-satisfaction problems—such as SKUs that were difficult to pick and deliveries that were scheduled for inconvenient times.

Finally, the company developed an implementation structure and stood up a project-management office to ensure that initiatives were successfully implemented. In distribution centers where changes had been implemented, worker retention improved by about 10 to 15 percent; the company sought to scale those gains across the organization.

commercial trade-offs. One company was able to increase throughput at its factories and warehouses by optimizing its product portfolio (see sidebar "Increasing output by reducing complexity").

Explore lean management and automation. Companies may reduce reliance on labor across the supply chain over the long term through product reengineering, lean-management transformation,

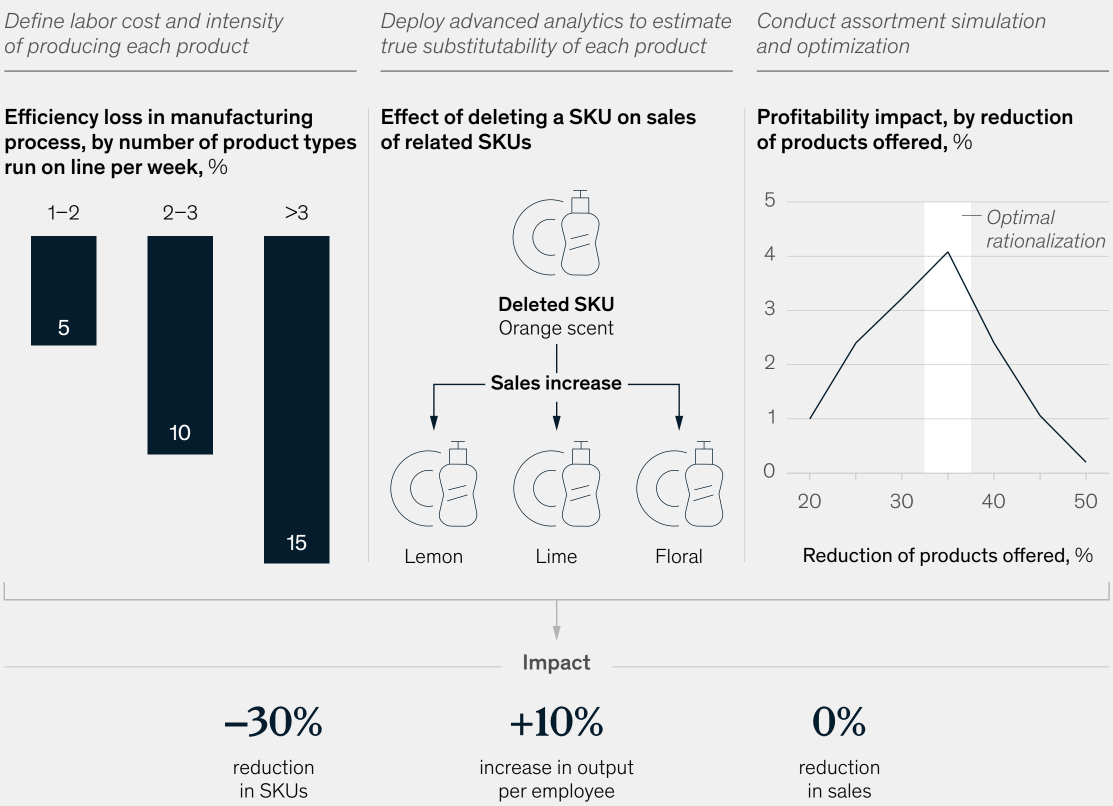
Increasing output by reducing complexity

A consumer-goods company was able to increase productivity by cutting 30 percent of its product portfolio with limited impact on sales. It achieved this by defining the labor cost and complexity of each product, deploying advanced analytics to estimate the substitutability of each product, and conducting an assortment and optimization simulation to identify which SKUs to delist (exhibit).

Exhibit

Complexity reduction can increase output.

Illustrative capacity-reduction scenario, consumer-goods company



The labor mismatch is a complex challenge, one that may be here to stay for a while—and it is clear there is no silver-bullet solution.

and automation. Furthermore, automation could help companies improve employee engagement and satisfaction. More than 40 percent of employees spend at least a quarter of their time performing manual and repetitive tasks. In some cases, automation can help not just reduce labor demand, but also allow employees to spend more of their time on higher-value, meaningful work.

Engage customers and suppliers on cost and service. Companies can engage customers on value-based offerings. They can also engage suppliers through cleansheet—based negotiations that build in complete cost-to-serve estimates, such as cost differences for labor-intensive activities, and service factors such as lead times and delivery windows.

Unlock new sources of labor supply. Companies can explore new sources of labor supply—for example prison-, juvenile-, or veteran-transition programs—or adapt roles for non-English speakers and reskill workers from declining industries or roles.

Bolster HR processes. They can also streamline and strengthen interview and onboarding processes—for example, by setting up "talent war rooms" to focus on such interventions.

Deploy advanced people analytics. Companies can leverage people analytics, such as cluster analytics and attribution models, on internal and external data to identify and prioritize interventions on segmented groups of the labor force (see sidebar "Leveraging people analytics to improve frontline retention").

Develop agile management across functions. Companies can deploy digital performance-management tools, such as control towers, to manage labor flows. Daily cross-functional war rooms can increase visibility around labor availability and help the organization to plan and adjust accordingly.

The labor mismatch is a complex challenge, one that may be here to stay for a while—and it is clear there is no silver-bullet solution. Companies looking to embark on a labor-resilience transformation can take the following three steps. First, employers need to understand how labor shortages impact their suppliers, internal labor, and customers—starting with the size and impact of labor risk across operations; the severity of the labor gap by location, roles, and suppliers; and a forecast of labor dynamics in each relevant market. Second, companies could design bold interventions that structurally change both the demand and supply of the organization's labor. Third, companies may require strong executive-level support to ensure that cross-functional initiatives are implemented effectively.

Leveraging people analytics to improve frontline retention

A trucking company successfully deployed people analytics to improve frontline retention. First, it identified the top quartile of drivers who were most likely to leave the company. Analysis of this high-risk population allowed the company to identify the key drivers of employee dissatisfaction and implement targeted interventions. These interventions led to an improvement of more than 20 percent in new-driver retention, a 15 percent increase in the number of driver applications, and a more than 30 percent increase in the number of new hires, which translated to a 10 percent-plus increase in revenue potential (exhibit).

Exhibit

Deploying people analytics can improve frontline retention.

Illustrative deployment of people analytics, trucking company

Attrition risk quantified

4,000 drivers identified as most likely to leave

Distinct population groups identified through cluster analysis

Opportunity seekers
- Other sources of income
- Highly variable earnings

Volunteers
- Work more hours than scheduled
- Drive fewer hours in total

Veterans
- Most experienced
- Work more hours, but not as many as scheduled

Targeted interventions prioritized

- Improved dispatching
- Created bidding system for days off
- Automated payroll
- Strengthened support systems
- Added recognition programs

Impact

+15% increase in number of driver applications

+30% increase in new hires

+10% increase in revenue potential

+20% improvement in new-driver retention

Dilip Bhattacharjee and **Andrew Curley** are partners in McKinsey's Chicago office; **Felipe Bustamante** is an associate partner in the Miami office, where **Fernando Perez** is a partner.

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