

# **Workforce Training Program Development:** ***“Developing good people from within”***

**by George T. Meek**  
**Evergreen Engineering**  
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With the declining availability of skilled industrial workers, along with lack of industry support by educational and private concerns, it is getting tougher to locate and hire skilled industrial workers. Rather than fight this battle, it is far better to develop employees that you currently have and promote from within your own company. Many skilled employees will be leaving for retirement within the next 10 years. A succession plan should be developed to train personnel as others retire or leave the work force.

With pressures from the lack of skilled employees, outsourcing of jobs, and increasing costs, it is difficult to justify expenditures for training programs and resist the temptation to seek external personnel resources. To survive the current and future employee climate, an ongoing training program and hiring strategy must be developed to reduce future industry cost.

This presentation will cover:

1. Introduction - Why do we need a training program?
2. Skill and Organizational Assessment
3. Training Sources
4. Training Program Development
5. Apprenticeship, Progression and Succession Plan Programs
6. New Hire Program
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This will outline strategy to develop your internal candidates, and hire and train future employees; first by evaluating your current skill and training needs, and then to develop an ongoing training program. This program will include mentoring and apprenticeship programs and will also help you develop a system to hire qualified skilled external candidates in the future.

## **Introduction: Why do we need a training program?**

All industries in North America are experiencing a shortage of skilled workers. This trend will get worse. Eighty to ninety percent of North American industry reports a shortage of qualified skilled workers. The average age of a craft worker in the industry is 50. Thirty to fifty percent of craft workers and skilled operations personnel are expected to retire within the next five to ten years. There is competition from other non-wood industries that offer higher wages, better benefits, and better working conditions. With the shrinking military and the lack of apprenticeship programs since the 1980s, there is less skilled maintenance and operations workers available.

We all have concerns about Asia taking over manufacturing, but the fact is that the United States productivity per labor unit is still much higher than Asia. China and India may have only 2 to 3% of US wages, but their productivity is only 12 to 13% of US productivity. More labor hours are required per unit of output in Asia than the US so their unit labor costs are only 20% lower on average than the US. As China grows so do their wages, and unless they increase their productivity per employee, we could have equal labor costs in the future. At the rate China is growing, they will need more and more products from North America. With a highly skilled and productive workforce we will be able to compete with Asia in the future.

The youth of today are not interested in working in manufacturing. They have grown up hearing about layoffs, outsourcing and off-shoring, and are better equipped through the internet to understand how difficult working in the manufacturing industry can be.

Manufacturing in North America has had a negative image that must be changed. Collaboration is needed between public and private sectors to change this image and develop workers internally. By providing training to current employees, and allowing them to work on what they have learned, they will become more skilled. A skilled work force will improve productivity levels even more, and produce better quality products to compete with overseas competition. This will allow manufacturing to be more cost competitive and allow the manufacturing work place to be a more desirable place to work.

By educating public and private sectors about the opportunities that exist by working in manufacturing, and allowing youth to experience such opportunities, there will be more youth interested in joining the manufacturing industry. Invite them to your plant for a tour. Show them why they should work in industry.

The key to a successful manufacturing process is skilled workers. This will not only improve the cost margin, it will motivate workers to stay. Having a high-performance workforce will be the advantage to future business success for industry. Training opportunities are an important component to attract, retain, and develop employees.

The key to hiring good candidates is not always wages. Today good wages are a given. If you don't pay good wages, the best candidates will not even consider working for you. Training is a great benefit that is often overlooked by employers.

For a successful company, a training program is required for all employees. The first step is to determine the skills required and what the current skill levels are. A skills matrix should be developed to examine the gaps and manage the training program. A work order system along with individual documented goals can be used to manage and schedule training.

### **Skill and Organizational Assessment**

A skills assessment is required to determine what skills you need, what skills you have, and what skills you need to develop to be competitive in today's environment.

