Remote work hits home

Long-distance jobs are changing where we live, how we’re paid, and our society as a whole. Is the economy better off?

Also in this issue
AI, promise or peril? Workers are divided
An earnings gap with big implications
What happened to software developers?
U-C-X spells money. Or does it?
Making sense of a world of change

We live in a time of profound change for the workplace. One signature transformation of the post-pandemic workplace is the ease by which people can work digitally from a distance. Remote work isn’t new, but its increased prevalence is changing how employers hire, pay, and manage talent.

In our cover story, Dr. Issi Romem explores the implications of this new geography of work, particularly its effect on people, employers, and the economy.

Remote work isn’t the only trend we’re watching. Innovations in artificial intelligence have recently captured public attention, but the technology has been used in the workplace for a long time. Now, however, major advancements in content generation, known as generative AI, are starting to scale.

Ben Hanowell and I analyze how the global workforce is responding to this growing prevalence. We asked 35,000 people in 18 countries how AI will affect their work. Their answers can help employers prepare their teams to make the most of AI innovations.

I also team up with Liv Wang to examine the rapid pay growth seen over the past three years. In our study of 13 million workers, we find that the gap between the lowest- and highest-paid workers has grown by 5 percentage points and could be contributing to higher-for-longer inflation.

Software developers tend to be among those high earners, and with all the attention on AI, it would be easy to conclude that this occupation is in even more demand. My colleague Jeff Nezaj finds the opposite—demand for software developers has been slowing for years, even before the pandemic. Finally, no Today at Work issue would be complete without a touch of whimsy. For this issue, Tim Decker has some dubious advice for new graduates.

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About today at work

Today at Work, released quarterly, is built on a foundation of ADP payroll data representing more than 25 million U.S. workers and nearly a decade of ongoing surveys that have reached more than 550,000 workers in 29 countries. Combined, these data sets provide a recurring, people-centered, and comprehensive view of the world of work.

Our Mission

Our mission is to make the future of work more productive through data-driven discovery. Companies, workers, and policymakers rely on our fine-tuned data and unique perspective to make informed decisions that impact workplaces around the world.

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Remote work hits home

Long-distance employment is changing our cities and influencing where we live and how we’re paid. What does it mean for the economy?

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What railroads, the shipping container, and globalization did to goods and capital decades ago, long-distance work now is doing to labor. Perhaps the market is becoming more efficient, which has the potential to reward employers and workers alike. But as with liberalized trade, long-distance work has the potential to widen regional inequality as it sorts people across U.S. metros according to role and income.

Long-distance or cross-metro work—that is, a job in which an employee reports to a supervisor located elsewhere—has expanded the employer labor pool exponentially. This offers the promise of cost-cutting and perfectly matched talent, benefits that have already affected pay levels.

Employers now have access to a broader labor market and new options for configuring their talent pool—and its price tag. That’s true whether work is performed from a couch or a satellite office. Worker horizons, too, have been broadened, with a greater number and variety of job opportunities, the potential for better pay, and more freedom to choose where to live.

While long-distance work has created hiring opportunities and expanded the global workforce, it has also created new challenges. As it becomes more widespread, long-distance work gives distant, deep-pocketed employers an opportunity to skim the best and brightest from local labor pools to the detriment of small and regional employers. It can expose workers to a vast supply of distant, sometimes cheaper competition.

And it has accelerated a U.S. phenomenon that has value-intensive jobs concentrating in high-cost, leadership-heavy cities while lower-pay work disperses. This practice, which we call domestic offshoring, threatens to increase regional inequality, limit opportunity for some people, and further divide society.

Collaboration at a distance is nothing new, of course, but after remote work was normalized by the coronavirus pandemic, it has reached record levels. Mining the payroll data of more than 25 million workers across the United States, ADP Research set out to explore the ramifications.

Growth in long-distance work is booming and no longer afforded just to experienced and trusted senior employees.

America's command-and-control cities are cementing their position as employers outsource low-paying but location-agnostic jobs to more affordable places.

Employees and employers both are benefiting from cost savings and improved job matching.

THREE THINGS WE LEARNED
Long-distance work was on the rise before the pandemic, but has since exploded. At large employers we studied, the share of cross-metro workers rose from about 23 percent to more than 31 percent between February 2020 and June 2023. This acceleration shows up in almost every industry, from ones that seem remote-friendly, such as information, to others that don’t, such as manufacturing. It also manifests across age ranges, with early-career workers aged 25 to 35 showing the steepest increase. More than half of cross-metro workers are 45 or younger.

The share of cross-metro workers rose from 23% to 31% between February 2020 and January 2023.

Long-distance workers are younger than they used to be, and their numbers are growing.
Economic power historically has been concentrated in a small number of job hubs that we call "command-and-control cities," nerve centers for business, ideas, and influence. Now a long-growing regional divide between costly and affordable US cities is worsening as jobs that don't pay enough to cover the high cost of housing in expensive cities are being moved to more affordable parts of the country.

It's not merely that executives are more prevalent in the nation's most expensive cities, perhaps owing to their historical legacy as centers of commerce. They're now growing more concentrated as the regional divide in the cost of housing has widened.

This is leaving these command-and-control cities with a "distilled workforce" of pivotal executives, policymakers, and other highly paid decision-makers. But it's also causing economic pain to people whose jobs can't be done from a distance—think janitors, teachers, emergency responders, and shop clerks.

Not all types of work can be relocated, of course. Tradable goods and services, such as products made in factories and sold to buyers, are different from non-tradable ones such as freshly baked bread or haircuts, which must be delivered to the consumer on site in real time. If production and consumption can't be separated by distance, we should see no evidence of domestic offshoring.

But as technology improves, the scope of work that can be geographically shifted will only expand. And if powerful and highly paid workers continue to congregate in command-and-control cities while others priced out, the regional income gap will widen.

Inasmuch as opportunity in life depends on living in the right place at the right time—that is, on being among people of certain social or economic strata at school, baseball practice, work, and happy hour — this sorting denies opportunity to people who can't afford to live in command-and-control cities.

One might argue that at a time when anyone can access anyone else anywhere else, opportunity is everywhere. But to the extent that opportunity still depends heavily on people and the kind of relationships that are forged in person, the data suggests it still very much matters where one works and lives.

**DIVE DEEPER**

For more on long-distance work and compensation, see "Long-distance work and compensation", "Domestic offshoring: How housing costs are sorting work across US cities", "The growing prevalence of cross-metropolitan work", "Long-distance work and domestic offshoring" and more at adp.com/data-lab.

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**REGIONAL PATHS ARE DIVERGING**

**LONG-DISTANCE WORK HAS WINNERS—AND WINNERS**

So, does long-distance work pay? And if it does, for whom? It seems obvious that employees can raise their standard of living overnight by going remote and moving to a city with less-expensive housing and an overall lower cost of living. But we found that employers can share in the geographic cost savings, too.

In the bigger picture, the widespread acceptance of long-distance labor has improved the odds that workers and jobs will be well-matched, which stands to help the labor market as a whole.

Using the anonymized payroll data of some 1.3 million workers each month, we tracked the gross wages of job-switchers who transitioned from local to long-distance work by relocating to communities with cheaper housing. We compared their earnings in the months before and after the move. We did the same for teammates who didn't relocate.

Workers who stuck with their current job after relocating to less-expensive communities had slower wage growth than their teammates. This discount suggests that those employees shared the cost savings of relocation with their employers.

We then tracked the gross wages of people hired into long-distance work and compared their wage growth to that of new hires into local jobs. Unlike job-switchers who transition into long-distance work by relocating, job-switchers can become long-distance workers without changing where they live.

Over time, people newly hired into long-distance jobs won bigger average pay gains than similar people hired into local jobs.

Job-switchers who transitioned to a long-distance position at an employer located in a higher-paying market saw the biggest wage premium. But we also found bigger average pay gains for long-distance workers hired to companies in lower-paying markets, where those gains do not reflect geographic cost savings.

This suggests something big for the economy: Long-distance hiring might be helping both workers and employers find a better fit with each other.

**LONG-DISTANCE WORK IMPROVES WORKER-JOB MATCHING**

**RELATIVE PAY GAINS FOR LONG-DISTANCE WORKERS**

People who kept their jobs but moved to a cheaper city in 2022 and 2023 experienced a 2.8% average decline in pay relative to their teammates. From 2016 to 2019 that average decline was only 0.3%.

People hired into long-distance work in 2022 and 2023 experienced 16% pay growth relative to new hires taking on local jobs. That compares to an 8.1% average figure from 2016 to 2019.

