An i4cp Report

Upskilling Frontline Workers

*Three Strategies to
Future-Proof your Workforce*

Table of Contents

Introduction

It's been widely reported that the average half-life of skills is now less than five years, and in some fields, the timeframe is significantly shorter. This should sound alarm bells at most employers.

However, research by the Institute for Corporate Productivity (i4cp) and UpSkill America has found that:

- Only 25% of the HR leaders who took part in a December 2023 i4cp survey perceived workforce development as a strength of their organization.

- And just 9% of more than 100 private and public company board directors i4cp surveyed in indicated they were very confident in their company's ability to effectively upskill its employees for the future.

The need for accelerated and continuous workforce development is the result of the rapid advancement and proliferation of technology, including artificial intelligence. In fact, according to a 2024 global study of CEOs, 69% agreed that generative AI will require most of their workforce to develop new skills within the next three years.

What follows are best and next practices in workforce upskilling effectiveness that will help any organization to be more productive and resilient via a workforce that is skilled for the future.

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About the Study

Conducted in Q4 of 2023 in partnership with Upskill America, i4cp surveyed nearly 350 global human resources, talent, and learning leaders regarding the ability of their organizations to upskill frontline workers and ensure strong talent pipelines for frontline skills.

The data in this brief represents the responses of participants from more than 30 countries who work at organizations with >100 employees.

Analysis of the data includes i4cp's Market Performance Index (MPI), which provides a comparison of high-performance vs. low-performance organizations.

The study investigated three types of upskilling programs and what makes each successful:

- Internal Formal Education and Training programs

- Tuition Assistance programs

- Apprenticeship/Work-and-Learn programs

To access the companion report *Room for Growth, A Survey of Upskilling Approaches*, click here.

For this study, frontline workers are defined as those whose education levels are generally at or below the associate degree level and whose median annual wages fall below $40,000 (USD).

Market Performance Index (MPI®) i4cp defines high-performance organizations based on self-reported multi-year performance in revenue growth, profitability, market share, and customer satisfaction.

Key Findings

1. Prioritizing frontline worker upskilling requires a variety of educational programs.

2. Successful internal formal education and training programs for frontline worker upskilling focus on both full- and part-time positions.

3. Future-ready organizations support workers through counseling and coaching as well as financially in their pursuit of higher education.

4. Successful apprenticeship programs often or always offer advancement to full time work upon completion.

This brief explores each of these four findings, three strategies to future-proof workforces, examples/case studies, and recommendations to help organizations ensure their frontline workforce is prepared to meet the business needs of the future.

The Demand for Frontline Workforce Skills

40%

40% of survey respondents do not believe that their current frontline workforces have the skills needed to meet the demands of the organization over the next five years.

2x

Those from high-performance organizations were nearly 2x more likely than to indicate that their frontline workforces do have the skills needed.

+1

Of the three types of upskilling programs this study explored, having one or more in place showed strong correlation to organizational confidence that their workforces have the skills needed to keep up with demand.

The study investigated three types of upskilling programs:

Internal Formal Education and Training

These programs are usually intended to support skill development for advancement, address the broad needs of the workforce, and address employee skill development to retain in current roles.
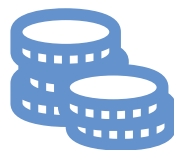
Tuition Assistance

Under tuition assistance programs, employees typically enroll with a third-party organization, including colleges, universities, and training organizations, to pursue a credential(s) broadly recognized in the economy, such as a certification or degree.

Apprenticeship/ Work-and-Learn

These models typically blend structured work-based learning with academic or technical training. Apprenticeship models are squarely focused on employee upskilling and, particularly for large employers, on improvement and diversification of talent pipelines.
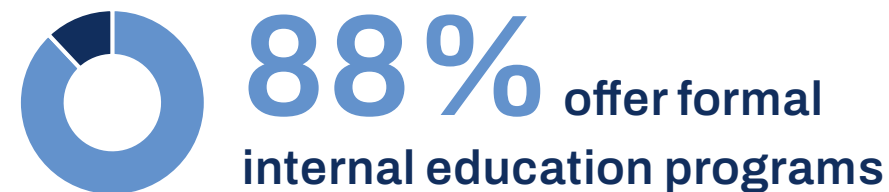
SECTION I:

Making the Case for Upskilling

Key Finding 1

Prioritizing the upskilling of frontline workers requires a variety of educational programs. i4cp's research has shown there is no single answer to the upskilling challenge.

Having one or more of the programs described in this research in place showed strong correlation to the confidence among survey respondents that their organizations have the skills needed to keep up with workforce demands in the coming five years.

Among those expressing the most confidence in their organizations' ability to future meet demand, respondents reported:

88% offer formal internal education programs

73% offer tuition assistance programs

46% offer apprenticeships

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Making the Case for Upskilling

Beyond the financial goals and objectives of upskilling efforts, high-performance organizations in particular are prioritizing upskilling to fill their talent pipelines.
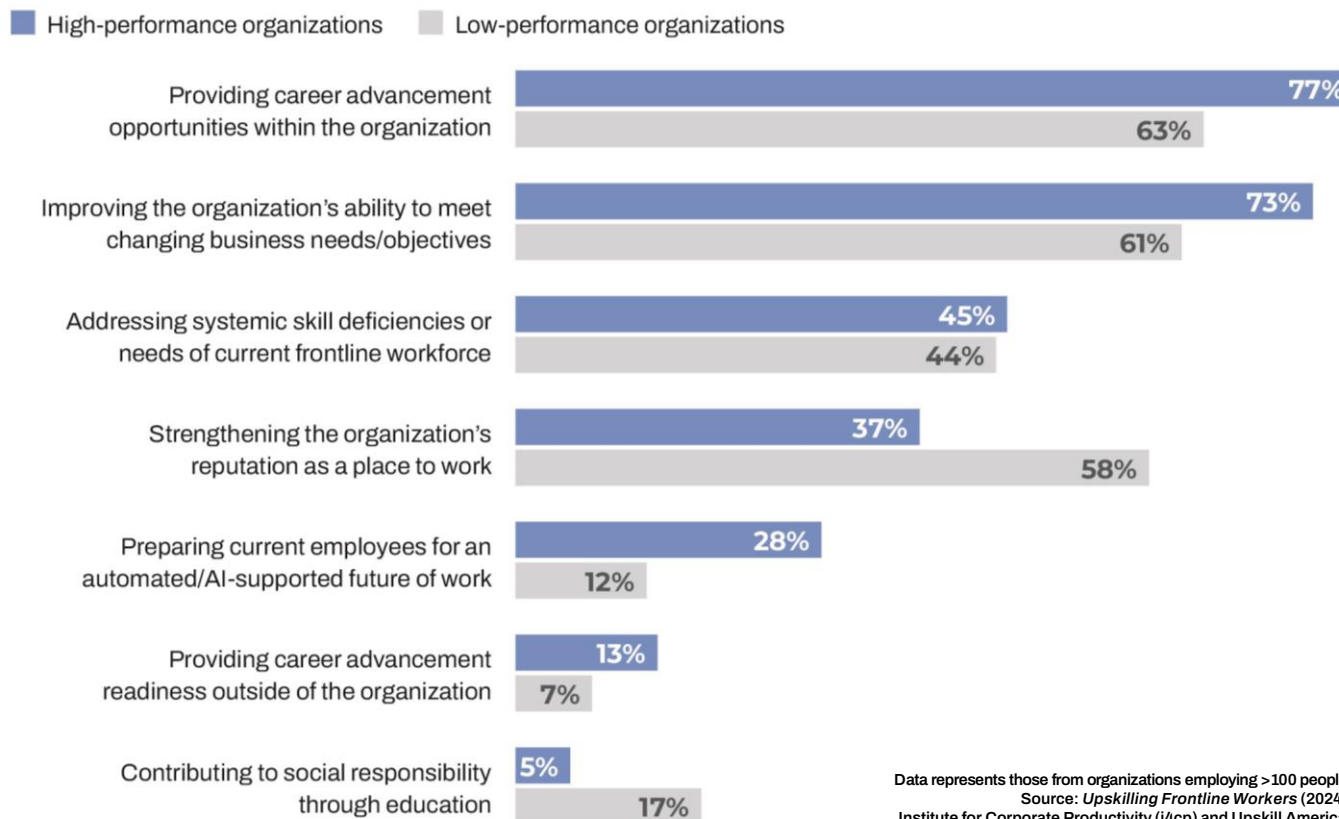
When survey respondents were asked to identify their organizations' overall objectives of their upskilling programs, providing advancement opportunities to individuals and improving the organization's ability to meet changing needs topped the list.

For more on the ROI of upskilling, check out Discover Financials' Education Benefit ROI Analysis

See the full case study here.
Source: Lumina Foundation

FIGURE 1 | Broad objectives of organizational employee education efforts

- High-performance organizations
- Low-performance organizations

Objective	High-performance	Low-performance
Providing career advancement opportunities within the organization	77%	63%
Improving the organization's ability to meet changing business needs/objectives	73%	61%
Addressing systemic skill deficiencies or needs of current frontline workforce	45%	44%
Strengthening the organization's reputation as a place to work	37%	58%
Preparing current employees for an automated/AI-supported future of work	28%	12%
Providing career advancement readiness outside of the organization	13%	7%
Contributing to social responsibility through education	5%	17%

Data represents those from organizations employing >100 people.
Source: *Upskilling Frontline Workers* (2024),
Institute for Corporate Productivity (i4cp) and Upskill America.

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Making the Case for Upskilling

Most existing upskilling programs are not going far enough. Survey respondents whose organizations have such programs in place reported:

