

**SHRINKING WORKFORCE ENDANGERS AMERICA'S  
SMALL BUSINESSES: EXAMINING THE NEED FOR  
THE SKILLED WORKFORCE ENHANCEMENT ACT**

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**HEARING**

BEFORE THE

**COMMITTEE ON SMALL BUSINESS  
HOUSE OF REPRESENTATIVES**

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

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**WEDNESDAY, FEBRUARY 9, 2000**

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON SMALL BUSINESS,  
*Washington, DC.*

The Committee met, pursuant to call, at 10:02 a.m., in room 2360, Rayburn House Office Building, Hon. Jim Talent (chair of the committee) presiding.

Chairman TALENT. Good morning. If we can convene the hearing.

As we convene our hearing today, I am glad to report that the U.S. economy continues to perform extremely well. The growth is steady. Unemployment is low. Inflation remains relatively low. In fact, last Friday the Department of Labor announced that the unemployment rate for January was 4 percent, the lowest it has been since January of 1970.

Despite this growing prosperity, in fact, to some extent because of it, we are faced with a severe shortage of skilled workers in trades and manufacturing. According to the results of a study conducted in 1999 by the National Association of Counties, 75 percent of the largest counties in America report that they face a shortage of skilled workers; 85 percent said that the shortage has increased over the last 5 years; and 97 percent characterize the shortage as serious to very serious. Officials stated that the sectors of the economy most affected by the shortage of skilled workers include manufacturing and construction.

This hearing will explore the growing shortage of highly skilled workers. Our witnesses from various trades will testify on the shortage of skilled workers, the effects on small business, the aging population of workers, and the high cost small employers incur in training highly skilled workers in their industries.

Small business owners in particular cannot find workers to fill their current vacancies. Many companies provide competitive wages and benefits, but they still cannot find enough workers.

In addition, the current workforce in these trades is aging. Most of the highly skilled trades find the average worker to be in their late 40s to early 50s. With this generation expected to begin retiring within the next 10 years, the shortage of workers will grow.

Small employers must invest substantial time and money to provide training. On average, the annual cost of training in the highly

skilled trades is \$25,000 to \$50,000 per trainee. This is an investment worth encouraging and worth making.

Recent press articles reveal when small businesses take the time to provide training programs, they often find employees become skilled, committed and loyal to the companies. Accordingly, it is in our best interest to help small business who are dedicated to their trades train more employees.

The purpose of this hearing is to examine H.R. 1824, the Skilled Workforce Enhancement Act, which I introduced on May 14, 1999, and which has received strong bipartisan support from 49 cosponsors. The Skilled Workforce Enhancement Act amends the Tax Code to allow small employers with 250 employees or less to take the \$15,000 tax credit to offset job training costs in highly skilled trades.

To assure training is effective, eligible employers must provide an employee with 2,000 hours of on-the-job training and necessary classroom training each year. In exchange, the employers are allowed to claim a \$15,000 tax credit per trainee each year for up to 4 years. That is the provision of the bill as written. We will have different witnesses comment on various aspects of that as the hearing progresses.

Under the Skilled Workforce Enhancement Act, the highly skilled trades include precision machinists, dye makers, tool and dye designers, roofing, masonry, heating, ventilating, air conditioning and refrigeration, plumbing, electrical contracting and foundry technicians. Originally limited to the tooling and machining industry, we have expanded the bill to include other trades for which highly skilled workers are in short and shrinking supply.

We are pleased to have Senator Mike DeWine testify before the Committee this morning. Senator DeWine introduced companion legislation in the Senate last year. He and I and our cosponsors believe SWEA will assist small business owners in training much-needed workers and in keeping their shops open.

The concept for the bill came to me from a constituent and friend in my district who will also testify today. As past president and owner of a machine company, Bill Bachman approached me with a severe shortage of skilled workers his industry faced and with an idea of a tax incentive to help remedy this growing problem.

Bill, I want to thank you for bringing this idea to my attention and for continuing to push it. Indeed, I thank all the representatives of small business and labor here today who have been bringing this need to the attention of Congressmen. I believe the other witnesses will also thank you, since the growing shortage has affected so many skilled trades.

A few years ago a friend who runs a small manufacturing business told me that if we don't do something within a few years there is not going to be a manufacturing sector in the United States because we are not going to have the workers that we need to work in the businesses. I am sure the construction industry representatives here will agree that that is a serious problem in their segment of the economy as well.

The Skilled Workforce Enhancement Act will provide relief to small businesses with costly and surprisingly complicated training

regimens. The bill allows employers to ensure themselves a continuing, capable workforce.

I look forward to working with Senator DeWine, our distinguished Ranking Member Ms. Velazquez, our other witnesses and unions represented here today to help small business owners hire and train new highly skilled workers. We should do something now while today's generation of workers can train the next generation of skilled labor.

I am pleased to recognize the gentlelady from New York for any comments she may wish to make.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

I would like to welcome today's witnesses, especially Senator Mike DeWine. Senator, I would like to thank you for all your hard work and leadership in the Senate in the area of worker training.

Mr. Chairman, the United States is experiencing unprecedented prosperity as we continue to enjoy the greatest economic expansion in our Nation's history. It is important that we in Congress acknowledge that this expansion increases the demand for skilled workers.

As the economy grows and more jobs become available, it is vital that we have a trained workforce able to fill newly created jobs. In fact, according to the U.S. Department of Labor, the United States is currently experiencing a shortage of service industry workers. This shortage is expected to last into the foreseeable future as the service industry continues to be the fastest growing sector of our economy. This is important for small business owners in the service industry who depend on highly skilled workers because they must expand effort and resources to locate pools of potential workers, recruit them, and then pay the additional costs associated with apprenticeship training. This has become so difficult that contractors at times have turned down work due to the lack of trained employees.

I applaud Chairman Talent for recognizing this situation and introducing legislation that will give small businesses a tax credit for training workers in highly skilled trades.

As a co-sponsor of this legislation, I believe it serves several important goals. First, it allows small businesses to recoup part of their investment spent training workers. This will serve as an incentive for businesses to hire unskilled and underskilled workers and train them.

This leads to the second important goal, the investment in a skilled workforce.

Finally, this tax credit will benefit the workers. The credit will provide an incentive for businesses to teach unskilled and underskilled workers a trade that will remain with them for life.

It is important to make sure we continue to have the economic security our country has worked so hard to achieve. In doing so, we need to make sure we have the trained workers we need to keep up with our economy evolution in this millennium. By preparing today we can remedy what could be a larger problem for tomorrow.

I support this legislation and look forward to hearing from our witnesses and in working with you, Mr. Chairman, to improve op-

portunities for this Nation's small businesses and their employees. Thank you.

Chairman TALENT. I thank the gentlelady and am grateful for her support for the bill and her advocacy in this area.

We will go right to the first panel. Our first witness on it, the Committee is very pleased to have before us I think for the first time the Honorable Mike DeWine, the United States Senator from Ohio. Senator DeWine.

**STATEMENT OF THE HON. MIKE DEWINE, A U.S. SENATOR  
FROM THE STATE OF OHIO**

Senator DEWINE. Mr. Chairman, thank you very much and thank you to the distinguished ranking minority member for your articulation of the need for this legislation.

As you have pointed out, I have introduced companion legislation in the Senate. It has been a pleasure working with you on this bill, and I look forward to continuing in the weeks and months ahead as we push for passage of this much-needed piece of legislation.

You both have outlined very well the need for this legislation. Let me just add a few comments.

During the 105th Congress, we spent considerable time and effort getting the Workforce Investment Partnership Act that I sponsored in the Senate enacted into law. This law brings a flexible, locally driven, business-oriented solution to our Nation's system of Federal job training programs. But, Mr. Chairman, in spite of this law, our work is obviously still not done. We have a lot of work to do, and we need to follow up.

This piece of legislation that we have introduced is a natural follow-up to that.

As you have pointed out, our Nation is suffering from a dangerous shortage of skilled workers. For example, in 1999, the National Association of Counties conducted a survey of its large urban caucus, a caucus which in my home State of Ohio includes counties such as Cuyahoga—Stephanie Tubbs Jones' home area which she knows so well—Franklin County, Hamilton County, Summit County. And in this survey, 85 percent of the local officials responding said that there was a shortage of highly skilled workers in their own regions.

Moreover, Mr. Chairman, 96 percent of these individuals characterize this shortage as serious or as very serious. And a majority indicated that this shortage was negatively affecting their county's ability to attract and retain business.

In another study, Mr. Chairman, the National Institute of Metalworking Skills, an organization of which one of today's witnesses, Bill Bachman, is a board member, estimates there is a need for over 22,000 skilled workers in five regions of the country alone.

In my home State of Ohio, the December 1, 1997, edition of the Cleveland Plain Dealer featured an article on the shortage of workers in just one county in Northeast Ohio, Lake County. This article featured an interview with Christopher Burton, a machine shop owner in Mentor, Ohio. He noted in this article that even with increased benefits he is still having problems finding new workers. This is what Mr. Burton said, "we can't find experienced machinists at all."

Mr. Burton is not alone. This is a problem across this country. The same thing is happening all over our country. I am sure that our witnesses today on both panels will have similar stories.

Mr. Chairman, as you have pointed out, this legislation would reward employers who provide training to workers such as precision machinists, dye makers, mold makers, tool and dye designers, heating and cooling contractors, plumbing contractors, pipe fitting contractors, roofers, masons, and others. These highly skilled trades are an essential part of our economy. They provide the parts used in manufacturing. They provide the services that allow our Nation's business to grow and expand. And they are truly the motor driving our Nation's unprecedented economic expansion. By giving a limited tax credit to provide training for these highly skilled workers, this bill would help keep this motor running.

Mr. Chairman, I hope with your strong leadership, the help of this Committee, we can ensure the passage of this legislation. I very much appreciate you giving me the opportunity to come over from the Senate and appear before your distinguished Committee.

Thank you.

[Senator DeWine's statement may be found in appendix:]

Chairman TALENT. We thank you for coming, Mr. DeWine. The Committee understands you are on a tight schedule. We would love it if you could stay.

Senator DEWINE. I do appreciate that. We are in a conference talking about the budget.

Chairman TALENT. If you need to go—

Senator DEWINE. I would like to stay, actually.

Chairman TALENT. We understand.

I will recognize the gentleman from New Jersey. Senator, if you could, the gentleman from New Jersey has one quick point he wants to make. If you could just wait for a second.

Mr. PASCARELL. Good morning, Senator. How are you?

Senator DEWINE. Good morning.

Mr. PASCARELL. What I find fascinating about this legislation is that it is—we are going in a very different direction, and we are talking about the last 3 or 4 years rather than talking about selective immigration. We need to understand that there are workers in the workforce that need to be trained for new jobs, and you are tying this in with I think something very, very important, Mr. Chairman, and that is the question of holding on to our manufacturing apparatus where we have no manufacturing or productive policies in many States and certainly on a national level. That is the first thing.

I want to get into some trade difficulties that we have.

On the example that you just brought out, on machinists jobs, we are beginning to do to that industry what we did to the textile industry and that is trade it away and export the jobs. I am glad that we are going to spend some time and provide some tax credits within the industry to train our own people to do these jobs. They are educable. We recognize that, and we don't need to go offshore to bring these people here to do these technical jobs, no matter how technical they may be. We need to train, and I want to commend both of you for recognizing that fact. This is not an addendum. This

is a very critical and essential part of building and growing the economy.

I thank you for introducing the legislation.

Senator DEWINE. Mr. Chairman, if I could just briefly respond to the Congressman's comments, which I think are right on point.

I think what we have all found in our home States or home districts is that we have many people who are in a transition period. They may be 40, they may be 45 years of age, they may be younger, may be older who want to be trained, who want to stay at it and clearly who have the ability and the inclination and dedication to get that training if we could just get the training to them, and they can then continue to be even more productive members of society and continue to be highly well paid workers, which is what we want.

Your comment about the industrial base in this country is absolutely correct. We see it in our home State of Ohio. Stephanie Tubbs Jones and I see it in the Cleveland area, so very important. That is one of the reasons, main reasons, we have the quality of life we have in this country, is our industrial base, and it depends on skilled workers.

Chairman TALENT. I was going to move on, but Ms. Tubbs Jones seeks recognition and, one Ohioian to another, I think she deserves it.

Ms. JONES. Thank you, Mr. Chairman.

Senator DeWine, thank you for coming to our Committee. I am in support of this legislation.

I would just like to raise one issue both with the Chairman and Senator DeWine to keep in mind as we go through this process.

The issue of accountability for the training action—I know we always like to believe that everybody will do the right thing, but somehow we need to include in this the issue of how to establish that training actually took place and that it's appropriate.

The only example I can think of, Senator, is for several years in Ohio and across the country, there were various student loan programs where students took out loans which they were responsible for paying back, but never graduated from the program in which they had enrolled. And I am not casting aspersions on any company that would do this training. I think it is a great idea. But somehow we need to figure out how to ensure accountability. I don't necessarily have an answer, but I am prepared to work with whoever it is to see how we might include that in our legislation.

I thank you very much for appearing and, Mr. Chairman, as well support you on the legislation.

Chairman TALENT. I appreciate the gentlelady's constructive comments.

Mr. Chabot also had a comment.

Mr. CHABOT. Thank you. I will be very brief.

Just as one Ohioian to a fellow Ohioian, I would like to thank and commend Senator DeWine for his leadership in this very important area.

Senator DEWINE. Thank you very much, Congressman.

Chairman TALENT. All right. We will go to our next witness, whose name has been mentioned before, Mr. Bill Bachman of St. Louis, on behalf of the National Tooling & Machining Association.

Thank you, Bill, for coming.

**STATEMENT OF WILLIAM G. BACHMAN, ST. LOUIS, MO, ON BEHALF OF THE NATIONAL TOOLING & MACHINING ASSOCIATION, FORT WASHINGTON, MD**

Mr. BACHMAN. Thank you.

Good morning, Mr. Chairman, members of the Committee. Thank you for the opportunity to testify on behalf of the 2,600 member companies of the National Tooling & Machining Association, known as NTMA, regarding H.R. 1824, the Skilled Workforce Enhancement Act, which we in this industry consider absolutely critical to the successful training of highly skilled workers.

My name is William G. Bachman, Sr., but I am just known as Bill, Sr., in the whole industry, probably throughout the United States. Before I retired in 1997, I was president of the company in St. Louis, which has been in business since 1927, and we employ 130 people, both men and women.

To start this, one day I awakened to the fact that in the USA we are making a strategic advance to the rear when we consider our machinists, die makers, mold makers and die and mold designers. Only 15 percent of the members of the National Tooling & Machining Association, NTMA, have an apprenticeship program. Others are doing minor training as specialists, and a specialist is usually for one machine itself.

At the time I was chairman of the NTMA National Apprenticeship Committee which then realized the pathetic situation we are in. After analysis of the situation, I called about 30 of our competitors from coast to coast to find out their overhead costs and if they were training apprentices. When the numbers were put together, the USA average cost to train an apprentice for 8,000 hours, which is 4 years, the cost is \$201,000. That is an average throughout the United States. When we talked to our competitors, I asked non-trainers if they would get half of their cost back, would they train apprentices and without hesitation they all said, oh, sure.

Prior attempts to alleviate our shortage of skilled workers have failed miserably. The welfare to work was presented as a good opportunity to find people to change from that entity to the workforce. Unfortunately, most every individual referred to our companies in our industry lacked the basic skills needed to begin an apprenticeship. The training conducted through the government programs produced a number of so-called skilled craftsmen. In reality, what those programs turned out were merely button pushers and machine operators.

The importation of foreign workers widely used in big business is virtually impossible for a small metal shop to do. The requirements established by the Immigration and Naturalization Service were numerous and confusing. The Skilled Workforce Enhancement Act, SWEA, through a \$15,000 tax credit per apprentice per year would give small employers much-needed incentive to train apprentices in-house. While \$15,000 may sound like a lot of money, apprentices will repay the government in full through taxes within the 3 years of graduation.

The Joint Tax Committee may score this proposal fairly high, but if we want to save the manufacturing infrastructure of this country from extinction, we must give small business this tool.

I might add, there was a question in my invitation about whether or not as a private industry person I had any contracts with the government. I have had none for the two years you have requested, and I haven't had any for at least 10 years.

I thank you for this opportunity.

Chairman TALENT. Thank you, Bill.

[Mr. Bachman's statement may be found in appendix:]

Chairman TALENT. The next witness is Tom Bettcher, who is the President and Chief Operating Officer of Copeland Global/Copeland Corporation of Sidney, Ohio; and he is appearing on behalf of the Air Conditioning and Refrigeration Institute.

Mr. Bettcher.

**STATEMENT OF THOMAS BETTCHER, PRESIDENT AND CHIEF OPERATING OFFICER, COPELAND GLOBAL/COPELAND CORPORATION, SIDNEY, OH, ON BEHALF OF THE AIR CONDITIONING AND REFRIGERATION INSTITUTE, ARLINGTON, VA**

Mr. BETTCHER. Thank you, Mr. Chairman. I, too, am honored to be here to speak to this issue.

I have submitted written testimony, and I thought I would just speak to some of the key issues in that testimony today.

First of all, let me describe Copeland, the company that I am CEO of. We have about 8,000 employees and 26 facilities, and our product is a compressor. The compressor is a key component of air conditioning and refrigeration systems. It is basically the engine of those systems. We are the largest manufacturers of compressors in the world, and that product ends up in air conditioning and equipment which must be installed by small businessmen, contractors throughout this country. Copeland is a subsidiary of Emerson Electric which has 120,000 workforce throughout the world.

Today, as you mentioned, I am here representing the Air Conditioning and Refrigeration Institute, and that is a trade group representing 90 percent of the equipment for air conditioning and refrigeration, both residential and commercial, that gets installed in the United States. It employs about 150,000 people in the manufacturing of those products. More importantly, as you go beyond that into the distribution channel, the wholesalers, distributors, installers and servicing people, it is probably well over 500,000 people in the United States. We think we are a critical industry.

Recent data has confirmed to us that the number one problem our industry faces is hiring new technical talent to come into the grassroots, the contractor-installer level. And, because of this, the Air Conditioning and Refrigeration Institute commissioned a task force; and I am the chairman of that task force to address this.

We work with about 20 volunteers, as I am, who feel passionately about this issue. We have been working over the last year to come up with solutions. We have identified about 40 different things we are doing as an industry with the rest of our trade associations to address this, and I think you would be impressed to know that the number one priority that we have concluded is to push and do everything we can to help this skilled workforce act

go through. We think that is by far the most important thing that can happen to solve the problem. This will help small employers, as has already been mentioned, alleviate the cost of training which we agree is very substantial.

And you might ask why am I here today. I am a big company. None of the financial benefit would go directly to the large companies that the Institute represents. All of it goes to the contractors. But, in our case, our success depends completely on the success of those contractors; and we just can't go forward without them. So we won't benefit directly, but we think it is important.

There is some key statistics that have come up recently that have convinced us that this is the number one problem. One of those statistics, and this was reported by the Department of Labor, said that there was a 17 percent increase required in the number of installing contractors in the United States over the next 5 years. That means that we have to recruit new talent, 20,000 people a year, into our contracting base in order to get this equipment installed.

A second key factor was reported by the Department of Education and that was that there was a 71 percent decline in the enrollment in vocational technical training during the periods of 1982 to 1996. So we have a huge erosion in the base.

Finally, as has been mentioned earlier, our workforce in this area is in the 45- to 65-year-old age group. They are retiring. There is no new talent coming into this business. So we think this is critical.

Another factor that we uncovered recently in a small survey was that the number one issue of our contractors is the inability to hire technical people. And it is a number one issue by a factor of about three times. So it is more important to them than price competition, than inflation, than health care. It is their number one issue. The industry needs to take action. As I have said, it is the number one issue to us.

The negative impact to this if we don't move forward—there are several things. Number one, we simply can't get our equipment installed. Many of us can remember the hot summers and unfortunate situations that occurred in Chicago and other cities around this country. During July and August in many parts of this country, you can't get air conditioning equipment installed because there aren't people to put it in place.

More importantly, another key factor is, when the equipment is installed, frequently it is done now with people who aren't properly trained, and the result of that is the equipment isn't efficient as it should be, which affects global warming and a whole lot of other factors. It can save this country money if we can get these technicians trained properly so the equipment is correctly installed.

Another key factor is about 30 percent of the returns of our equipment from homeowners, from installations where they say there is a problem, are returned; and they are perfectly good equipment. The basic problem is it is not correctly installed. So we have a fundamental—

Chairman TALENT. How much do you say is returned?

Mr. BETTCHER. Thirty percent of the returns are—the compressors come back. They are perfectly fine. The issue is that people in

this—because they haven't been able to properly train them through a good apprenticeship program, don't install the equipment correctly.

So that is a huge impact on our industry, on the consumer, and the quality of our business. So I think this problem will only get worse, and I strongly encourage everything you can do to make this act a reality.

Thank you.

Chairman TALENT. Thank you, Mr. Bettcher, for that testimony. [Mr. Bettcher's statement may be found in appendix.]

Chairman TALENT. Our final witness on this panel is Mr. Chris Leto, who is the Vice President of Tampa Brass & Aluminum in Tampa, Florida, appearing on behalf of the American Foundrymen's Society.

**STATEMENT OF CHRIS LETO, VICE PRESIDENT, TAMPA BRASS & ALUMINUM, TAMPA, FL, ON BEHALF OF THE AMERICAN FOUNDRYMEN'S SOCIETY, DES PLAINES, IL**

Mr. LETO. Chairman Talent and members of the Committee, I appreciate the opportunity to testify before you today regarding the impact of the shortage of skilled workers on the foundry industry.

My name is Chris Leto. I am Vice President of Tampa Brass & Aluminum Corporation. We are a small disadvantaged business located in Tampa, Florida. Our foundry was founded in 1957 by my grandfather, my father, and my uncle. The company has grown from three to 80 full-time workers.

We produce aluminum and brass castings, machine them for equipment in industries such as communication, defense, electrical hardware and medical. We build such parts for lighting fixtures, satellite component parts and wings for missiles.

Tampa Brass is a corporate member of the American Foundrymen's Society. Eighty percent of the 3,000 U.S. foundry's employ fewer than a hundred workers, and many are family-run operations.

One of the most critical challenges facing the foundry industry is the growing skills shortage. Each day small foundries are faced with more and more job vacancies because there is no one qualified to fill these positions. We are spending large sums of money to recruit and train these employees.

We applaud the chairman's leadership in addressing this job-skill-shortage issue and introducing the Skilled Workforce Enhancement Act H.R. 1824. This legislation recognizes the high cost placed on small businesses to train workers for skilled jobs by offering a tax credit. My company and AFS strongly support this bill.

Although metal casting is a mature industry, it has become a refined modern-day process, and skilled craftsmen are essential to the production of castings at several points in the process.

The first is the pattern maker. All castings begin with a blueprint and the skill of the craftsman to produce a precise pattern. Normally, a pattern maker serves as an apprentice at a foundry and must train 4 to 5 years to achieve journeyman status.

Second is the mold maker. This is a pattern—foundry mold maker. He forms and prepares the mold to receive the molten

metal. This can be an extremely complex task and requires expertise of years of on-the-job training.

Third is the quality technician. He inspects the quality of the casting. The metal technician acquires certification by passing a series of written tests and through on-the-job experience. We have two level 3 technicians, the highest level; and it takes 6 years to achieve that status.

And, finally, the castings need to be machined, which requires the skill of trained machinists. Participating in a 4-year program along with on-the-job training is essential to become a certified machinist.

For the past 3 months, my company has been actively recruiting six machinists, one metal quality technician, and one pattern maker—unsuccessfully, I might add. With the demand for skilled workers outpacing supply, the problem of how to meet the growing skills shortage is one of the greatest challenges facing my company and the foundry industry today.

I would like to just share a few examples of how Tampa Brass is addressing this challenge.

First, we offer a competitive and very generous wage and benefit package.

Secondly, for the past 2 years, we have invested more resources into recruiting and on-the-job training.

In 1999, we spent approximately \$3,000 a month for 3 consecutive months advertising in newspapers with no success. We only had one of 20 applicants come in that was qualified for the machinist job. For the past 6 months, we have engaged five different temporary agencies to help us locate 10 qualified machinists. Over those 6 months they were able to locate us six. However, we continue to have job openings for additional machinists, and the use of these agencies is extremely expensive. We pay them 55 percent over and above the employee's salary for the first 3 months they are with us.

Tampa Brass is also investing resources to provide its workers with training both in-house and externally through technical colleges. In fact, we are currently sending two young employees through a 4-year program to become certified machinists.

These company-sponsored training programs have showed our employees we are interested in their growth and that we value their abilities. By encouraging them to become involved in the training programs, these workers have more self-worth, better attitudes and consequently become better employees.

The American Foundrymen's Society estimates this cost in the range of 25 to \$50,000 per year. Typically, these training programs take 2 to 4 years to complete. The cost of these programs makes it nearly impossible for many small foundry shops to train new workers in these fields.

We also have a drug-free workplace policy. In approximately three of 10 cases, applicants fail the drug test; and we still pay the \$35 per test. H.R. 1824 would help small foundries offset some of the costs associated with training workers by providing \$15,000 tax credit up to 4 years. We are the companies that need it most.

More than half of the small foundries surveyed last year indicated they would take advantage of the tax credit set forth in H.R.

1824. This tax incentive would help alleviate the burden that the job shortage and high costs of training that are being placed on small businesses.

In conclusion, foundries are working hard to recruit, train, and retain qualified skilled workers. In order for the foundry industry and other industries to compete in the global marketplace, we must work together to reverse this skills gap. No one sector can face these challenges alone, and the time to act is now.

The Skilled Workforce Enhancement Act would serve to assist small businesses already providing formal training for good-paying jobs but would also provide an incentive to those companies who have not yet implemented training. We urge those Committee members who have not sponsored H.R. 1824 to do so.

I would be pleased to respond to any questions. Thank you.

Chairman TALENT. Thank you, Mr. Leto, for your very effective testimony.

[Mr. Leto's statement may be found in appendix.]

Chairman TALENT. We have a lot of members here, so I am going to ask just a couple of questions, and then I will defer to the Ranking Member.

Mr. Leto, would you just go over briefly for the Committee the facts you gave us about how you have been trying to recruit machinists, like how long have you been trying to recruit extra people, the kind of money you have been spending to get them? Would you just briefly recount that testimony again?

Mr. LETO. Yes, sir. For a while, we went through the newspapers, the local newspapers, the Tampa Times, St. Pete Times. Those ads would cost us about \$3,000 a month to run. And we received—out of 4 months, we had 20 guys come in, 20 employees, prospective employees come in; and we only hired one. It just wasn't cost effective.

Then we moved over to the temporary agencies, that they do all the work for you in locating the potential employees. But then you have to pay them a 55 percent percentage on top of what they pay—we pay the employee. So if he makes \$10 an hour, then we pay the temp agency \$15.50 for the first 3 months.

Chairman TALENT. A journeyman, like you mentioned your level 3 people, you have two of them.

Mr. LETO. Yes, sir.

Chairman TALENT. What kind of money can you make working a year in your company at that level?

Mr. LETO. Between \$35,000 and \$45,000 a year.

Chairman TALENT. Plus all the benefits.

Mr. LETO. Yes, sir, correct.

Chairman TALENT. Just one more question for the panel, to try and establish the overview. Because, of course, one of the issues we are going to have here is how much this bill, quote, unquote, costs in terms of loss revenue.

Now, my guess is that business people in your position—and, Mr. Bettcher, you work for a very big company, but you have made some very compelling testimony on how this affects you because you make compressors for air conditioning that can't be installed. When you are thinking about capital investments as small companies or big companies, when you are thinking about how aggres-

sively you are going to go after business opportunities here or abroad, is it true that in the back of your mind is this training issue? Look, there is no point in making the capital investment if we don't have the people to work the machines.

What I am getting at—and discuss this a little bit—is how—I believe this is going to be the brake on this prosperity if we don't do something about it. Because you are all sitting there thinking there is no way we can continue expanding if we don't get the skilled help. Is that true?

Mr. LETO. Yes, it is very much true. I do a lot of the sales and marketing for my company as well.

One job that we are looking at right now that we just have an order for is going to add \$2 million to our bottom line, our revenue. We are a \$5.2 million company now. Where am I going to get the employees? This is part of a plan that we have got to start thinking about. That is why we started with the temporary agents 6 months ago. So it is very important.

And one of the other costs that we have had to take care of is the overtime, because that is what is happening. These employees last year, our machinists, and there were 40 of them total, they worked between 45 and 50 hours a week for the entire year. It is good overtime money. It is not good for our bottom line, and it causes employee burnout.

Chairman TALENT. My guess is they probably would rather have a little less overtime. When these guys and gals retire, I am guessing—but they are probably not all spring chickens either, are they?

Mr. LETO. That is correct. The average age of our employees is 40 years old. We have a few young guys. Those are the guys we are sending to the trade school, but we still do on-the-job training, classroom situation as it is for an hour a week possibly and sometimes we do Saturday classes, but, again, we pay them for the Saturdays they come in.

Chairman TALENT. I couldn't agree more with what Mr. Pascrell said. You all are competing abroad with companies that are getting directly subsidized by their governments; and this is a way, without getting into that whole issue, that we could help you all in competing with them in addition to all the other benefits.

Mr. BETTCHER. To your question, I would comment two things.

One, I would make a rough estimate that in the peak season for air conditioning, let's say July and August, probably 5 to 10 percent of what needs to get installed is not installed because of the lack of trained workers. So that is one thing that really affects all of that whole group of companies.

The second thing I would comment on is that the training of these people is so inadequate at this point because of the quality of people coming in and the ability to train them well. My guess is 2 to 3 percent of the average company's cost is tied up in these warranty returns that don't need to exist. So our competitiveness as an industry is severely impacted by this. One of the number one variable or key costs that we work on is reducing the warranty cost, and it is tied up in this issue of training.

Chairman TALENT. Mr. Leto, if you advertised for, say, a human resources person or bookkeeper, do you think it would have been as difficult to get applicants?

Mr. LETO. No, sir.

Chairman TALENT. And those are great fields.

I will recognize the distinguished gentlelady from New York.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Mr. Bachman, I would like to start with the concern that was raised by the gentlelady from Ohio, Ms. Tubbs Jones. As drafted, H.R. 1824 does not provide specific standards for the training provided by the employer. Therefore, it is conceivable that any activity labeled an apprenticeship or training will make the employer eligible for the tax credit. Part of the reasoning behind this legislation is to make sure that we have a highly trained workforce, so we don't want employers getting tax credits for training that will not translate into a skill for the worker. In your opinion, should the legislation follow the definition of the qualified training program as established by the Labor Department's Bureau of Apprenticeship and Training or should the bill adopt another standard?

Mr. BACHMAN. Thank you.

I think the bill should take the existing standards. I was one of about 15 men 25, 30 years ago that went to the Department of Labor Bureau of Apprenticeship and Training. We have an apprenticeship training system, and it is signed by the Bureau of Apprenticeship and Training and by the people that we are working with in the NTMA to do this.

Now, we—those that are training are training by these rules, and you can't have the exact names of the rules, but you should have rules that these people should train by and then they would then inform the proper people when they get through. Neither one of these gentlemen can use the same contract we have. However, all of our chapter members throughout the United States do, but we are training machinists, tool and die makers, computer designers. It is different from what they want. So you are going to have half a dozen or a dozen maybe different regulations so that these people do this properly.

I agree with you. I think, without any regulation, people say, yeah, I have trained them. Off they go, and they really do nothing. All they want is the \$15,000 tax credit.

Ms. VELAZQUEZ. Thank you very much.

Mr. Bettcher, would you please give the Committee an overview of what the apprenticeship in the air conditioning and refrigeration field entails, how trainee progress is monitored and how the program itself is monitored? In other words, who makes sure that the apprentices are being properly instructed?

Mr. BETTCHER. I think in our industry that is a program that needs to be more fully defined. We currently initiated what is called a North American Technician Excellence Program over the last 2 years, which is a certification program in our industry. That is just now rolling out across all of this contractor base. So the framework is there, but the implementation of that system is still in the beginning stages of that. But we do have a system of certification, and we do have training.

Ms. VELAZQUEZ. You have a system—I am sorry?

Mr. BETTCHER. We do have a system defined of certification. We have training programs defined for the voc tech schools and tests that are—we administer to judge the qualifications of these people

so there is a program in place. I think it would need to be adapted to the regulation that is being discussed today.

Ms. VELAZQUEZ. Thank you. When you say you have a system in place, who monitors and who certifies?

Mr. BETTCHER. There is an organization that runs the tests that are run on—they run them periodically through the year across the country at different test sites. So there is an official testing program that goes on by the group that is sponsored by our trade association as well as some other trade associations. And that is called NATE, the North American Technician Excellence Program.

Ms. VELAZQUEZ. But you agree with me that accountability is very important?

Mr. BETTCHER. Absolutely. I very much agree with that.

Ms. VELAZQUEZ. Thank you.

Mr. Leto, many in the construction industry believe that multi-employer training systems are the most cost-effective way for construction firms of any size to offer comprehensive training to their employees. By allowing businesses to pool their resources to provide a quality combination of classroom and on-the-job training, a multiemployer training system provides something individual employers would not be able to provide alone. Mr. Leto, does your company take part in multiemployer training and why or why not?

Mr. LETO. We do not take part in that. I don't know that is available in our area for multiemployer training. What we do do in the quality technician part of it, the level 3 that I alluded to earlier, there is a level 1, a level 2, and level 3. Each person has to pass a series of tests and be on the job for 2 years for a level 1, 2 years for level 2, and 2 more years for a level 3. If he doesn't pass the test, then he won't get to the level 3.

However, in the level three, there is also an outside certification by a company in Florida that confirms what we have tested this employee for. For the machinists, we send them to a technical educational college across the bay, and they get a report card on a quarterly basis. That is a 4-year program, so we monitor their progress based on the report card.

In addition to that, we sponsor them where—if they are working on—let's say they are working on blueprint reading this particular quarter. We as an employer will give them more jobs that would involve blueprint reading. So we kind of go along with the curriculum with the college. That is how we monitor.

Ms. VELAZQUEZ. Thank you.

Thank you, Mr. Chairman.

Chairman TALENT. My understanding of your business, Mr. Leto, is that more of the training is custom, more specific to the particular shop. There are basic skills you learn in these programs, but really it is the on the job in your particular shop where you get exactly what you want from the employees. Is that fair?

Mr. LETO. Not necessarily. If we teach an employee, a machinist how to program, he can go just about to any machine shop and program if he learns how to program. It is the same with setup. It is the same with tool making. So I think, to answer your question, they can be used in any other shop.

Chairman TALENT. Sure. You learn the basic skills at one of these programs, and then you come in and do the on-the-job work in your shop.

Mr. LETO. That is correct.

Chairman TALENT. I have Mr. Pitts next. I recognize him.

Mr. PITTS. Thank you, Mr. Chairman.

You each noted the high cost of training of new employees. What is the retention level of these new employees after you have spent money training them? Can you give us a ballpark figure?

Mr. BACHMAN. A lot depends—on the retention, it depends on how you treat your employees. If you pay them the going wage relative to your area, if you are giving them the reasonable benies and you go with them and work with them, rather than just push them aside, they will stay.

We had one fellow that left 2 years ago right after his apprenticeship was completed; and I thought, gee, that was fast. I walked in the shop about 2 months ago. There he was. He said, well, he knew the grass was greener on the other side of the street, but then after 2 years he found out it wasn't, so he is back again. So you retain your own people by the way you treat them, both economically and personally. We do not have a problem at our plant.

Mr. BETTCHER. In my case, I have a large company. I am not sure that is the question. The question is for the small businesses. I don't have the statistics for the contractors because they are separate from my company, but we can certainly research that and get information back to you to answer that question for the air conditioning group.

Mr. LETO. Mr. Pitts, I don't know the exact percentage, but I can say that our training involves a little bit more than just a skill. We involve personal growth and family values since we are a family-owned business, and I agree with the first gentleman that it depends on how you treat the employees. But since we have put this program in, I bet our retention is above 80, 90 percent. It is that high.

Mr. PITTS. I believe you noted that many potential trainees don't have the academic preparation in some areas like math and science. What is the average academic level of your trainees? Would a tax credit allow you to help train them in some of these?

Mr. LETO. I think it would. I would say the average educational accomplishment of our machinists or the operators is maybe 2 or 3 years of high school.

Mr. BACHMAN. As far as the machinists are concerned, we have—the shop work that you do, we call it lab work. Then we have 144 hours per year to take up and pick up anything that they are short on. Mostly we hire people who are graduates of a junior college, and they have had the blueprint reading, they have had trigonometry, plain trig but not special trig. That is one thing we add to it. They have a very small entree into metallurgy. We make them take a better metallurgy course.

And die design, we do that inhouse because we have never found anybody in the academic world that knew enough about die design or mold design that could do them any real good. So we teach that within our own people. We pay our employees to stay at night and do this.

It does vary a little bit per person, per apprentice, but basically we have to have all of these things, and we will get them one way or another, and we pay for all of their outside education when they have come to work for us.

Mr. PITTS. Mr. Bettcher?

Mr. BETTCHER. I think, in our industry, the real targets are high school graduates or people with 1 or 2 years of voc tech training that we try to get into the contractor base.

Mr. PITTS. Thank you, Mr. Chairman.

Chairman TALENT. Ms. McCarthy is next.

Mrs. MCCARTHY. Thank you, Mr. Chairman.

I thank you for your testimony.

I come from Long Island, New York, and we have a lot of small businesses that are working in the areas that you are all talking about. And I have spent January meeting with all these business people, and they are talking about the same thing—they can't find skilled workers.

What we have done on the Island is work with the business people, having them come into the high schools, especially through the BOCEs programs, and tell these young people this is what, you know, we can offer you. This is the kind of education and training we can offer you.

So far, it is working, but the problem that we are all going to be facing is, as the years go on, we are not going to have enough young people, and that is a fact of life right now. So we have to do whatever we can to help you.

One of the things that I would like to talk about, and some of my colleagues brought that up, as we go into this global economy, there are going to be, unfortunately, certain jobs in this country that are not going to be available to the people that are already working there. And I am hoping, without making it really tough or anything else like that, that with the possibility of those that have been working in some of these factories that they might have first chance to come and work and be trained with companies like yours.

And my concern was, obviously, those workers that are 45, 50 even—because I look further down the road. These are good people that have worked all their lives and all of a sudden where they are supposed to be on the top end of their employment and they have to start all over again, it is going to really hurt their Social Security. People I don't think really start to think about this.

So I happen to support this bill. I think it is a good bill. And, hopefully, you will work with us to clarify it even more, especially with the responsibility, because I think you can probably put more input. Sometimes when we do things here, we mess things up a little bit. So it is going to be important to hear all of your input and to have this go forward. I appreciate it.

Mr. BACHMAN. The St. Louis chapter of NTMA sponsors one place in the job placement or job fair, and this job fair is in the greater St. Louis area, and we had 11,000 eighth graders. Now, there is nothing we can do with a junior or senior in high school other than go to a junior college and start taking some technical training, but they can get good technical training if they start in ninth grade because you have to start with your mathematics to get through even plain trig. And we have to have this sort of thing.

What we did is we—one of the gentlemen from the companies made up a great wage chart, and this started from \$7,000 for a flapjack flipper to \$53,000 average throughout the country for a machinist. They didn't take into account die makers, mold makers, designers and so forth, the people who are higher paid.

I went and stopped some of these teachers and the people who were doing the counseling for the ninth grade, and those are the people that really start the young people. Somebody has to explain to them that you have to start now. And I handed this chart out, and I thought it wasn't quite enough, so what I did is I took the W-2s from some of our people—of course, took the Social Security and their name off of it.

Mrs. MCCARTHY. That is good.

Mr. BACHMAN. All I did add took the classification. I couldn't do the other. But I handed it to the teachers and the people who were recommending all of these things, and they looked at these numbers, and they went from 40 to 75,000 a year. Now, St. Louis is a fairly high wage area, and there is maybe a dozen of them in the country, but they—the first thing they said, well, can I be a machinist or could I be a tool maker? I handed them my card. I said, if you want to, fine.

They all backed off, of course; but I let them have the card. And I said, if you want to do something, go ahead and send them—call me and we will get a tour of the company. Because most of the counselors—not observers, the people who are teaching, are routing the customers, routing the whole curriculum, they have never been in a machine shop or a manufacturing plant period. They don't know anything about it, and this is where we are really hurting.

I had one school, one—no, it is a high school—high school group. I went down about 60 miles south of St. Louis and went through there, told them what we are doing. The counselor who was in charge said, can we bring 25 people through your plant? Sure, I said. So we made arrangements, and she made a time.

Two weeks before she was coming she said, how about 45 or 50? And we ended up with three educators and the rest of them were students, first and second year, the junior and senior year of high school; and they went through this. None of the teachers had really been in a modern machine shop. They didn't realize. They thought it was a greasy old place. Everything is dirty. We showed them whereby we are measuring things by light to the accuracy of 20 millionths per year—I mean per inch. And they had no idea what this is all about.

Mrs. MCCARTHY. I think also what we have to do is kind of re-educate people. I am on the Educational Committee, and I know I happen to believe in college education, but I also know with an awful lot of young people, they certainly are smart, and I will give you an example. My son did go to college, and he is a white collar worker. His two friends that are actually brighter than my son went into other fields of endeavor. Now, Kevin was an 85 percent student. These two young men were 95. My son is a bright young man, believe me. But what I am saying is, they went into your line of work; and they are making the \$75,000 a year.

So when I go and speak to my students, I say, certainly continue education, especially in the math and the sciences. But, you know,

some people, like my son, doesn't like to get his hands dirty. There are others that love it, and that is where they should be encouraged to go.

We have put such an emphasis on college, which is really terrific for a lot of people, but some people are just happier working with their hands. And we have taken away the pride, in my opinion, of those that want to work in the trades. I think that is a shame. Because when you go to other countries, there is a pride of working as an apprentice; and I think we in this country have to reinforce that with men like you going out and talking to people in school. There is nothing wrong with working in the trades. It can be an absolutely wonderful life.

Mr. BACHMAN. To show you how clean it is, we have one man who comes in with a white coat and a tie. He tucks his tie in, takes the coat off—and white shirt. Works all day. Just rolls up his sleeves to his elbows. Works all day. Doesn't get dirty. Puts them back on. Off he goes. He is one of the top mold makers.

It is not the dirty, cruddy job it is thought to be. Like you said, we open our doors. I have had as many as 80 people, students, come through the shop in one day.

Mrs. MCCARTHY. My uncle owned a machine shop on Long Island many years ago so—

Mr. BACHMAN. You know it.

Mrs. MCCARTHY. I know it. Thank you.

Mr. BACHMAN. Incidentally, I happen to be a registered professional engineer. I went to the engineering school after I got out of the Army Air Corps in WWII, and I went through in 3 years. And some of the advisors, they take the top half, and they go to college; and, frankly, the bottom half, they just go to pot. They don't worry about them. And what they don't understand, that we don't want the bottom of the pile, we need people that can think. Just what you said. They are the ones that are going to come in and really do a good job and make good money. You can't take somebody that is illiterate and try to put him on an apprenticeship. It doesn't happen.

Chairman TALENT. I thank the gentlelady.

This Committee in part is about people who, in many cases, didn't have the money or the inclination to go to college—but were people who hustled and worked and were risk takers and started businesses. The kinds of training that we are talking about with this bill is ideal for people who work in a company for a few years and then start their own. I haven't checked this, but my guess is we probably—some of the witnesses today are in that position. So this is—these kind of jobs, if they ever were jobs that were the ladder, you know, ended after a few rungs, and that is not the case anymore, and I thank the gentlelady for bringing that out.

The next member to be recognized is the gentlelady from New York, Ms. Kelly.

Mrs. KELLY. I am glad to see you all here. I happen to have a lot of fun in my district going through the various manufacturing places and walking and talking with the people who are on the lines doing that manufacture. I am just fascinated with the way things are made.

I am also interested, Mr. Bachman, in the fact that you were talking about—in your testimony here, you were saying almost every welfare-to-work person that was referred to your company lacked that basic education. You were just talking about that a minute ago with my colleague. Would this tax credit we are talking about help you or do we have to do two parts to this? Do we have to try to also add something to bring those people that go to you, get them up to a basic skills level? Is that what I heard you say?

Mr. BACHMAN. Partially, yes. The people that we take have had in either high school or junior college some machine shop and they have had some mathematics, like—they have to have something that they understand what they are looking at. It is a dangerous place to be if you don't know what is going on.

Mrs. KELLY. What level math—I am really kind of throwing this out to all of you. What level of math are you talking about if you are in a machine shop would you need? What level is that going to be?

Mr. BACHMAN. Plain trigonometry, not spherical. That is one level. If you have to get from here to here in a machine, it goes by rectangular coordinates. So you have to be able to calculate how far you go left and how far you go up to get there. Somebody has to calculate this thing.

Now, they are done by computers. They are much faster, and the machine tools themselves can do it, but you have to know what is going on, why and how that gets there.

Mrs. KELLY. What programs do you think that we need to put in place? What programs are out there that you—or what programs can we do to put in place to help you?

Mr. BACHMAN. A fellow from Los Angeles and myself jointly made the training syllabus for mechanics—I keep saying mechanics—machinists, die makers, mold makers, and this will give you the whole rundown of what they have to have. We wrote this some 20 years ago. Personally, I think it needs upgrading again. Because this past year we just upgraded the apprentice standards, what you had to do, and that was done. But this syllabus to lead the people in training I think by now needs an upgrading.

Mrs. KELLY. I have got three sons and a daughter. I was fascinated when my oldest two sons were in high school—rather in junior high—they had to take shop. They had a blast. They had a wonderful time making things. But all of that then was changed because they got slid into the college prep program and they never once looked back at that fun that they had.

I think that the manufacture of things is a lot of fun, but it is tough, hard, dirty work, and it also requires a brain, as you pointed out. I am concerned that we are trying to give you a tax credit here in a way that it is going to be really effective as reaching those kids. I want to make sure that if we are going to do this, we are going to do it right. So I just want to say that you can all talk to me later about that.

Mr. Bettcher, you talked about takeback. I have only got a little second here to talk for a minute. I am interested in that because I recognize also that major industries are beginning to do service in a way where they are not only servicing the things that they manufacture but they are servicing other manufacturers' things. I

am wondering if they are putting that force in position because of exactly what you have talked about in your testimony and that is they have got to protect their own product and not—they are trying to reduce that takeback. Is that true?

Mr. BETTCHER. I think clearly that is a trend in the industry, to do a more aggressive job at controlling your own product. And so they can train people better and control that better if they do it themselves and then have a trained workforce. But it is just a fact of life—

Mrs. KELLY. But they are going for other people's things, too. Is that just to keep those workers working?

Mr. BETTCHER. I think they are trying to grow and they are trying to expand their scope and have a bigger impact, let's say, on a homeowner so they can service all the appliances in a home, including the air conditioner.

That is fine with us as long as those people are trained across that broader product line, and this bill would really help us ensure that those people get the broad training, that they can service the hot water heater and the air conditioner and the stove and the range. That is not simple, to know the ins and outs of all those pieces of equipment. So I think this bill will help in that regard.

I wanted to make one comment about the training level coming into this program, and that is that we are talking about a very broad range of trades here, from the very highly trained requirements that Mr. Bachman talked about. I would say that there is—they are not all requiring that level of training. In our case, it is a technical product but not nearly the requirements of a machine and dye shop. A basic high school graduate with an interest in mechanical things and electricity and some good hands-on experience can be trained to do our service work very adequately.

Mrs. KELLY. Mr. Leto, did you want to add anything to this?

Mr. LETO. Only in the foundry aspect of it. The mold maker, probably more than anybody else, really doesn't need to have a high school education. He can learn. We have to train him on the job. We can train him, and that is what we do. It takes about 2 years. He can be a good mold maker.

The pattern maker needs to have that trigonometry because he has to—he doesn't have the luxury of a program to help him go from point to point. He has to lay that out by hand.

And the quality technician, he needs to have a basic understanding of metallurgy, so there is a higher education and skill there.

But the levels, level 1, level 2, and level 3, what he needs to acquire can only be done on the job.

Mrs. KELLY. Thank you very much.

Mr. BACHMAN. Are you talking about sand molds?

Mr. LETO. Yes.

Mr. BACHMAN. We have two different kind of molds, as long as you understand that. We are making them out of tool steel, hardening them and polishing, all this sort of thing. So it is a completely different animal. And when I originally wrote this thing, all I had in mind was the machining and the manufacture areas.

And I beg to differ with you, that the shops aren't as dirty—when I went to work for my dad and got out of college, he just

threw my scholarship and stuff away and said, hey, go to work—and he handed me a couple of aprons—and learn. That is the way I had to do it, without this kind of training. You can have any kind of education that you can get, and you still have to start doing something with your hands before you are going to be good at this area.

Mrs. KELLY. Mr. Bachman, my husband started with a hammer. I know all about how you start at the bottom, and I want to tell you—

Mr. BACHMAN. But everybody else here doesn't.

Mrs. KELLY. I want to tell you, I did, too. Not with a hammer, but I started with other tools. And I have to say that the concept, the problem is that people think that doing these jobs with their hands are just dirty jobs. They are not. They are not. They are really interesting jobs. It is just a matter, I think, a lot of it letting us do what you need to do, which is go out there and do it.

Carolyn was talking about—I am sorry, my colleague was talking about inspiring these people, this workforce that is out there. A lot of people are in jobs that they are not happy about, and they should be looking, sometimes, I think at the jobs you are talking about.

Thank you very much.

Chairman TALENT. Next on the Democratic side is Mr. Davis.

Mr. DAVIS. Thank you very much, Mr. Chairman.

And let me just say, gentlemen, at the offset that I appreciate all of your testimony and have found the discussion to be somewhat intriguing. I think all of us come from different experiences, and I come from the experience of a district that has lost more than 120,000 manufacturing jobs over the last 30 years.

I also come from an area where the problem isn't what happens once you get into skilled work opportunities. It is the problem of some people not being able to get in. I am seeing many people not being able to get in because there seem to be, in many instances, especially with trade unions—and I am a trade unionist—there seem to be a family network. There seems to be an old boys' network. There seem to be a cousins', uncles' network. And so people can't get in unless they come with certain kinds of recommendations or they come from certain groups.

And while I think the legislation has a tremendous amount of potential, I think my question becomes—one of my questions becomes, how can we assure that we are going to actually bring new people into the skilled workforce, I mean, new people who, for all practical purposes, have been actually shut out?

I recall in my city where the unions decided to move a trades school out of town, Washburn Trade School, which had a reputation of being one of the best in the business, but once some requirements were put—that they had to let other people in who had not been getting in, they decided that it was in their interest to just move out of town, leave Dodge City. So I want to know, how can we assure that we are going to bring new people into the skilled workforce and then, Mr. Chairman, whether or not there might not be some ways that we can tie this legislation into some of the other things, like empowerment zones, like disadvantaged areas, disadvantaged businesses, or businesses located in certain areas and

making sure that they get the assistance that they need through these tax credits. And so anybody can—

Mr. BACHMAN. Our plant is in the middle—not in the middle of St. Louis, but it is downtown. St. Louis went from almost 900,000 people down to 300 and some thousand people. They just all disappeared. We have several problems, and you can start naming them if you want, but they do not—there is nothing we can do about it as far as a small company.

Now, we take and work with a junior college, a private junior college in St. Louis right in the middle of the area that was—looks like it was bombed out. They have many trades that they teach, and the area—if a person comes in and wants to go to the junior college and they don't really have the money—when I was retired from my business, whatever you want to call it, they gave an apprenticeship—I mean a scholarship to a person per year to go there.

Now, they have—if you take a test and you have to have some ability—like in our case, the mechanical trades, you have to know, you know, your left hand from your right hand. Most of these young people have played with automobiles or something. That is usually the most common thing for young men. If they do this, the school now will take and give a catch-up course, so to speak, for a year free. All you have to do is go.

And this has happened about 5 years ago, and I think they are doing real well. They bring a lot of people in there that could not afford to go to the school; and then, after that, then they take them and they look for people. Like Emerson, they give them \$150,000 a year to help these people go through the school. And this is the way that we try to help those people that can't just walk in, plunk down \$3,500 and say, hey, I want to go. It is happening in St. Louis, but a lot of it was lost before we got started.

Mr. BETTCHER. Mr. Davis, I make two comments about the air conditioning refrigeration business. Part of our program—we have got several things going on to try to get people into the industry. But to your question, we have identified the inner cities and the zip codes of this country where there is not this infatuation with 4 years of college for every person. Those are very, very key target areas for us because we think those are people that are very good candidates for our industry. So we plan to target those types of areas in the country.

And the second thing that was commented on was the reduction in manufacturing. The other initiative we have taken is to say we want a package of material put together so that when a company announces a downsizing or a merger and they are going to lay off a lot of people, we want to be there the second day with a package that talks about our industry, the opportunity for training, and this kind of funding would be a perfect fit with that kind of an initiative to bring these people into a new trade.

Mr. LETO. We do the same thing. We are a member of the greater Tampa Chamber of Commerce, so we are aware of companies that are relocating to our area.

I agree with what you said. I think, if I understood it correctly, we are talking about diversity and race. Us being an 8a contractor for the defense business, we are of Hispanic origin, and we have

a mix of African Americans, Caucasians, Hispanics and women that work in the business. It is very difficult to find a lady that wants to work in the foundry business, because it is quite dirty, as opposed to the machine shop, where it needs to be temperature controlled.

But there are also hub zones preferential that are involved. We are not in a hub zone, but we really don't have that luxury, to be that particular of who we hire. We need to hire the best person qualified for that job. And if it is a mold maker and we need to train that person, it really doesn't matter. If you came to our facility, you will see a very even distribution of African Americans, Caucasians, women, and Hispanics.

Mr. DAVIS. And I think it is important that we look at different requirements, different entities. In some instances, obviously, the technical requirements are different. In the other instances, it becomes a matter of a willingness to invest in individuals. And what I hear you saying is there are some instances where you have the opportunity to do that, and a tax credit would certainly go a long way where it is helping your company to be able to make that investment, and it is a concept that I like and have a great deal of appreciation for.

I think I am going to like this legislation. I think I am going to try and look for ways to make sure that it is targeted and focused in such a way that we can get the most mileage from it.

I agree with all of those in terms of voc training and voc ed. I think all of us have had those experiences and we have all had the conceptualization of what people thought existed. Personally, I wish that I had more of it than just simply growing up that I knew how to handle a hammer a little bit better without hitting my finger.

And I think we do need as my colleague from New York, Representative Kelly, suggested. Sure, we can help with young people from an overall vantage point, but in terms of the nitty gritty of what goes on in the industry, if these tax credits are going to be given, I want to make sure that they are given in such a way that we help to bring into the mainstream some of those many individuals who have been left behind, who have been cut out, and for all of the reasons that we already know are not there.

When we talk about skilled tradesmen in many areas in my city where there is over a million African Americans and we talk about there being 25, 30 blacks in a skilled trade in the whole town, I mean, that is appalling. That is incredible. That is unbelievable. And we can just talk about things like tool and die makers. We can talk about things like plumbers. We can talk about almost any of the skilled trades, and I want to see us be able to function differently than what some of the trade unions have done in terms of who gets in and who does not.

Mr. BACHMAN. Actually, aptitude tests which we desire before we hire somebody, because they are the people that know—not have the knowledge of education, but they know how to put things together, and it really doesn't make any difference. You can take a person out of ninth grade and have an aptitude test and they will—they can become a machinist or a die maker. Now, if they goof off for the next 4 years, then they are going to have to go back and

do it over again. But their aptitude is there and they want to do it, they can do it. But aptitude is different than knowledge.

Mr. DAVIS. And they can make a lot of money doing it, a decent life.

Mr. BACHMAN. That is right.

Chairman TALENT. I thank the gentleman.

I am going to recognize Mr. Toomey.

Before I do, I want to remind the members we have another panel which we want to get on and testify, although I certainly don't want to restrict these lines of questioning. They are very constructive.

Mr. TOOMEY?

Ms. NAPOLITANO?

Ms. NAPOLITANO. Thank you, Mr. Chair.

I did read your testimony, and I was quite impressed. Because we long believed that we need to focus on stressing in the schools the math and sciences for our young people, which is one of the focuses that we are trying to revive in certain areas, especially those areas that are low income. Because we are finding out that a lot of our students, a lot of our young people, they have the ability, they have the mentality, but they don't have the opportunity.

Now, in listening to some of the dialogue and reading some of the material, it brings to mind that somehow we need to probably get everybody to start focusing on the low area income schools, to provide speakers that have been successful, some of you are machinists, some of you are mold makers, some of those individuals to attract the eye and the ear of the youngster who will not be going to college, who might have the capability of doing well in your test, that might be the identified young person who might be going into the industry. But he needs to know where to go, who to talk to, and how to become—be put on that road, that path to be able to become the machinist or the mold maker or the engineer in your area.

Have you done or has anybody come up with a video to be able to show schools the young machine shops or the ninth graders, tenth graders that might have an idea that they might be interested in that particular field, to show them what areas they may be able to fit into, what they will need, what kind of math they are going to need to fit into this particular industry? Does anybody have any idea—

Mr. BACHMAN. How many of them do you want?

Ms. NAPOLITANO. I am sorry?

Mr. BACHMAN. How many of them do you want?

Ms. NAPOLITANO. I would like to have some to be able to show in some of my schools, to give to the counselors.

Mr. BACHMAN. The NTMA has I think three different ones, and we can take a choice.

Ms. NAPOLITANO. Are they geared to high schools?

Mr. BACHMAN. They are geared to junior high school going into high school.

Ms. NAPOLITANO. Are any of those good material to put on cable, to be able to instruct the general public?

Mr. BACHMAN. I think it would be, if the public will sit still long enough and really listen to it.

Ms. NAPOLITANO. Well, that is how we form public opinion, is to be able to inform and educate the general public first that you are having a lot of your current workers retire or leave the industry, that you need people who are successful in the math and sciences that will be able to enter this field and attract young people into the industry to fill in those slots.

Mr. BACHMAN. I would be glad to get some for you. Afterwards, I will get your name and address and where to send them.

Ms. NAPOLITANO. Certainly. Ms. Krause over there will see you, because I will be leaving. I have another Committee meeting going on, but I needed to come here and talk to you.

The welfare work is very intriguing to me, especially since I come from California and we now have a max of 5 years for an individual. How can we become more in tune with providing access to the welfare recipients, even women who might be willing to become the students and be able to be successful in entering machine shop? And there are women that I know who work in machine shops. They may not work in the foundries, but they do work in the machine shops. How can we begin not only to make them the entrepreneurs but be able to assist them because these are good-paying jobs, that they can provide income for their families?

Mr. BACHMAN. Well, we have a school called the Cornerstone something, and it is—all government funds. And they are taught only how to run a machine, and those are what they call numerically controlled machines. They make the part, you put the part in, you press the button, it machines it, you take it out and put another part in. That is fine, but it is not making—it will be—that is a machine operator, we call it. And it does get something done. If you have that—if you need that kind of work.

But now they—last year, they started taking additional courses. This was, I think, 3 months that they taught this person to operate this type of machine. Now, that doesn't take into account numerical controlled equipment. Now they have gone back and said, we will teach computer working, we will teach some mathematics, blueprint reading, the basics they need. And they take this into a 12-month session, and they allow them to do this.

Now, these people, when they come out, they are probably apprenticeable, and if they want to go on or they can be a good machinist that way. So it is helping.

All I am speaking for is St. Louis. That is mostly all I know. But they have decided and they have gotten the go-ahead to expand this thing. I think it is great because these people, who were pushed out into the industry with actually no information except to push the gold button and if something happened push the red button, they just don't have any real knowledge, and unless somebody is willing to take them under their arm and say, okay, here, we will teach you more. But they can through the government in that particular case, continue, but this is only started up really this year.

Ms. NAPOLITANO. So it is new. You don't really have any stats as to how it is working or it is being accepted?

Mr. BACHMAN. No, but I bet my bottom dollar it will. I went through the classes. I saw what they are teaching. And if they require certain grades, fine, everything will work.

Chairman TALENT. Thank you.

I thank the gentlelady and all the members for their interest and the witnesses in the first panel for their patience and their answers. It has been very constructive, and I will let them leave, and then ask the second panel to come forward, please. Thank you again.

I have a hearing in the Armed Services Committee going on now that I have got to go over to, so I just want the members of the second panel to know it is not for lack of interest that I am going to have to leave for a while. I will ask Mrs. Kelly to take the chair.

Mrs. KELLY [presiding]. I want to thank all of you for coming and being willing to testify here today.

And, Mr. Gooding, I want you to know that Mr. Pitts was very anxious to be here to welcome you and to introduce you, and we are glad to have you here. I am sorry this is a very busy morning. Most of us—as you can see, most of us have many hearings and other things that we are really mandated to go to, so I apologize for the fact that I know he was trying—wanting to be here and tried to be here during the time when you would be here to be introduced. But we welcome all of you, and we look forward to your testimony.

And this panel we have Mr. Gooding. We have Mr. Holdsworth, who is the Director of Communications from Leesburg, Virginia.

Mr. Gooding, I am going to back up for a minute, because I didn't say that you are Chairman and CEO of Gooding, Simpson and Mackes, National Roofing Contractors Association. He is a member of the board of directors.

Then we have Mr. Holdsworth, whom I have introduced.

Mr. Murphy is here with the Crest Electrical Company. He is here on behalf of the Mechanical-Electrical-Sheet Metal Alliance in Washington.

And Mr. Pence, Capitol Hill Advocates. He is here for the National Concrete Masonry Association of Herndon, Virginia.

We welcome all of you. Thank you very much.

Mrs. KELLY. I believe we will start with you, Mr. Gooding.

**STATEMENT OF JOHN GOODING, CHAIRMAN AND CHIEF OPERATING OFFICER, GOODING, SIMPSON & MACKES, INC., EPHRATA, PA, MEMBER OF THE BOARD OF DIRECTORS OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION, WASHINGTON, DC, AND CHAIRMAN OF THE NATIONAL ROOFING FOUNDATION'S ROOFING INDUSTRY ALLIANCE FOR PROGRESS**

Mr. GOODING. Chairman Talent and members of the Committee, my name is John Gooding; and I am chairman and CEO of Gooding, Simpson and Mackes, which performs commercial and industrial roofing work. I am also a board member of the National Roofing Contractors Association, NRCA, and chairman of the Roofing Industry Alliance for Progress, an industry-wide partnership established to analyze, select, recommend and provide oversight for projects addressing critical industry issues, including this shortage of skilled workers.

We thank the Committee for holding this hearing; and I commend you in particular, Mr. Chairman, for introducing the Skilled

Workforce Enhancement Act, SWEA. SWEA recognizes and addresses a serious lack of trained employees in the roofing industry. This has become so difficult at times contractors must turn down work.

In response to the shortage of labor, NRCA and the Alliance for Progress have been pursuing numerous initiatives to help our members find, recruit, and train skilled roofers. These are described in my written statement and include a 31-module training program.

Mr. Chairman, I would like to submit my written statement for the hearing record and summarize my remarks beginning at the bottom of page 4.

For over 50 years Gooding, Simpson and Mackes has struggled with trying to recruit, train, and retain good employees. In our Pennsylvania location, we have been involved with the ABC, Associated Builders and Contractors, Apprenticeship Program for sheet metal workers for the last 30 years. This program involves 4 years of on-the-job training and in-house training 6 hours per week throughout the normal school year. This program is dependent upon other contractors recruiting students interested in learning to become sheet metal journeymen and willing to give up two evenings a week without pay during the school year.

SWEA might give us the financial freedom to pay students a small stipend for taking night school classes, thus recruiting more workers.

In 1998, our company started a 2-year roofing apprenticeship program, supplying both our facility and instructor for the local ABC chapter. Our instructor used both the ABC Apprenticeship Training Program and a new NRCA training module to provide a very good classroom experience.

Besides the classroom training, our employees are working approximately 2,000 hours on the job as well as attending monthly safety training and special programs put on by our insurance carrier and trainers during inclement weather.

In addition, our Pennsylvania company has spent over \$100,000 on a large training room that can hold 100 employees. We are now looking into building another facility for hands-on training in a classroom environment.

In 1998, I also approached the New Castle County Delaware Vocational Technical Schools and asked if they would consider establishing a training program for roofing mechanics if I could help provide employment opportunities. They agreed to this proposal and sent their instructor to an NRCA training program. I then employed him during the summer to give him a better understanding of what is expected of his students and familiarize him with the tools, the equipment, and the products. Our Delaware company purchased and will continue to buy all the training modules produced by NRCA, and I personally plan to monitor this program as it unfolds.

My long-term goal would be to hire students from the voc tech schools and also continue their training as well as educating unskilled employees by using the voc tech night classes and/or in-house training. The tax credit for training costs under SWEA would allow me to buy a van and go into Wilmington, Delaware,

and Lancaster, Pennsylvania, to hire people who don't have transportation to get to our business location or our job sites, thus providing good jobs and excellent wages and benefits.

Our employees typically work 45 hours a week throughout the year except on days of high wind, rain, and snow. Our average employee works 2,000 hours a year, but other companies' employees may work fewer hours per year depending on their geographic location.

In closing, the shortage of skilled workers in the roofing industry is real and shows no sign of abating. For example, we purchased land and built our facility in Newark, Delaware, in 1989. We anticipated having 100 employees on the payroll within 10 years. Today, 11 years later, our workforce is only 35. Something must be done to encourage people to continue to come into our trade.

Mr. Chairman, SWEA is a very important step in helping small roofing contractors attract the labor they need by giving them the incentive to train their employees in a formal program instead of continuing to complain and not achieve the results they want. NRCA urges every member of the Small Business Committee who is not already on SWEA to co-sponsor this legislation.

I thank you for this opportunity to testify before you and would be happy to answer any questions.

Mrs. KELLY. Thank you very much, Mr. Gooding.

[Mr. Gooding's statement may be found in appendix.]

Mrs. KELLY. Next, we have Mr. Holdsworth.

**STATEMENT OF THOMAS W. HOLDSWORTH, DIRECTOR OF COMMUNICATIONS AND PUBLIC AFFAIRS AND DIRECTOR OF COLLEGE AND TECHNICAL PROGRAMS, SKILLSUSA-VICA, LEESBURG, VA**

Mr. HOLDSWORTH. Thank you. I make an observation. We could use a carpenter for this door over here.

Thank you, Mr. Chairman; and thank you to this Committee for inviting me here this morning.

I am Tom Holdsworth, Director of Communications and Public Affairs for SkillsUSA-VICA, a nationwide education association.

SkillsUSA-VICA is one of America's largest public-private partnerships with nearly one quarter of a million student and teacher members annually. We enjoy the active support of over a thousand corporations, trade associations, labor unions and businesses at the national level alone.

Our industry partners are very concerned about our Nation's shortage of both experienced and entry-level workers. According to the U.S. Bureau of Labor statistics, the demand for skilled workers has gone from 20 percent in 1950 to 65 percent of the labor force today. This increased demand results in a shortage of skilled workers and is even more difficult for small business.

According to the Bureau of Labor statistics, construction trade jobs will increase by 8 percent from 1996 to 2006. That translates to 1,127,000 job openings due to growth or net replacements.

A Harvard study shows the construction industry needs to replace 18,000 carpenters a year. Apprenticeship programs produce only 5,000 new carpenters annually.

The demand for heating, air conditioning and refrigeration mechanics and installers will go up by 17 percent, or 104,000 openings.

Concerns from the machining sector have as much or more to do with quality as with quantity. While the overall number of employees will trend down slightly, tomorrow's metal workers must be more skilled to run increasingly sophisticated and efficient equipment.

Small businesses have traditionally counted on vocational technical education as its largest provider of formal training for its workers. So the logical question is, how many students are in the education pipeline for these occupations? The answer is, not enough.

Department of Education figures from the eighties and into the nineties show masonry enrollments declined by two-thirds, air conditioning refrigeration and heating by two-thirds, and metal trades by 60 percent. Carpentry enrollments also dropped.

There are several reasons for these declines. Three of the most important are population, policy and perception.

First is the simple matter of demographics. We have been going through the baby bust. There have been fewer high school students and young adults. The good news is that with the echo baby boom we are about to see that 16 to 24 age cohort increase.

Second, young people are not encouraged to enter these professions. Since the early 1980s, and for some very good reasons, secondary public education has focused on academics and increased core graduation requirements. This shift in emphasis, however, has often changed the objectives of vocational programs. Instead of teaching skilled proficiency for job entry, some vocational programs focus more on teaching applied academics. Cutbacks on time in class has meant students are taught about an occupation rather than developing skill proficiency. Because vocational courses are electives, if their enrollments decline, the program is closed. That effectively closes the door to an occupation in that school or college.

Third is a public misperception of these occupations as careers. The second-class stereotype of blue collar workers is alive and doing damage. Too often, the public does not see the financial rewards of these occupations, nor do they see the career paths that lead from them. Vocational students that come from good vocational programs have career plans, and they have the skills when they graduate.

By default, specific skilled training is being pushed to the post-secondary level. Here the average age of a student is 28 or older. Their responsibilities are higher, and their budgets are tight. Post-secondary students are motivated and looking for ways to either start or change their careers.

Now for some good news about training. The automotive industry saw a shortage of service technicians in their future, and they took action. This Committee would do well to study the AYES or Automotive Youth Education System. It is based on industry standards, manufacturer created, supported by the dealers—which are small businesses—and delivered through the schools. AYES puts 2 years of high school together with 2 more years at the postsecondary level and couples that with ongoing training and certification on

the job. In short, they have a training system beginning with the recruitment and leading to continual professional development.

Caterpillar has also created an intensive 2-year training program providing college instruction and on-the-job training for Cat dealer technicians. The point is, of course, Caterpillar was looking for a way to help small businesses, its dealerships who were facing technician shortages. The dealer service technician program is set to world-class standards and delivered through community colleges.

In conclusion, I would like to tell you that SkillsUSA is conducting a nationwide awareness campaign this year called Building Skills for America. Our students are collecting 1 million signatures from employers, employees and union members voicing their support for America's highly skilled workforce, also voicing their concern about the shortage thereof. We will be bringing those signatures to Washington in September, 2000. I hope we can count upon this Committee to recognize our students' work and the need of business and industry for a skilled workforce.

Mr. Chairman and members of the Committee, I hope this bill will help small business, apprenticeships, colleges and, most of all, workers. Thank you for inviting me to appear before you this morning.

Mrs. KELLY. Thank you very much, Mr. Holdsworth. I think it is really admirable that you are out there working right now in the schools with the students. That is where we have got to get them.

[Mr. Holdsworth's statement may be found in appendix:]

Mrs. KELLY. Mr. Murphy.

**STATEMENT OF PATRICK MURPHY, PRESIDENT, CREST ELECTRICAL COMPANY, ST. LOUIS, MO, ON BEHALF OF THE MECHANICAL-ELECTRICAL-SHEET METAL ALLIANCE, WASHINGTON, DC**

Mr. MURPHY. Thank you.

Mr. Chairman, members of the Committee, Ms. Kelly, Ms. Velazquez, my name is Patrick Murphy. I am the owner of Crest Electrical Company in St. Louis, Missouri. Crest Electrical is a family-owned business that has been operated since 1953. I have been the owner for 21 years, and I currently employ about 220 electricians in the St. Louis area.

I am a member of the National Electrical Contractors Association, NECA, and I am pleased to be here today on behalf of the Mechanical-Electrical-Sheet Metal Alliance to discuss the Skilled Workforce Enhancement Act.

As a former member of our joint apprenticeship and training committee, I know firsthand the benefits of training excellence in the construction industry. I feel the quality of apprenticeship and training is important for my employees because it increases the speed and quality of their work, improves our customer relations, creates loyalty within our workforce and creates a pool of skilled labor to replace retired journeymen.

Alliance contractors in my area have chosen to make a significant investment in the future of our industry. The three organizations of the Alliance are currently training 890 apprentices and providing continuing education to nearly 3,000 journeymen in the

St. Louis area alone. The construction industry is currently facing a serious skilled worker shortage.

The Alliance applauds Chairman Talent's initiative in attempting to promote and reward training programs in the skilled trades through SWEA. However, while we support the Committee's objective of helping small business develop an adequate, competent workforce, the proposal, as currently written, raises a number of issues and potential problems for Alliance employers, problems which could be resolved easily through some modifications in the legislative language.

The multi-employer training system is the most cost-effective way for construction firms of any size to offer extensive and comprehensive training to their employees. Multi-employer training programs allow all construction employers, especially small businesses, to pool their resources to provide a quality combination classroom and on-the-job training utilizing resources that they, as individual employers, would not be able to afford alone.

It is our understanding that businesses participating in collectively bargained multi-employer programs will be able to take advantage of the tax credit created by SWEA. However, this is not directly stated in the text of the legislation. We have been led to understand that this potential ambiguity will be clarified through report language, but we believe specific language in the bill itself is necessary in order to prevent any possible misunderstandings.

Due to the critical level of skilled workforce shortage and to maintain consistency with the 1958 revenue ruling on deductible training expenses, we suggest allowing all employers who are party to an accredited joint multi-employer apprenticeship and training program to be considered eligible for the SWEA credit. This is particularly appropriate for an industry where the vast majority of the workforce may be working for one employer one day and another employer the next.

SWEA already covers nearly all employers in the construction industry. According to the 1997 construction census, there were over 175,000 construction firms in the plumbing, heating, air conditioning, electrical and sheet metal trades. Of this number, only 339 businesses would not qualify for the SWEA tax credit.

Simply because an activity is labeled apprenticeship or training program does not automatically make it so. Real training, especially in highly skilled trades, requires real effort and real commitment. SWEA uses Labor Department definitions for qualified, highly skilled trades. But it is unclear whether the measure fully adopts the equally important Bureau of Apprenticeship and Training definition of a qualified training program.

This would not skew the program to only contractors using organized labor. Missouri, for example, has Bureau Apprenticeship Training certification for both union and non-union training programs. St. Louis County has plans to require BAT-certified apprenticeship as part of its mechanical code requirements.

Compliance with BAT certification is easy and uncomplicated. The Alliance suggests that in order to standardize definitions for training, compliance with BAT standards become a requirement for receiving the SWEA tax credit and appropriate industries.

Alliance training programs which are exclusively multi-employer in nature and which all are accredited through the BAT graduate an average of 80 percent of their enrolled apprentices. By comparison, other programs which use mixed methods for training graduate an average of only 20 percent of enrolled apprentices.

SWEA limits the tax credit to programs that are a maximum of 4 years in length, denying the full benefit advantage to 5-year programs. The Alliance feels this fails to address the very workforce development aspects intended by SWEA as rapidly advancing technology systems and facilities require more ongoing training. The Alliance strongly urges that 5-year programs qualify for the SWEA tax credit.

Mr. Chairman, each of our organizations has invited you to tour our training facilities in your area. Thus far, your schedule has not allowed you to take advantage of this opportunity; and at this time we would like to renew our invitation and urge you to take advantage of it so you may see firsthand the type of instruction that is going on. Alliance firms have contributed to quality training in the mechanical, electrical, and sheet metal trades for over 50 years. The proposed SWEA tax credit would allow us to continue to enhance these quality training programs and to produce those desperately needed, highly skilled workers in response to the current workforce shortage.

Thank you for the opportunity to testify, and I would be happy to answer any questions.

Mrs. KELLY. Thank you very much, Mr. Murphy.

[Mr. Murphy's statement may be found in appendix.]

Mrs. KELLY. Mr. Pence.

**STATEMENT OF RANDALL G. PENCE, CAPITOL HILL ADVOCATES, INC., ON BEHALF OF THE NATIONAL CONCRETE MASONRY ASSOCIATION, HERNDON, VA**

Mr. PENCE. Thank you, Mr. Chairman and members of the Committee.

My name is Randall Pence. Thank you for your invitation to testify this morning on behalf of my client, the National Concrete Masonry Association regarding the Skilled Workforce Enhancement Act.

NCMA is, frankly, in the same position as the ARI witness was in a few minutes ago. We don't really represent the people who install concrete masonry, but we do represent the people who produce it. So the financial interests examined here for NCMA are really tangential to what is happening here today, but we do have an intense interest in seeing that the products are installed competently in the future.

The highly skilled workforce in America is indeed in jeopardy. You have heard that to a great extent today. Workforce recruitment is a prime topic in nearly every business confab in the industry. It casts a shadow on Main Street. Its impacts are being talked about on Wall Street. It is destined, we hope, to become an issue at both ends of Pennsylvania Avenue quite soon.

Employers in every district in America share this key concern for the future of their businesses. They know that without skilled

workers there is no skilled work. They are focused on our action here today.

There is already major support for H.R. 1824, and that support grows with every industry executive who hears about it.

Without question, the need to increase the number of new masons is the foremost issue confronting the masonry issue today. A highly skilled, qualified mason is essential to competently erect a structure using masonry. Without a mason, there is no masonry structure. Period. The trade of masonry, of course, is feeling the pinch as much as any other industry dependent on highly skilled workers.

Let me offer some facts and figures important to the masonry industry. According to the masonry industry's most recent study, the U.S. suffered a shortfall of at least 6300 workers in skilled masons in 1995 and perhaps up to as many as 13,000. Further, the shortfall has been growing steadily since that time. At the same time, the average age of masons and the average age of new mason apprentices are both rising rapidly. In one recent 5-year span, census figures and industry data showed the average age of masons rose from 37.7 years of age into the low 40s.

Now, what is most disturbing about these numbers is that the industry may actually be underestimating the speed of the growing problem. There is clear evidence of upward age concentration in the industry. This signals an upcoming cluster of retirements. The acute impact on the industry could be enormous at that time.

Studies also show that the average age of new apprentices entering the trade is rising as well. The masonry trade is missing the high quality high school students in that critical period immediately following graduation when career paths are traditionally chosen.

Costs, of course, are also a key limiting factor for training among masonry and small businesses. NCMA estimates a cost in the range of 25,000 to \$40,000 per year to train a new mason. Survey data shows that H.R. 1824 could indeed have a strong positive impact on the cost equation. Respondents say that this bill would allow them to take on an additional three to four apprentices per company on average.

Now, spread across the entire country, this bill could go a long way toward reversing the disturbing trends we have been talking about this morning.

Regarding some key issues in the bill, some may suggest that H.R. 1824 be limited solely to BAT certified programs or that a similar restriction be added. NCMA respectively does not support such a provision at this time. We recognize that BAT certified union programs do a fine job of training masons. However, there are also many training programs run by industry without BAT involvement oversight or standards. These programs produce fine masons as well and should be fully eligible for the H.R. 1824 tax credit.

Both industry and labor programs have strong support in NCMA. The only problem is that both are not producing enough masons to satisfy demand. It is that problem that H.R. 1824 attacks in a comprehensive and inclusive manner.

At this time H.R. 1824 does not discriminate. It is labor/industry neutral and that is a key point to solidifying and maintaining the growing support for H.R. 1824 outside the Beltway. NCMA sees a great deal of wisdom in that approach and we hope to see it retained.

Further, on an issue that I know was brought up before to the previous panel regarding multi-employer training facilities being eligible, let me say for the record that NCMA supports the proposal to ensure that multi-employer training facilities will indeed be eligible for the act.

Mr. Chairman, before closing, as a former Senate staffer, I think it is important to recognize those who suffer for our benefit. Over the last several months I have had the pleasure of working with Ligia McWilliams and Melissa Decker. Their strong support, their professionalism and hard work has been instrumental in propelling this bill forward. We all appreciate their skillful work.

In conclusion I would like to urge the Congress to consider the skilled workforce in America as an important national human resource that needs maintenance. We ask that Congress pass H.R. 1824 this year and start rebuilding the skilled workforce as quickly as possible.

Once again I applaud your strong action and foresight on this issue and I appreciate this opportunity to share my views for the National Concrete Masonry Association on H.R. 1824.

[Mr. Pence's statement may be found in appendix:]

Mrs. KELLY. Thank you very much, Mr. Pence.

I am going to hold my questions and go to Ms. Velazquez.

Ms. VELAZQUEZ. Thank you. Mr. Gooding, in your testimony, you mentioned that you like to see the minimum number of training hours required for the tax credit under this bill reduced from 2,000 to 1,500 hours to be more reasonable for your industry. Could you please explain why this request would be more reasonable and then whether you want a change be made across the board or just specifically for the roofing industry?

Mr. GOODING. The reason I would like to see this change is because many of the contractors, particularly members of NRCA, work in northern climates and unfortunately they just cannot get the hours in. When you get north of the Mason-Dixon line—we are fortunate. We are in southeastern Pennsylvania and we have no problem getting the 2,000 hours but even in the northern part of our State, it becomes almost impossible because of the cold weather to contend with. But that also involves the other trades such as masons and sheet metal mechanics and anybody who is working outside, they are going to be limited with bad weather. You even go out in the northwestern States, they have the same identical problem.

Ms. VELAZQUEZ. Well, reducing—

Mr. GOODING. So I think it should be reduced not necessarily just for our trade but for all trades.

Ms. VELAZQUEZ. But don't you agree with me that we will be cheating the workers of valuable training? Would you feel comfortable the 1,500 hours will be enough to really have the workers trained in that field?

Mr. GOODING. I think the 1,500 hours may be enough but then the program, in particular our case, the roofing, we have 2 years. Maybe that would have to be extended to 3 years to get the hours, get the training involved. Instead of limiting it to a 2-year program, possibly a 3-year program in that particular case.

Ms. VELAZQUEZ. Do you feel comfortable that 1,500 hours will provide—

Mr. GOODING. I view in our particular case in our trade.

Ms. VELAZQUEZ. What about the other fields?

Mr. GOODING. I can't honestly speak for the other fields.

Ms. VELAZQUEZ. What you are telling me you don't feel sure that this should be made across the board?

Mr. GOODING. I guess you are correct in that statement.

Ms. VELAZQUEZ. Thank you.

Mr. Holdsworth, it is my understanding that under current tax law, businesses may deduct costs for training if they are, quote, ordinary and necessary expenses paid or incurred in carrying on any trade or business. The Tax Code includes as the cost of doing business employee salaries and training costs if they qualify as ordinary and necessary. Would you please explain to the Committee why the current law falls short in providing the necessary incentive for businesses to train unskilled workers?

Mr. HOLDSWORTH. Representative, I am afraid you have asked me a question I am wholly unqualified to answer. I know nothing about the tax law relative to this education. I came to speak strictly to the need in education and the supply of people coming through the system, but as to this customary and ordinary, I do not know anything about it.

Ms. VELAZQUEZ. Okay. Thank you.

Mr. Murphy, in terms of years, how long are the apprenticeship programs in the industry groups you are representing here today?

Mr. MURPHY. I can speak specifically for the electricians is a 5-year program and I believe that the sheet metal and pipefitters, plumbers, they are all 5-year programs.

Ms. VELAZQUEZ. Can you please estimate the graduation rate for the apprenticeship program for the industry groups that you represent?

Mr. MURPHY. As I said in my testimony, in the multi-employer plans which I represent, overall is greater than 80 percent. I know in our area in St. Louis, our rate is probably over 90 percent.

Ms. VELAZQUEZ. How is the graduation rate monitored?

Mr. MURPHY. It is monitored by the Department of Labor. They are a regular participant in our plan but through the number of people that come into the plan, those that graduate, we follow and keep statistics on them.

Ms. VELAZQUEZ. Thank you.

Mr. Pence, you already answered my question in your testimony. Thank you.

Mrs. KELLY. Thank you very much, Ms. Velazquez. I am going to go—I would like to go back to the issue that Ms. Velazquez raised, Mr. Gooding, about the number of hours, cheating workers. Since I live in the Northeast and since my husband is in—as you heard earlier started with a hammer in his hand, I know that there are a lot of workers that can't get out there on the roofs, that can't

get out there doing a lot of things in bad weather. And you can't train them on the job in bad weather because it is a hazard. So my question to you is, do you think that this bill, we might want to try and tweak this bill a little bit to allow some flexibility in there somehow so that—because right now you can get credit up to 4 years. If you can get credit for up to 4 years, should we perhaps think about helping folks who are affected by certain things like weather conditions or suppose a major flood in a river somewhere else in the Nation, if they can't get it in in 1 year or 2 years, then they could extend 3 years or 4 years. So I don't see how workers are being cheated here if we have it in the bill at 4 years and I am asking you really do we need to tweak this bill or is it okay as it is?

Mr. GOODING. I would like to see it tweaked. I really would. I feel right now when we have bad weather, we are training some of our individuals but here again, we are very fortunate in our particular area. I think by tweaking the bill, giving the contractors the ability to stretch that program out to the 4 years, you will end up with skilled mechanics.

Mrs. KELLY. That is really what we are after.

Mr. GOODING. That is all we are after. We are looking for people to fill those spots.

Mrs. KELLY. I just wanted to make sure that that was sensible.

Ms. VELAQUEZ. I would just like to, if you allow me to follow up with another question that is related to the one that you just asked. Mr. Murphy, don't you agree with me that we should change the bill to include those 5-year programs?

Mr. MURPHY. Absolutely. Our programs are a major investment on our part for all 5 years and we certainly feel as though it would be appropriate if your program is 5 years to have the credit available for all years that you do spend training.

Mrs. KELLY. Thank you.

Mr. Murphy, since we are at you at this point, I am going to skip over and just—Mr. Holdsworth, I am coming back to you. Right now I just want to ask Mr. Murphy a couple of questions. I have got to get to your testimony here because there are a couple of things I wrote myself notes on. You represent the Mechanical-Electrical-Sheet Metal Alliance people, right?

Mr. MURPHY. Correct.

Mrs. KELLY. I actually have seen some of the—union training programs in my area; they have been for other trades but I think they are just great programs. They are very good. My question is really about the BAT standards. What makes the BAT program the—I am interested in why the BAT program is the one set that you recommend rather than having a lot of people have an input? I think that we are finding that the training itself benefits from having a lot of people involved and certainly the union programs benefit from having a lot of people working in and out of the training programs, having the trainees go out to a lot of different people. And I am interested in why you think that this—we should have everything fall under the BAT. It is one of those things that I think—I am trying to grab my question here. It is really—it really is a question of industry standards and I am worried about there being a national standard versus the industry standard.

What I am trying to drive at, in various parts of the country standards are different. If we have something that is imposed from the top, it gives no ability for those folks down below to have a say in what their people are being trained at. That is really what I am after.

Mr. MURPHY. I think I understand where you are going. Certainly we are looking for real training to take place and not just the term of a trainee or an apprentice. We feel it is very critical if this tax credit is going to be available that companies that receive the credit are in fact doing the job that they should be doing and doing real training. The BAT standards do recognize, I believe, somewhere in the neighborhood of 800 different training programs in the country, trade programs and if someone has a program and wants to take it to the Department of Labor, the Bureau of Apprenticeship and Training for certification, they can certainly do that and that is an open process. Our concern is simply that we don't want people that are not doing a good job and are not doing an adequate job of training to receive credits for very minor amounts of training. It is very easy to call someone a trainee and provide very limited training—in other words in our program, I pay out of our company funds for our people that attend school one day a week during the day. It is a full-day program and I pay their salary as if they are at work so that—I am getting four days of work out of a five-day week with our apprentices and we also contribute 30 cents per man-hour. Our company is spending over \$200,000 a year direct out of pocket on training for our employees. And it is a very large expense and I want to be certain that, you know, we are held to certain standards by the Department of Labor in our program. I want to be sure that anyone receiving this credit, we all do, we want to see them—be sure that they are doing the job that you want done.

Mrs. KELLY. Mr. Murphy, I have a real hard time grasping the concept that anybody with a training program would be training at a lesser level. That just doesn't make sense to me. They need highly skilled workers. Why would they train at a lower level. I want to ask Mr. Pence and Mr. Gooding really the same question that I asked Mr. Murphy if you can figure out what that question was. I know it was long.

Mr. PENCE. I think we would find—we have talked today about one specific program, the BAT certification program, under the Department of Labor. I think if you keep the record open for the next 10 days or so, you are going to be flooded with letters from other entities, industry entities out there who will say—hold their hands up and say, “we have the best program” or “we have a very good program and we should not be cut out”.

I think everyone here in the room today is in agreement. Nobody is interested in funding or supporting sham programs or programs that are not doing a very good job of training people for any specific skilled occupation. For example, in the masonry trade, if you have somebody who doesn't know what he is doing building a wall, you can imagine it is not going to be a very good showcase for the industry. That wall may come down. After the mortar is dried, you have a mess. So it is something you strive very hard to avoid in the industry for cost and other reasons. So I think we are all in

agreement we are talking about good training. I think also to the issue of the 1,500 hours which I think we need to flesh out further before we leave today, that we are talking about serious high-quality training programs. The question is who has the best program. We would submit that nobody really has the single best program.

Going through your press clips in the packet that staff has provided you, you will notice some programs that actually go beyond the BAT standards in some cases. I recall reading one article about a program that required I believe 200 hours of training instead of 144 as required under BAT. Under the flimsy rationale that more is always better, perhaps that should be the standard we should adopt. Rather than institute this automatic friction between labor versus non-labor programs, there might be a middle ground here talking about a certain baseline of criteria that people should follow to ensure, if that is the major concern of the Committee, to ensure that we are not talking about sham programs. We are talking about bona fide serious skilled workforce training programs that should be deserving of this tax credit. I think there could be some work we could do there. But I think to avoid the issue that cleaves between the labor and non-labor world, we might be able to stay away from a specific industry standard or specific BAT standard with all the problems that comes with that kind of delineation.

Mrs. KELLY. Thanks very much, Mr. Pence.

Mr. Gooding?

Mr. GOODING. I also agree with Mr. Pence. I think it is incumbent upon the industries themselves to develop this curriculum. We are out there. We are not interested in the sham program at all. We need to train skilled workers and we are going to do everything within our power to make sure it is done properly. Similarly, he has a problem, if he builds a wall and it falls down, he has got a major problem. If my people don't install a roof properly, we have a lot of problems, a lot of interior damage which is very costly to me. So it is really incumbent upon me to give them the best training possible and we are constantly doing that and we just want the ability through this act to be able to take unskilled people and work with them and give them that opportunity to become skilled craftsmen.

Mrs. KELLY. Thank you very much, Mr. Gooding.

Mr. PENCE. Could I bring up one other issue very quickly while we are still on this. Another issue that was brought up with the last panel was the issue of accountability. And obviously accountability is always something we want to make sure how you fulfill missions and so forth. It raises for me, just looking at the proposals we are talking about today, who we would be accountable to in this particular case. I think that is going to also require some serious thought because that is another area where you have this natural cleavage between the labor union versus non-labor world, which is what I would suggest we all try to avoid for the betterment of everybody here. Everybody at the table is going to benefit from passage of H.R. 1824 with the amendments we are talking about today and we should try to avoid these other issues. So I think in terms of determining a body to whom to be accountable, that is going to take some work as well.

Mrs. KELLY. Thanks, Mr. Pence.

Mr. Gooding, just one quick question. Is this program that you run certified by BAT?

Mr. GOODING. The one we are running in Pennsylvania is certified by BAT but we are also intermixing the NRCA modules as well. We are trying to pick and choose what is best for our locale. Our roofing practices that are done in Pennsylvania may be completely different in some aspects to what is done in southern California. So we have 31 modules to choose from. We may only as a contractor in Pennsylvania use 25 of those modules and they may use a different 25 somewhere else in the United States.

Mrs. KELLY. You are finding a certain flexibility works for you.

Mr. GOODING. Absolutely. We need to have flexibility.

Mrs. KELLY. Mr. Murphy, would your number of workers, do you think, increase if we were able to give this tax credit?

Mr. MURPHY. I certainly think there would be more incentive for the businesses to employ additional apprentices. We have unfortunately some businesses within our contractor group, some companies that don't like to hire apprentices and bring them in because they feel I am paying for the school time and I am not getting work all the time so I will let somebody else do the training and I will get them after they are already through the program. So I think this would encourage more companies to participate in the program and hopefully expand the opportunities for the apprentices.

I want to go back just a second on the BAT thing. For instance, in Missouri there are both union and non-union BAT certified programs. Just so you understand, BAT operates in all 50 States. There are offices in every State and they are out there and this is a program that is already in place and it is working and they are certifying people so we don't have to create anything to certify.

Mrs. KELLY. Yet Mr. Gooding is finding it better to have a little flexibility drawn into there. That is probably worth our looking at. Do you have a shortage right now, Mr. Murphy, of workers in your business?

Mr. MURPHY. We certainly do. It is limiting our abilities currently to take on additional work. There are jobs in St. Louis that are having very few bidders and sometimes no bidders simply because everybody is busy. We have—out of our workforce right now we have 20 workers that are from out of State that have come, travelers as they are called, that are in St. Louis right now working from all across the country are coming in and taking jobs in St. Louis simply because their areas are slow at the time.

Mrs. KELLY. I want to ask you a minute about the business of the tax credit versus tax deduction. And that is what I was digging in my notes here as I was reading your testimony, I had written this note last night. I want to know, I know because of my experience in the field within my own family that not all businesses take this tax deduction and I wonder if you can tell me what you think is the reason.

Mr. MURPHY. They do not take—

Mrs. KELLY. In your testimony, you say that simply put, all businesses may deduct their costs of training under current tax law. I am quoting from your testimony. But all businesses don't do that and I am wondering if you can tell me why you think they don't.

Mr. MURPHY. I would have no idea why you wouldn't. For instance, in our case, the wages that we pay the apprentices while they are in school and the funding that we put into the apprenticeship program on a cents per hour basis, those are all deductible as part of our labor costs on the jobs. And then beyond that, our safety training programs we do and other extra classes and things that we send people to, those are all deductible items for us. Frankly, I can't imagine why a business wouldn't unless they are just sloppy and not taking advantage of what is out there.

Mrs. KELLY. Could I throw that out to the rest of the panel here. I have my own supposition here but perhaps somebody here would like to answer that.

Mr. PENCE. Sometimes you don't take a deduction because you are not making money against which to deduct it, which is not a good situation. Section 162 is available to anybody, multi-employer or non-multi-employer for all training costs. One thing I would say is that with section 162, the above-the-line deduction for employment costs and training costs does apply across the board. That is one of the issues I discussed with staff previously. If you choose to allow a BAT only standard for the tax credit, we think it would be something in the nature of setting a precedent or dividing up the benefits whereas above the line on section 162, labor union and industry training programs today can all deduct those costs. By changing H.R. 1824 to a situation whereby only BAT-certified qualifies, I think it is a substantial difference from the existing law it is today.

Mrs. KELLY. Mr. Pence, have you any idea what the average amount of tax deduction is that businesses currently take on these training programs?

Mr. PENCE. My understanding is it is full deductibility, all costs for employment or training costs. