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DEVELOPING CLOUD SKILLS WITHIN YOUR WORKFORCE

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The rapid pace of innovation in technology has revealed a need for comprehensive cloud knowledge and skills to fully leverage the cloud solutions and services. Cloud skills enablement programs are essential to ensuring the stability of cloud infrastructure and the satisfaction of employees with cloud responsibilities. Investing in a variety of high-quality skill-building opportunities, along with driving engagement to those offerings, is helping Best-in-Class companies improve their performance in key metrics and effectively work toward their digital transformation goals.

Challenges with Current Skills in the Workforce

The need for cloud solutions has been growing quickly over the years, as adopting them provides many benefits, such as increased business agility, improved flexibility, and reduced costs. By migrating workloads and applications to the cloud, many organizations are facing a new challenge: the need for qualified cloud experts. These experts must know how to work effectively with cloud services and solutions to ensure that new capabilities deliver business value and bottom-line results. It's not enough to hire practitioners versed in deploying and maintaining the stack—you need all your technical teams to be able to develop, deploy, run, and scale virtually any application securely in cloud. In addition, you need a broad set of foundational cloud skills across the organization, enabling teams to communicate effectively and innovate faster.

To ensure employees with cloud responsibilities are trained on the latest skills required to keep cloud solutions running smoothly, companies must invest in cloud skills enablement programs. Aberdeen defines **cloud skills enablement programs** as skills-building opportunities designed to develop cloud knowledge and skills within the IT workforce. **Cloud training and certification** are key components of cloud skills enablement programs, which help increase cloud knowledge and validate skills.

The Aberdeen maturity class framework is comprised of three groups of survey respondents. Classified by their self-reported performance across several key metrics, including employee engagement, productivity, and cloud-based task time, each respondent falls into one of three categories:

Best-in-Class

Top 20% of respondents based on performance

Industry average

Middle 50% of respondents based on performance

Laggard

Bottom 30% of respondents based on performance

Aberdeen Cloud Skills Development Survey August 2020

262 respondents

32 industries

Functions: IT, HR, L&D, Software engineering / Product development

Revenue: \$10 million and up

Headcount: 1,000 and up

Geography: North America, EMEA, APAC

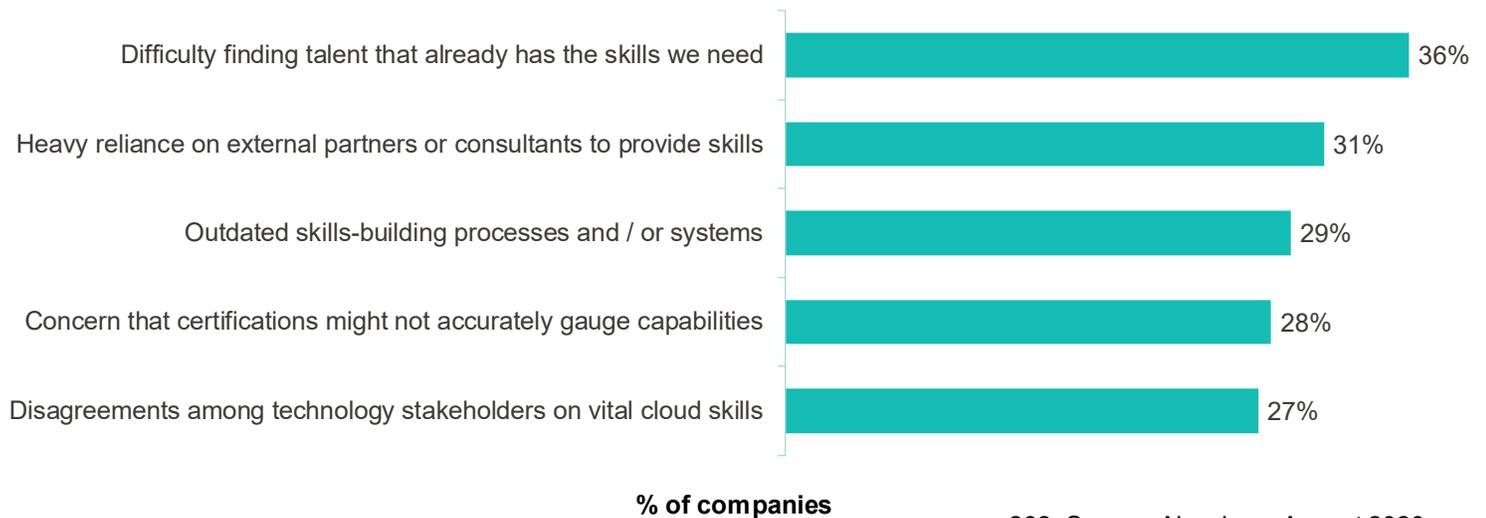
Cloud skills enablement programs are important not only to the success of specific cloud projects, but also to strategic, company-wide, digital transformation goals. Aberdeen’s latest survey on cloud skills development revealed that **95%** of all respondents reported that it is **important or extremely important that the workforce is skilled and knowledgeable with cloud capabilities for successful digital transformation**. This survey was designed with Aberdeen’s P.A.C.E. methodology (see sidebar) to understand the pressures or challenges influencing the demand, acquisition, and development of cloud skills. It also studied the actions or steps companies are taking to invest in cloud skills enablement programs to solve these challenges, and the best practices top performing companies are utilizing throughout their cloud skills development journey to achieve the expected results.