52% are successful at achieving formal internal educational/training program goals.
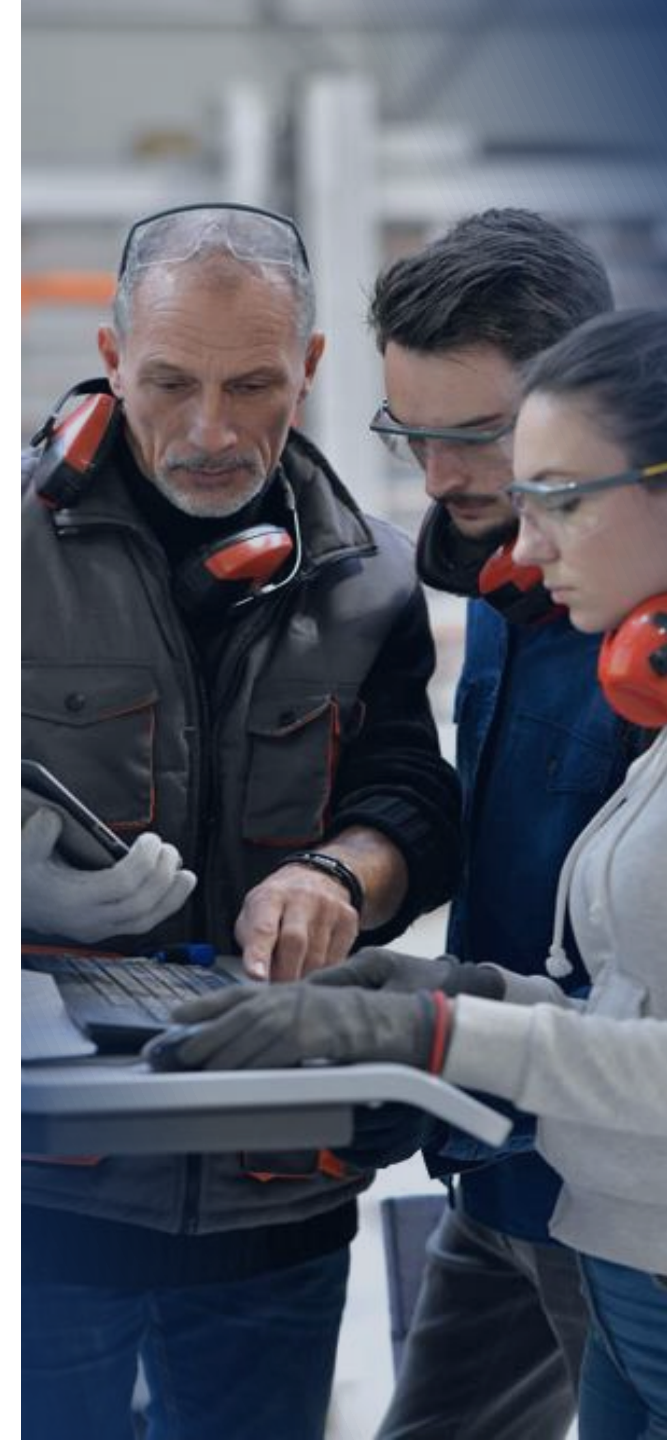
30% are successful at achieving tuition assistance program goals.

40% are successful at achieving apprenticeship program goals.

What can organizations do to make their programs more successful? The following pages look at keys to success for each program type.

Making the Case for Upskilling

Career advancement within the organization is a best practice; career advancement *beyond the organization* is a *next practice*.

Our research found that rewarding employees (and frontline workers in particular) with internal advancement opportunities based on demonstrated increases in relevant knowledge and skills makes good sense from an engagement and retention perspective and is something most all survey respondents said their organizations aspire to, as noted in Figure 1.

Case Study

verizon✓

Making the Case for Upskilling

Employers clearly recognize the need to look outside the organization to both address systemic skill shortages and enhance innovative thinking.

As seen in Figure 1, providing advancement and readiness outside the organization is a key *next practice*—one that is **5x** more likely to in place in high-performance organizations in sharp contrast to their lower-performing counterparts.

NEXT PRACTICE

One example of this practice is Verizon, which intentionally defines job profiles (for every job code) that are easily relatable externally.

Samantha Hammock
Executive Vice President and CHRO, Verizon

Next Practice **Definition:**
A *next practice* is defined by i4cp as one that analysis shows strong positive correlation to bottom-line business impact, but is not yet widely adopted.

" *Making job profiles more easily understood internally and externally goes a long way toward connecting all talent processes, from being able to attract candidates to the right roles to developing our employees internally. This feeds our employees' ability to effectively network and grow.* "

[Click here](#) for the full case study.
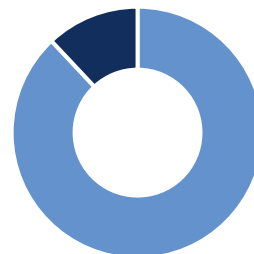
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SECTION II:

Internal Formal Education and Training Programs

Key Finding 2

Successful internal formal education and training programs for frontline worker upskilling focus on both full- and part-time positions.

These programs are in place at **88%** of respondents' organizations

The **top two goals** for internal formal education programs are:

- Employee upskilling (skill development for internal advancement)

