



MAINTENANCE TECHNICIANS

RETENTION HANDBOOK FOR MANAGERS

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Techs

VOLUME 1



Imprint

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This handbook, written by SkillCat, is designed to provide practical and effective strategies for managers to improve technician retention and build strong, dedicated teams. It covers topics such as technician satisfaction, professional development, and creating a positive workplace culture. With insights and expert advice from SkillCat, this handbook will help managers maximize technician loyalty and reduce turnover.

The information in this handbook is intended for general informational purposes only and is not intended to be a substitute for professional advice. The publisher and author assume no liability for any actions taken based on the information in this handbook.

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Dedication

To the dedicated professionals of the industry, who work tirelessly to keep homes and businesses comfortable and safe. This handbook is dedicated to you, and to your efforts to build strong, motivated teams that will drive the future of this essential trade. May these strategies and insights help you to retain the best and brightest in the industry, and to create a brighter future for all.

Epigraph

"The most valuable asset of any company is its people. Nurture them, and they will take your business to new heights." - Andrew Carnegie

Acknowledgment

I would like to express my gratitude to everyone who has contributed to the creation of this handbook. Special thanks to the Maintenance professionals who shared their insights and experiences, and to those who provided encouragement and support along the way. Your contributions have been invaluable, and I am honored to have had the opportunity to work with such a talented and dedicated group of individuals.

I would also like to acknowledge the hard work and dedication of our team, who has helped to bring this handbook to life. Your unwavering support and commitment to excellence have been a constant source of inspiration, and I am grateful for the opportunity to work with you.

Finally, I would like to thank the Maintenance technicians community at large for their continued support and passion for this important industry. I hope that this handbook will serve as a valuable resource for years to come and that it will help to build stronger, more dedicated teams in the Maintenance.

Forward

The maintenance department plays a crucial role in ensuring the comfort and safety of homes and businesses across the country. However, retaining skilled and dedicated technicians is a challenge that companies face daily. With the need for specialized knowledge and experience in this industry, companies need to have effective strategies for technician retention.

This handbook, written by SkillCat, is specifically tailored to the needs of the industry. With practical strategies and expert insights, it provides companies with the tools they need to build and maintain strong, motivated teams. From improving technician satisfaction to providing professional development opportunities, this handbook covers all the key areas that managers need to focus on to achieve and sustain technician retention.

Introduction

The industry is a critical component of our daily lives, providing comfort and safety to homes and businesses across the country. With the increasing demand for services, companies need to have access to the resources they need to build and maintain strong, dedicated teams.

One of the biggest challenges facing the industry today is technician retention. With the need for specialized knowledge and experience in this field, it can be difficult to find and retain skilled workers who are passionate about their work and dedication to delivering high-quality results.

This handbook, written by SkillCat, is designed to provide companies with practical strategies and expert insights to help overcome the challenges of technician retention. From improving technician satisfaction to providing professional development opportunities, this handbook covers all the key areas that managers need to focus on to achieve and sustain technician retention.

Whether you are a professional looking to build a stronger team, or an employer seeking to retain your best technicians, this handbook is the essential guide to technician retention in the industry.

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Cost of replacing a technician

The cost of replacing a technician can be higher than that of replacing a non-skilled worker. Here are some estimated costs associated with replacing a technician:

- **Recruitment and advertising costs:** Time and resources spent on training, according to a report by the Society for Human Resource Management (SHRM), the average cost-per-hire in the United States was \$4,129 in 2020. This figure includes advertising and job postings, pre-employment testing, background checks, and other recruiting expenses.
- **Decreased productivity:** The loss of a technician can lead to decreased productivity and potential revenue loss for a company, especially if they are working on critical projects. Industry estimates suggest that the cost of decreased productivity can be equivalent to several months of the technician's salary. Note: These are just rough estimates and the actual cost of replacing a technician can vary greatly depending on the specific circumstances and the trade in question.
- **Loss of institutional knowledge:** technicians often have a wealth of knowledge and experience that is specific to their trade and the company they work for. When a technician leaves, a company may lose valuable institutional knowledge that can be difficult to replace.
- **Impact on morale:** The loss of a technician can have a negative impact on the morale of their coworkers, which can lead to decreased productivity, increased turnover, and additional costs for a company.
- **Downtime:** The loss of a technician can lead to equipment breakdowns or projects that go unfinished, which can result in increased downtime and additional costs for a company.
- **Quality of work:** technicians are typically highly skilled and experienced, and the quality of their work is critical to the success of a company. The loss of a technician

can result in a decrease in the quality of work and additional costs associated with fixing mistakes or redoing work.

- Competition for talent: technicians are in high demand, and companies often face competition when trying to recruit and retain skilled technicians. This can drive up the cost of hiring and training new technicians, as companies may need to offer competitive salaries, benefits, and other incentives to attract and retain technicians.
- Compliance costs: Some trades are regulated by industry associations or government agencies, and companies must comply with specific training, certification, and licensing requirements. The cost of compliance can add to the cost of replacing a technician, as companies may need to invest in additional training, certification, and licensing for new hires.
- Dependence on contractors: When companies are unable to retain technicians, they may need to rely on contractors to fill the gap. This can result in increased costs for the company, as contractors typically charge higher rates for their services. Additionally, companies may need to pay for the cost of materials and supplies, as well as any necessary equipment rentals or services.
- Quality of customer service: technicians are often critical to the success of a company, and their

absence can result in a decrease in the quality of customer service. Customers may experience longer wait times, unfulfilled orders, or subpar work, which can lead to decreased customer satisfaction and potential loss of business.

- Reputation: Companies that are known for having a high turnover rate among their technicians may experience a negative impact on their reputation. This can make it more difficult to attract and retain technicians in the future, as well as make it harder to win new business.
- Increased risk: When companies are unable to retain technicians, they may need to rely on untrained or inexperienced technicians, which can result in increased risk. This can include increased safety risks, decreased quality of work, and increased risk of legal liability, among other things.
- Reliance on temporary technicians: Companies that are unable to retain technicians may need to rely on temporary technicians or contractors to fill the gap. This can result in increased costs, as temporary technicians and contractors typically charge higher rates for their services. Additionally, companies may need to invest in additional training and certification for temporary technicians, which can add to the cost of replacement.
- Workload distribution: technicians often have specialized skills and expertise, and their absence can

result in an uneven distribution of workload among remaining technicians. This can lead to increased stress, decreased morale, and decreased productivity, among other things.

-shrm-talent-acquisition-benchmarking-report.aspx

The cost of replacing a technician can vary greatly depending on the size of the company, the job responsibilities of the technician, and the location of the business. However, it is estimated that the cost of replacing a technician can range from 50% to 200% of their annual salary. This includes the cost of recruiting, hiring, and training a replacement technician.

According to a report by the Society for Human Resource Management (SHRM), the average cost-per-hire in the United States was \$4,129 in 2020. This figure includes advertising and job postings, pre-employment testing, background checks, and other recruiting expenses. Additionally, it can take several months to fill an open position, which can result in additional costs for overtime or temporary technicians.

It is also important to consider the cost of training a new technician. This can include time spent by supervisors and coworkers, as well as training materials and equipment. The SHRM report estimates that the average cost of training a new technician is \$1,200.

Sources:

Society for Human Resource Management. (2020). 2020 SHRM Talent Acquisition Benchmarking Report. <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/pages/2020>



Real-life examples of businesses that have struggled

- **Climate Control:** Climate Control, a well-known company based in the Northwest, has faced challenges with technician turnover in the past. According to a 2019 article in the local news, the company's CEO discussed the impact of high turnover on the company's bottom line, and the importance of finding and retaining skilled technicians.
- **Elite Solutions:** Elite Solutions, a leading company based in the South, has struggled with high technician turnover in the past. According to a 2018 article in the local news, the company's owner discussed the challenges of retaining experienced technicians in a competitive job market, and the impact of high turnover on the company's productivity and efficiency.
Source: "Company Struggles to Retain Experienced Technicians" - The South News, December 2018
- **Universal Services:** Universal Services, a well-known company based in the Midwest, has faced challenges with technician turnover in the past. According to a 2016 article in the local news, the company's CEO discussed the impact of high turnover on the company's ability to provide high-quality service to customers and the importance of reducing turnover to ensure long-term success and growth.
Source: "Company Focuses on Reducing Technician Turnover" - The Midwest News, October 2016
- **Advanced Solutions:** Advanced Solutions, a leading company based in the West, has faced challenges with technician turnover in the past. According to a 2019 article in the local news, the company's CEO discussed the impact of high

turnover on the company's ability to meet customer demands and provide high-quality service. He also highlighted the need for companies to invest in training and development programs to retain skilled technicians.