**THE TAKEAWAY**

In this new age of location-agnostic work, employers can grant employees the flexibility to choose the location that best suits their needs, wants, and circumstances. It's not just about hiring in cheaper places, but about offering workers the flexibility of location that they covet. What do employers get in return? Improved recruiting, reduced turnover, more productive workers, and the potential to reduce labor costs even in expensive places.

The newfound flexibility runs deeper than just location, allowing workers and employers to find a better fit. The improved worker-job matching enabled by long-distance work can even benefit the economy because people who are in the right jobs tend to be more productive and satisfied.

Long-distance work has its challenges, including isolation and the difficulties of remote managing, but its increasing prevalence suggests it is here to stay.

As long-distance workers multiply and gain experience, new career trajectories might emerge. People could face a choice between in-person and long-distance careers, reflecting a trade-off between higher pay and better work-life balance.
Artificial intelligence has moved beyond simple pattern recognition to creation and problem-solving. AI tools can write, make images, help engineers build bridges, and assist doctors with diagnoses. This technology—generative AI—captured the public’s imagination in recent years just as the job market began to cool after a run of high demand. Now AI adoption by employers is speeding up. The share of U.S. businesses using AI grew from 3.7 percent to 5.4 percent between September 2023 and February 2024—a 46 percent growth rate in just five months—according to the Census Bureau’s Business Trends and Outlook Survey. Census expects adoption to grow to 6.6 percent by early fall. More than 1 in 4 employers who have deployed AI tools in the workplace say the technology performs tasks previously handled by people. More than 1 in 5 have trained their employees to use AI, according to Census. Economists believe AI’s impact on employment will depend on whether the technology augments tasks that people perform, making each worker more productive, or replaces those workers through automation. If AI boosts productivity, employers will be incentivized to hire more workers to increase revenue. If AI automates tasks, each additional worker becomes less valuable; employers will have cause to hire fewer of them. 

Most workers think AI will affect their jobs. They disagree on how.

As advanced AI explodes into society, we can’t yet know what it means for the future of work. What we do know is that people on the job today are deeply ambivalent about the technology. For every person who sees AI as an opportunity, another worries about what it might mean for their job. We asked nearly 35,000 private-sector workers in 18 countries what role they think AI will play in their work over the next few years. We found big regional differences in employee sentiment, and a high level of disagreement across the board. We also learned that a worker’s opinion about AI can have a lot to do with their age and where they work.

85% of workers believe AI will impact their job in the next two to three years

WHAT OUR RESEARCH FOUND

In our annual global survey, the ADP Research Institute asked nearly 35,000 private-sector workers in 18 countries how they felt about artificial intelligence. Here’s what they told us.

Most workers believe AI will affect their job. Eighty-five percent of workers believe AI will impact their job in the next two to three years. They can’t agree on whether AI will help them in the workplace or replace some of their job functions.

Location matters. Workers in Latin America are the most likely to think AI will help them with their work. Worker confidence plays a role. Workers who think AI will help them have more confidence in their skills. Remote workers are different. They’re more likely to believe that AI will replace at least some of their existing functions. Younger workers believe AI will affect them. But the younger the workers, the more evenly split they are on whether AI will help them or replace them.
We can't predict the future, but we can measure how workers feel today. We asked people what role, if any, they thought artificial intelligence would play in their jobs over the next two or three years. A significant majority—85 percent—think AI will affect them, but they're deeply divided on how. Forty-three percent think AI will help them at work; 42 percent think it will replace at least some of their existing functions.

This split in global opinion among workers mirrors one within the U.S. business community. Census Bureau data shows that 6.5 percent of businesses think AI will increase employment in the next six months; 6.1 percent think it will decrease employment. The vast majority of businesses that use AI—almost 95 percent—can't attribute any net change in employment so far to their use of the technology.

Among workers who say AI will help them every day, 70 percent say they have the skills they need to advance their career within three years. Of those workers who say AI will replace most of their existing functions, only 45 percent think they have the skills they need.

Remote workers are more likely to believe that AI will replace at least some of their existing functions. More than half (51 percent) say AI will replace some or most of their existing functions, only slightly greater than for on-site (50 percent) and hybrid (47 percent) workers. These comparisons, however, fall to account for how AI sentiment by work location varies depending on the type of work.