- Addressing broad skill needs of workforce (technical skills, management skills, etc.)
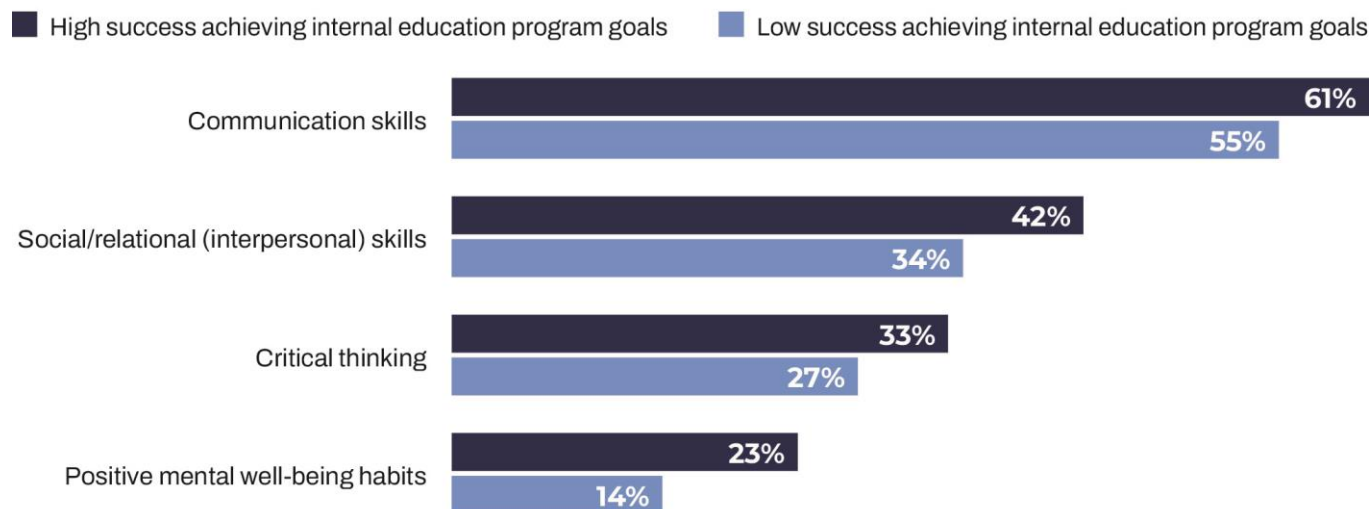
Internal Formal Education and Training Programs

Focus on both technical and soft skills development to ensure a more well-rounded and capable workforce.

Organizations that are highly successful in achieving their goals with internal programs are:

- **12%** more likely to offer communication skills

- **22%** more likely to teach critical thinking skills

- **24%** more likely to offer social/relational skills

- Nearly **2x more** likely to offer training on positive mental well-being programs

FIGURE 2 | Skills taught in formal internal education/training programs

■ High success achieving internal education program goals
■ Low success achieving internal education program goals

Skill	High success	Low success
Communication skills	61%	55%
Social/relational (interpersonal) skills	42%	34%
Critical thinking	33%	27%
Positive mental well-being habits	23%	14%

Source: *Upskilling Frontline Workers* (2024), Institute for Corporate Productivity (i4cp) and Upskill America.

For more information, download the soft skills upskilling planning guide here.

Internal Formal Education and Training Programs

Organizations indicating that their frontline workers that have the skills the business needs for the future (to a high/very high extent) are **2.5x** more likely than those whose frontline workers are far less equipped to report that they prioritize part-time frontline workers as part of their internal education programs (45% vs. 19%).

i4cp's analysis also revealed that organizations focusing their education programs on enabling more internal advancement are also much more likely to prioritize the development of part-time hourly workers (to a high/very high extent) in addition to full-time employees. Part-time workers make for an ideal pipeline of potential full-time workers. Investing in their continued development helps ensure their skills-readiness for the future and positions them well for movement into apprenticeship programs as well as internal advancement.

Case Study

Internal Formal Education and Training Programs

This case study looks at Target's multifaceted approach to upskilling its frontline workforce

Frontline workers at Target who participate in certain learning programs have been promoted up to three times more than colleagues who have chosen not to participate in those programs.

Additionally, says Kristen Lee, Senior Director of Talent Management, those who do participate report feeling better about their careers and have an impressive 70% lower turnover rate.

Kristen Lee
Senior Director of Talent Management, Target

The need for us to have a stronger internal talent pool to fill some of our biggest jobs became really apparent. It also became apparent that jobs were changing a lot, and we needed to better understand and develop the skills required to perform some roles or how to create non-traditional pathways for employee career growth.

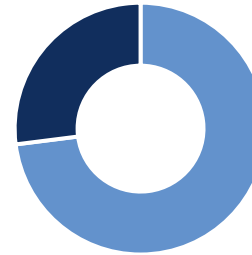Download the full case study *Target Prioritizes Upskilling and Mobility for Frontline Employees* here.

SECTION III:

Tuition Assistance Programs

Key Finding 3

High-performance organizations support workers through counseling and coaching as well as financially in their pursuit of higher education.

