

Executive summary

Human capital at work

The value of experience



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June 2022

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Preface

Human capital underpins economies and organizations, but it belongs first and foremost to the individual. It represents the collective knowledge, attributes, skills, experience, and health of the workforce—and also the potential residing within each person. The realization of that potential is a complex equation that has engaged economists, social scientists, and other academics for decades.

Today, the combination of pandemic-related disruptions, labor shortages, and ongoing technological change in the workplace has given this timeless topic new immediacy. Many business leaders are refocusing on how to evaluate and attract talent, how to retain valued employees, and how to develop the skills that will be needed to compete in the future. These questions come at a time when millions of workers are reassessing what they want to get out of work every day and whether they are on a fulfilling career path for the long term.

While a great deal of research on human capital focuses on the crucial periods of early childhood development and education, we consider what happens after people enter the workforce—specifically, how work experience and the acquisition of skills pay off for the individual. Our research takes a decidedly micro lens to this issue. We use longitudinal data to trace actual career trajectories, looking at the specific bundles of skills required in each role someone held over time and how moving into new roles affects their earnings.

Our findings underscore the role of organizations in realizing and augmenting the value of human capital—and continuously boosting the pool of skills across entire economies. This raises large questions for business leaders. Since work experience builds human capital (as measured by lifetime earnings), can organizations develop their employees in a way that equips them to outperform the norm? How can they create conditions that widen career options and help to make upward mobility a reality for many more people?

This research was jointly undertaken by the McKinsey Global Institute and McKinsey's People & Organizational Performance Practice. It was led by Anu Madgavkar, an MGI partner based in New Jersey; Bill Schaninger, a McKinsey senior partner based in Philadelphia; Sven Smit, MGI's chair, based in Amsterdam; Jonathan Woetzel, an MGI director based in Shanghai; Hamid Samandari, a McKinsey senior partner based in New York; Davis Carlin, a McKinsey partner based in New York; and Jeongmin Seong, an MGI partner based in Shanghai. Kanmani Chockalingam, an engagement manager in Bengaluru, led the working team, which comprised Afreen Ahmed, Rishi Arora, Gabriela Campos, Edouard de La Batie, Ana Carolina Leonardi, Elina Mäkelä, David Pappano, Daniel Soto, Soyoko Umeno, Sarah Varghese, and Susan Yu. Sirui Wang, a PhD fellow in McKinsey's People & Organizational Performance Practice and doctoral candidate at the University of Pennsylvania, led the research modeling. Gurneet Singh Dandona, Alok Singh, and Juhi Daga supported our modeling and analysis.

We are grateful to the academic advisers who challenged our thinking and added new insights: Christopher Pissarides, Nobel laureate and Regius Professor of Economics at the London School of Economics and Political Science; Michael Spence, Nobel laureate and Philip H. Knight Professor of Management, Emeritus, and dean, emeritus, at the Stanford Graduate School of Business; Matthew Slaughter, Paul Danos Dean and Earl C. Daum 1924 Professor of International Business at the Tuck School of Business, Dartmouth College; Martin Baily, senior fellow in economic studies at the Brookings Institution; and Rakesh Mohan, president and distinguished fellow at the Centre for Social and Economic Progress. We also thank Ekkehard Ernst, chief macroeconomist at the International Labour Organization, and Nicholas Bloom, William D. Eberle Professor of Economics at Stanford University, for kindly sharing their insights.

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This research contributes to our mission to help business and policy leaders understand the forces transforming the global economy. As with all MGI research, it is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

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Human capital at work: The value of experience

Human capital—the knowledge, attributes, skills, experience, and health of the workforce—evolves from childhood through education and work. By our estimates, its value represents roughly two-thirds of an individual's total wealth. Our research traces how people accumulate human capital throughout their working lives, focusing on the role of experience. We analyze four million de-identified online professional profiles in the United States, Germany, the United Kingdom, and India, examining career trajectories and skill requirements across roles. We find that taking on new roles with expanded skills is central to upward mobility, particularly for those who lack formal credentials. Employers are critical engines of mobility, creating the opportunities for bold moves that can lift workers and themselves.

Work experience accounts for about half of the average person's accumulated human capital.

The value of human capital can be approximated as lifetime earnings. We attribute a proportion of this value to experience based on role moves and skill distances observed over a person's work history and their expected future wage growth. We find that skills acquired or demonstrated through work experience contribute an average of 46 percent of lifetime earnings on average. We note, however, that our dataset does not capture enablers and life experiences prior to and during an individual's career; these factors also influence the accumulation of skills in important ways.

The “experience effect” generally matters more for workers with less education. Work experience contributes 40 to 43 percent of average lifetime earnings in the United States, Germany, and the United Kingdom but 58 percent in India, where fewer people have higher education. In general,

people without college degrees who start in low-wage jobs are more reliant on work experience. It contributes 65 to 75 percent of lifetime earnings for those who begin as tile setters or counter workers in the United States, for example, compared with 35 percent for physicians or lawyers.

Role moves enable individuals to accumulate skills and work experience. Workers in our sample switched roles every two to four years on average, depending on the country. With each role change after a first job, we isolate the share of distinct skills required in the new role to determine the “skill distance” of the move. The median skill distance per role move is 25 percent or more. Four out of five people started in one occupation and ended in another. Significantly, more than 80 percent of role moves involved joining new organizations.

Role moves can pay off, and bolder moves can deliver bigger boosts.

In our sample, roughly a third of US, German, and UK workers, and almost a quarter of Indian workers, are on a path to move up one or more quintiles in estimated lifetime earnings from their career starting points. Skills derived through experience account for 60 to 80 percent of lifetime earnings for those who move up but only 35 to 55 percent for those who stay flat or drop down. Those who move up changed roles more frequently and made bolder moves. Upwardly mobile cohorts in the United States and India made moves with an average skill distance of 30 to 40 percent; those who stayed flat averaged only 20 to 30 percent. Bold moves involve employers hiring people with less proven skills and workers pursuing opportunities that represent a stretch.

“Experience seekers” and “early movers” successfully harness this dynamic. Within our sample,

individuals follow distinct career patterns. Experience seekers start with lower-than-average wages but make more moves and stretch their capabilities substantially each time; the cumulative effect gives them stronger wage growth than any other cohort. Early movers make big moves only early in their careers. For both groups in the advanced economies we studied, experience accounts for 60 to 70 percent of lifetime earnings. That share is only about 30 percent for lock-ins, who make only incremental moves.

Individuals get a lift from early experience in effective organizations.

Controlling for differences in occupation, time spent early in a career with an effective organization explains half of the variation in experience-linked earnings. These employers not only have better overall organizational health, but also devote more time to training and offer more internal advancement—and their employees are more likely to be upwardly mobile.

Employers can attract and retain the best talent by focusing on three priorities.