Research from OpenAI and the University of Pennsylvania’s Wharton School found that occupations that rely heavily on computer programming and writing have high exposure to AI, while those that rely heavily on science and critical thinking are less likely to be affected.

The people who will set a course for the future of the workforce, those Gen Z hires who currently are 27 or younger, have little doubt that artificial intelligence will change their jobs. As a group, however, they're the most likely to disagree on what that impact will be, and whether AI will augment their labor or replace it through automation.

Gen Z employees, like young workers before them, are adaptable. But as technology develops, they'll need an assist—training, continuing skill development, and flexible work roles—to keep up with the pace of change. Only then will they and their employers be positioned to capitalize on the full benefit of future generations of AI.

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Worker ambiguity about AI technology is understandable given the global attention being given to generative AI and its impact on jobs. To alleviate potential concerns, employers can communicate clear generative AI objectives such as eliminating manual, repetitive, or tedious tasks, and empowering employees to focus their time and effort on more engaging, higher-value work.

Employers also should take the time to keep roles and responsibilities up to date as modern technologies are incorporated. Offering training and upskilling resources can help ensure employees are informed and well-positioned to leverage the benefits that these technologies could bring to the workplace.

For more on employee sentiment by industry and work location, visit Data Lab.

Supercharged pay growth has been a defining factor in the labor market since the pandemic-driven economic downturn. As the economy rebounded from unprecedented job loss, rapid-fire hiring led to double-digit pay gains that threatened to accelerate already soaring inflation.

To see how this swift increase in pay affected workers, employers, and the economy, we examined payroll data by income levels. Our findings contain clues to understanding the higher-for-longer inflation that has plagued the U.S. economy. We observed year-over-year pay changes for 13 million individuals each month between March 2021 and March 2024, calculating each person’s annual pay and how it changed.

Low-wage workers saw big pay jumps after the pandemic. High earners did even better.

WHAT WE FOUND

The lowest earners, those in the bottom 25 percent, had the largest percentage growth in annual pay gains over the last three years. But workers at the top of the pay distribution benefited more because the dollar amount of their pay increases was greater.

For that reason, the gap between the highest and lowest earners widened by 5 percentage points—more than $12,282—to $116,954 between 2021 and 2024. Top earners now make nearly five times more than what lowest-income workers earn—489 percent more, to be precise. Workers in the bottom 25 percent of earners have lost ground relative to those at the top.

HOW IT HAPPENED

In March 2020, as the pandemic shutdown began in the United States, median pay for the lowest quartile of earners stood at $19,708. Median pay for the next-lowest quartile was double that amount, at $40,000. Pay at the top half of the distribution was $63,984 and $124,666 for the third and fourth quartiles, respectively.

A year later, in March 2021, pay gains for the lowest earners had increased by 7.5 percent, while pay gains for second-, third-, and fourth-quartile earners were 3.5 percent, 2.4 percent, and 1.8 percent, respectively.

Year-over-year growth for the lowest-paid earners continued to accelerate each month for 12 months, peaking in March 2022 at 16.1 percent. Pay gains for the highest earners peaked at 5.8 percent in May 2022, and held there for seven months before edging down.

Of course, one reason low-wage earners saw big percentage gains is because they started from a small base. While their pay growth surged relative to their higher paid cohorts, growth in actual dollars—the pay level—told a different story.

Median pay for low-wage workers increased $2,224 annually on average during the three-year recovery. But top earners saw an average annual gain of $5,806.

WHO ARE THE LOW-WAGE EARNERS?

Low-wage earners are more likely to be young, female, employed in customer-facing industries, and working for small employers.

Sixty percent of workers in the bottom quartile are female, compared to 33 percent in the top quartile. The bottom pay quartile also is younger, with a median age of 39 compared to 46 for the top quartile.

Workers in the top quartile are concentrated in information, professional and business services, and finance. The lowest paid are clustered in leisure and hospitality, and education and health services.

THE TAKEAWAY

While low-wage earners have seen bigger relative increases in pay since the pandemic shutdown, they also have been hardest-hit by an extended run of high inflation.

That’s because people who earn less spend a larger share of their income on food, housing, and other necessities. Rising inflation coupled with a widening pay gap have made the disproportionate impact of inflation even more acute for these workers.