These programs are in place at **73%** of respondents' organizations

The **top two goals** for tuition assistance programs are:
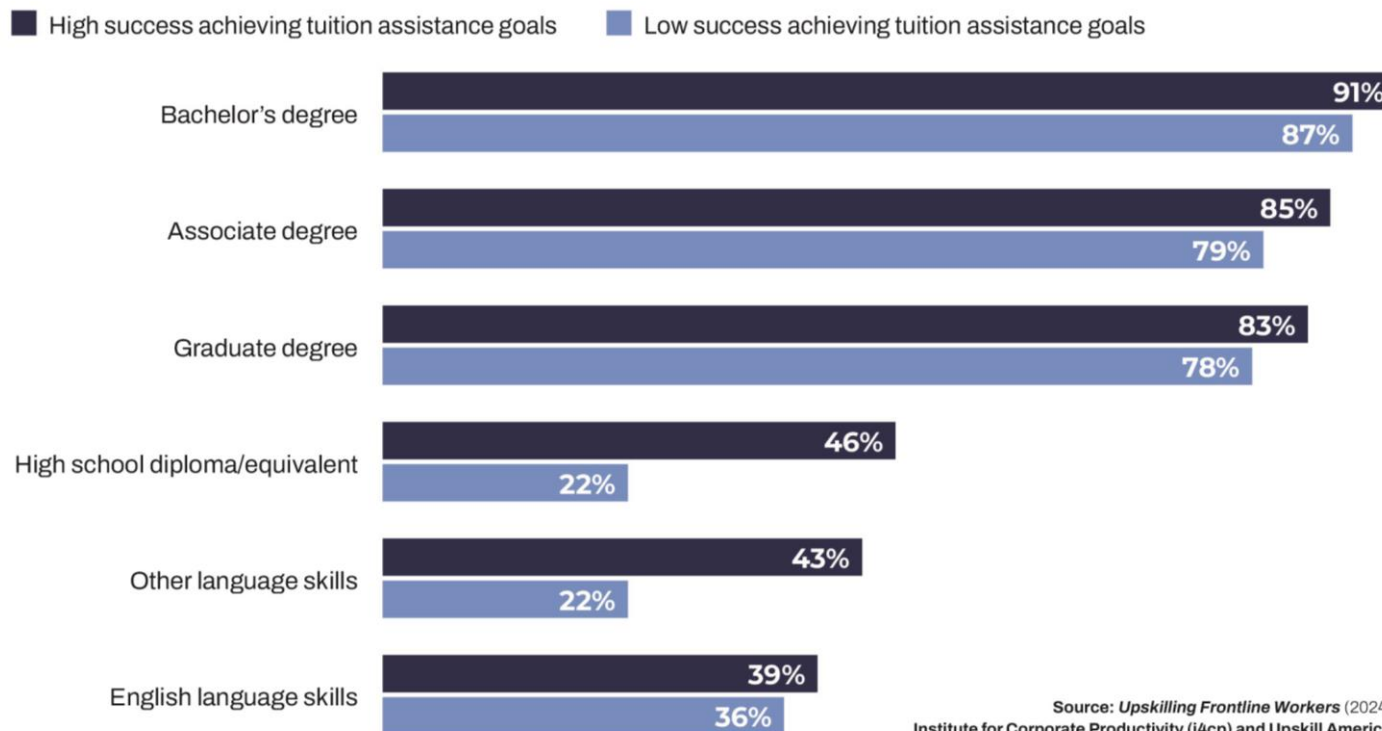
- Improvement of talent retention

- Employee upskilling (skill development for advancement)

Tuition Assistance Programs

Supplying coaching/advisory services to support program selection and success in tuition assistance programs is highly correlated to high performance.

Respondents reporting that their organizations are highly successful at achieving program goals were nearly **3x** more likely (41% vs. 14%) to indicate that their program proactively includes Minority Serving Institutions (Historically Black Colleges and Universities, Hispanic Serving Institutions, etc.)

FIGURE 3 | Programs offered as part of tuition assistance program

- ■ High success achieving tuition assistance goals
- ■ Low success achieving tuition assistance goals

Program	High success	Low success
Bachelor's degree	91%	87%
Associate degree	85%	79%
Graduate degree	83%	78%
High school diploma/equivalent	46%	22%
Other language skills	43%	22%
English language skills	39%	36%

Source: *Upskilling Frontline Workers* (2024), Institute for Corporate Productivity (i4cp) and Upskill America.

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Tuition Assistance Programs

Elements highly correlated to achieving tuition assistance program goals:

Allowing eligible employees to participate from the first day of employment	Supplying coaching/advisory services to support program selection and success
Allowing eligible employees to participate without approval/dispensation from their direct supervisors/managers	Providing direct payment for tuition on workers' behalf rather than providing reimbursement
Dropping GPA/grade requirements which employees must meet to continue enrollment	Eliminating claw back policies improves uptake of programs, especially for hourly workers

Download i4cp's step-by-step guide to evolving from tuition reimbursement to tuition disbursement here.

Case Study

Medtronic

Medtronic's Recredentialing Strategy

Medtronic is a global healthcare technology company that employs >95,000 people, about half employed in the U.S. With a 75-year legacy of innovation in medical devices and technology, Medtronic is also an innovator for talent and people-centered management.

"Our mission is to use technology to alleviate pain, restore health, and extend life. Everybody shares in that mission," said Kristin Erb, Senior Manager for Talent Management.

Where Medtronic stands out among the many organizations implementing recredentialing strategies is in its commitment to supporting employees with high-quality upskilling and career pathways. Their Advancement Pathways and Skill Building (MAPS) program launched in 2021.

"For a long time, we had a traditional tuition reimbursement program and realized we needed a more flexible, affordable option. We established MAPS in response to recredentialing—we needed to provide people with career paths and opportunities to upskill," Erb explained.

Medtronic worked through a "recredentialing process" for roles where a shift to a skills-based approach could be a good fit, while remaining compliant with regulatory requirements. Today, 50% of IT roles at Medtronic, for example, no longer require degrees, and the company has seen diversification in both applications and hiring. In manufacturing, about 25% of roles were recredentialed to remove degree requirements.

Case Study

Medtronic

Medtronic's Recredentialing Strategy

(Continued)

Importantly, MAPS participants are eligible from day one of employment, and all program costs are covered upfront directly by the company. Employees can enroll without specific approval from their manager and can use the program to grow in their current field of work or shift to another area.

