

Digital Article / Managing Uncertainty

Soft Skills Matter Now More Than Ever, According to New Research

A study of more than 1,000 occupations found that foundational skills like communication and critical thinking determine how far workers can go in their careers. by Moh Hosseinioun, Frank Neffke, Hyejin Youn, and Letian (LT) Zhang

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Illustration by Harriet Lee-Merrion

As technology like generative Al reshapes the workplace, it's easy to assume that pursuing greater technical competence will help ensure a long and lucrative career. Additionally, by this logic, firms should be searching for those with specialized knowledge when seeking to fill entry level roles amid a tough market. But according to our

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<u>new research</u>, foundational skills—like collaboration, mathematical thinking, and adaptability—may prove much more important for both individuals and companies.

In our new study, we analyzed large-scale U.S. data on over 1,000 occupations across industries from 2005 to 2019, including 70 million job transitions, capturing hundreds of skills. We organized skills into foundational skills (including reading comprehension, basic math skills, and the ability to work well in teams) and more specialized, advanced skills (for example, competence with blockchain). We examined how people's skills changed and developed over time, and over the course of their careers.

We found that those who scored highly on basic skills were more likely to earn higher wages throughout their careers, move into more advanced roles, learn specialized skills more quickly, and were more resilient to industry changes. The presence and development of foundational skills didn't just make workers more competitive for entry level jobs—they determined how far they could climb the career ladder.

Foundational Skills Help Raise a Worker's Ceiling

To help leaders understand the full value of these skills, we also examined the ways they shape long-term performance, adaptability, and advancement. Our study found that people with broad, strong foundational skills, including reading comprehension, basic math, and communications skills, tend to learn faster and master more complex abilities over time.

Think of the NBA draft. Teams don't always pick the top college scorers. Instead, they look for players with high potential—those with the right foundations like speed, agility, ball control, positional sense, and

shooting form. These players may not shine on day one, but they often develop into stars because their foundation gives them room to grow.

The same logic applies in the workplace. Some firms, like Jane Street Capital, famously hire people for their <u>raw quantitative ability</u>—not because they already know how to trade derivatives, but because they have the foundational math skills to learn fast and go far.

Of course, not every organization bets on potential. Startups, for example, may favor candidates with job-ready expertise, since they need people who can contribute immediately. In other cases, firms in low-trust or high-turnover environments tend to deprioritize foundational skills because they don't expect long-term retention.

Still, for companies thinking beyond the next quarter, foundational skills matter. They shape a person's growth path—and their long-term ceiling. But there are reasons beyond individuals' performance for firms to consider fundamental skills.

These Skills Provide Flexibility in a Fast-Changing World

Our study found that workers with a broad range of foundational skills were more adaptable to industry changes. This adaptability is especially crucial as specialized skills rise and fall with surprising speed.

For example, Adobe Flash was once the gold standard for interactive web content, supporting a whole generation of developers. But when Flash was discontinued and browsers phased it out, only those who could pivot to HTML5 and JavaScript remained in demand. More recently, niche technical skills like Hadoop engineering and blockchain development have experienced steep rises and falls. HackerRank's 2025Developer Skills Report lists Hadoop among the fastest-declining skills, and LinkedIn data show blockchain-related job postings and developer

activity have dropped by over 40% in just one year as investment and interest shifted toward AI.

These rapid cycles are no longer rare. Researchers estimate that the "half-life" of technical skills—the time it takes for half of what you know to become outdated—has dropped from about 10 years in the 1980s to four years today, and may soon fall below two.

Specialized skills can spike and vanish this quickly, but our findings suggest that the people who ride out each wave shared the same toolkit: strong abilities to problem-solve, clear communication styles, and the ability to work well with teams. These core strengths help workers relearn faster, let companies redeploy talent without starting from scratch, and ultimately anchor performance when the next technology arrives. In a world of constant disruption, organizations should pay even closer attention to their employees' foundational skills—because those are what make long-term adaptability possible.

Foundational Skills Knit Talent Together

Our study also found that one subset of foundational skills, in particular, helped workers to achieve the highest levels of professional attainment: social skills. Work today is woven from many threads—cross-functional projects, remote teams, and tools that update every quarter. The more moving parts a firm has, the more it relies on people who can align goals, share knowledge, and keep friction low.

Previous research helps reveal why social skills are particularly important today. David Deming's <u>landmark study</u> of U.S. jobs shows that positions requiring a high level of social interaction grew by almost 12 percentage points between 1980 and 2012, while math-intensive but low-interaction roles shrank. Wages followed the same pattern: jobs

that blend cognitive ability *and* social skill pay the highest premiums according to his study.

This trend is even more pronounced within the field of management. A recent paper by one of us—a large-scale analysis of 34 million U.S. managerial job postings, along with millions of résumés and employee reviews—shows that since 2007, employers have tripled the share of postings that emphasize collaboration, coaching, and influence, while language related to traditional supervision has steadily declined.

Concrete examples show why. Amazon's Upskilling 2025 initiative invests over a billion dollars to help hundreds of thousands of employees build new capabilities—from technical training to programs that strengthen language skills—highlighting how soft skills are as critical to advancement as technical know-how. Spotify's "squad" model likewise rewards engineers who can bridge design, product, and marketing in autonomous, cross-functional teams. Google reached the same conclusion in its Project Oxygen study: after analyzing thousands of performance reviews, it found that its best managers excel at coaching, communication, and collaboration across teams, and it now uses those soft-skill behaviors as core promotion criteria. No company can afford talent who works in isolation; they need connectors.

Put simply, as technical complexity rises, the glue that keeps talent productive is social skill—communication, empathy, conflict resolution, and the ability to coordinate diverse expertise. But our work suggests that, in additional to social skills, other fundamental capabilities such as critical thinking, complex problem solving, and reasoning, are also crucial components of dynamic and collective work environment in the modern enterprise. Together, they offer the shared platform that unlock the full value of individuals' specialized know-how, allow adapting

ones' expertise as technology and markets shift, and have become increasingly in-demand.

Putting It into Practice: What Leaders Can Do

Hire the right candidates. Screen for foundational strengths—like problem-solving, adaptability, and communication—even in specialized roles. These qualities are often harder to evaluate, and unstructured behavioral interview questions have little predictive power. Still, companies shouldn't ignore them. Ask targeted questions to get at how candidates learn, collaborate, and respond to uncertainty, even if the skill itself isn't easy to quantify. Our work finds that, in the long-run, candidates with a base of foundational skills will prove more valuable than those who have hyper-specialized and specific knowledge, but lack soft skills.

Develop your people. Invest in <u>early-career development</u> that strengthen communication, collaboration, and learning agility—not just technical proficiency. Foundational skills are far harder to build later in life. Someone struggling with math, for instance, won't become fluent through a few online tutorials; the same holds for social skills like critical thinking and empathy, which develop over years through school, peer interaction, and mentorship. To build a workforce that can <u>adapt to future disruption</u>, organizations—and society—need to support foundational skill development from the start.

Lead your teams. Managers can play a key role by modeling and reinforcing foundational skills in day-to-day work. That includes recognizing and rewarding behaviors like thoughtful communication, collaborative problem-solving, and cross-functional learning, and putting young employees up for opportunities where they might strengthen these skills. Tools like peer feedback, mentoring, and team retrospectives can be structured to emphasize the importance

of cultivating soft skills, thus embedding their development into team culture.

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In an age when technical expertise can become irrelevant in just a few years, foundational skills matter more than ever. Abilities like collaboration, problem-solving, and a solid grounding in math transfer across jobs and help teams adapt to new challenges. The key to effective human resource management is to prioritize these skills in both hiring and employee development. This builds a workforce that is resilient, quick to adapt, and prepared to thrive in a constantly evolving environment.

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