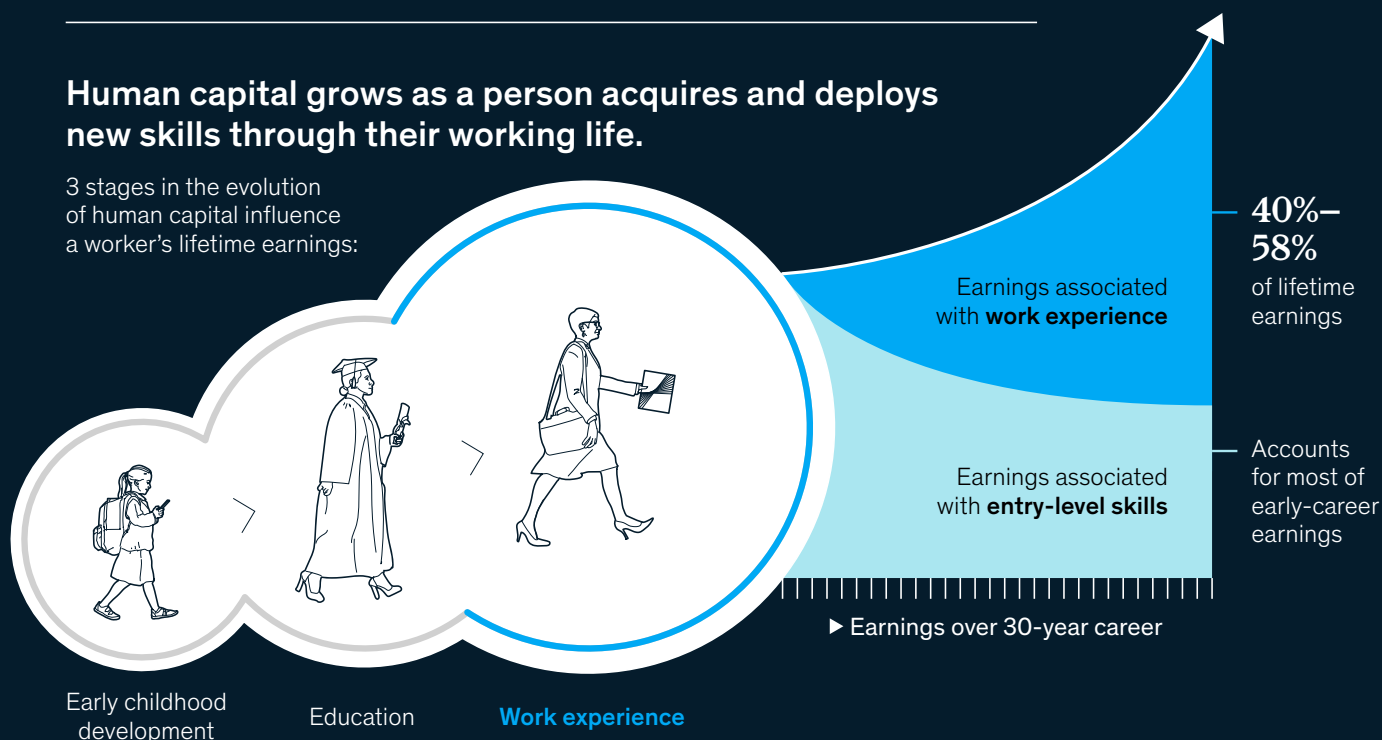
First, evaluate current employees and candidates not only for their knowledge and skills but also for their potential and capacity to learn. Second, embrace mobility by considering candidates with different backgrounds and histories, and by creating both upward and lateral career paths within the organization so that employees can gain more varied experience. When talented people leave, celebrate their success and stay open to welcoming them back. Third, strengthen coaching and on-the-job training, particularly early in an employee's tenure and whenever someone changes roles. Companies that establish themselves as great learning organizations are magnets for talent.

Work experience contributes almost half of the value of a person's human capital

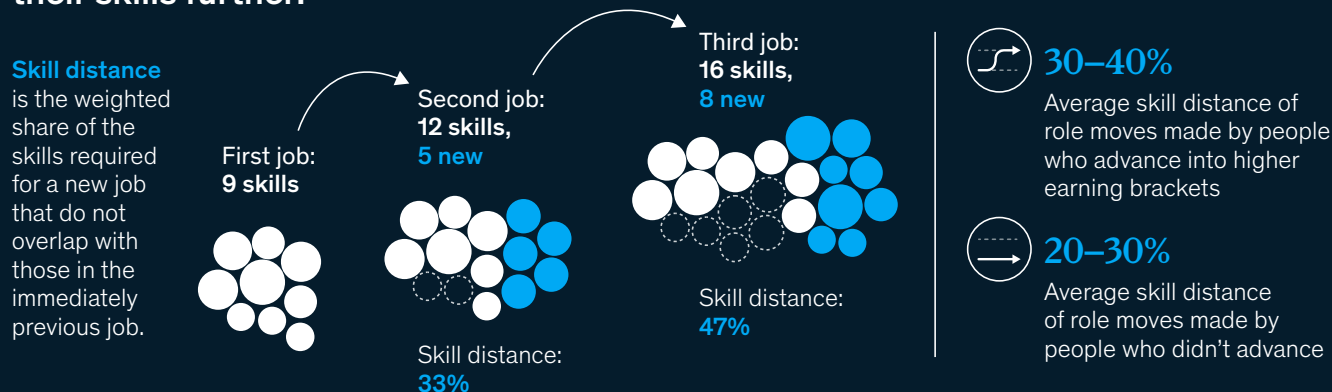
Human capital is two-thirds of per capita net worth, or the largest component of wealth

Human capital grows as a person acquires and deploys new skills through their working life.

3 stages in the evolution of human capital influence a worker's lifetime earnings:



People get the biggest boost from making “bold” role moves that stretch their skills further.



80% of job moves are across companies.

Employers can attract the best talent from that flow—and give valued employees internal paths to keep learning.



See the potential in people

✓ Be open to hiring unconventional candidates

✓ Focus on intrinsic capabilities and transferable skills



Embrace mobility

✓ Celebrate people who leave as success stories

✓ Create options for employees to move up as well as laterally



Strengthen coaching

✓ Embed learning into the day-to-day work

✓ Make early tenure count



Executive summary

The most important resource in any economy or organization is its human capital—that is, the collective knowledge, attributes, skills, experience, and health of the workforce. While human capital development starts in early childhood and continues through formal education, our research focuses on the next stage, which spans the full working life.

Human capital is much more than a macroeconomic abstraction. Each person has a unique, living, breathing set of capabilities. They belong to the individual, who decides where to put them to work. The degree of choice is not limitless, of course. People are the products of geography, family, and education; their starting points matter. Having career options also depends on an individual's abilities and attributes, their networks, their family obligations, the health of the broader labor market, and societal factors. While we recognize these constraints, career moves are nevertheless an important mechanism for expanding skills and increasing earnings.

At a moment when many workers are exercising greater self-determination in the job market, exploring mobility is particularly timely. To do this, we analyze a data set of de-identified job histories for approximately four million workers across the United States, Germany, the United Kingdom, and India.

The patterns within our data set show that moving into a new role pays off—and even more so when someone lands a new position that stretches their capabilities or better utilizes their skills. For people who start out in low-paying positions, movement is critical to boosting their lifetime earnings. Without extraordinary capabilities and luck, the entry-level retail cashier is unlikely to ever catch up to what the entry-level law associate can expect to earn over a lifetime. But if she is able to make strategic role moves, it is possible for her to climb into a higher earnings bracket than where she started.

1/4 to 1/3

of workers in our
focus countries are
upwardly mobile

In our data sample, roughly a third of US, German, and UK workers, and almost a quarter of Indian workers, are on a path to move up one or more quintiles in estimated lifetime earnings from their career starting points. This upwardly mobile group stands out for making more frequent and bolder role moves.

However, individuals cannot make bold moves unless an employer sees their potential and takes a chance on them in hiring. The most effective way for an individual to maximize the “experience effect” is to join an organization that prioritizes and strengthens their development.

Work experience adds to the value of human capital

Formal education is an important driver of an individual's lifetime earnings, which can be used as a proxy to measure the value of human capital.¹ Yet learning continues throughout a working life. Organizations set up their working environments with systems and practices that help employees become more productive. When people enter these settings, value is created. In addition to earning wages, workers gain knowledge and new capabilities that they carry with them for the remainder of their careers. Many roles require employees to become

¹ Jacob Mincer found that an additional year of education adds more to an individual's lifetime earnings than experience. Returns to schooling follow a linear curve, showing a consistent increase in earnings with each year of additional education, while returns to experience follow a quadratic curve. See “Investment in human capital and personal income distribution,” *Journal of Political Economy*, volume 66, number 4, 1958. *The changing wealth of nations 2018: Building a sustainable future*, World Bank, 2018, similarly uses lifetime earnings to measure human capital.

proficient with new types of software or equipment. Employees benefit from structured learning programs and daily coaching on the job. There are insights to be gained from watching colleagues handle tricky situations gracefully (or not) and seeing how managers motivate their teams (or do not).

Someone who starts out taking orders in a fast-food restaurant learns the art of handling difficult customers and staying cool under pressure. Someone who starts in IT by answering questions on a help desk absorbs technical knowledge that they continue to use when they become a network administrator. An inventory clerk who watches his manager solve logistical logjams can apply those approaches in a future role as a warehouse manager or procurement agent.

Our research focuses on how work experience builds on the foundation of formal education and adds to the value of human capital, expressed as lifetime earnings (see Box E1, “Modeling the link between role moves and the addition of skills to lifetime earnings”). We define work experience holistically as the accumulated knowledge that individuals gain by being in the labor market. This can occur through doing the work itself, formal employer-provided learning and development programs, and job changes that better match someone’s existing skills or enable them to add new skills.

