



Breaking the Training and Education Paradox for an Aging Workforce

Authored by **Luke Yoquinto**, Research Associate, MIT AgeLab and Coauthor, **Grasp: The Science Transforming How We Learn**

There is a paradox at the heart of work for older Americans. One of the most reliable ways for workers to increase their wages and gain new responsibilities is by **switching jobs**—especially in the tight labor markets of recent years. Unfortunately, for employers, such job-hopping disincentivizes investment in worker learning and development. Why bother training my employees, the thinking goes, if some other company's just going to poach them?

Older workers—the **fastest-growing** segment of the workforce—are hit especially hard by such reasoning. Careers in the US have been **lengthening** for decades, as the effective retirement age for **men** and **women** has **ramped up**. (Retirement rates momentarily increased during the depths of the Covid pandemic, but that effect appears to have been **temporary**.) Against an ever-changing backdrop of new technologies, practices, and workplace norms, today's extended careers call for a continuing commitment to training and education—for the sake of workers and employers, both.

The quickest way for employers to add new expertise to their workforce, however, is simply to hire experienced workers with up-to-date skills. Unfortunately, this practice creates a free-rider problem: when companies withdraw from the larger pool of recently trained and upskilled workers without creating new ones, it can cause a shortage. Already, in response to a 2020 Conference Board survey, 80 percent of human capital executives said it was **hard to find** qualified workers.

There is a silver lining, however: Worker and employer interests are aligned in favor of finding a mutually beneficial way to rethink workforce learning for long and varied careers. If and when a breakthrough finally arrives, though, where will it come from? Employers' recent track record on this issue is spotty. And the education sector, despite recent advances in nontraditional instruction, is still very much geared towards young people.

There's another possibility as well. If this issue proves too intractable to be solved anytime soon in the US, then other countries may lead the way.

Making matters more urgent, right at the moment the **workforce** is aging at unprecedented rates, and workplace technologies are changing faster than ever, thanks to recent breakthroughs in generative AI technologies. In response to a recent AI-focused **survey** conducted by the online learning provider edX, a group of 800 executives said that nearly half of their existing workforces wasn't prepared for the future of work, and nearly half of those workers' currently necessary skills would cease to be relevant as early as 2025.

Something must be done to make up for the shortfall, and workers are even more aware of this need for their employers. In response to the same survey, nearly two-thirds of executives said their employees were "very satisfied" with their companies' learning and development offerings—a position less than a third of employees agreed with.

But first, to what extent have companies lately turned away from providing in-house learning and development? Broad, cross-industry data on workforce training are challenging for economists to come by, which makes sense when you consider just how varied the world of work really is: encompassing many types of full-time, part-time, contract, and freelance labor; the respective levels of which have all changed over the years. The world of workplace learning and development similarly contains multitudes, including everything from occupational safety videos, to hands-on instructions on how to operate a cash register, to informal mentoring, to post-doctorate-level applied engineering education. To further complicate matters, such instruction can be provided in a variety of informal, classroom, hands-on, and self-directed formats.

And so, for instance, when an economist reveals that roughly half of US employees received further training in a recent twelve-month period (**as MIT's Paul Osterman did in 2021**, the first major such estimate since 2008), it's not clear whether that figure represents a lot of training or a little. "We have no standard against which to judge how much training is necessary or appropriate," he writes. "Many of these findings are ripe for a debate regarding whether the glass is half full or half empty."

What is clear, however, is that training remains valuable—and like many things of value, it tends not to be doled out equitably. Employees with higher levels of formal education, for instance, receive more continued training than others. Minority racial and ethnic groups tend to receive less training than their counterparts, even when researchers control for levels of preexisting education. So too do older workers—especially informal training and mentorship. And of course, if you happen to be one of the **quarter** of Americans age 65-plus who are both older and non-White, the training deck may be stacked against you especially severely.

There are a few ways to address these sorts of disparities and to address a dearth of training in general. One involves somehow giving a boost to corporate training programs: through public subsidies, for instance. This approach is often difficult to put into practice. It's potentially most effective in partnership with large firms offering long internal career ladders, but selectively subsidizing them over smaller firms can be a hard political sell, since it smacks of choosing winners and losers. Plus, under such policies, it can be hard to avoid paying public money for training that firms, left to their own devices, might have funded themselves.

Another approach involves looping in the education sector. In terms of future wages, career and technical programs at community colleges still do tend to **pay off** for students who graduate, as do **four-year college degrees**. This isn't to say there aren't problems with these offerings, however, starting with the fact that the **majority** of community college enrollees, and **nearly a third** of bachelor's students, fail to graduate (and often emerge saddled with debt).

And anyway, even if—through feats of policy or pedagogy—you managed to fix much of what ails two and four-year programs, however, there would still be a problem for long-term workforce education. **Sixty percent** of college students in the US are under age 25, and an overwhelming majority—83 percent—are under age 35. Traditional higher ed is still very much a young person's game. The world of work, meanwhile, is demanding more learning, later in life than ever.

“There is a structure in place that is holding back change,” says Sanjay Sarma, former head of Open Learning at MIT (and my coauthor on our 2020 book ***Grasp: The Science Transforming How We Learn***. He is also the co-author, with William Bonvillian, of ***Workforce Education: A New Roadmap***.).

“In the past,” Sarma says, “employers were farmers. We grew talent. But we’ve become hunter-gatherers. We poach talent, and we can’t afford that anymore.” The acceleration of technological change alone demands a new approach to continual learning, he says. “Take something like cybersecurity—it’s such an evolving field. You need to be up to date.”

In an effort to supplement traditional degrees, Sarma and a group of collaborators have instituted a framework at MIT called **Agile Continuous Education**, or ACE, which combines online coursework, on-campus boot camps, and at-work mentorship and apprenticeships.

“The idea is to create a series of offerings, almost like a progression in the gym,” he says. In this vision, like exercise, continued education becomes something that you don’t stop doing in your teens or twenties. It’s a lifelong commitment.

Even if workers are fully committed to regularly hitting the educational gym for many decades, however, a critical challenge remains: obtaining buy-in from employers, who must pay for learning and development not only with funding but also with their employees’ time.

Taken all together, systemic snarls of the sort holding back workforce learning are notoriously difficult to untangle. And so one possibility in the coming years is that cutting-edge mid and late-career educational practices may first take root not in the US but rather in countries less encumbered by institutional and cultural baggage.

Take Malaysia. Sarma is currently leading the Asia School of Business in Kuala Lumpur, where he is **building** workforce-aligned programs similar to ACE. There, he explained, companies and government entities are keen to invest in workforce education. Since Malaysia is on the cusp of becoming a high-income country, its rapidly expanding industrial and financial base is in need of workers equipped with readily applied expertise. The firms involved in such growing industries understand that these workers aren’t always available off the educational shelf, and so they are prepared to create them in-house, or in concert with educational institutions.

If continuing education finds a more straightforward path forward in developing economies than in the United States, it would hardly be the only example. **Mobile payments** specifically, and mobile internet more generally, have “leapfrogged” into common use in developing countries—in some cases even leapfrogging **ahead** of wealthier nations like the United States.

Perhaps continuing learning programs will follow a similar trajectory.

If so, today’s and tomorrow’s older workers in the US should still take heart. Digital banking and mobile payments are **well on their way** to commonplace status in the US. If their history is a guide, we will eventually get the learning and development opportunities we need for our longer careers.

It would be better, however, for US workers and employers both, if this could happen sooner. Already, critical parts of the US workforce are under immense strain. By adapting our educational and training practices to fit the modern reality of our working lives, we may better equip ourselves to meet the demands of the current moment—and all the moments ahead.