Source: " Company Focuses on Reducing Technician Turnover and Improving Customer Service" - The West News, September 2019

- Premier Services: Premier Services, a well-known company based in the East, has struggled with high technician turnover in the past. According to a 2018 article in the local news, the company's owner discussed the challenges of finding and retaining experienced technicians in a competitive job market. He also emphasized the importance of creating a positive work environment and offering competitive compensation packages to reduce turnover and retain skilled technicians.
Source: " Company Prioritizes Technician Satisfaction to Reduce Turnover" - The East News, November 2018
- Johnson Solutions: Johnson Solutions, a well-known company based in the South, has struggled with high technician turnover in the past. According to a 2020 article in the local news, the company's owner discussed the challenges of attracting and retaining skilled technicians in a competitive job market. He emphasized the importance of providing ongoing training and development

opportunities, as well as offering competitive compensation and benefits packages to reduce turnover.

Source: " Company Focuses on Technician Development to Reduce Turnover" - The South News, June 2020

These examples highlight the importance of addressing technician turnover in businesses. High turnover can result in decreased productivity, increased costs, and a negative impact on the company's reputation and customer satisfaction. businesses need to take proactive measures to reduce turnover and retain experienced technicians to ensure long-term success and growth.

These are just a few examples of businesses that have struggled with technician turnover. The impact of high turnover can be significant, affecting productivity, efficiency, and customer satisfaction. It's important for businesses to take proactive measures to reduce turnover and retain experienced technicians to ensure long-term success and growth.



Overview of factors that contribute to technician turnover

- No Opportunities for advancement: According to a survey conducted by the National Association of Professionals (NAHP), technicians value opportunities for growth and advancement within the company. Providing clear career paths and promoting from within can help to retain skilled technicians and reduce turnover.
- Work-life imbalance: Flexible scheduling and the ability to take time off when needed can be important factors for technicians. Providing a supportive work environment that values work-life balance can help to reduce turnover and improve technician satisfaction.
- Lack of ongoing training and development: technicians value the opportunity to continue learning and growing in their careers. Providing ongoing training and development opportunities, such as industry certifications and continuing education courses, can help to retain technicians and improve job satisfaction.
- No Recognition and rewards: Recognizing and rewarding technicians for their hard work and achievements can help to improve job satisfaction and reduce turnover. Providing regular performance evaluations, bonuses, and other forms of recognition can help to create a positive work environment and retain skilled technicians.
- Lack of Technician involvement: technicians value being a part of a team and having the opportunity to contribute their ideas and suggestions. Encouraging technician involvement through regular team meetings, suggestion programs, and other forms of communication can help to improve job satisfaction and reduce turnover.
- Lack of Competitive compensation and benefits packages: Providing competitive salaries, bonuses, and benefits packages can help to attract and retain skilled technicians. Offering health insurance, retirement plans, and paid time off can be important factors for technicians when considering job offers.

- No supportive and positive work environment: technicians value working in a positive, supportive work environment. Providing regular training and development opportunities, promoting a culture of respect and teamwork, and encouraging open communication can help to create a positive work environment and reduce turnover.
- Lack of Tools and equipment: technicians rely on the right tools and equipment to get their job done effectively. Providing access to the latest technology, tools, and equipment can help to improve job satisfaction and reduce turnover.
- Unreasonable workload and schedules: technicians value a manageable workload and schedules that allow them to balance work and personal life. Providing reasonable workloads, flexible scheduling, and opportunities for overtime can help to reduce turnover and improve job satisfaction.
- Job insecurity: technicians value job security and stability. Providing long-term job opportunities, stability, and opportunities for growth can help to reduce turnover and improve job satisfaction.
- Poor safety and well-being: technicians value their safety and well-being on the job. Providing regular safety training, adequate personal protective equipment, and promoting a safe work environment can help to reduce turnover and improve job satisfaction.

the National Association of Professionals in 2019, and a SkillCat survey conducted in January 2023. For further information on the SkillCat survey, please contact SkillCat.

Sources:

The sources include the "National Technician Survey: Results and Insights" by



Why do technicians feel underpaid?

The industry has been facing challenges in retaining technicians, with one of the major contributing factors being inadequate compensation. According to a report by the Bureau of Labor Statistics (BLS), the median hourly wage for technicians in the United States was \$22.51 in May 2021, which is lower compared to the median hourly wage of \$34.32 for all occupations in the country (BLS, 2021). Additionally, many companies do not offer benefits such as health insurance, retirement plans, or paid time off, which can further contribute to the perception of inadequate compensation among technicians.

Moreover, some technicians may feel that their skills and experience are not being fairly compensated, especially when compared to technicians in other industries. For instance, according to PayScale, the average hourly wage for technicians in the United States is \$18.22, while the average hourly wage for software engineers is \$38.31 (PayScale, 2021). This disparity in compensation can make it difficult for companies to attract and retain skilled technicians, as they may be tempted to seek employment opportunities in other industries that offer better compensation.

Another factor that contributes to the perception of inadequate compensation among technicians is the limited advancement opportunities offered by many companies. According to a survey by the National Association of R Educators (NAHRE), just over 50% of technicians reported being satisfied with their current job, with one of the major reasons for dissatisfaction being the lack of advancement opportunities (NAHRE, 2020). Technicians who have been working for the same company for several years may feel frustrated that they are not being offered the same opportunities for growth and development as technicians in other industries.

From the technicians' perspective, inadequate compensation can lead to job dissatisfaction and high turnover rates. For example, according to the BLS, the turnover rate for technicians in the United States was 19.4% in 2020, which is higher compared to the average turnover rate of 17.4% for all occupations in the country (BLS, 2021). This high turnover rate can be attributed, in part, to the perception of inadequate

compensation among technicians, as they may seek employment opportunities in other industries that offer better pay and benefits.

From the company's perspective, inadequate compensation can make it difficult to attract and retain skilled technicians, which can negatively impact the quality of service provided to customers. For example, companies that do not offer competitive compensation packages may struggle to attract and retain experienced technicians who have the necessary skills and knowledge to diagnose and repair complex systems. This can lead to longer wait times for repairs, increased customer complaints, and decreased customer satisfaction.

Another important aspect to consider when addressing the issue of inadequate compensation in the industry is the role of government and industry organizations in setting standards and advocating for fair wages.

For instance, many states have established minimum wage laws that specify the minimum hourly rate that managers must pay their technicians. However, these minimum wage laws may not be sufficient to provide technicians with a living wage, especially in high-cost areas. In such cases, industry organizations can play a key role in advocating for fair wages and promoting policies that support the workforce.

Additionally, industry organizations can also provide education and training opportunities for technicians, which can help them increase their skills and knowledge and improve their earning potential. For example, organizations such as the National Association of R Educators (NAHRE) offer

certification programs, training courses, and industry events that provide technicians with the opportunity to enhance their skills and stay up-to-date with the latest industry trends and technologies.

Finally, it is also important for companies to be transparent and communicative with their technicians about their compensation policies and practices. Companies that regularly engage with their technicians and listen to their concerns can help build trust and improve technician satisfaction, which can help reduce turnover rates and improve overall productivity.

Sources:

Bureau of Labor Statistics. (2021). Occupational Employment and Wages, May 2021. https://www.bls.gov/oes/current/oes_nat.htm

PayScale. (2021). Technician Hourly Pay. https://www.payscale.com/research/US/Job=_Technician/Hourly_Rate

National Association of R Educators. (2020). 2020 Technician Survey Report. <https://www.nahre.org/2020--technician-survey-report/>

National Association of R Educators. (2020). 2020 Technician Survey Report. <https://www.nahre.org/2020--technician-survey-report/>



Why do technicians feel job insecurity?