The first step is to conduct an employee training needs assessment. This includes all employees; hourly and salary. Include basic through technical skills along with equipment or machinery specific skills. Some skills may be combined later depending on training available. The skills matrix is used to organize and document this.

Once most of the skills have been identified, add names of all employees to the skills matrix. Once this is completed, then sit with everyone's supervisor and estimate the skill level of each person. We recommend some range such as 7 to 0, with 7 as highly skilled with 5 years of hands on experience or more, and 0 as no training or experience. Later these skill levels will be justified through testing and documentation such as work orders.

Some companies may choose to conduct formal skills testing. These can include written, hands on, and interviews. Based on this "testing" skills can be more accurately measured. As training is conducted, tests should be used to confirm that the materials were understood. When interviewing new employees it is best to have a written test along with the interview and possibly some form of hands-on testing to verify their skills.

Get supervisors' input about what they think may be some short term training needs, and proceed with those for the first six months. Other items to consider include development of key individuals for job advancement or replacement for others that may leave soon. Obtain costs for this first six months training, and develop a preliminary training schedule. For an initial two year budget, 100 hours per year per person is probably required if you have not had a formal training program in place.

Before finalizing the skills matrix, the organization structure must be evaluated to determine if the current manning structure supplies the most cost effective approach. By evaluating the organization now and for the future, staffing structure and a training program can be developed at the least cost. A recertification program should be developed as well, to ensure that employees retain their skills.

Once priority training has started, then the skills matrix can be better evaluated to determine if the correct skills have been identified, and how many people are required for each skill. Depending on the plant size, always plan that there are at least a minimum of two people for each skill to take care of leaves of absence, illness, vacations, etc. Some skills may be required by all employees such as Lock-Out/Tag-Out training. There should also be at least one person that can take a leadership role with a specific skill.

The skills matrix needs to include all the skills, employees, employees estimated skill levels, and the required number of skilled employees per skill. The estimated hours per skill for maintenance is another great addition to this skills matrix, but is often the most difficult to estimate. With a work order system where all maintenance work is recorded to a work order, this information can be obtained and added to the skills matrix later. This will allow you to estimate the work force required, and also your training needs. Reevaluate your manning organizational chart and estimate what the manning might be if you had better skilled workers. This can help you prioritize training and build a plan for reducing the work force through skill building.

Other items to add to the skills matrix include:

- Current Age
- Estimated Retirement Age
- Years until Retirement
- Key Employees for Job Advancement

From here you should go back and better analyze your safety, downtime, downgrade, and other plant issues that can help justify training priorities and training sequence. Some training will require prerequisite training. At this point, you should collect proposals for at least the first two years of priority training needs.

With employees slotted for specific training and proposals collected, the training schedule can be evaluated better. For a company that has not had a formal training program before, a budget of at least 100 hours per employee for the first two years should be used, and then 80 hours per year after that. There are some companies that allow 2 hours per week per employee for training. This allows employees to work on training each week through on-site training programs.

### **Training Sources**

When it comes to selecting training, there are many avenues. What is important is that the training is timely, effective, and will satisfy the needs for the company for the least cost. Here are some sources for training providers:

1. Consultants and training companies
2. Vendors and equipment suppliers
3. Local community colleges, tech schools and universities
4. Internet based training
5. Trade associations and technical conferences
6. Publications, DVDs, and video-type training programs

When pay is based on skill levels (and correspondence type or internet training is provided), individuals should also be allowed to study at home, without pay. I am sure most managers have spent many hours studying “without pay”. Some form of payment program to pay for training programs should be developed to help such employees advance their skills.

To help defer the cost of training, companies should contact their local state board for the Federal Workforce Investment ACT of 1998 for training funding.

### **Training Program Development**

Now that you have selected the appropriate training, a documented training program can be developed that will bring the required skills to the company when they are needed. This document should identify the general skill training procedures, the apprenticeship program, and progression and succession plans. It is important to document the training program so that others can refer to it when there are management changes. Also it is a document that will help verify

that you are fair with training to prevent some later grievance by the work force. Work orders are a great way to plan, schedule, and document training.