Box E1

Modeling the link between role moves and the addition of skills to lifetime earnings

We track the new skills associated with role changes and make assumptions about how the salaries for each role link to new versus entry-level skills. We do this over the course of each individual’s work history to estimate the share of their lifetime earnings that can be attributed to skills gained through work experience.¹

We use a detailed data set covering all of the job moves made by about a million workers in each of four focus countries: the United States, Germany, the United Kingdom, and India. We look at each individual’s career trajectory, starting with the first job listed after the latest educational degree obtained and including all role moves made over the observed work history. For each role change, we quantify the “skill distance,” or the share of new or nonoverlapping skills associated with the new job. This reflects someone’s opportunity to acquire or deploy additional skills in the new role.² The illustrative example in Exhibit E1 shows a German worker who started as a welder. He changed jobs twice, moving

a skill distance of 33 percent when becoming a maintenance supervisor and then 47 percent when becoming a production manager. His average skill distance is therefore 40 percent, which is representative of the typical German worker.

We measure outcomes by looking at lifetime earnings, estimated as the sum total of nominal salaries received over a 30-year working life. This combines salaries associated with roles during an individual’s observed work history plus projections for the remaining years of that person’s working life.

We attribute the entirety of the entry-level salary to entry-level skills. Then, throughout the observed work history, we attribute a share of each new role’s salary to work experience in proportion to the share of new or nonoverlapping skills that role introduces, relative to entry-level skills. We make this assumption because work experience is one of the main mechanisms through which individuals are able to acquire and deploy new

skills after formal education. Although we acknowledge that education and personal attributes have an enduring impact, including teaching someone how to learn, we make a simplifying assumption in the attribution of salary to capture the scope and direction of the experience effect. For the length of time someone stays in a given role, we attribute standard yearly salary increases to work experience. We make this assumption to capture the effect of deepening existing skills. Similarly, to calculate projected earnings beyond the work history, we apply historical rates of wage growth to the final observed role, attributing all future projected wage growth to work experience. We assume no additional role moves.

Finally, we pool results for all workers in each of our four focus countries, reweighting the sample to reflect workforce composition, and consider the implications for the average lifetime earnings of a typical worker in the workforce.³

¹ Salaries are defined as the average yearly compensation provided for physical and knowledge work, not including benefits such as health insurance, subsidies, and tax transfers.

² We identify skills for each role from job postings, weighted by skill frequency, which gives more weight to skills that are specialized to a particular role rather than common across roles. When someone makes a role move, we measure skill distance as the share of nonoverlapping skills between the two roles.

³ For further details, see the technical appendix.

~2/3

of the total wealth
of individuals is their
human capital

Work experience contributes 40 to 60 percent of a worker's human capital

By our estimates, the value of human capital represents roughly two-thirds of an individual's total wealth.² Our results show that skills acquired or deployed through work experience contribute an average of 46 percent of the value of human capital over a typical working life. However, this is an average for the four focus countries, and it contains a wide range of variations (Exhibit E2).

The experience effect looks strikingly similar across the advanced economies we studied. Our analysis finds that work experience contributes 40 percent of the average individual's lifetime earnings in the United States, and 43 percent in both Germany and the United Kingdom.

² The value of human capital is measured as the present value of all future earnings for the average individual in our sample. To measure its contribution to total wealth, we draw on MGI's 2021 report *The rise and rise of the global balance sheet*, which estimates average net worth per capita. Other estimates by the World Bank conclude that human capital wealth accounts for roughly two-thirds of global wealth (as much as 70 percent in high-income OECD countries). See *The changing wealth of nations 2018: Building a sustainable future*, World Bank, 2018.

Exhibit E1

We identify new skills individuals acquire or begin to deploy with each role move.

Illustration of skill distance, weighted share of non-overlapping skills required in each new role,¹ %

Circle size: bigger = Skills specialized to the role rather than common across roles

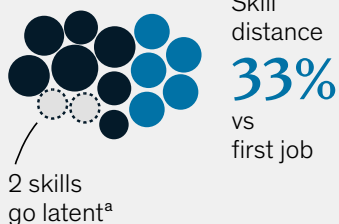
First job Welder in Germany



9 skills

- Manufacturing processes
- Engineering and maintenance
- Process engineering
- Process management
- Compliance
- Manufacturing quality assurance
- Soft skills
- Documentation and change control
- Time management

Second job Maintenance supervisor

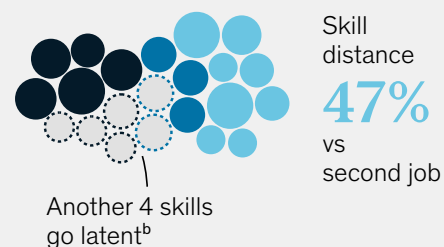


5 new skills

- Validation, auditing, and monitoring
- Training and development
- Performance management
- Recruiting
- Workforce management

^aDocumentation and change control;
time management

Third job Production manager



8 new skills

- Supply chain
- Communication
- Relationship building
- Data analysis
- Commercial excellence
- Supply and vendor management
- Budgeting and inventory management
- Organizational development

^bCompliance; soft skills; recruiting;
validation, auditing, and monitoring

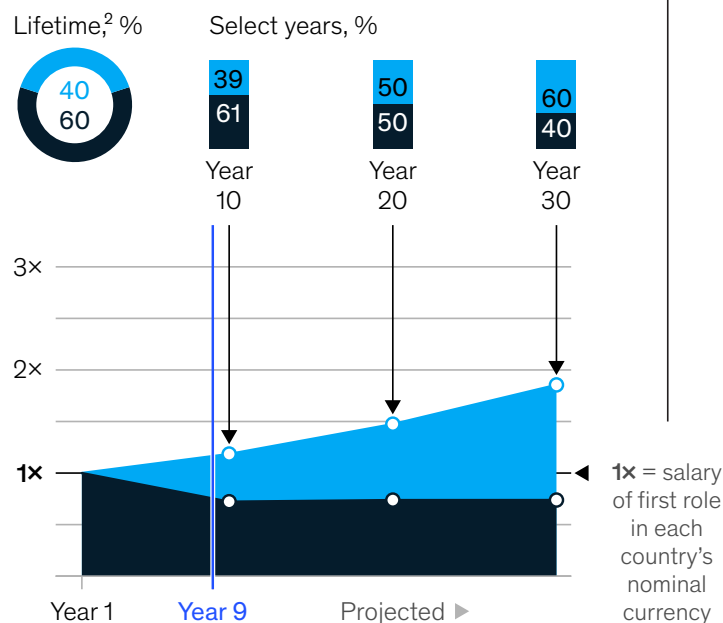
¹ Measured as share of nonoverlapping skill requirements between two roles, which shows the proportion of new skills required when someone moves into a new role. We identify skill requirements for each role from job posting data, weighted by skill frequency, which gives more weight to skills that are specialized to a particular role rather than common across roles. Source: McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data, as well as 2018–19 job posting records; McKinsey Global Institute analysis

Work experience accounts for 40 to 43 percent of average lifetime earnings in the advanced economies we studied, and 58 percent in India

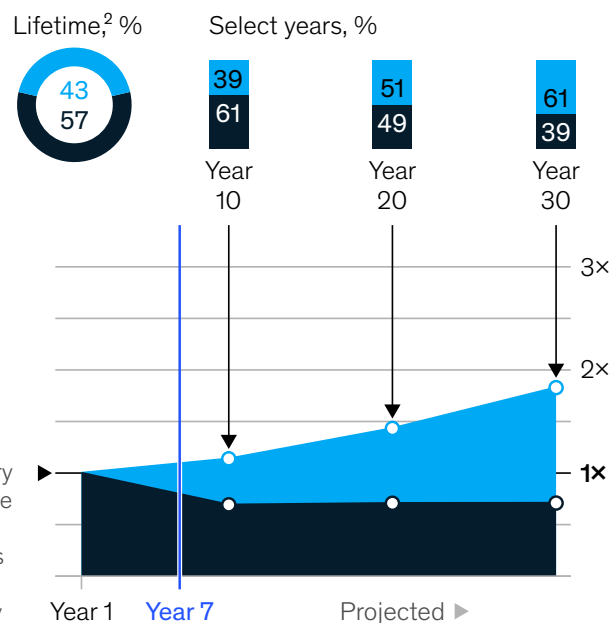
Multiple of initial salary at beginning of average career, in nominal currency

■ Share of earnings associated with work experience¹ ▲ Average years observed in each sample
 ■ Share of earnings associated with entry-level skills¹