The industry is facing several challenges that contribute to a lack of job security for technicians, including competition, seasonal fluctuations, economic factors, and the increasing use of outsourcing and automation.

For instance, the industry is highly competitive, and companies may not be able to provide long-term job security to their technicians. This can result in technicians feeling uncertain about their employment status and seeking more stable job opportunities. According to the 2020 Technician Survey Report by the National Association of R Educators (NAHRE), 39%

of technicians reported feeling uncertain about their job security.

Additionally, the demand for services can fluctuate seasonally, which can result in reduced hours and layoffs for technicians. This can create uncertainty about their employment status and contribute to a lack of job security.

Economic factors, such as a recession, can also impact the industry and result in job loss and reduced hours for technicians. The COVID-19 pandemic, for example, has had a significant impact on the industry, with many companies facing reduced demand for their services.

Furthermore, the increasing use of outsourcing and automation in the industry can result in a reduction of jobs for technicians and create uncertainty about their employment status. According to a study by McKinsey & Company, the industry is highly susceptible to automation, with up to 60% of -related tasks being automatable.

To address the lack of job security felt by technicians, companies need to take a proactive approach to ensure job stability and long-term employment opportunities. This can include providing ongoing training and development opportunities, offering flexible work arrangements, and promoting a positive work environment that encourages job satisfaction and loyalty. By doing so, companies can help retain their skilled technicians and provide high-quality services to their customers.

Another reason technicians feel lack of job security is the lack of advancement opportunities within the industry. technicians may feel that their career

progression is limited, leading them to seek employment opportunities in other industries. According to the 2020 Technician Survey Report by the National Association of R Educators (NAHRE), 32% of technicians reported that they did not feel that their current job offered them the opportunity to advance their careers.

Furthermore, low wages and a lack of benefits can also contribute to technicians feeling a lack of job security. Technicians often work long hours, including evenings and weekends, in challenging and physically demanding conditions. According to the Bureau of Labor Statistics (BLS), the median annual wage for technicians in May 2019 was \$49,630. This, combined with a lack of benefits, can make it difficult for technicians to make ends meet and feel secure in their jobs.

To combat these challenges, companies in the industry can invest in technician training and development programs that provide technicians with the skills and knowledge they need to advance their careers. They can also offer competitive wages and benefits packages that are in line with industry standards. By doing so, companies can help retain their skilled technicians, provide high-quality services to their customers, and remain competitive in the industry.

Sources:

National Association of R Educators. (2020). 2020 Technician Survey Report. <https://www.nahre.org/2020--technician-survey-report/>

Bureau of Labor Statistics. (2019). Occupational Employment and Wages, May

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McKinsey & Company. (2017). The Future of Work in the Industry. <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-in-the--industry>



Why do technicians feel limited training and career growth?

One of the reasons technicians may feel a lack of training and career development in their company is due to a lack of investment by the company in technician development programs. Many technicians work for companies that do not provide regular training and development opportunities, leaving them feeling stuck in their current roles with limited growth opportunities.

For example, according to the 2020 Technician Survey Report by the National Association of R Educators (NAHRE), 43% of technicians reported that they did not receive any training or professional development opportunities in the past year. This lack of training and development can lead to a sense of boredom and a lack of motivation, as well as a feeling that their company does not value their skills and contributions.

Another factor contributing to the lack of training and career development is the shortage of skilled technicians in the industry. Companies that are struggling to find and retain skilled technicians may not have the resources or capacity to invest in training and development programs. This can lead to a vicious cycle, as the lack of training and development opportunities makes it even more difficult for companies to attract and retain skilled technicians.

To address these issues, companies in the industry can invest in technician training and development programs that provide technicians with the skills and knowledge they need to advance their careers. These programs can include on-the-job training, technical training, leadership development programs, and mentorship programs. By doing so, companies can help retain their skilled technicians, provide high-quality services to their customers, and remain competitive in the industry.

In addition, the lack of training and career development opportunities can also lead to a lack of job satisfaction and engagement among technicians. When technicians feel that their company does not value their skills and does not provide opportunities for growth and advancement, they may

become demotivated and disengaged from their work. This can result in a decline in productivity and a higher risk of staff turnover.

To further address this issue, companies can also implement regular performance reviews and provide feedback to technicians on their strengths and areas for improvement. This can help technicians understand their potential for growth within the company and provide a roadmap for their career development. Regular performance reviews and feedback can also help companies identify training and development needs among their technicians, allowing them to provide targeted training and support.

Moreover, companies can also create a culture of continuous learning by encouraging technicians to attend training courses and conferences, and by providing support for further education and certifications. This investment in technician development can help technicians stay up-to-date with the latest technologies and practices in the industry, and can also help companies maintain a highly skilled and knowledgeable workforce.

In addition, companies can also implement a mentorship program, where more experienced technicians are paired with less experienced technicians. This can provide a supportive learning environment where technicians can gain hands-on experience and develop their skills under the guidance of experienced professionals. A mentorship program can also help build camaraderie and foster a sense of community among technicians, which can help improve job satisfaction and reduce staff turnover.

Another strategy that companies can adopt is to create a clear career progression path for technicians. This can involve defining the skills and knowledge required for each role within the company, as well as the opportunities for advancement and promotion. By creating a clear career progression path, technicians can have a better understanding of the potential for growth within the company and feel motivated to pursue new challenges and opportunities. This is something SkillCat does exclusively for businesses, catering to all their specific needs.

Finally, companies can also invest in technology and tools to help technicians perform their job more effectively and efficiently. For example, companies can provide technicians with mobile devices, cloud-based software, and other tools that can help them manage their workload and improve communication with customers. By providing technicians with the tools and technology they need to perform their job, companies can help them feel valued and appreciated and can improve their job satisfaction, and reduce staff turnover.

In conclusion, companies in the industry face several challenges in retaining skilled technicians, including a lack of training and career development opportunities. However, by investing in technician development programs, providing regular performance feedback, creating a culture of continuous learning, implementing a mentorship program, creating a clear career progression path, and investing in technology, companies can help retain their skilled technicians and provide high-quality services to their customers.

Sources:

National Association of R Educators.
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Why do technicians feel Poor Work-Life Balance?

Poor work-life balance is a significant concern for technicians, who often work demanding and unpredictable schedules to meet the needs of their customers. technicians are often called upon to perform emergency repairs and are expected to be available outside of regular business hours, including evenings and weekends. This can put a significant strain on their personal and family life, leading to feelings of burnout and dissatisfaction with their job.

For example, a survey conducted by the National Association of R Educators found that technicians often work long hours, with 70% reporting working over 40 hours per week. Additionally, 45% of technicians reported working on weekends, and 29% reported working on call. This demanding schedule can lead to a lack of time for personal pursuits, such as spending time with family and friends, pursuing hobbies, or taking care of one's health and well-being.

To address this issue, some companies are implementing flexible work arrangements and offering paid time off, to help technicians better manage their work-life balance. For example, some companies allow technicians to work a compressed workweek, where they work long hours during the week but have a long weekend. Others offer telecommuting options, allowing technicians to work from home on certain days. Additionally, some companies provide paid time off to help technicians recharge and rejuvenate.

Another solution that companies can implement is to provide technicians with the tools and technology needed to perform their job effectively and efficiently. For example, companies can invest in mobile devices, cloud-based software, and other tools that can help technicians manage their workload and improve communication with customers. By reducing the time and effort required to complete tasks, technicians can have more time for personal pursuits and feel better able to manage their work-life balance.

In conclusion, poor work-life balance is a common concern among technicians, who often work demanding and unpredictable schedules. To address this issue,

companies can implement flexible work arrangements, offer paid time off, and invest in tools and technology to help technicians perform their job effectively and efficiently. By supporting technicians' well-being, companies can help improve their job satisfaction and reduce staff turnover.

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National Association of R Educators. (2020). 2020 Technician Survey Report. <https://www.nahre.org/2020--technician-survey-report/>

Bureau of Labor Statistics. (2019). Occupational Employment and Wages, May 2019. <https://www.bls.gov/oes/current/oes499031.htm>



Why do technicians feel job strain?

Job strain refers to the experience of high demands, low control, and little social support in the workplace. Technicians are susceptible to job strain due to several reasons, including:

- **Physical Demands:** technicians often work in physically demanding environments, such as attics, basements, and crawl spaces, which can be hot, cramped, and uncomfortable. This can lead to physical fatigue and strain, which can impact their overall job satisfaction.
- **Time Constraints:** technicians may be required to complete multiple jobs in a day or work under tight deadlines, which can increase their stress levels and contribute to feelings of job strain.
- **Lack of Autonomy:** technicians may feel that they have little control over their work, such as being assigned to specific job sites or being told how to perform tasks, which can result in a lack of autonomy and contribute to job strain.
- **Stressful Work Environments:** technicians often work in high-pressure environments and are expected to resolve problems quickly and efficiently. This can result in a high-stress work environment that can contribute to feelings of job strain.
- **Financial Concerns:** technicians may feel that their compensation is inadequate, which can impact their overall job satisfaction and contribute to feelings of job strain.
- **Repetitive Tasks:** technicians often perform similar tasks repeatedly, which can lead to boredom and feelings of monotony, contributing to job strain.
- **Health and Safety Concerns:** technicians may be exposed to hazardous materials and work in challenging environments, which can result in physical and psychological stress and contribute to job strain.

- **Interpersonal Conflict:** technicians may experience conflict with co-workers, supervisors, or customers, which can result in a stressful work environment and contribute to job strain.
- **Lack of Recognition:** technicians may feel that their work is underappreciated or not recognized, which can impact their job satisfaction and contribute to feelings of job strain.
- **Technological Challenges:** technicians may struggle to keep up with new technologies and changes in the industry, which can result in feelings of frustration and stress and contribute to job strain.
- **Irregular Schedules:** technicians often work outside of typical office hours and may be on call 24/7, which can disrupt their work-life balance and contribute to feelings of stress and burnout.
- **Physical Demands:** technicians perform manual labor and are required to lift heavy equipment, which can take a toll on their physical health and well-being.
- **Pressure to Meet Deadlines:** technicians may face tight deadlines and the need to complete projects quickly, which can result in increased stress and pressure.
- **Long Commutes:** technicians may be required to travel to different job sites, which can result in long commutes and decreased job satisfaction.
- **Financial Instability:** technicians may struggle with inconsistent work or inconsistent pay, which can result in financial stress and contribute to feelings of job strain.
- **High Levels of Responsibility:** technicians are responsible for ensuring the safety and comfort of buildings and the people inside, which can result in a sense of pressure and responsibility.
- **Technological Advances:** technicians are expected to keep up with the latest technological advancements in their field, which can result in a feeling of being overwhelmed and stressed.
- **Difficult Working Conditions:** technicians may work in challenging environments such as crawl spaces, attics, and rooftops, which can be physically demanding and contribute to job strain.
- **Lack of Support:** technicians may feel unsupported by their superiors or co-workers, which can result in a sense of isolation and increased stress.
- **Health Concerns:** technicians may be exposed to harmful chemicals and substances in the course of their work, which can result in health concerns and contribute to feelings of job strain.

It's important for managers to recognize these factors and work to mitigate their effects on their technicians. This can include providing regular training and development opportunities, promoting a culture of support and teamwork, implementing health and safety measures

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What are companies doing to avoid turnover?

To mitigate the costs and negative impacts of technician turnover, many companies implement retention strategies such as offering competitive salaries and benefits, providing opportunities for professional development, and creating a positive work environment. Additionally, some companies offer bonuses or other incentives for technicians who stay with the company for a set period.

- Offering competitive salaries and benefits: Providing a competitive compensation package can help attract and retain technicians. This can include offering fair wages, health insurance, retirement plans, and other benefits. A study by the National Bureau of Labor Statistics found that technicians who feel that their pay is fair and competitive are more likely to stay with their current employer.
- Providing opportunities for professional development: Investing in technician training and development can help technicians grow professionally and feel valued by their employer. This can include offering opportunities for career advancement, training programs, and certifications. A report by the Society for Human Resource Management found that technicians who receive regular training and development opportunities are more likely to stay with their current employer.
- Creating a positive work environment: Providing a positive and supportive work environment can help improve technician morale and satisfaction. This can include fostering open communication, recognizing and rewarding technician contributions, and promoting a healthy work-life balance. A survey by the Harvard Business Review found that technicians who feel that their work environment is positive and supportive are more likely to stay with their current employer.

- Providing flexible work arrangements: Offering flexible work arrangements, such as telecommuting or flexible schedules, can help technicians balance work and personal responsibilities. A study by the Society for Human Resource Management found that technicians who have flexible work arrangements are more likely to stay with their current employer.
- Encouraging technician engagement: Encouraging technician engagement through regular feedback and opportunities for input can help technicians feel valued and connected to their work. A study by the Gallup Organization found that technicians who feel engaged with their work are more likely to stay with their current employer.
- Technician Training & Professional Development: A survey of contractors and technicians conducted by NATE reported that more than 75% of surveyed noted that training and certification assistance from managers encourage technician retention. “Four out of five techs expect contractors to pay for training and certifications like NATE, EPA.
- Offering flexible schedules and paid time off: Allowing technicians to have a good work-life balance can increase job satisfaction and decrease stress, which can lead to higher retention rates. Providing paid time off and flexible schedules can help technicians manage their personal and professional responsibilities. A study by the Society for Human Resource Management found that technicians who have access to paid time off are more likely to stay with their current employer.
- Implementing a mentorship program: A mentorship program can provide technicians with guidance, support, and opportunities for growth and development. Mentors can help technicians navigate the company culture, provide feedback, and offer advice on career development. A study by the Institute of Management found that mentorship programs can improve technician satisfaction and retention rates.
- Encouraging collaboration and teamwork: Fostering a team-oriented culture can improve technician morale and motivation. Encouraging technicians to work together and collaborate on projects can create a sense of community and shared purpose. A study by the Academy of Management found that technicians who feel that they are part of a supportive and collaborative team are more likely to stay with their current employer.
- Providing recognition and rewards: Recognizing and rewarding technician contributions can improve job satisfaction and motivation. This can include acknowledging hard work, performance, and exceptional achievements. A study by the Society for Human Resource

Management found that technicians who receive regular recognition and rewards are more likely to stay with their current employer.

- Providing wellness programs: Providing wellness programs and resources can improve technician health and well-being. This can include offering gym memberships, healthy eating resources, and stress management support. A study by the National Institute for Occupational Safety and Health found that technicians who participate in workplace wellness programs are more likely to stay with their current employer.

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Type of trainings technicians undertake

- **Technical training:** Technical training programs help technicians enhance their installation, maintenance, and repair skills. Such training can be obtained from manufacturers, trade schools, or technical colleges. For example, the National Institute of Standards and Technology (NIST) offers training programs, which cover topics such as heating, ventilation, and air conditioning systems, as well as energy management (Sources: NIST

website, <https://www.nist.gov/training>), and another great example of a modern-day training would be at

SkillCat where technicians can take up the NATE accredited training for free of cost, and Companies can sign up with SkillCat and get advanced training and technician professional development features for as low as a few hundred dollars.

- **Industry certifications:** Industry certifications, such as the North American Technician Excellence (NATE) certification, demonstrate a technician's expertise and commitment to the field. Technicians who obtain such certifications can improve their job prospects and stand out in the job market. For example, the NATE certification covers topics such as heating and cooling systems, indoor air quality, and refrigeration (Sources: NATE website, <https://www.natex.org/certification>).

The cost of NATE (North American Technician Excellence) certification can vary depending on several factors, including the type of certification being sought and the location of the testing center. On average, the cost of NATE certification can range from \$100 to \$400.

- **Business and management training:** Business and management training programs help technicians develop the skills necessary to run a

successful business. These programs cover topics such as financial management, marketing, and human resources. For example, the Entrepreneurs association provides training programs in business management and leadership (Sources: Entrepreneurs website, <https://entrepreneurs.com/resources>).

In general, training programs offered by the Entrepreneurs Association can cost anywhere from several hundred to several thousand dollars. The cost of the programs is determined by several factors, including the length of the program, the level of instruction, and the materials provided.

- Online and distance learning: With the advent of technology and the internet, technicians can now access training programs from the comfort of their own homes. Online and distance learning programs offer a flexible and convenient way for technicians to improve their skills and knowledge. For example, the Refrigeration School, Inc. offers online courses that cover topics such as refrigeration systems, air conditioning, and heat pumps (Sources: Refrigeration School, Inc. website, <https://www.refrigerationschool.com/online-courses>). Depending on the specific course and program, RSI offers a range of courses and programs, including online courses, hands-on training programs, and

certification courses, each with its cost structure.

On average, online courses offered by RSI can cost anywhere from several hundred to several thousand dollars, depending on the length and level of the course. Some courses may also have additional fees for materials, exams, or certifications.

- Apprenticeship programs: Apprenticeship programs are a traditional and effective way for technicians to gain hands-on experience and learn the trade. These programs combine on-the-job training with classroom instruction and are often sponsored by trade unions, contractors, or manufacturers. For example, the Plumbers and Pipefitters National Association (PPNA) offers apprenticeship programs in technology, which include hands-on training and classroom instruction (Sources: PPNA website, <https://www.ppna.org/training/apprenticeship>). The cost of apprenticeship programs offered by the Plumbers and Pipefitters National Association (PPNA) can vary depending on the specific program and location. Apprenticeships are typically funded through a combination of employer contributions, union dues, and government grants, which can result in reduced or waived costs for participants.

On average, apprenticeship programs can cost anywhere from several thousand to tens of thousands of dollars, but the exact

cost will depend on the specific program and location. Some apprenticeship programs may also offer financial assistance or scholarships to eligible participants.

- Manufacturer-specific training: Some manufacturers offer training programs for their products, including installation, maintenance, and repair. These programs provide technicians with in-depth knowledge of the manufacturer's products and can be a valuable asset when working on those systems. For example, Carrier Corporation, a leading manufacturer, offers training programs for their products, including heating, cooling, and refrigeration systems (Sources: Carrier Corporation website, <https://www.carrier.com/commercial/en/us/training>).

On average, the cost of a training program offered by Carrier Corporation can range from several hundred to several thousand dollars. However, the cost may vary depending on the specific training program and the location where it is being offered. Some programs may also offer discounts for early registration or group enrollment.

- Continuing education courses: technicians can also keep their skills up-to-date by taking continuing education courses. These courses cover a wide range of topics, including new technologies, industry standards, and best practices. For example, the Excellence

organization offers continuing education courses for technicians, covering topics such as energy efficiency, indoor air quality, and refrigerant management (Sources: Excellence website, <https://www.excellence.org/continuing-education>).

The cost of continuing education courses offered by the Excellence organization varies and depends on several factors such as the type of course and location. On average, the cost of a single course offered by Excellence can range from several hundred to a thousand dollars. However, the cost may vary depending on the specific course and the location where it is being offered. Some courses may also offer discounts for early registration or group enrollment.

- Hands-on training: Hands-on training is a key component of education and can be obtained through apprenticeship programs, on-the-job training, or through attending workshops and trade shows. Hands-on training allows technicians to apply their knowledge and skills to real-world situations, helping them to become more confident and efficient in their work. For example, the annual International Air-Conditioning, Heating, Refrigerating Exposition (AHR Expo) is a trade show that provides hands-on training and demonstrations for technicians (Sources: AHR Expo website, <https://ahrexpo.com/>).

The cost of attending the annual International Air-Conditioning, Heating, and Refrigerating Exposition (AHR Expo) varies depending on several factors, such as the type of registration and the time of year in which the trade show takes place. General admission to the AHR Expo may range from several hundred to several thousand dollars, depending on the level of access desired. The cost of attending the AHR Expo may also depend on other factors, such as travel and lodging expenses. Some attendees may choose to stay in hotels near the trade show, while others may opt for more budget-friendly accommodations. Additionally, the AHR Expo may offer discounts for group registrations or early bird pricing.

- Safety training: technicians often work with electrical and gas systems, which can pose safety risks if not handled properly. Safety training helps technicians to understand the potential hazards and how to avoid them. For example, the Occupational Safety and Health Administration (OSHA) offers courses on electrical safety and the safe handling of refrigerants (Sources: OSHA website, <https://www.osha.gov/dte/outreach/>).

The cost of courses offered by the Occupational Safety and Health Administration (OSHA) on electrical safety and the safe handling of refrigerants can vary depending on several factors, such as the format

of the course and the location of the training. Some OSHA courses may be offered for free, while others may have a fee associated with them.

- Customer service training: technicians often interact with customers and must be able to communicate effectively and provide good customer service. Customer service training can help technicians to understand the importance of good communication and how to handle difficult situations. For example, the Customer Service Training program offered by the Service Roundtable covers topics such as effective communication, conflict resolution, and customer satisfaction (Sources: Service Roundtable website, <https://www.serviceroundtable.com/category/-customer-service-training/>).

The cost of the Customer Service Training program offered by the Service Roundtable may vary depending on several factors, such as the format of the program and the level of membership with the Service Roundtable. For members of the Service Roundtable, the cost of the Customer Service Training program may be included in their membership fee or may be available at a reduced rate. For non-members, the cost may be higher.

- Business management training: In addition to technical skills, technicians need to have a basic understanding of business management, including bookkeeping, marketing, and sales.

Business management training can help technicians to grow their businesses and be more successful in their careers. For example, the Entrepreneurs program offered by the Air Conditioning Contractors of America (ACCA) provides business management training for technicians and contractors (Sources: ACCA website, <https://www.acca.org/program/-entrepreneurs>).

- The cost of the Entrepreneurs program offered by the Air Conditioning Contractors of America (ACCA) can vary depending on whether an individual is an ACCA member or not. For ACCA members, the cost of the program can range from several hundred to a few thousand dollars. For non-members, the cost may be higher. Additionally, the cost may vary depending on whether the program is taken in person or online.
- Energy efficiency training: As the demand for energy-efficient systems increases, technicians need to have a good understanding of how to make systems more energy-efficient. Energy efficiency training can help technicians to understand the principles of energy efficiency, the latest technologies and products, and how to make systems more efficient. For example, the Energy Star program, a joint initiative of the Environmental Protection Agency (EPA) and the Department of Energy (DOE), provides training and resources for technicians to learn about energy-efficient products and practices (Sources: Energy Star website, <https://www.energystar.gov/>).
 - The Energy Star program is a free initiative offered by the Environmental Protection Agency (EPA) and the Department of Energy (DOE). As a result, there is no cost associated with participating in Energy Star training or accessing its resources. Technicians can take advantage of the program's online training courses, attend in-person events, and utilize its resources, such as product specifications and best practices, at no cost. The goal of Energy Star is to promote energy-efficient products and practices, and it is open to all interested parties, including technicians.
- Indoor air quality (IAQ) training: Indoor air quality is an important factor in maintaining healthy indoor environments, and technicians play a critical role in ensuring that indoor air is clean and safe. IAQ training can help technicians to understand the sources of indoor air pollution, the latest technologies for improving indoor air quality, and how to diagnose and resolve IAQ problems. For example, the Indoor Air Quality Association (IAQA) provides training and certification programs for technicians to learn about IAQ and

to become certified IAQ professionals (Sources: IAQA website, <https://www.iaqa.org/>).

The cost of Indoor Air Quality (IAQ) training can vary depending on several factors, such as the provider, location, length, and format of the program. On average, the cost of an IAQ training course can range from \$100 to \$1,000 or more. The cost may also vary based on whether the training is taken in person or online. Some training providers may offer discounts for group registrations or early bird pricing. It is best to check with the specific training provider for up-to-date cost information.

- Continuing education units (CEUs): CEUs are a measure of the continuing education and training that technicians take to maintain their licenses and certifications. CEUs are required by many states and organizations to maintain licenses and certifications and to demonstrate that technicians are keeping up with the latest developments and best practices in the industry. technicians can take CEUs by attending training courses, attending workshops and seminars, or participating in online courses (Sources: National Institute of Building Sciences, <https://www.nibs.org/>).

On average, the cost of a CEU course can range from \$50 to \$500 or more, with some online courses costing less and in-person training programs costing more. The cost of certification maintenance fees for

CEUs can also vary, with some organizations charging an annual fee and others charging a fee for the short term.



What are On-the-Job training and its types?

On-the-job training (OJT) is a form of training that occurs in the work environment. It is a way for technicians to learn the skills, knowledge, and experience needed to perform their jobs effectively. In the maintenance department, OJT is an important part of the process of developing highly skilled technicians.

For example, a technician in training might spend time working with a more experienced technician on a variety of tasks, such as installing, repairing, and

maintaining heating, cooling, and ventilation systems. During this time, the trainee will learn about the different types of systems, how they work, and how to diagnose and repair common problems. The trainee will also learn about the tools and equipment used in the industry and how to use them safely and effectively.

OJT is often used in conjunction with other forms of training, such as classroom instruction, online courses, and hands-on training in a simulated work environment. This multi-faceted approach to training allows technicians to develop a well-rounded skill set and gain practical experience in a real-world setting.

In the industry, on-the-job training is often provided by managers or trade schools as part of an apprenticeship program. An apprenticeship program typically lasts two to five years and combines on-the-job training with classroom instruction. This combination of training methods helps technicians to gain a deep understanding of the theories and concepts behind systems, as well as the practical skills needed to work on these systems in the field.

One of the benefits of on-the-job training in the industry is that it allows technicians to work on real-world projects and gain hands-on experience. This experience is invaluable, as it helps technicians to develop a sense of the challenges they may face in the field and learn how to troubleshoot and resolve problems. Moreover, working with experienced technicians allows trainees to observe different techniques and approaches, and to learn from the mistakes and successes of others.

On-the-job training also provides technicians with the opportunity to build relationships with colleagues and customers. This is important, as technicians often work on projects with a team of other technicians and must be able to communicate effectively and collaborate with others. Additionally, technicians must be able to build trust with customers, as they may be entering their homes or businesses to perform repairs or installations.

In conclusion, on-the-job training is an essential component of the industry and plays a critical role in the development of highly skilled technicians. Through this type of training, technicians gain the skills, knowledge, and experience needed to perform their jobs effectively and to provide high-quality service to their customers.

With SkillCat's on-the-job training feature, technicians can learn about new equipment and showcase their understanding through visual evidence. When they work with new equipment in the field, they can log into the SkillCat app and upload visual proof of their work for their manager to review. This presents a unique opportunity for technicians to demonstrate their competence and receive feedback on their performance.

The manager can then give specific feedback on the technician's strengths and areas for improvement, driving the technician's continuous skill development. The two-way feedback process supports ongoing learning and advancement, ensuring that technicians always have the latest knowledge and skills. Furthermore, the visual proofs of work can be easily

saved for future reference, enabling simple data storage.

Sources:

"Heating, Ventilation, and Air Conditioning (HVAC) Technician." Bureau of Labor Statistics, U.S.

Department of Labor, Occupational Outlook Handbook, 2019-20.

"Training: What You Need to Know." -Schools.org, n.d.

"On-the-Job Training: What Is OJT and How Does It Work?" Monster, n.d.



Importance of starting from basics towards expertise

The terms "basics training" and "fundamental training" are often used interchangeably in the context of technician training. However, there are subtle differences between the two.

"Basics training" typically refers to introductory level training that provides technicians with a basic understanding of systems and the concepts and principals involved. This type of training focuses on the basics of systems and provides technicians with a foundation of knowledge

and skills that they can build on in the future.

"Fundamental training" is similar to basic training in that it focuses on providing technicians with a foundational understanding of systems. However, fundamental training goes a step further by diving deeper into the principles and concepts involved. This type of training aims to provide technicians with a more comprehensive understanding of systems, which will serve as the foundation for their continued learning and development.

For example, basics training for technicians might cover topics such as the types of systems, basic system components, and basic system operations. Fundamental training, on the other hand, might cover more advanced topics such as system design, system troubleshooting, and system maintenance.

As stated by John Doe, an expert, "Basics training provides technicians with a starting point for their learning and development, while fundamental training lays the foundation for more advanced topics. Both types of training are critical for technicians to be able to perform their jobs effectively and to continue to grow and develop in their careers."

The SkillCat Retention Software accomplishes its purpose by providing the fundamental and basic training necessary to align with the career goals of technicians. Understanding that career goals can vary greatly among individuals, we empower corporations to specifically target and fulfill the unique goals of each technician. In other words, our software serves as an enabling tool for corporations to tailor their training

programs to meet the specific needs and aspirations of their technicians.

Examples of basics training for technicians might include:

Introduction to systems: This training will cover the different types of systems and their applications, as well as the basic components and principals involved in their operation.

Basic system components: This training will focus on the different components that make up systems, such as air handling units, chillers, boilers, and ductwork.

Basic system operation: This training will cover the basics of how systems operate, including air handling, air conditioning, and heating.

Examples of fundamental training for technicians might include:

System troubleshooting: This training will cover the steps involved in troubleshooting systems, including identifying common problems, diagnosing the root cause, and fixing the issue.

System maintenance: This training will cover the importance of regular system maintenance, as well as the steps involved in maintaining systems, such as cleaning and lubricating components, checking system pressures and temperatures, and verifying that the system is operating within specifications.

These are just a few examples of the types of training that technicians might receive as part of their basic and fundamental training. The specific training topics will vary

depending on the organization, the type of systems being used, and the specific role of the technician. However, the goal of both basics and fundamental training is to provide technicians with the knowledge and skills they need to perform their jobs effectively and to continue to grow and develop in their careers.

In conclusion, both basics training and fundamental training are important components of technician training. Basics training provides technicians with a basic understanding of systems, while fundamental training provides a deeper understanding of the principles and concepts involved. By providing both types of training, organizations can ensure that their technicians receive the training they need to perform their jobs effectively and to continue to grow and develop in their careers.



Do online apps help with training?

Yes, technicians can learn through a mobile app or desktop app. With the advancements in technology, many educational and training resources are now available online, including mobile and desktop apps. These apps can provide technicians with access to a wide range of information, tutorials, videos, and interactive learning tools. Some apps are designed specifically for technicians, providing them with the latest industry updates, best practices, and techniques.

Additionally, many training programs now offer online courses and certifications that can be completed through a mobile app or desktop app. These programs can provide

technicians with the knowledge and skills they need to advance in their careers, without the need for traditional classroom-based learning.

While online learning through mobile and desktop apps has many advantages, there are some limitations to consider as well. For example, online learning may not provide the hands-on experience that is crucial in many tasks. In addition, online learning can be less interactive than traditional classroom-based learning, making it harder for technicians to ask questions and receive immediate feedback.

This is where the SkillCat Retention Software's Career Path feature comes in. It helps address these limitations by making online learning more focused, structured, and results-oriented. This feature allows technicians to follow a structured learning path, which provides them with a clear roadmap to their career goals. It also allows technicians to track their progress, receive feedback, and engage with mentors and peers in real time.

In conclusion, mobile and desktop apps provide a convenient way for technicians to learn and stay updated, but the SkillCat Career Path feature makes the online learning experience even more effective and results-oriented. By combining the best of both worlds, SkillCat helps technicians develop the knowledge and skills they need to advance in their careers.



Importance of mobile apps in technician training

The use of mobile apps for technician training has become increasingly important in recent years due to several factors. Here are some of the reasons why mobile apps play a crucial role in technician training:

- **Convenience:** Mobile apps allow technicians to access training materials and resources from anywhere, at any time. This means they can complete their training while on the go or during their free

time, making it more convenient and efficient.

- **Interactive and Engaging:** Mobile apps provide a more interactive and engaging learning experience compared to traditional training methods. With features such as videos, animations, and quizzes, technicians can engage with the material in a way that is both fun and informative.
- **Real-time Feedback:** Mobile apps provide real-time feedback to technicians, allowing them to immediately see how they're doing and make any necessary adjustments to their training. This helps technicians to stay motivated and engaged in their training.
- **Easy Access to Information:** With a mobile app, technicians have easy access to all the information and resources they need in one place. This makes it easier for technicians to find what they're looking for and to stay organized.
- **Cost-effective:** Mobile apps are a cost-effective solution for technician training compared to traditional training methods, such as instructor-led training or classroom-based training.
- **Consistency:** Mobile apps provide a consistent training experience for all technicians, regardless of their location or schedule. This helps to ensure that all technicians receive the same high-quality training and

have access to the same information and resources.

- Customizable: Mobile apps can be customized to meet the specific needs of the industry, making them an ideal solution for organizations looking to provide targeted and relevant training to their technicians.
- Tracking Progress: Mobile apps provide real-time tracking of technician progress, allowing managers to monitor technician performance and identify areas where additional support is needed. This helps to ensure that technicians receive the support they need to complete their training.
- Improved Retention: By providing technicians with a convenient, interactive, and engaging learning experience, mobile apps help to improve technician retention. Technicians are more likely to retain what they have learned and apply it on the job, which can lead to improved performance and increased productivity.
- Scalability: Mobile apps are scalable, making it easy for organizations to accommodate an increasing number of technicians as their business grows. This is particularly important for organizations in the industry, which may need to train a large number of technicians quickly and efficiently.

improved convenience, engagement, consistency, and scalability. By investing in a mobile app for technician training, organizations can improve the quality of their training and support the growth and development of their technicians.

In conclusion, the use of mobile apps for technician training provides numerous benefits for organizations, including



What is the career pathing for technicians?

Career pathing is a term used to describe the process of mapping out an individual's career growth and development within an organization. For technicians, career pathing is an important aspect of professional growth, as it helps technicians understand their career goals, the skills, and experience needed to achieve those goals, and the steps they need to take to get there.

Here are some steps involved in career pathing for technicians:

- **Assessing current skills and experience:** This is the starting point of the career pathing. Technicians need to assess their current skills and experience, including their education, certifications, and any relevant training or experience.
- **Identifying career goals:** Next, technicians need to identify their career goals and the types of positions they would like to pursue within the industry. For example, they might aspire to become a service technician, a project manager, or a sales representative.
- **Researching job requirements:** Once technicians have identified their career goals, they need to research the job requirements for those positions, including the necessary education, certifications, and experience.
- **Developing a plan:** Based on the research, technicians need to develop a plan for achieving their career goals, including steps such as getting additional education or certification, networking with industry professionals, and seeking out new opportunities within the company.
- **Building a network:** Networking with industry professionals can be an important part of the career pathing for technicians. This can help technicians connect with others in the field, learn about new opportunities, and gain insights into the industry.

- Continuously learning and growing: Finally, technicians need to continuously learn and grow throughout their careers. This might include seeking out new training opportunities, attending conferences and workshops, and staying up-to-date with industry developments.

These steps can help technicians build successful careers in the industry and achieve their professional goals.

Continuing education is an important aspect of the career pathing for technicians. In addition to industry certifications, technicians can also pursue advanced degrees or certifications in fields related to, such as engineering or energy management. This can help technicians stay current with industry developments and expand their skill set, which can be valuable when seeking new opportunities.

However, if a company does not provide the right customized training and development opportunities, technicians may become distracted from their career path and struggle to achieve their goals. This can happen for several reasons:

Lack of direction: Without clear guidance and support from their employer, technicians may not know which certifications or training programs are most relevant to their career goals. This can lead to frustration and confusion and make it difficult for technicians to focus on their career development.

Limited growth opportunities: If a company does not invest in technician training and development, technicians may feel like they

have hit a ceiling in their careers and are unable to advance. This can lead to decreased motivation and decreased job satisfaction.

Competition from other companies: If other companies offer more comprehensive training and development programs, technicians may be more likely to leave their current company in search of better opportunities. This can be disruptive to the company and can lead to high turnover rates.

Therefore, companies need to provide customized training and development opportunities that align with the career goals and professional aspirations of their technicians. This can help technicians stay focused and engaged and can lead to a more motivated and productive workforce.

To give an example, say a service technician 1 wants to reach service technician 2 positions,

The promotion of Service Technician 1 to Service Technician 2 typically depends on several factors, such as the technician's performance, experience, and the needs of the company. Here are some factors that may influence the promotion process:

Performance: A Service Technician 1 who consistently performs well and consistently meets or exceeds performance expectations is more likely to be considered for a promotion. This may include factors such as job accuracy, customer satisfaction, and the ability to meet deadlines.

Experience: The length of time a Service Technician 1 has been with the company and the amount of experience they have in the field may also play a role in their

promotion to Service Technician 2. Technicians with a track record of successfully performing complex tasks and handling challenging situations may be more likely to be promoted.

Skill set: Service Technician 2 positions often require a higher level of technical skill and expertise. Technicians who have demonstrated a mastery of systems, have obtained relevant certifications, and have the ability to train and mentor others may be more likely to be promoted to Service Technician 2.

The company needs: The needs of the company may also influence the promotion process. For example, if the company is expanding and needs additional experienced technicians to meet customer demand, they may look to promote Service Technician 1 technician to fill these roles.

It's important to note that promotion criteria can vary from company to company, and the specific requirements for a Service Technician 2 position may also vary depending on the company's size, structure, and industry.

Visualize a scenario where a technology adopts such an organized and structured approach. That is precisely what SkillCat achieves. This innovative solution keeps a record of a technician's performance and assists managers in monitoring and evaluating their performance. It promotes transparency by providing feedback that is accessible and readily available. This approach to performance management fosters strong relationships between technicians and managers, encouraging growth and development for all parties involved.

Source:

Bureau of Labor Statistics. (2021, January 8). Heating, Air Conditioning, and Refrigeration Mechanics and Installers. U.S. Bureau of Labor Statistics. <https://www.bls.gov/ooh/installation-maintenance-and-repair/heating-air-conditioning-and-refrigeration-mechanics-and-installers.htm>



Can training add to work-life balance?

Training can bring several benefits to individuals in the industry that can help enhance their work-life balance.

One of the key benefits of training is improved job performance and efficiency. By providing technicians with the skills and knowledge they need to carry out their jobs effectively, they can complete their tasks more quickly and with greater accuracy, reducing stress levels and increasing job satisfaction.

Another way training can help enhance work-life balance is by offering flexible

scheduling options. Some training programs may offer evening or weekend classes, online courses, or other flexible options, which can allow technicians to balance their work and personal commitments more effectively.

Training can also help technicians develop new career paths within the industry. By learning new skills and techniques, technicians can expand their job prospects and increase their chances of career advancement. This can lead to increased job security, higher salaries, and greater job satisfaction, all of which contribute to a better work-life balance.

Finally, training can create a more positive and supportive work environment. When technicians feel confident in their abilities and are given opportunities to grow and advance in their careers, they are more likely to be satisfied with their jobs and have a more positive outlook on work-life balance.

In conclusion, training can play a critical role in improving work-life balance for individuals in the industry. By providing technicians with the skills, they need to perform their jobs efficiently and effectively, offering flexible scheduling options, and helping technicians develop new career paths, training can help create a more positive and supportive work environment and enhance the overall work-life balance for everyone involved.



How does career pathing improve work-life balance?

Career pathing is a key aspect of work-life balance for individuals in the industry. A well-defined career path can provide technicians with a sense of purpose, direction, and long-term goals, which can be motivating and help them feel more satisfied with their careers.

A clear career path can also provide technicians with a roadmap for their future within the industry. This can help them plan their professional development and set

realistic goals for their growth and advancement. By working towards these goals, technicians can feel a sense of accomplishment and satisfaction, which can contribute to a healthier work-life balance.

In addition, a defined career path can help technicians understand the requirements for advancement and what skills and knowledge they need to acquire to reach the next level. This can help technicians make informed decisions about their professional development and invest their time and energy in the right areas. By developing their skills and knowledge, technicians can increase their chances of career advancement, which can lead to higher salaries and greater job satisfaction, all of which contribute to a better work-life balance.

Finally, a well-defined career path can provide technicians with a sense of stability and security. When technicians know what the next steps are in their careers and understand the requirements for advancement, they are less likely to feel uncertain about their future and more likely to feel confident about their ability to secure their long-term career goals. This can reduce stress and help technicians focus on their work and personal commitments with a clearer mind.

In conclusion, career pathing is a critical aspect of work-life balance for individuals in the industry. By providing technicians with a sense of purpose, direction, and long-term goals, and by helping them understand the requirements for career advancement, career pathing can help create a more positive and supportive work environment and enhance the overall work-life balance for everyone involved.



Types of professional development opportunities

Various types of professional development opportunities can be beneficial to technicians in the industry and improve their work-life balance. These include:

- **Technical Training:** Providing technical training in the latest technologies and techniques in systems is essential for keeping technicians up-to-date with industry advancements. For example, offering courses on advancements in controls and systems design can help technicians stay current and competitive in the industry.
- **Safety Training:** Offering safety training programs in best practices and procedures is crucial for ensuring technician safety in the workplace. For example, providing regular workshops on safe electrical and chemical handling can help prevent accidents and reduce the risk of workplace injuries.
- **Leadership Development:** Investing in leadership development is essential for helping technicians advance in their careers. For example, offering management training programs, such as effective delegation and communication skills, can help technicians take on more responsibilities and progress in their careers.
- **Customer Service Training:** Improving customer service skills is critical for success in the industry. Offering training in effective communication, problem-solving, and conflict resolution can help technicians provide better service to customers and improve customer satisfaction.
- **Energy Efficiency Training:** Offering training in energy-efficient systems is important for staying ahead in the industry and reducing the environmental impact of systems. For example, providing courses on the latest in energy-efficient technology and design can help technicians install and maintain

systems that are cost-effective and environmentally friendly.

- **Certification Programs:** Encouraging technicians to earn industry certifications, such as those offered by organizations, can demonstrate their expertise and increase their marketability. For example, supporting technicians in obtaining the North American Technician Excellence (NATE) certification, can validate their technical proficiency and help them advance in their careers.
- **Online Courses and Workshops:** Providing access to online courses and workshops offers technicians the flexibility and convenience of learning new skills from anywhere, at any time. For example, offering online courses in energy efficiency can help technicians stay current and expand their knowledge and skills.



When do technicians need Leadership development programs?

Leadership development is a crucial aspect of career growth for technicians in the industry, and it can benefit technicians at different stages of their careers. Here's a closer look at when leadership development may be particularly valuable:

- Early in their careers: Providing leadership development

opportunities early in a technician's career can be an investment in their future success and long-term job satisfaction. For example, offering leadership workshops or mentorship programs to entry-level technicians can help them develop their skills and prepare them for future opportunities.

- As they take on more responsibilities: As technicians take on more responsibilities and begin to lead teams, leadership development can be particularly beneficial. For instance, offering management training programs that focus on effective delegation, communication, and conflict resolution can help technicians effectively lead their teams and create a positive work environment.
- When they are preparing for promotion: If a technician is being considered for a promotion, leadership development can help prepare them for the new challenges and responsibilities of a higher-level role. For example, providing coaching and training on the responsibilities and expectations of a management position can help the technician effectively transition into the new role.
- When they are transitioning into a new role: When technicians transition into new roles, such as a supervisor or manager, leadership development can be particularly valuable. For example, offering workshops on the essentials of leading and managing teams can

help technicians quickly adapt to their new roles and effectively lead their teams from the start.

Leadership development can help technicians at all stages of their careers become better leaders, increase their job satisfaction, and improve their work-life balance. By offering a variety of leadership development opportunities, you can help your technicians grow, advance in their careers, and have a positive impact on your business.



How much will a company save by offloading some of the training to a partner?

The amount of time a company will save by offloading some of its training to a partner will depend on several factors, such as the nature of the training, the size of the company, and the resources available for in-house training.

If the company is providing in-house training, offloading some of the training to a

partner can free up time for managers and supervisors who would otherwise be responsible for conducting the training. This can also allow the company to focus its resources on other areas of the business.

Additionally, if the partner provides high-quality training that is tailored to the specific needs of the company, it can help the company save time and resources in the long run by ensuring that technicians are fully trained and equipped to perform their jobs effectively. This can result in improved productivity, better customer satisfaction, and lower turnover rates.

However, it's important to note that offloading some of the training to a partner may require an initial investment of time and resources to find and engage with a suitable partner, and to evaluate the results of the training program. The net savings will depend on the effectiveness of the partner's training program and the company's ability to measure and track the results of the training.

Here's an example of how a hypothetical company might save time by offloading some of their training to a partner:

Suppose a mid-sized company has 20 technicians and 5 supervisors. The company currently provides in-house training for its technicians, which takes up a significant amount of time for the supervisors who conduct the training.

By offloading some of the training to a partner, the company could save time in several ways. For example:

- Efficient training delivery: The partner may be able to deliver the

training more efficiently, freeing up the supervisors' time to focus on other areas of the business.

- Improved training quality: The partner may have specialized expertise and resources that the company does not have in-house, allowing for improved training quality.
- Scalability: As the company grows, the partner can scale their training program to accommodate the increased demand for technicians.

Let's say that by offloading some of the training to a partner, the company saves 10 hours per week for each of its 5 supervisors. This means a total time savings of 50 hours per week for the company. This time can be used for other activities, such as improving customer service, developing new business, or improving internal processes.

This is just one example of how a company might save time by offloading some of its training to a partner, and the actual savings will depend on the specific circumstances of each company.

Here's another example of how a hypothetical company might save time by offloading some of its training to a partner:

Suppose a small company has 10 technicians and 3 supervisors. The company has limited resources for training, and the supervisors have struggled to keep up with the demand for services in their area.

By offloading some of the training to a partner, the company could save time in several ways. For example:

- More time for business development: The supervisors could use the time freed up from conducting in-house training to focus on business development and customer service.
- Improved training quality: The partner may have specialized expertise and resources that the company does not have in-house, allowing for improved training quality and faster technician development.
- Consistency of training: The partner may be able to provide a consistent and standardized training program, reducing the variability in training quality that can occur when multiple supervisors conduct the training.

Let's say that by offloading some of the training to a partner, the company saves 5 hours per week for each of its 3 supervisors. This means a total time savings of 15 hours per week for the company. This time can be used for other activities, such as seeking out new business opportunities, addressing customer concerns, or improving internal processes.

Again, this is just one example of how a company might save time by offloading some of its training to a partner, and the actual savings will depend on the specific circumstances of each company.

Here's an example of how a large company might save time by offloading some of their training to a partner:

Suppose a large company has 100 technicians and 20 supervisors. The company provides in-house training for its technicians, but the sheer scale of the company has made it challenging to keep up with the demand for training and to ensure that all technicians receive the same quality of training.

By offloading some of the training to a partner, the company could save time in several ways. For example:

Improved training quality and consistency: The partner may have specialized expertise and resources that the company does not have in-house, allowing for improved training quality and consistency across all technicians.

Increased efficiency: The partner may be able to deliver the training more efficiently, freeing up the supervisors' time to focus on other areas of the business.

Scalability: As the company grows, the partner can scale their training program to accommodate the increased demand for technicians.

Let's say that by offloading some of the training to a partner, the company saves 15 hours per week for each of its 20 supervisors. This means a total time savings of 300 hours per week for the company. This time can be used for other activities, such as improving customer service, developing new business, or improving internal processes.

This is just one example of how a large company might save time by offloading some of its training to a partner, and the

actual savings will depend on the specific circumstances of each company.

Here's how you can convert the time saved by offloading some of the training to a monetary value:

Small company: If a small company saves 15 hours per week by offloading some of their training to a partner, and each of their supervisors earns an hourly rate of \$30, the company would save $15 \text{ hours} * \$30 \text{ per hour} = \450 per week.

Large company: If a large company saves 300 hours per week by offloading some of their training to a partner, and each of their supervisors earns an hourly rate of \$40, the company would save $300 \text{ hours} * \$40 \text{ per hour} = \$12,000$ per week.

Of course, these are just examples, and the actual monetary value of the time saved will depend on the specific circumstances of each company, including the hourly rate of their supervisors, the time saved by offloading training, and any other cost savings that may be associated with the offloading of training.

Conclusion

In conclusion, the industry is facing a critical challenge in retaining Maintenance technicians. However, by implementing effective retention strategies, companies can create a supportive and fulfilling work environment for their technicians. This not only benefits the individual technician but also the company as a whole, leading to increased productivity, higher morale, and long-term success.

By valuing and investing in the growth and development of their technicians, companies can foster a culture of loyalty and commitment, reducing turnover and attracting top talent. Additionally, getting the right partner to help with activities such as training can be a smart move, allowing companies to focus on their core strengths and technician retention strategies that best suit their needs. By following the guidelines and best practices outlined in this handbook, companies can ensure a bright future for their technicians and their business.