### **Apprenticeship, Progression and Succession Plan Programs**

Now that a training program is started, an apprenticeship and mentoring program can be created to further develop existing and new employees. A progression and succession plan will help identify possible future work force changes so that you can tweak the training program to allow for effective job coverage in the future.

In manufacturing plants, some of the best sources for good maintenance craftsmen are the production workers themselves. They know the plant and specific equipment well, and may have had a long experience working with many of the people already in maintenance.

By developing a skills matrix and having available an ongoing training program, the production workers will have an opportunity to learn to be skilled craftsmen. Correspondence or computer based training systems that they can use at home will again be a great way for them to have an opportunity to advance their skills at an accelerated rate and supply you with craftsmen. Production workers should be allowed to work with maintenance during scheduled outages to see if they really enjoy maintenance work.

An apprenticeship program should be developed for maintenance, equipment operators, production workers, supervisors, quality control technicians, and managers. Again the skills matrix can help outline the training priorities, schedule and sequence.

It is important to be fair to all employees, but at the same time you may need to be selective of who gets what training and progression into new levels of employment. Progression into new levels of employment is up to management.

A succession plan is developed to manage skills as employees leave or retire. By evaluating the skills matrix and skills required along with the current skills, managers can look at the employees who may be leaving and develop a path forward to increase skills for others. By discussing with employees their desires and possible retirement ages, managers can determine who may need to be replaced in the future. Managers must evaluate who would make good candidates and who may need to be replaced eventually.

Once it is understood who should be further developed or slotted for specific jobs, a plan along with goals can be developed to move people through their progression of skill advancement. Companies are better off managing the replacement of employees rather than waiting until they leave. The succession plan should be evaluated at least yearly to adjust for any changes that might affect the training program, progression and succession plans.

## **New Hire Program**

The plant will need to replace some employees with new employees. As employees leave your organization, a new hire program will assure that the most competent employees are hired.

An interview program must be developed to assure that quality new employees are hired. The interview process should include job descriptions for all positions. A written phone interview outline should be used to make sure that the right questions are asked. Once individuals have been identified as needing a personal interview, then a team of interviewers should be chosen who can best determine the new employee's qualifications. The interview should include both a written and a verbal interview.

Once new employees have started, their training program should be initiated.

## **Future Refinements**

Now that you have an ongoing training program, apprenticeship, mentoring, and new hire programs developed you will want to review your current needs and program effectiveness on a regular basis. You will need to refine and change the programs to keep your employees current with the latest technologies and continue to improve the skills of the employees you have.

Evaluate the skills matrix and training program yearly and monitor plant downtime and other Key Performance Indicators to identify where the program needs to be refined.

## **Conclusion**

A training program is not something that is simply started and then ends after some set time. It is ongoing. To fully develop a training program takes a great deal of effort. To be competitive, employee's skills must be continually improved. A training program is a human capital investment, and is the best investment a company can make. Change will occur based on leadership's ability to guide people toward new behaviors and actions, reinforce and reward those behaviors until they are embedded in the culture, and measure progress toward those goals. "What gets measured gets done".

As Craig Barrett, CEO of Intel said, "You don't bring three billion people into the world economy overnight without huge consequences, especially from the three societies (like India, China, and Russia) with rich educational heritages." By investing in the education of our manufacturing industry, we will be successful in the future.

George Meek started as an electrician in the wood products industry in the 1970s, and went on to manage successfully maintenance and engineering in multiple plants, and today supplies maintenance consulting to industries world wide from his hands on and consulting experience through Evergreen Engineering. Evergreen supplies industrial engineering and maintenance consulting. Evergreen can assess your plant training and maintenance systems and help you develop World Class Operations. For more information, please visit [www.evergreenengineering.com](http://www.evergreenengineering.com)