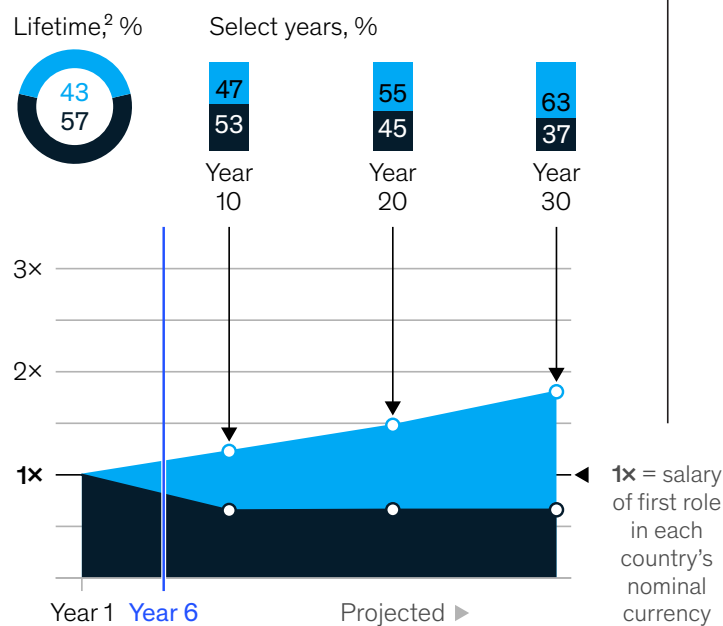
United States



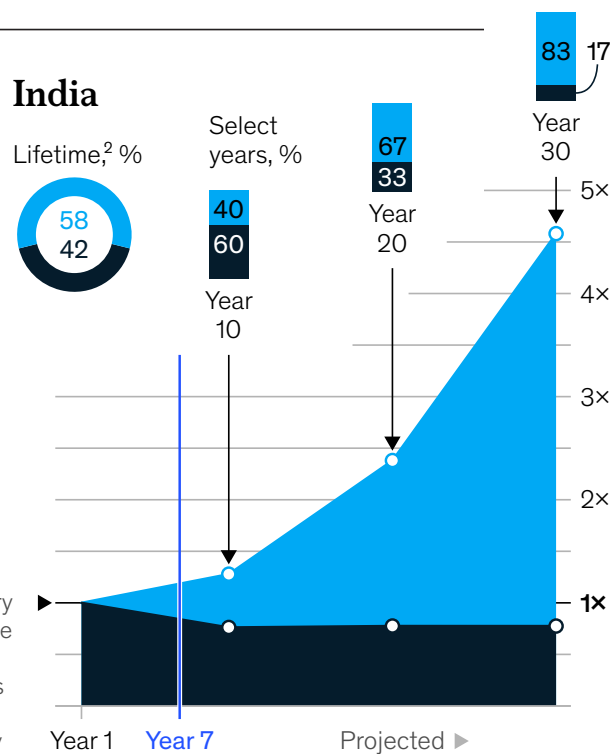
Germany



United Kingdom



India



¹ We attribute the ability to acquire the first job, and therefore the first job's salary, entirely to entry-level skills. Wage increases while in the same job are attributed to work experience, as is a proportion of new salary after a role move, based on the share of new skills required in the new role. Lifetime proportions calculated are based on the area under the curve.

² Lifetime earnings are the sum of nominal salaries over an individual's 30-year working life. Combines estimates based on salaries of roles held during the observed work history plus projections for the remaining years of a working life, applying historical rates of wage growth to the final observed role and assuming no further role moves.

Note: Average trajectory, based on a sample of 410,000 individual career profiles in the US, 280,000 profiles in Germany, 230,000 profiles in the UK, and 230,000 profiles in India. Begins with first job after latest education degree posted. Entire sample post-weighted to reflect the occupational distribution in each economy.

Source: McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data, as well as 2018–19 job posting records; UK Office for National Statistics; US Bureau of Labor Statistics; Germany's Federal Employment Agency, BA; India's National Sample Survey Organisation and Periodic Labour Force Survey; McKinsey Global Institute analysis

By contrast, work experience contributes 58 percent of average lifetime earnings in India.³ Access to education remains a key challenge in India—and with only 12 percent of the population having tertiary education as of 2020, work experience will be a more important driver of income for the workforce as a whole by default.⁴ In other emerging economies that have similarly low levels of educational attainment plus high productivity and wage growth from a low baseline, lifetime earnings are likely to exhibit similar patterns.

Work experience is a bigger determinant for people who start in occupations without significant credentialing barriers

People who start out in occupations with higher educational and credentialing barriers (such as lawyers and dentists) earn more than other workers over their lifetimes. For most of them, entry-level skills contribute a larger share of those earnings (Exhibit E3).

The reverse is generally true for people who start out in occupations with lower educational requirements. They typically earn less over a lifetime, with the greater share driven by work experience. The income growth of a dishwasher who becomes a food prep cook, then a line cook, and eventually a sous chef is almost entirely fueled by techniques and tricks of the trade learned on the job. In addition to enabling someone to acquire skills, work experience gives that person a track record, which is valuable in and of itself for the signal it sends to potential future employers.

In the United States, for example, the size of the experience effect varies substantially across starting occupations. At the low end are chiropractors. Before treating patients, they must complete a doctor of chiropractic degree program that can take three to five years, then pass a series of licensing exams. Their entry-level skills account for 85 percent of their lifetime earnings. At the other end of the spectrum are food batchmakers, who operate equipment that blends ingredients for manufacture. People who start in this type of factory job are less likely to have higher education; the experience they amass over time determines 90 percent of their lifetime earnings. Exhibit E4 shows how this pattern plays out in a number of other occupations.

While greater educational attainment generally correlates to higher lifetime earnings, some people defy the odds

Someone who attended poor-quality schools and lacks any postsecondary education or training is starting from behind in the labor market. Many employers rely on college degrees as a well-established signal of a candidate's employability.⁵

Yet educational disadvantage does not have to lock in destiny—at least not for everyone. In the United States, for example, our lifetime earnings projections show a subset of people who overcome the odds. Of particular note, 28 percent of high school graduates have higher earnings potential than the median holders of associate degrees, and 37 percent of associate degree holders could earn more than median bachelor's degree holders over their lifetimes.

In all the countries we studied, a sizable cohort is on a path to move up one or more earning quintiles from their career starting point. As Exhibit E5 (found later in the Executive Summary) illustrates, this applies to 30 percent of workers in the United States.⁶ In fact, 6.1 percent of US workers are on track to move from the bottom lifetime earnings quintile all the way to the top. Similar shares are upwardly mobile in the other advanced economies we studied (32 percent in Germany and 34 percent in the United Kingdom). In India, 23 percent of workers are on a path to move into higher earnings brackets.

³ In India, faster nominal wage growth results in a greater lift to lifetime earnings than in the advanced economies we studied. Our analysis focuses on the proportion of lifetime earnings attributable to entry-level skills versus experience, rather than the absolute growth in wages, making the estimates comparable across countries.

⁴ Organisation for Economic Co-operation and Development (OECD).

⁵ Michael Spence, "Job market signaling," *Quarterly Journal of Economics*, volume 87, number 3, August 1973.

⁶ Another longitudinal study on income mobility followed almost 10 million US children and found that 36.7 percent moved into a higher income quintile than their parents, with 7.5 percent moving from the bottom to the top quintile of earnings. See Raj Chetty et al., "Where is the land of opportunity? The geography of intergenerational mobility in the United States," *The Quarterly Journal of Economics*, volume 129, number 4, 2014.