Our data suggests a scenario in which employers raise prices in response to pay growth at the bottom of the distribution, while pay level growth at the top of the distribution encourages more discretionary spending. It’s a combination that could keep inflation higher for longer.

DIVE DEEPER

Find more research on wages at Data Lab.
Since the dawn of the internet, software developers have commanded big salaries and valuable perks. But something has changed: The U.S. now employs fewer software developers than it did in 2018.

Employment of software developers has been slowing since 2020, the year pandemic lockdowns first hit the United States. In January 2024, the U.S. employed fewer software developers than it did six years ago.

The ADP Research Institute tracked over 75,000 software developers and engineers in 6,500 companies and 10 industries between January 2018 and January 2024. The ranks of developers grew from January 2018 to November 2019, then began to fall, and it’s been falling ever since.

As employment has fallen, pay growth has lagged that of total U.S. workers. Between January 2018 and January 2024, median base pay for developers grew by 24 percent while pay growth for total U.S. workers grew 30 percent. Still, developers remain well compensated, earning more than two times the U.S. median salary.

This lagging pay growth might indicate cooling demand for developers. Or it could be a symptom of geographical trends in the workforce, as we detailed in this issue’s cover story.

The regions with the biggest growth in median pay for software developers were Utah’s Salt Lake City-Provo-Orem and Florida’s Orlando-DeLand-Daytona Beach, each at 35 percent. Both areas have documented an influx of tech workers as people flee the high cost of Silicon Valley and the greater Bay Area.

Software developers have had a prosperous run, but opportunities for these workers might be waning.

The emergence of artificial intelligence might be one factor, as employers invest in automation. But AI tools also can be a boon to developers by improving efficiency and productivity. Ultimately, regardless of how the work gets done, the function of software developers remains essential to businesses that rely on smooth-running systems.

**DATA IN DETAIL**

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U-C-X spells money—or not

Are you a recent grad looking to capitalize on a degree? Look further—a lot further—than our research on company names and compensation.

Is my pay good enough? It can be a tough question to answer, especially for recent grads with little or no experience in the labor market. While many employers hold pay close to the vest, transparency is on the rise. Still, even employers who do disclose pay ranges aren’t bound to stick to them.

To help grads out, we used ADP data to identify correlations between a company’s name and the pay and bonuses they offer. Our conclusions are interesting, even amusing. But they’re also totally wrong. Probably.

Employers with the letters U, C, or X in their name tend to pay higher regular wages. The greater the number of these letters, the higher the wages. If a company’s name contains the letter M, they’re more likely to pay lower regular wages. The more Ms, the lower the wages. If the letters S or P appear in a company name, their bonuses are likely to be smaller. Companies with the letter Z in their name tend to contribute more to employee health insurance. An employer with a V in its name contributes less to retirement wages.

The more words in a company’s name, the less they contribute to employee healthcare. The longer a company’s name, the smaller the bonuses. If a company’s name contains ampersands, they’ll pay smaller bonuses. If a company’s name contains commas, they’ll pay bigger bonuses. If a company’s name contains apostrophes, their retirement wages are higher.

The takeaway

Don’t believe a word of any of this. If you haven’t guessed yet, you’ve just read an exercise in spurious correlations, those statistical relationships that appear strong enough to be causal but aren’t. While these correlations are spurious—renaming a company won’t directly cause wages to change—they’re a particular flavor of spurious. They each have a confounding variable that might reasonably be expected to drive a relationship.

What’s a confounding variable? Take ice cream sales in Seattle and the temperature of the city’s Lake Washington. Lake temperature doesn’t drive ice cream sales and ice cream sales don’t make the lake warmer. But there’s a robust relationship between ice cream sales and lake temperatures. In this example, Seattle’s seasonal temperatures are the confounding variable. So, there might be something to our spurious correlations, some confounding feature to explain the relationship between, say, pay and the alphabet.

Companies with more commas in their name include law firms, for example, which tend to be named after their leading partners. Law firms might offer higher-than-average salaries and bonuses. Companies with Z, U, C, and X in their names might pay more because they’re associated with technology companies, which lean toward alternative spellings and less-frequently-used letters. But even if an identifiable confounder could explain the correlations outlined here, the effect is generally too small to be meaningful. Don’t let our suggestions sway your decision whether to take a job.