Using the PACE framework, Aberdeen has identified several challenges and choices organizations are facing as they work towards building their employees’ cloud skills. For example, organizations can prioritize investing in programs to train internal talent they already have, considering the resources it takes to hire people with desired cloud skills, to carry out cloud-based tasks, from an expensive and competitive talent pool (Figure 1).

Aberdeen P.A.C.E. Methodology

- **Pressures** – External and internal forces that impact an organization’s market position, competitiveness, or business operations.
- **Actions** – The strategic approaches that an organization takes in response to industry pressures.
- **Capabilities** – The business capabilities required to execute corporate strategy.
- **Enablers** – The key technology solutions required to support the organization’s business practices.

Figure 1: Challenges of Closing Cloud Skills Gaps in Organizations



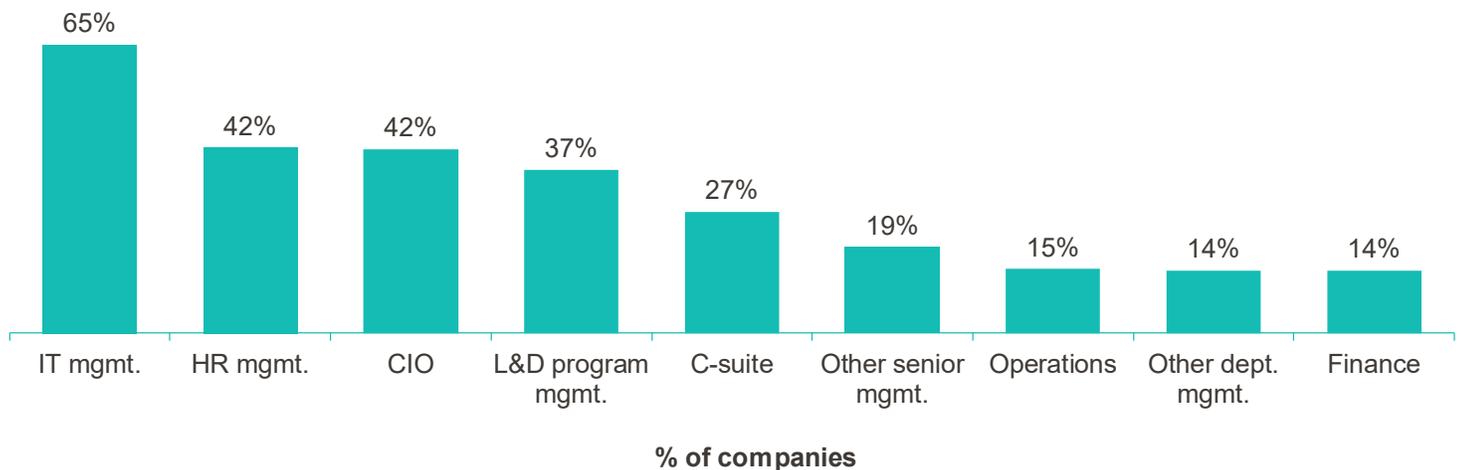
Q: What are the challenges your organization encounters when ensuring you have the necessary cloud skills and knowledge to enable cloud adoption / transformation? (Select all that apply)