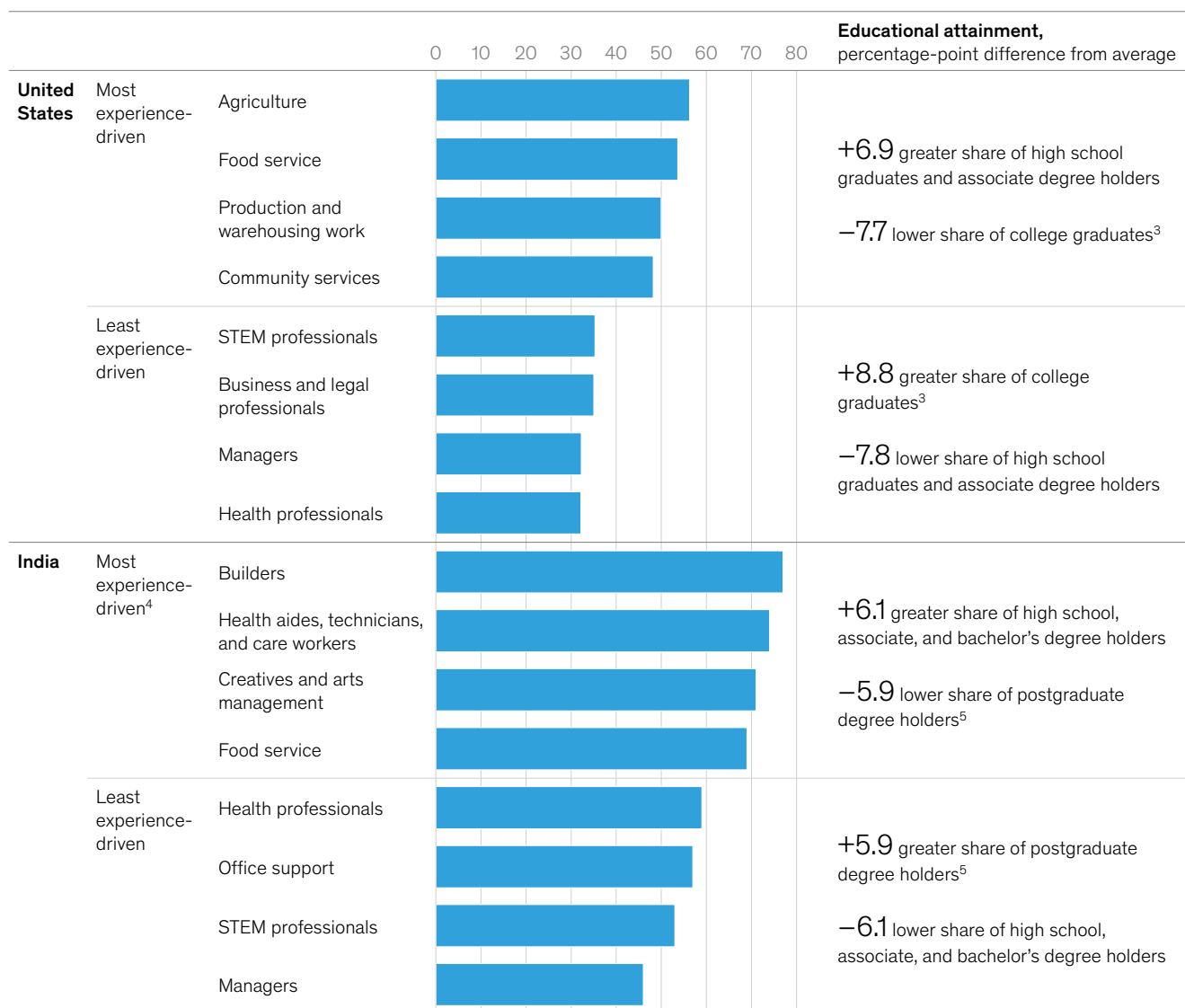
The upwardly mobile group appears to be amassing work experience in an effective way that yields real benefits. In our worker sample, experience accounts for 60 to 80 percent of lifetime earnings for the cohort that moved up but only 35 to 55 percent for those who stayed flat or dropped down. However, many people are unable to make these leaps because of structural and social barriers, such as biases, the lasting effects of unequal education, and the lack of professional networks.

Exhibit E3

Work experience accounts for a greater share of lifetime earnings in occupations with lower education requirements.

United States and India

Share of lifetime earnings¹ associated with work experience,² by starting occupational category, %



¹ Sum total of the nominal salaries an individual receives over a 30-year working life. Combines estimates based on salaries of roles held by a person during the observed work history plus projections for the remaining years of that person's working life, applying historical rates of wage growth to the final observed role and assuming no further role moves.

² We attribute the ability to acquire the first job, and therefore the first job's salary, entirely to entry-level skills. Wage increases while in the same job are attributed to work experience, as is a proportion of new salary after a role move, based on the share of new skills required in the new role.

³ Includes holders of bachelor's, master's, and doctorate degrees.

⁴ Agriculture and community services occupation categories excluded due to limited data availability.

⁵ Includes holders of master's and doctorate degrees.

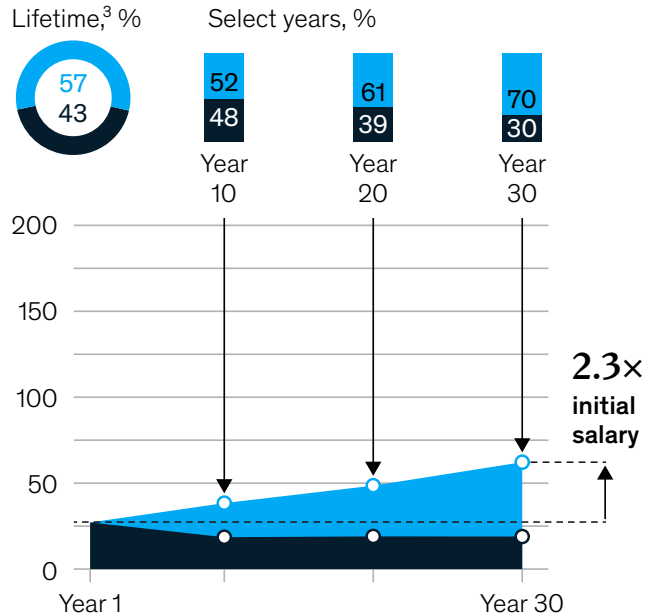
Source: McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data, as well as 2018–19 job posting records; US Bureau of Labor Statistics; India's National Sample Survey Organisation and Periodic Labour Force Survey; McKinsey Global Institute analysis

Individuals starting in different occupations have varying degrees of reliance on work experience.

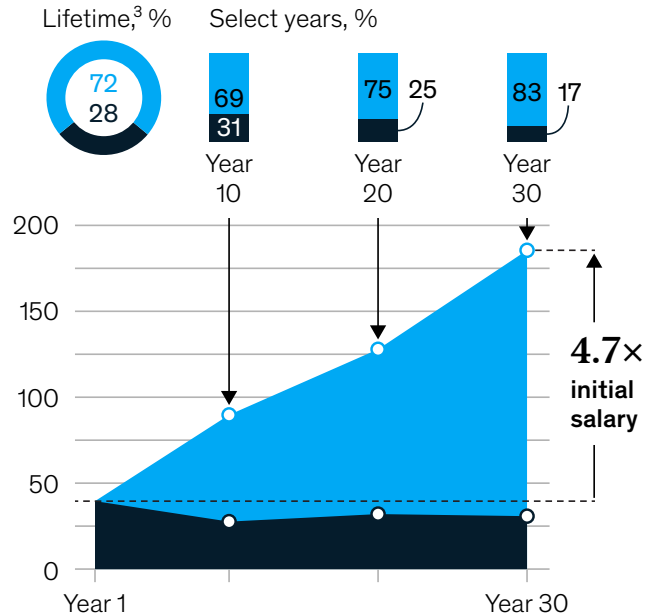
Salary in the United States by starting occupation,¹ in nominal currency, \$ thousand

- Share of earnings associated with work experience²
- Share of earnings associated with entry-level skills²

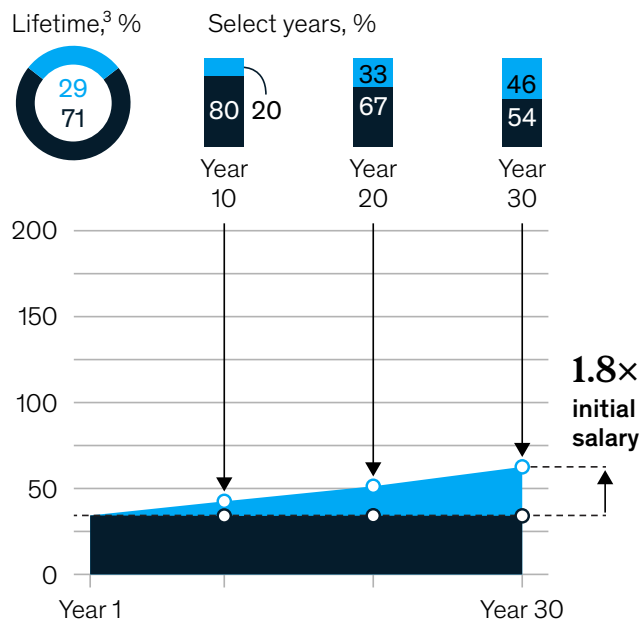
Restaurant servers



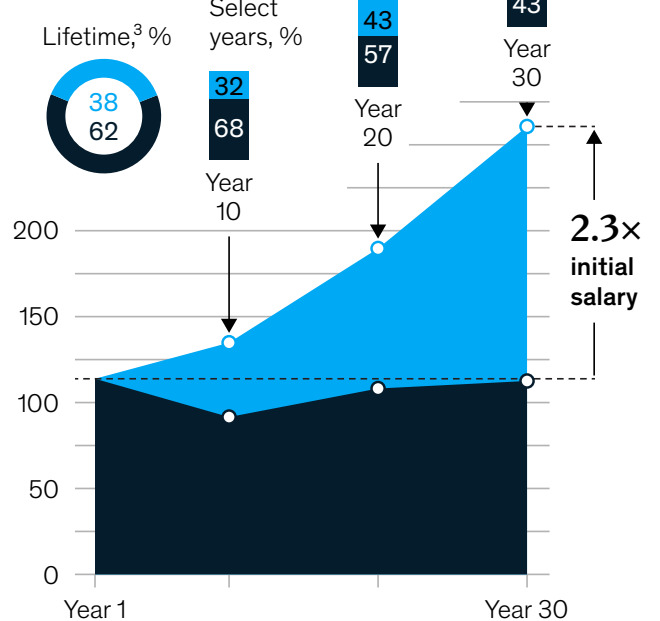
Commercial pilots



Maintenance and repair workers



Physicians



¹ Starting occupation defined as first role after the latest education reported on a public, de-identified online worker profile.

² We attribute the ability to acquire the first job, and therefore the first job's salary, entirely to entry-level skills. Wage increases while in the same job are attributed to work experience, as is a proportion of new salary after a role move, based on the share of new skills required in the new role. Lifetime proportions calculated are based on the area under the curve.

³ Lifetime earnings are the sum of nominal salaries over an individual's 30-year working life. Combines estimates based on salaries of roles held during the observed work history plus projections for the remaining years of a working life, applying historical rates of wage growth to the final observed role and assuming no further role moves.

Source: McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data, as well as 2018–19 job posting records; UK Office for National Statistics; US Bureau of Labor Statistics; Germany's Federal Employment Agency, BA; India's National Sample Survey Organisation and Periodic Labour Force Survey; McKinsey Global Institute analysis

Role moves bring new skills and can unlock higher earnings—and in most cases, people are moving to new organizations

Movement is an inherent feature of labor markets. Across the entire data set, the average person switched roles every two to four years, with a median skill distance of 25 to 45 percent, depending on the country.⁷ This matters because role moves enable individuals to build or demonstrate their skills.

Moves can involve workers assuming new roles within their current company, moving to a different employer, changing specialties or occupations, or pursuing a combination of these strategies. At any given time, a significant proportion of role moves are triggered by firings and layoffs in addition to voluntary job changes.

In our data set, each move increased wages by 6 to 10 percent on average. However, this includes people who moved into lower-paying roles, whether by choice or out of necessity.

Forty to 50 percent of the role moves over the decade we observed involved pay increases. The workers who made these moves managed to boost their earnings by 30 to 45 percent on average each time.

More than 80 percent of the role moves observed in our data set involved someone leaving one employer for another. Far fewer moves involved people being promoted into more senior roles or branching into different specializations within their existing organizations.⁸ This high level of external movement holds true across all cohorts. This seems to indicate that many employers do not have internal advancement tracks that are wide enough to keep most people growing and working toward higher rewards over time. Individuals who want to reinvent themselves and take on more senior roles often have to go to a new environment to do so.

The bolder the move, the bigger the boost

Those who take new roles involving bigger changes or challenges receive bigger rewards. We look at both wages and skill requirements associated with consecutive roles held by each individual. Salary-increasing moves involved a median skill distance of 35 to 50 percent across countries, higher than the range of 25 to 45 percent for all moves across countries.

In other words, when someone made a move for higher pay, their new job typically involved significant skills and responsibilities that were not part of their previous job. This kind of movement is enabled when an employer is willing to take a chance on someone's potential, even if they have not been performing exactly the same tasks in their previous role. The new role may be a major learning opportunity, or it may be a better match that enables someone to deploy existing skills that they have not been utilizing.⁹ Incremental moves with largely overlapping requirements do not pack the same punch.

The most upwardly mobile cohorts in the sample make both frequent moves and bold moves (Exhibit E5).¹⁰ In the United States, for example, people who moved into higher earning quintiles averaged 4.6 moves during the observed period, while those who stayed flat averaged 3.7 moves. The upwardly mobile in the United States and India made moves with an average skill distance of 30 to 40 percent; those who stayed flat averaged only 20 to 30 percent. This growth in skills compounds with each move, resulting in a far bigger shift in capabilities and responsibilities over the entirety of a working life.

30-45%

average boost when
someone changes roles for
higher pay

⁷ This is in line with the most recent (prepandemic) US Bureau of Labor Statistics (BLS) data, which show that US wage and salary workers had a median tenure with their current employer of 4.1 years in January 2020. See www.bls.gov/opub/ted/2020/median-tenure-with-current-employer-was-4-point-1-years-in-january-2020.htm.

⁸ It is possible that self-reported data may not reflect the full number of internal moves. For example, an individual who receives their fifth promotion at a longtime employer may not bother to update their online professional profile but will do so when moving to a new employer.

⁹ Dale T. Mortensen and Christopher A. Pissarides, "Job creation and job destruction in the theory of unemployment," *Review of Economic Studies*, volume 61, number 3, 1994.

¹⁰ We describe moves involving high skill distances as "bold." This term describes only the distinctiveness of the skill requirements in the new role; it is not a comment on the nature of the role itself or of the risk-taking involved in making the move. An incremental move is one in which skill distance is in the bottom quartile of the sample; a bolder move is one in the top quartile.

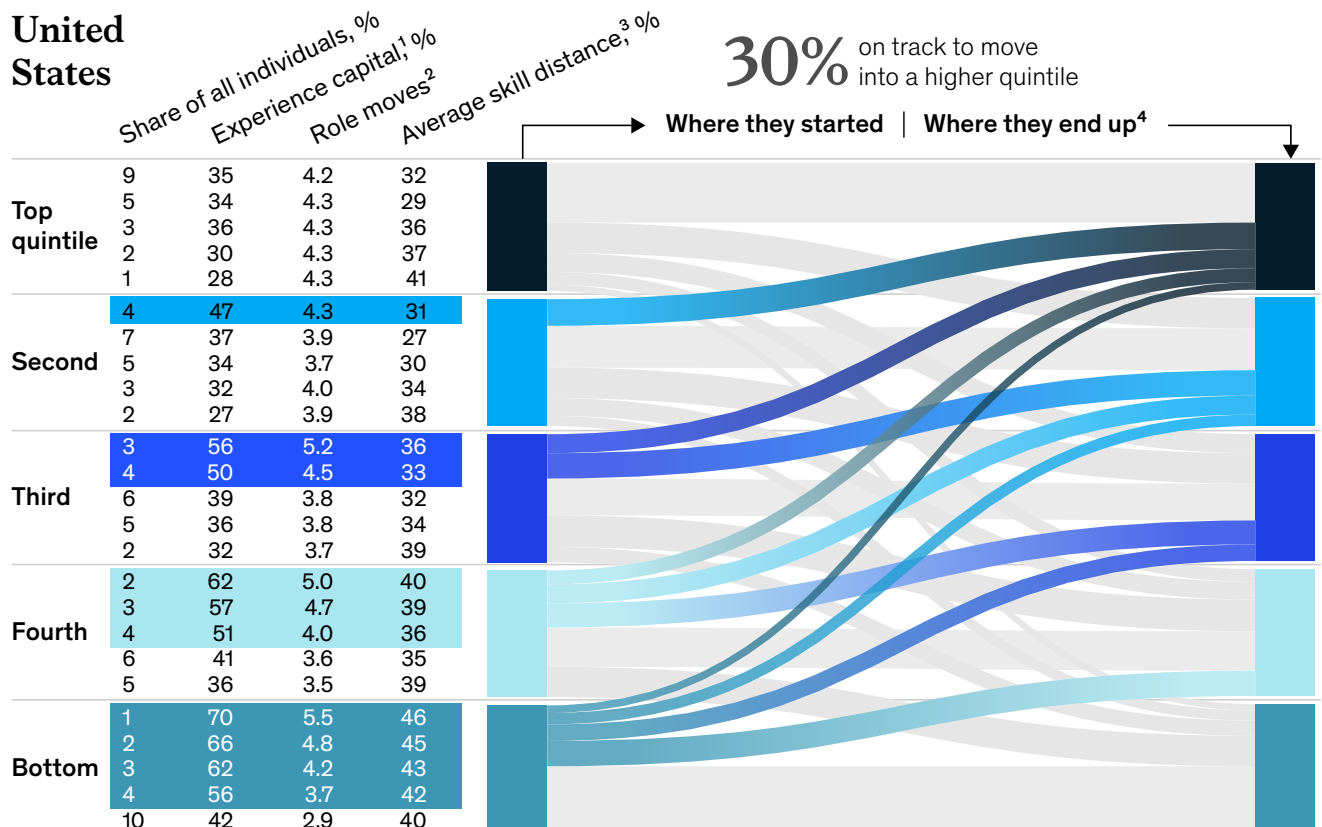
‘Experience seekers’ and ‘early movers’ boost their earnings through effective career moves

From our data set, we looked at a smaller universe of people with more than ten years of work history. Within it, four distinct archetypes emerge. They are not meant to convey individuals' circumstances or motivation; they describe movement patterns and outcomes, with illustrative examples.

- **Experience seekers** start with lower-than-average wages but propel themselves upward by moving roles more frequently than their peers and stretching their capabilities substantially each time. The cumulative effect gives them stronger wage growth than any other archetype. Consider someone who starts as an administrative assistant at one nonprofit before landing a job cultivating donors in the development department of another. From there, she joins a research hospital as a grant writer before stepping into a broader communications role. Eventually she becomes head of media relations for a major university. Our experience seeker has managed to cross over into new industries and functions.
- **Early movers** make bigger leaps in the first part of their career. Someone may start in one field, quickly realize that their passion lies elsewhere, and then get a break that enables

Exhibit E5

In each country we studied, experience and role moves enable a significant share of workers to move into higher earning quintiles.



¹ The share of lifetime earnings associated with skills learned through experience. We attribute the ability to acquire the first job, and therefore the first job's salary, entirely to entry-level skills.

Wage increases while in the same job are attributed to work experience, as is a proportion of new salary after a role move, based on the share of new skills required in the new role.

² Average number of role moves per person made over 10 years. Role moves are changes in an individual's job, occupation, occupation category, or organization. They include promotions or lateral moves within the same organization as well as moves from one employer to another.

³ Measured as share of nonoverlapping skill requirements between two roles, which shows the proportion of new skills required when someone moves into a new role. We identify skill requirements for each role from job posting data, weighted by skill frequency, which gives more weight to skills that are specialized to a particular role rather than common across roles.

⁴ Based on lifetime earnings, which are the sum total of the nominal salaries an individual receives over a 30-year working life. Combines estimates based on salaries of roles held by a person during the observed work history plus projections for the remaining years of that person's working life, applying historical rates of wage growth to the final observed role and assuming no further role moves.

Source: McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data, as well as 2018-19 job posting records; US Bureau of Labor Statistics; McKinsey Global Institute analysis

them to follow it. A graphic designer who makes print ads, for example, might become a user-experience designer early in her career.

- **Late movers** stay put or make more incremental moves in the early stage of their career but eventually take a bolder step. Think of a seasoned journalist who goes into corporate communications, or a real estate agent who becomes a mortgage loan officer in a bank. This is by far the largest group in the sample.
- **Lock-ins** change jobs less frequently, and when they do move, they do not make dramatic changes. This is not necessarily because someone is timid or stuck; they could also follow this strategy because they pursued what suited them from the start. Teachers, for example, have invested in specialized education and may have found their calling. However, lock-ins have the slowest wage growth, whether they start near the bottom or near the top. Doctors start at a very high salary but do not tend to make many role moves. While work experience accounts for 60 to 70 percent of lifetime earnings for experience seekers and early movers, that share is only about 30 percent for lock-ins.

Employers can attract and retain talent by recognizing potential, embracing mobility, and strengthening learning

Not all companies are equally good at developing people. Size is not the differentiator, as we find that small companies can be just as adept as their larger counterparts in this area. But companies with the strongest organizational health, those that offer more structured training for their employees, and those that provide more opportunities for internal advancement seem to stand out. People join these companies to build knowledge and networks, understanding that their experience will provide a valuable signal to other employers for the remainder of their careers. Early career experience at these companies helps employees go on to become more upwardly mobile (Exhibit E6).

Companies can help individuals build their experience capital and establish themselves as great learning organizations and magnets for talent in the process by focusing on three priorities:

- **Understand the potential in people as well as their current knowledge and skills.** Most employers can benefit from challenging the status quo of how they select people for open roles. Instead of searching for “holy grail” external candidates whose prior experience precisely matches the responsibilities in an open role, leading organizations create systems for evaluating candidates based on their capacity to learn, their intrinsic capabilities, and their transferable skills. This requires designing assessments that are fit for purpose, focusing on the few core skills that matter for success in the role. It also involves removing biases that pigeonhole people into the roles they are already performing; this point is particularly important when it comes to existing employees. In our sample, more than half of all role moves undertaken by individuals involved a skill distance of more than 25 percent—and this implies that people often have latent capabilities that are not recognized by their current employers. If someone’s track record shows the acquisition of new skills over time, it probably means that person is capable of learning more. Employers should be less constrained about recruiting candidates from traditional sources and backgrounds, and more open to people who have taken unconventional career paths.
- **Embrace mobility.** Within our data set, more than 80 percent of all the role moves individuals made involved changing employers. Since there is no fighting the fact that talented people will move, the key for employers is becoming part of this flow. Employers can aim to beat the odds on both sides of this 80-20 dynamic. On one end, they can attract the best candidates among the big talent pool that is always searching. On the other, they can boost the productivity and engagement of valued employees who stay. To ensure that proven employees don’t have to go elsewhere to advance, organizations should set the expectation that part of a manager’s job is developing people who will go on to other things. Each role should have clear paths toward future roles, with skill

requirements delineated at each stage. One way to do this in a large organization is to create an internal digital platform where employees can access learning modules and find their next opportunity. Mobility is experience, not just upward progression—and lateral movement is a neglected opportunity for many organizations. Designing rotational and transfer options for a broader pool of employees can keep proven midcareer workers learning and feeling energized. When talented employees do move on, celebrate them as success stories—and don't close the door on welcoming them back in a different capacity in the future.

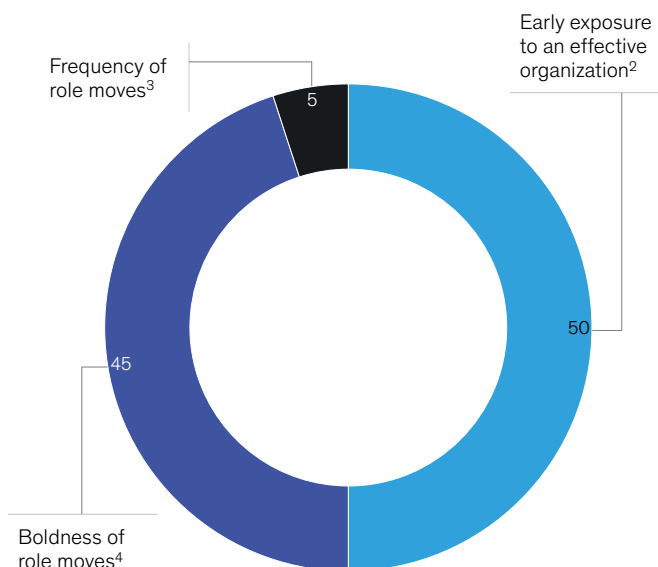
- **Strengthen coaching, and emphasize the new or first manager's role.** A great deal of skills development happens day to day on the job, in a process that accumulates over time and eventually accounts for almost half of all human capital over a working life, as our research suggests. Coaching and apprenticeship can maximize this effect. Our research

Exhibit E6

Most of the differences in individuals' experience capital are associated with early exposure to an effective organization, followed by bold role moves.

