

Where Will the Workers Come From?

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To remain competitive, contractors, material suppliers, and others involved in the Hot Mix Asphalt industry must maintain a workforce that has the ability to improve the overall operation of the company. In the past, a majority of the workforce was obtained by hiring unskilled employees and training them to accomplish their assigned tasks. Some of these employees eventually advanced to key positions within the company. To stay competitive, however, the industry must put more emphasis on improving the overall workforce in the future.

Demographic impacts

Because of the Baby Boom, the age of the workforce is going to increase during the next few years. As the Baby Boomers grow older, the workforce will age as well. Most Baby Boomers are now under 60 years old, so they are just beginning to reach retirement. During the next few years, the age of the workforce will increase; but, as the Baby Boomers begin to retire, the average age of the workforce will decrease.

Another part of the workforce that is becoming more important is minorities. In the next 15 to 20 years, the number of minorities in the workforce will likely exceed 30 percent. The two largest groups of minorities are African-Americans and Hispanics. Traditionally, the HMA industry as well as other

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construction industries have tended to hire men. Approximately two-thirds of the labor pool consists of minorities and women, so more emphasis will have to be made in attracting these two groups.

It is also important to note that many of the entry-level workers today do not speak English. This results in difficulty both in communicating on the job and in ensuring that adequate training is provided. This trend is likely to accelerate in the future.

Computer-savvy employees

It is now more important than ever to attract the best-qualified individuals into the field of Hot Mix Asphalt. Almost everyone being employed should be computer-knowledgeable. There is a lot more emphasis on hiring graduates with degrees in mathematics, science, and engineering. The number of graduates in these areas is not increasing as fast as the demand, however. In fact, the number of engineering graduates per year is down considerably since 1985 but the need for these graduates is higher than in the past.

As an industry, we cannot simply wait for the best-qualified individual to show up at the door; we must be active in the recruitment process. In the past, the construction industry has not communicated its message to the potential workforce very well. It has generally been viewed as low-tech and therefore not very interesting to a lot of people. Actually, however, the construction industry does a lot of things that are very high-tech. So some amount of effort is needed to

communicate to potential employees that this industry is a fun, exciting place to work.

Room for advancement

One thing that needs to be done in the hiring process is to show an upward mobility plan or career path. There are many entry-level jobs in the construction industry that are not very glamorous but can be used as a stepping stone to a better, more rewarding job. In many cases, a potential employee would be willing to take a lower-level position if he or she knew that with a reasonable effort they could move up the ladder. It is often helpful to let the potential employee know that there is a ladder for upward mobility. Many times, employees see a position as a dead end, which can be detrimental to recruitment efforts.

There are many good jobs within the industry and this needs to be better communicated to potential employees. The education process needs to begin at an early age.

Talk to the youngsters

We can begin to introduce children to the industry at a very early age. Many have toys that include trucks, dozers, and other construction equipment. So at a very young age they enjoy playing with these kinds of toys. We need to continue to work with them as they begin school and as they go into high school and college. Many contractors have open houses at their companies. These can be used to show the kids around equipment.



Touching and actually sitting on the equipment is very impressive for a very young child.

At least one contractor has built a walking path adjacent to their HMA plant. This allows joggers and families that walk to see an asphalt plant up close and to see that the plant can actually be a very good neighbor. Adding the jogging track and other things such as this can really help a contractor to become a respected part of the community.

Many contractors do community service projects that make an early impression on students and their families. If we continue to work with the kids, we have a good opportunity to attract them into the industry as they grow up. We can't just wait for them to graduate from college to try and attract them into the industry, we have to start at a very young age and continue to work with them as they grow older.

High school opportunities

As these young people get into high school, there are a lot of ways to continue to work with them. A company can work with high schools to supply guest lecturers when needed. This will not only give employees of the company an opportunity to meet the young students; more importantly, it will also give employees an opportunity to tell the students about the activities of the company.

Many high schools have co-op programs where the student can work with an employer a certain number of hours per week. This is another good way to get to know some of the students better and for some of them to know the company better. This can be a win-win for everybody.

It is also important to encourage more students to consider majoring in science and engineering when they start college. This will provide a larger pool of potential employees to work with.

Encouraging college students

Once a student reaches college,



he or she has usually decided on a field of study. Those who will major in science and engineering now make up the pool of potential technical leaders of HMA companies. We need to continue to work with these students to encourage them to enter the construction industry. Some of the avenues include offering scholarships, summer jobs, and co-op jobs. The National Asphalt Pavement Association Research and Education Foundation (NAPAREF) has a large national scholarship program that has provided scholarships to many students. These scholarships make a very favorable impression on the students and significantly improve the possibility that the student will work in the HMA industry after graduation.

NAPAREF funded the development of a college textbook on HMA at the National Center for Asphalt Technology (NCAT). The textbook, now in its second edition, was first published about 10 years ago. It is now the standard text in colleges and universities teaching HMA. NCAT also teaches a Professor Training Course each year to about 15-20 professors from throughout the US. Nearly 300 professors from 48 states have completed the program since it was started about 15 years ago. These are two examples of work supported by the industry that has greatly increased the number of college graduates that work in the HMA industry.

Many universities have a co-op ➤

program where students attend college one semester and then work in industry the next semester. The employer is able to evaluate the student as a potential employee. The student has the opportunity to earn income and receives some on-the-job training. These programs often lead to post-college employment.

Graduate students who do

research work on HMA are very likely to work in the industry if given an opportunity. Hence, a scholarship program that sponsors a graduate student is very likely to produce a graduate that works in the industry.

Promoting professionalism

One step to improve the image of the company is to increase the level

of professionalism within the company. One way to promote professionalism is to participate in certification programs for technicians and inspectors. Achieving increasing levels of certification shows dedication to the job and a willingness to work to improve one's capabilities. This is attractive to both potential employees and potential employers.

Another way to promote professionalism is through organizations such as the Transportation Research Board, Association of Asphalt Paving Technologists, ASTM, American Society for Civil Engineers, and others. Participation in professional societies shows that the company has an interest in the industry and that the employees are interested in staying involved with the latest technical advances. Similarly, young engineers should be encouraged to become Professional Engineers.

A vital mission

In summary, it is going to be more difficult in the future to compete for and hire some of the top potential employees. However, for us to maintain a competitive edge, the best personnel must be hired. We, as an industry, must begin to educate future employees at a very early age about the benefits of working in the HMA industry. We must stay in touch with them while they are in high school and in college. We must be willing to hire them as part-timers while they are in high school and college and we must be willing to actively compete for them as they complete their degrees and begin looking for jobs.

Educating and encouraging young folks at an early age will result in a bigger pool of potential employees in the future. Without this encouragement, the best people will likely end up in other industries. **HMAT**

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