Kristin Erb
Senior Manager for Talent Management, Medtronic

Download the entire case here, featured as part of the report *Room for Growth: A Survey of UpSkilling Approaches.*

" *In the first year, we saw a more than 60% increase in participation. As word is getting out, as people are graduating, and as employees are seeing people move up in their careers as a result, we expect to see even more growth. All our feedback says this is a game changer for working adults who can achieve their goals through a flexible and affordable program, and they're starting to believe that it's not too good to be true.* "
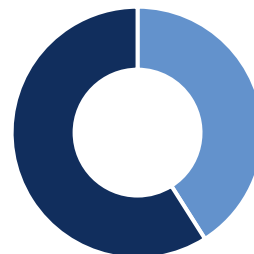
SECTION IV:

Apprenticeship/ Work-and-Learn Programs

Key Finding 4

Successful apprenticeship programs often or always offer advancement to full-time work upon completion.

These programs are in place at **54%** of respondent's organizations

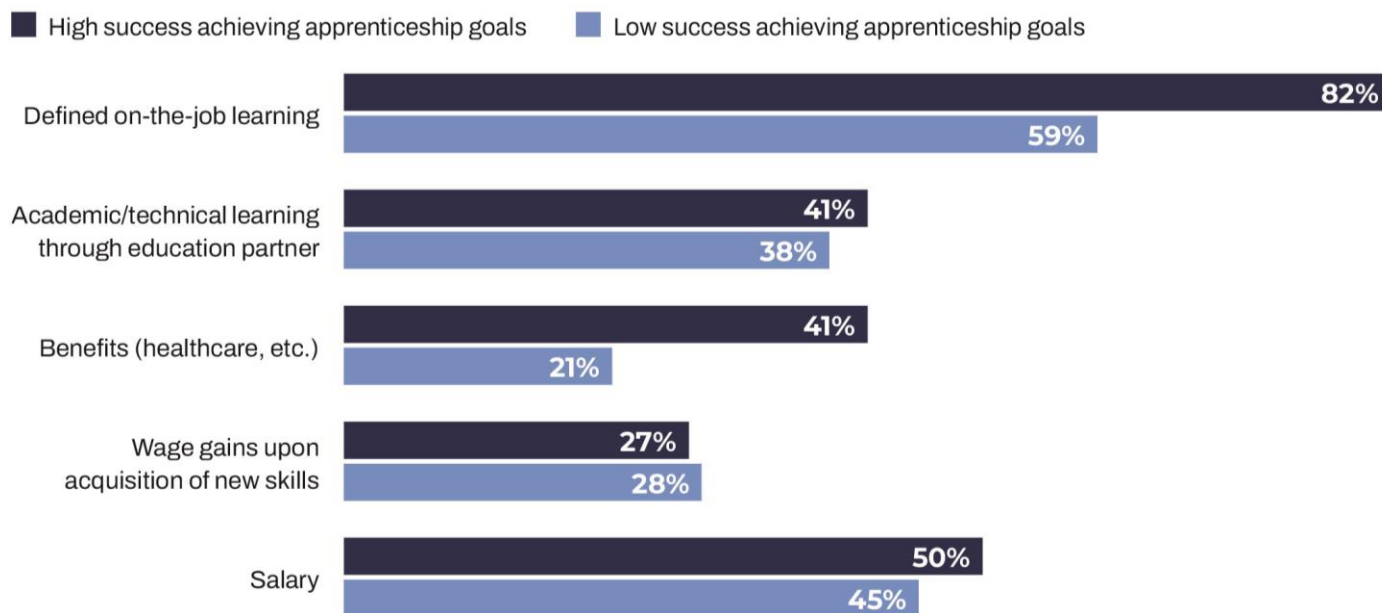The **top three goals** for apprenticeship programs are:

- Employee upskilling (skill development for advancement)

- Improvement and/or diversification of talent pipelines

- Improvement of talent retention

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Apprenticeship/Work-and-Learn Programs

Offering advancement upon completion is a winning strategy:

Survey participants from organizations with successful apprenticeship programs are over **2x** (69% vs. 31%) more likely to report that they often or always offer advancement to full-time employment to individuals who complete the programs.

FIGURE 4 | Apprenticeship program elements provided to participants

■ High success achieving apprenticeship goals   ■ Low success achieving apprenticeship goals

Program element	High success	Low success
Defined on-the-job learning	82%	59%
Academic/technical learning through education partner	41%	38%
Benefits (healthcare, etc.)	41%	21%
Wage gains upon acquisition of new skills	27%	28%
Salary	50%	45%

Data represents those from organizations employing >100 people.

Source: *Upskilling Frontline Workers* (2024), **Institute for Corporate Productivity (i4cp) and Upskill America.**

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Apprenticeship/ Work-and-Learn Programs

Apprenticeships in the U.S. can be registered or unregistered, however this study showed that organizations rating their apprenticeship programs highly successful programs are about **25%** more likely than low-success programs to be registered.

Registered apprenticeship programs are required by the U.S. Department of Labor to include:

Wage progression – As apprentices gain new skills and meet milestones, pay increases accordingly. Apprentices are paid employees who are compensated for their time.
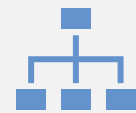
Skilled supervision – Apprentices are supported by experienced mentors and/or supervisors who support on-the-job learning and skill development.

On-the-job learning – Apprentices gain learning, often occupation-specific, through structured activities in a work setting, often meeting specific time or competency demonstration requirements.

Technical/classroom Learning – Apprentices complete academic or technical learning, often delivered by a community college or training provider, focusing on the theoretical, foundational, and other skills required for competency.
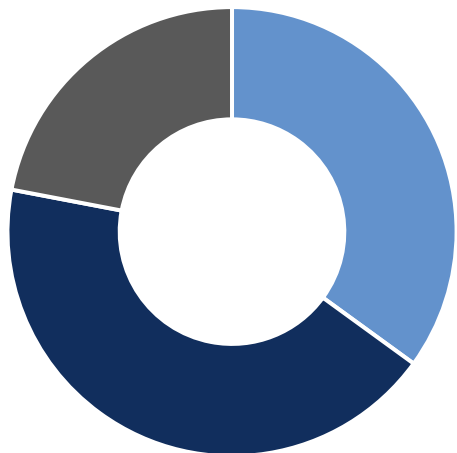
National credential – Upon successful completion of the program, apprentices are awarded a nationally recognized credential.

Source: The Office of Apprenticeship

Apprenticeship/Work-and-Learn Programs

(Continued)

Among U.S.-based respondents to the i4cp survey, approximately one-third report that their organization's apprenticeship programs are registered with the U.S. Department of Labor, while 43% operate nonregistered programs that support employees in similar ways to registered apprenticeships. Another 22% operate both registered and nonregistered apprenticeships.

While challenging to create, registered apprenticeships have been shown to consistently benefit employers and employees, resulting in highly skilled employees and streamlined pathways into good jobs. Even if an apprenticeship isn't registered, adhering to the registration requirements as closely as possible has been shown to deliver more positive results.

Case Study

Apprenticeships and Certificate Programs at Micron

Headquartered in Boise, Idaho, Micron is a major player in the semiconductor industry, employing approximately 44,000 people in 17 countries. Like many technology and manufacturing organizations, Micron's current and future talent pipeline is a priority for the business.

The U.S. needs a workforce trained for jobs in the semiconductor industry at scale; to address this gap, Micron is taking a multi-pronged approach to diversify and sustain its growth into the future. The company is creating non-traditional pathways to employment and career mobility to ensure a robust workforce for the future.

The company is creating non-traditional pathways to employment and career mobility to ensure a robust workforce for the future.

One element of the multi-pronged approach is the use of registered apprenticeships and certification programs. Apprenticeship models are built on an earn-and-learn model that supports individuals entering a new career pathway while earning competitive pay and benefits. Upon completion, individuals will have an industry-recognized journey workers certification.

For many large organizations and communities, apprentices help diversify the talent pipeline and increase access for traditionally underserved populations. Micron is particularly focused on programs that attract talent who typically don't see STEM, especially tech, jobs as accessible to them, including women, veterans, people from rural communities and K-12 students who don't know about semiconductor industry jobs as a potential career path.

Case Study

Micron®

Apprenticeships and Certificate Programs at Micron

(Continued)

Launched in 2023, Micron's programs focus on building talent in geographic areas where the company is expanding. For example, Micron has invested in community colleges in Central New York, including an investment in a cleanroom simulation laboratory at Onondaga Community College, to support hands-on learning for semiconductor-related careers.

Micron is also partnering with post-secondary career services staff to make jobs in semiconductors more attractive and attainable. This includes hiring

Micron is focused on investing in both traditional and non-traditional pathways to support and build the local pipeline for advanced manufacturing.

students from New York as interns to train in actual facilities at their headquarters in Boise and their manufacturing site in Manassas, VA.

Micron's planned state-of-the-art semiconductor manufacturing facilities are expected to create approximately 75,000 domestic jobs over the next 20-plus years. In Idaho, this includes 2,000 Micron jobs, and in New York, this includes 9,000 Micron jobs. To successfully meet these hiring ramps in each state, Micron is focused on investing in both traditional and non-traditional pathways to support and build the local pipeline for advanced manufacturing.

Click here for more information about Micron's registered apprenticeship program.

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Recommendations

1. **Cast a wide net by offering a robust suite of frontline learning opportunities**

   - Prioritizing the development of full- and part-time frontline hourly employees to a high or very high extent is highly correlated to offering of all three types of programs described in this brief.

2. **Include part-time frontline workers in internal development**

   - Prioritizing part-time hourly workers in addition to full-time populations is highly correlated to achieving overall organizational goals for internal education programs.

3. **Lower the hurdles but raise the support for participants in tuition assistance programs**

   - Supplying coaching/advisory services to support program selection and success in tuition assistance programs is highly correlated to high performance; high-performance organizations are 39% more likely (25% vs. 18%) to provide such coaching support.

4. **Offer a path within your company for apprentices**

   - Over **2x** as many respondents from organizations with successful apprenticeship programs report that they often or always offer advancement to full-time work upon completion (69% vs. 31%) .