United States, Germany, United Kingdom, and India

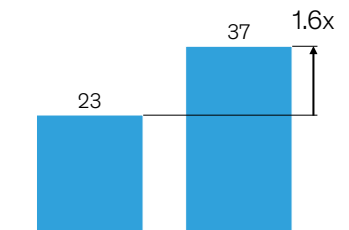
Drivers associated with experience capital variation,¹
controlling for starting occupation and sector



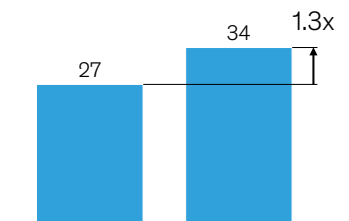
Characteristics of effective organizations

Share of workers who would move into higher earning quintiles,⁷ %

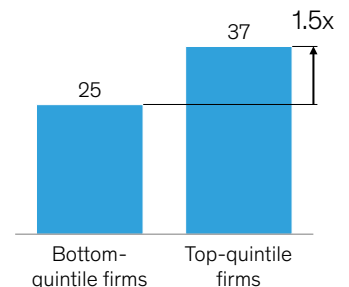
Average training hours per full-time employee



Internal moves as share of all moves,⁵ %



Organizational health⁶



Workers with early career work experience in ...

¹ Measured by regressing experience capital for an individual on metrics measuring organizational practices of the firm where the individual starts his career, boldness of role moves, and frequency of role moves. Controlled for starting wage, latest wage in work history, years of post-education observed work experience, average experience capital for a given sector, occupation, and organization. N = 65,554 individuals and R-squared = 0.54.

² Based on average training hours per full-time employee, internal moves as a share of all moves, and the overall score from McKinsey's Organizational Health Index. Firms with the highest OHI scores may attract intrinsically motivated individuals, who may be disproportionately likely to seek out new skills through work experience, amplifying this metric. Metrics matched to the organization where an individual worked during the start of their career. N = 362 firms.

³ Role moves are changes in an individual's job, occupation, occupation category, or organization. They include promotions or lateral moves within the same organization as well as moves from one employer to another.

⁴ We describe moves involving high skill distances as "bold." Skill distance is the share of nonoverlapping skill requirements between two roles, which shows the proportion of new skills required when someone moves into a new role. We identify skill requirements for each role from job posting data, weighted by skill frequency, which gives more weight to skills that are specialized to a particular role rather than common across roles.

⁵ Role moves made within the company as a share of internal moves + separations; US data only.

⁶ Based on McKinsey's proprietary Organizational Health Index (overall score).

⁷ Movement into higher earning quintiles is based on estimated lifetime earnings of the individual (compared to quintiles of starting wages), which is calculated as the sum total of the nominal salaries an individual receives over a 30-year working life. Combines estimates based on salaries of roles held by a person during the observed work history plus projections for the remaining years of that person's working life, applying historical rates of wage growth to the final observed role and assuming no further role moves.

Source: McKinsey's proprietary Organizational Data Platform, which draws on licensed, de-identified public professional profile data, as well as 2018–19 job posting records; UK Office for National Statistics; US Bureau of Labor Statistics; India's National Sample Survey Organisation and Periodic Labour Force Survey; Germany's Federal Employment Agency, BA; Organizational Health Index by McKinsey; Refinitiv; McKinsey's Corporate Performance Analytics; S&P Global; McKinsey Global Institute analysis

suggests the first few years of a career are foundational, and the same is true for the first year in any new job. Formal onboarding is not just an orientation session but a six-month to one-year period that should involve a thoughtfully created journey. Organizations can provide the tools for a running start, including a manager committed to delivering coaching and facilitating connections. Even after hitting their stride, employees need ongoing opportunities to learn; this can pay off in the form of higher morale and reduced attrition.¹¹ In a June 2021 Gallup survey, 65 percent of US workers said that learning new skills is an extremely or very important factor in deciding whether to take a new job, and 61 percent said it was extremely or very important in deciding whether to stay at their current job.¹² Formal learning and development programs that prepare employees for future roles are part of this, but it is difficult to make them effective. Companies that are true learning organizations build their own formulas, customized to their needs.

Workers should choose their moves (and their employers) carefully

Since work experience creates value for the individual, how can someone maximize that effect? Controlling for differences in occupation, time spent early in a career with an effective organization (as defined by overall organizational health and greater emphasis on training and internal mobility) is associated with 50 percent of the variation in how experience adds to earnings. The remainder of the difference is associated with the boldness and frequency of moves that a person makes.

The pandemic appears to have prompted many workers to reevaluate their jobs, and many have been voting with their feet. According to US Bureau of Labor Statistics data, some 47 million Americans quit their jobs in 2021. Millions have landed better jobs, and some became entrepreneurs.¹³ An increase in job switching has spread to other countries as well. Employers from Europe to China report labor shortages and hiring difficulties.¹⁴ Workers are in demand and taking advantage of new dynamism in the labor market.

While higher pay is obviously a motivation, particularly for people who have been struggling to make ends meet, many people are also looking for better working environments and flexibility. However, broader considerations determine whether a move will pay off in the longer term. Our research shows that bold role moves have the potential to propel workers forward.

There are often constraints on the ability to make moves, of course. Not everyone has access to an effective organization. People may hit the limits of their capabilities or health, while others need to prioritize family responsibilities. During periods of high unemployment, the options are fewer and farther between. Yet individuals who have the luxury of choosing each job move strategically can benefit in a lasting way by looking for learning opportunities and growth potential. As playwright Tom Stoppard put it: "Look on every exit as being an entrance somewhere else."

¹¹ See, for example, Ann P. Bartel, "Measuring the employer's return on investments in training: Evidence from the literature," *Industrial Relations: A Journal of Economy and Society*, volume 39, number 3, 2000; and Anand Chopra-McGowan, "Make sure your company's reskilling efforts pay off," *Harvard Business Review*, July 2021.

¹² *The American upskilling study: Empowering workers for the jobs of tomorrow*, Gallup and Amazon, 2021.

¹³ Josh Mitchell and Kathryn Dill, "Workers quit jobs in droves to become their own bosses," *Wall Street Journal*, November 29, 2021.

¹⁴ Meng Ke and Yuk Li, "China needs 11.8M workers. Here's how to close its labour gap," World Economic Forum, July 2021; and Tina Weber et al., "Tackling labour shortages in EU member states," European Foundation for the Improvement of Living and Working Conditions, July 2021.

Profile

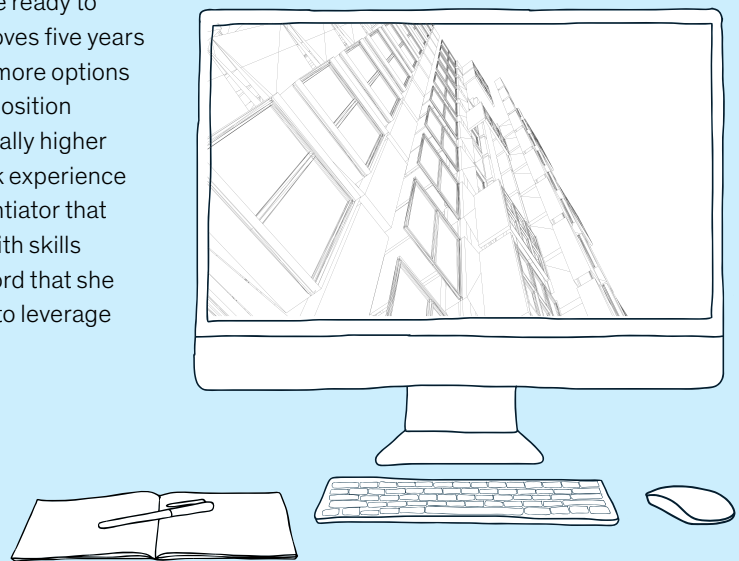
A tale of two architects

Equally talented architects Jeanne and Jane earned degrees from the same prestigious university and passed the same professional certification exams. After that point, their paths diverged, largely because of the quality of their respective workplace experiences.

Jeanne took a job with a boutique firm run by a renowned architect. However, its IT systems were outdated, and the founder delegated only low-value tasks and rarely took the time to offer feedback.

Jane took a junior role at a commercial firm where a principal became her mentor. She learned how to use cutting-edge BIM modeling tools and how to develop project proposals.

When both were ready to make career moves five years later, Jane had more options and secured a position with a substantially higher salary. Her work experience was the differentiator that equipped her with skills and a track record that she could continue to leverage for decades.



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