To build and expand cloud skills, including foundational cloud knowledge across the organization and deep technical skills within IT teams, businesses should look to invest in comprehensive cloud skills enablement programs. These programs, including internally developed training, third-party training, peer mentoring, role-based career development paths, and certifications, contribute significantly to digital transformation efforts and overall employee engagement. High-quality workforce development programs in collaboration with the right external training partner allow companies to properly invest in their own people and reduce the need to hire already skilled talent.

Profile of Cloud Skills Enablement Program Decision Makers

To start the journey of developing cloud skills, businesses need to identify their decision makers who are accountable for, or invested in, driving digital transformation for their organization. Respondents from Aberdeen’s latest survey reveal that IT management and C-level executives are driving the decision-making process for cloud skills enablement program investments with support from human resources (HR) leaders (Figure 2).

Figure 2: Organization Decision Making for Cloud Skills Enablement Programs



n = 262, Source: Aberdeen, August 2020

Q: Who is (are) the key stakeholder(s) when deciding to plan and implement a new training or certification program for cloud-based skills? (Select all that apply)

IT managers are knowledgeable about the skills required to carry out cloud-based projects and therefore are the ones who can provide the most accurate insight on desired resources. C-level leaders are often invested in digital transformation efforts and are in the position to drive decisions forward.

With IT management and C-level executives working on the “what” and the “why” for program investments, HR and learning and development (L&D) teams provide information on the “how.” HR and L&D personnel help evaluate skills enablement programs and determine which programs have the necessary capabilities to deliver effective employee training. They bring insights into ideal training formats and platforms that promote employee engagement and growth. Finance teams are also involved to help with budget requirements and decisions related to cost.

Decision makers choose to invest in new cloud skills enablement programs for a variety of reasons. The need to attract top talent, keep up with the pace of innovation, and ensure compliance are top drivers motivating stakeholders to invest in cloud training programs (see sidebar).

Supplementing training offerings, decision makers invest in industry recognized IT certifications to boost productivity across IT teams, by engaging employees in workforce development programs. IT Certifications can help to raise agility and create a momentum for digital transformation, as they motivate employees, and help to establish a culture of continuous learning.

Best Practices for Developing Cloud Skills Enablement Programs

As businesses begin to search for cloud skills enablement programs that fit their needs, they must determine their top investment criteria. Aberdeen’s latest survey shows that quality comes before cost when decision-makers are searching for a program partner.

Quality of training content, delivery method, and instructors are all critical pillars upon which savvy businesses base their cloud skills enablement decisions. Decision makers want their employees to learn from experts and gain knowledge using up-to-date resources.

Ranking are based on % of respondents rating each as one of their top two drivers

Top Investment Drivers for Cloud Training

1. Need to improve our employee retention and attract top talent
2. Pressure related to external factors to modify our training opportunities
3. Need for better compliance management capabilities

Top Investment Drivers for IT Certifications

1. Need to improve IT staff productivity
2. Need for skills that lead to faster completion of cloud projects
3. Changing internal culture requires us to build a new set of skills

Figure 3. Top 5 Training Partner Selection Criteria in Cloud Skills Enablement

- 1) **Quality of training materials**
- 2) **Ease of use of training offerings**
- 3) **Quality of training delivery**
- 4) **Cost**
- 5) **Instructor quality and expertise**

Q: Please rank the importance of the following criteria on your decision to select a training partner / vendor (with 1 being the most important and 14 being the least important).

Investigating how Best-in-Class companies are utilizing these criteria to make decisions about cloud skills enablement programs, promoting employee engagement with these programs, and achieving superior results provides a model for other companies to follow. Best-in-Class companies are defined by their excellence in three business metrics that are central to evaluating the effectiveness of cloud skills enablement programs (Table 1).

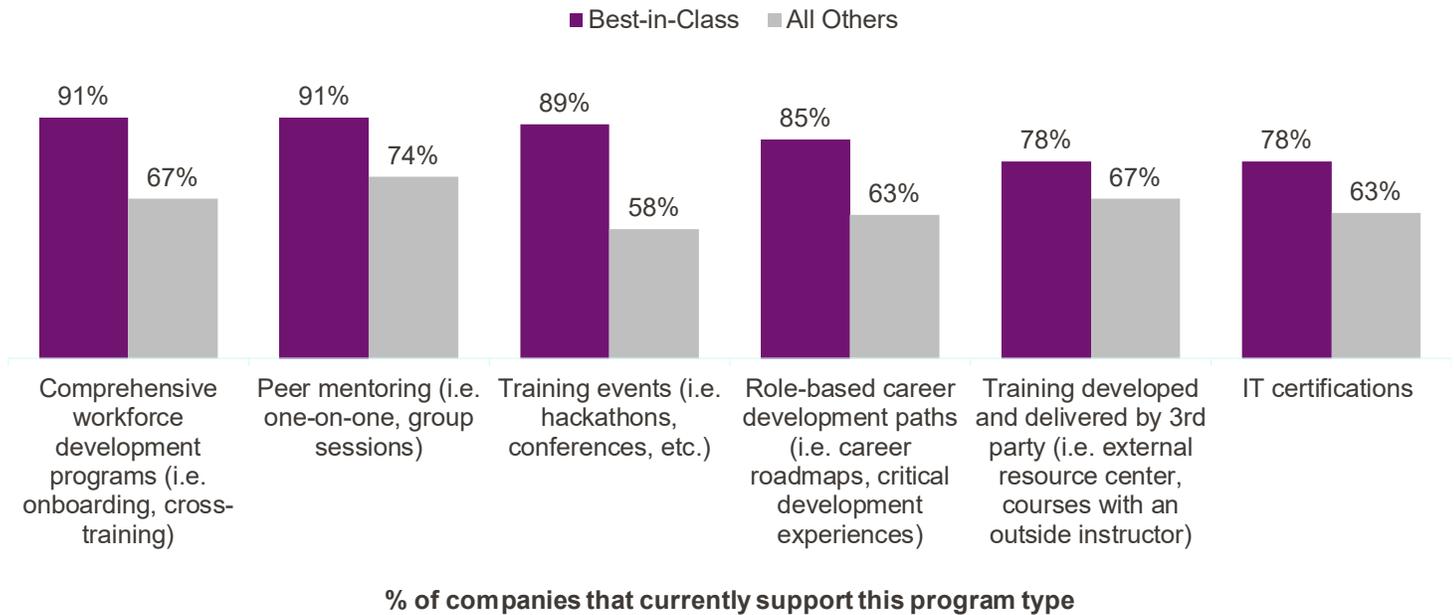
Table 1. Maturity and Effectiveness of Cloud Skills Enablement Programs

Business Metric (weighted averages)	Best-in-Class (top 20%)	All Others (remaining 80%)
Percent improvement in employee engagement rates in cloud skills enablement programs over the past year	+ 27.0%	+ 4.6%
Percent improvement in cloud-based task time , the time it takes to complete cloud-based tasks like app development or support, over the past year (positive percentage indicates a decrease)	+ 28.3%	+ 4.6%
Percent improvement in overall productivity over the past year	+ 24.8%	+ 3.4%

With greater year-over-year improvements in employee engagement, reductions in cloud-based task time, and increases in overall productivity, Best-in-Class companies are better able to embark on their digital transformation journeys.

Best-in-Class companies already consider the top five decision-making criteria in program decisions (figure 3) and use them to identify top partners and make investments in a variety of skills-building opportunities. Other companies can emulate this practice and build plans for investment that match those of the Best-in-Class. Figure 4 shows the types of cloud-skills enablement programs that Best-in-Class companies currently support.

Figure 4: Support for Different Types of Cloud Skills Enablement Programs



n = 262, Source: Aberdeen, August 2020

Q: Which of the following cloud-focused programs does your organization support?

Comprehensive workforce development programs developed in alignment with business objectives are the most common type of cloud skills enablement program for the Best-in-Class organizations. This category includes all training opportunities including onboarding sessions with HR and IT teammates as well as cross-training programs for employees to pick up new skills that are outside their normal scale of operations. Third-party training programs include materials, courses, and platforms distributed and monitored by an external partner. These programs allow for access to a greater depth of knowledge, experience, and expertise. Third-party programs are a quick way to provide employees with the necessary information, and trusted sources can add significant value to existing internal learning mechanisms.

Peer mentoring is one of the most commonly supported program for all organizations and provide individualized assistance for a more personalized and organic skills-building experience. Peer mentors can also provide real-world experiences and help bring to life structured training. All other organizations (excluding Best-in-Class) may gravitate more towards this informal structure for training because they do not have the right systems or processes in place. Top companies, on the other hand, have built maturity in their cloud skills enablement programs and utilize peer mentoring to compliment structured training offerings (91% in Best-in-Class comparing with 74% all others).

Training events and role-based career development paths are on the more resource-intensive side of these skills-building opportunities. These two program types also have the greatest percent differences between Best-in-Class and All Others, which shows that Best-in-Class companies are more willing and able to invest in their staff. Hackathons and conferences provide tangible, communication-rich applied learning experiences, and customized career roadmaps and development programs show that businesses are involved with helping their employees achieve their long-term goals.

Formal third-party training offerings, peer to peer learning, and hand-on labs / project-based work initiatives all need to be in place to build the right set of skills that can be put into action. Best-in-Class companies are investing in a variety of cloud skills enablement program types and are excelling in their cloud skills development achievements. In fact, 95% of Best-in-Class companies currently invest in three or more types of cloud skills enablement programs compared to only 29% of All Others. Internal initiatives need to be supplemented by external industry recognized offerings, and training plans should be complimented with customized motivational plans. To be on top of in-demand skills and achieve digital transformation goals, businesses should follow the example of Best-in-Class companies and diversify their cloud skills enablement program offerings.

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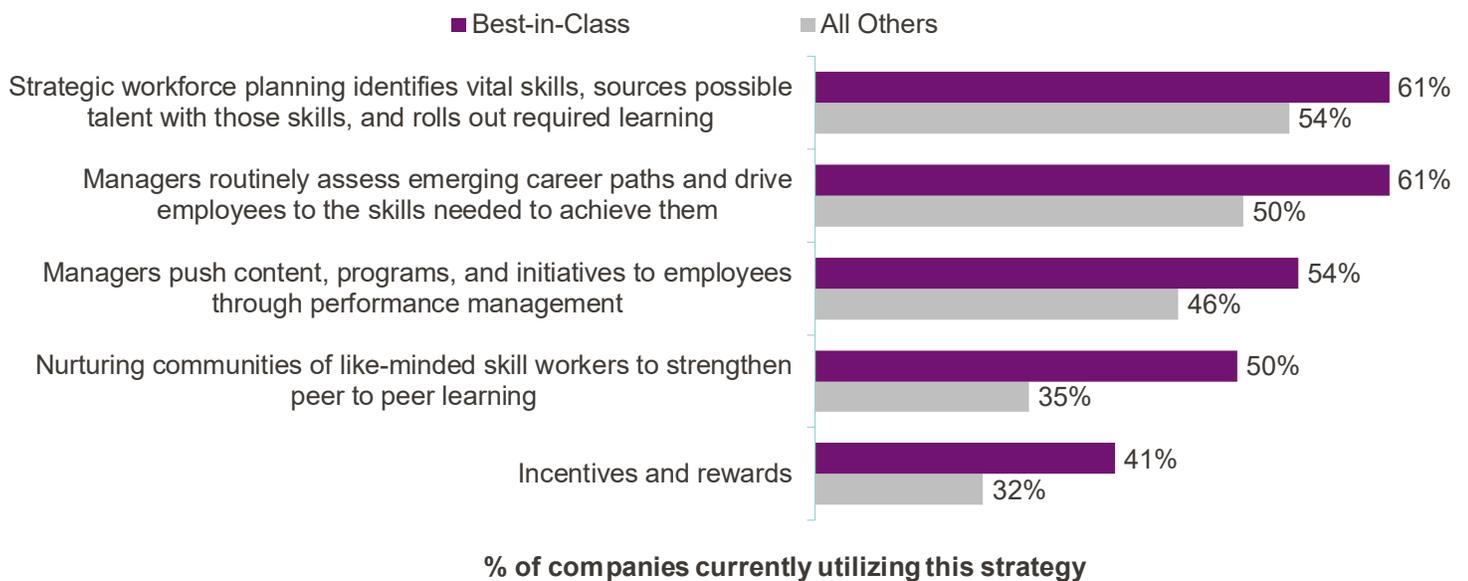
Best Practices for Program Engagement

After developing a skills enablement plan or selecting a training and certification partner, Best-in-Class companies utilize strategic workforce planning and career motivators to drive employee participation (Figure 5).

Best-in-Class companies do more than just provide classes or training materials — they build skills development into their long-term, strategic workforce planning with respect to how they develop their employees. They also nurture communities of like-minded skill workers to enrich learning experiences. These actions can establish a true culture of continuous learning within the organization — instilling a growth mindset in employees, which can lead to improvements in morale and retention, and can motivate employees to progress in their careers.

Regular assessments of career paths and evaluation of the steps required to fill the skills gaps, promote continuous development and learning within the organization. With managers pushing content and encouraging employees to better themselves, Best-in-Class companies are strengthening their workforce as a whole and staying on top of new cloud trends. The more cloud knowledge employees are able to retain, the more productive they can be in their roles.

Figure 5: Methods for Driving Awareness and Engagement around Cloud Skills Enablement Programs



n = 262, Source: Aberdeen, August 2020

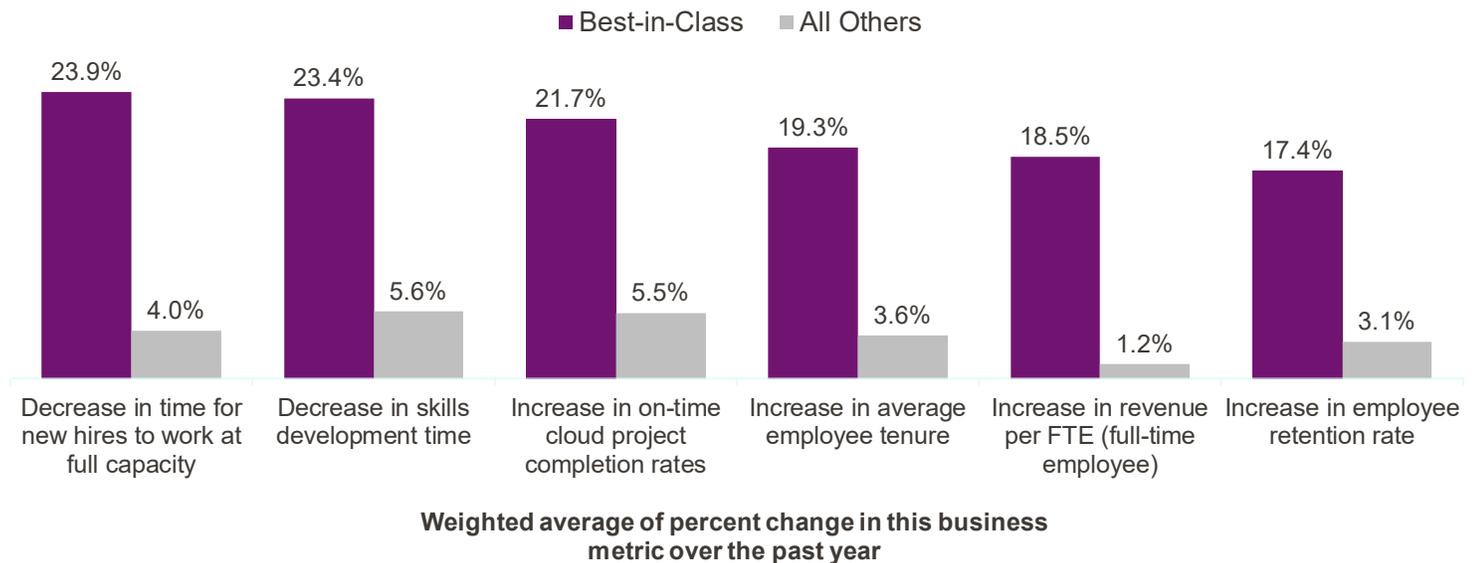
Q: How do you drive employee engagement and awareness around cloud-based skills development? (Select all that apply)

Productivity is a key metric for measuring the effectiveness of cloud skills enablement programs. Best-in-Class companies measure success based on productivity and versatility over performance (see sidebar). In other words, top performing organizations look at business outcomes first as a measure of cloud skills effectiveness. Higher productivity indicates that employees are better equipped to efficiently complete the tasks required of them and complete cloud projects at a faster rate. Greater versatility indicates that employees are better prepared to step into new cloud roles using their newly developed skills, proving how successful these programs are at upskilling the workforce. When employees are more versatile, their talent is better able help them realize new business goals and be more agile in seizing opportunities as they come along. Improvements in these metrics contribute to positive business outcomes.

Impact of Quality Cloud Skills Enablement Programs

Best-in-Class companies are seeing considerable improvements in key metrics that are both directly and indirectly related to the success of cloud skills enablement programs. Figure 6 shows the reported percent decreases in time for new hires to work at full capacity and skill development over the past year as well as percent increases in on-time cloud project completion rates, employee tenure and retention, and revenue per full-time employee (FTE).

Figure 6: Business Results for the Best-in-Class



n = 262, Source: Aberdeen, August 2020

Q: How has your organization's performance in following metrics changed over the past 12 months?

Most Used Metrics in Best-in-Class Organizations for Measuring Cloud Skills Enablement Program Effectiveness

- Staff productivity improvements for key deadline objectives: 78%.
- Overall versatility of the workforce based on skills: 74%
- Number of employees trained in formal trainings: 63%

% of respondents currently using each metric to measure the effectiveness of their cloud skills enablement programs.

Improvements in on-time cloud project completion rates and time for new hires to work at full capacity stem directly from quality skills-building opportunities. Better onboarding processes and access to relevant training resources help new hires get up to speed quickly and help current employees improve their knowledge of the projects at hand. These improvements ultimately affect overall revenue by getting more projects out the door as fast as possible.

Cloud skills enablement programs expand versatility and demonstrate employee appreciation, which affects employee tenure and retention. As IT personnel develop new skills, they may look to step into new roles within the company that invested in their growth rather than transition to another firm. Employee appreciation can translate to greater employee satisfaction and an increased likelihood of loyalty to the company.

These improvements in productivity and efficiency as well as employee retention contribute to overall revenue per full-time employee (FTE) and success of the company. Companies should establish a plan for reaching these Best-in-Class levels of performance by investing in high-quality, comprehensive cloud skills enablement programs.

Conclusion and key take aways

95% of cloud decision-makers participating in Aberdeen's latest survey on cloud skills development believe that it is important or extremely important that the workforce is knowledgeable about cloud and enabled with required skills for successful digital transformation.

Organizations need to develop the cloud skills of the workforce they already have, hire the talent with validated skills they need, and retain top performing employees to achieve the expected cloud business outcomes. A comprehensive cloud skills enablement program that includes industry-led training and certification offerings can help the organizations to transform their workforce as well as their technologies. Best-in-Class companies see the value in cloud skills enablement programs and combine the internally developed workforce development programs (like onboarding and career development initiatives driven by HR and Learning and Development offices) with training offered by cloud technology experts and industry-recognized certifications. These top performing organizations achieve higher employee engagement (27.0%), improved cloud-based task time (28.3%), and increased productivity (24.8%) by investing in cloud skills enablement programs. To achieve the cloud business outcomes, Best-in-Class organizations select the right training partner by prioritizing quality of training materials and delivery as well as ease of use.

Cloud skills enablement programs expand versatility and display employee appreciation, which affect employee tenure and retention.

Top performing organizations prioritize quality, collaboration, and versatility as key criteria when investing in these skills-building opportunities.



Cloud skill enablement programs that the Best-in-Class integrate into their learning and development repertoire help develop a culture of continuous learning within the organization affecting the entire enterprise. When reflecting on the best practices for developing cloud expertise, there are three key ideas to keep in mind:

- **The need to improve productivity and the lack of skills in the available talent pool are driving companies to invest in cloud skills enablement programs.** Cloud skills gaps increase as the shift from traditional paradigm to cloud-based IT accelerates, which requires net-new skill sets. As the talent pool remains small and competitive, companies are investing more in their workforce through a combination of internal talent development processes and third-party training and certification programs.
- **Companies are investing in quality cloud training and certification programs that are built around by performance and skills competency.** Best-in-Class companies are seeking out industry-recognized cloud skills enablement programs that address their business requirements, improve productivity, and prepare their employees for current and future roles. These programs decrease the time for new hires to work at full capacity (23.9%), save time in developing required skills (23.4%), and increase the average employee tenure (19.3%). Quality of training materials, quality of delivery, and quality of instructors are all top criteria that companies look for to select a training or certification offering.
- **Comprehensive cloud skills enablement programs help advance digital transformation efforts and achieve expected business outcomes.** Best-in-Class companies are experiencing far better improvements in key metrics — indicating that their cloud learning and development capabilities are making a difference for their employees, their IT divisions, and their goal to become a more technologically advanced enterprise. Increased on-time cloud project completion rates (21.7%), increase in revenue per full-time employee (18.5%), and improvement in cloud-based task time (28.3%) are some of the metrics that show the effectiveness of a comprehensive cloud skills enablement program in Best-in-Class organizations.

As cloud technology continues to advance and employees are required to keep up with the pace of innovation, cloud skills enablement programs are a must. To develop and deliver these programs, organizations need to choose the right process and partner that fit their unique needs and business objectives. Strong workforce development programs build highly skilled employees that are prepared to take on new responsibilities through the digital transformation and are ready to thrive in the rapidly transforming business environment.

Related Research

Learning and Development (L&D) Drives Up to 7.3x Improvements in Revenue Per FTE; December 2019

Revolutionizing Learning and Development (L&D) to Improve Workforce Value; June 2019

Enterprise Applications and The Cloud: Increasing Agility and Lowering Costs; May 2019

About Aberdeen

Since 1988, Aberdeen has published research that helps businesses worldwide to improve their performance. Our analysts derive fact-based, vendor-neutral insights from a proprietary analytical framework, which identifies Best-in-Class organizations from primary research conducted with industry practitioners. The resulting research content is used by hundreds of thousands of business professionals to drive smarter decision-making and improve business strategies. Aberdeen is headquartered in Waltham, Massachusetts, USA.

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