   - 35% of respondents from high-performance companies report that credentials received by employees for completion of apprenticeship/work-and-learn programs are utilized within the organization in support of talent mobility; zero low-performance respondents said the same.
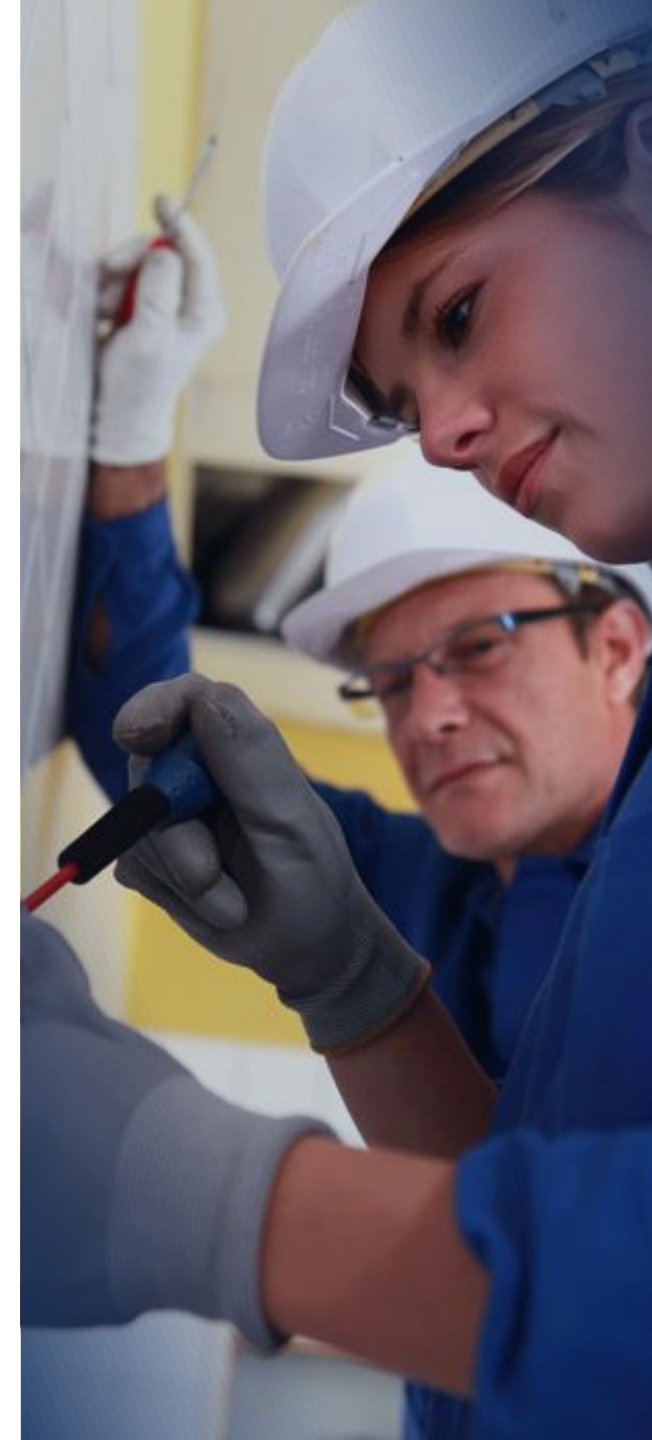
References

- Institute for Corporate Productivity (2024). Employer-Supported Upskilling Programs Survey Results

- Institute for Corporate Productivity (2024). Generative AI in the Corporate Boardroom: Key Takeaways and Recommendation

- Institute for Corporate Productivity (2023). Guidebook: Upskilling and Reskilling

- Institute for Corporate Productivity (2018). Soft Skills Upskilling Planning Guide

- Institute for Corporate Productivity (2022). Verizon's Approach to Strategic Workforce Planning

- Lumina Foundation (2016). Talent Investments Pay Off: Discover Financial Services Case Study

- Micron (2024). Micron's registered apprenticeship program

- PwC (2024). PwC's 27th Annual Global CEO Survey

- Upskill America and i4cp (2024). Room for Growth: A Survey of Upskilling Approaches

- U.S. Department of Labor (2024). What is a Registered Apprenticeship Program?

About the Institute for Corporate Productivity (i4cp)

The Institute for Corporate Productivity (i4cp) is the leading global authority on human capital. We produce more research than any other human capital research firm in the world, and many of the world's most prominent organizations and HR leaders turn to i4cp to better capitalize on HR best practices and emerging workforce trends. Supported by a powerful community of human capital practitioners, we provide HR research and insights that help organizations better anticipate, adapt, and act in a constantly changing business environment. Learn more at i4cp.com.

About UpSkill America

UpSkill America, an initiative of the Aspen Institute Economic Opportunities Program, supports employers and workforce organizations to expand and improve high-quality educational and career advancement opportunities for America's frontline workers. We seek to create a movement of employers, civic organizations, workforce intermediaries, and policymakers working collaboratively to implement education, training, and development strategies that result in better jobs and opportunities for frontline workers, more competitive businesses, and stronger communities. Follow us on LinkedIn and learn more at upskillamerica.org.

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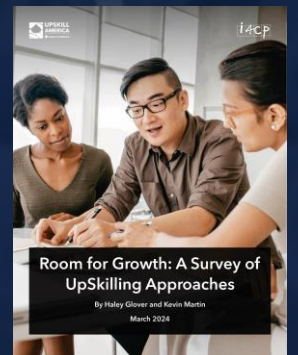
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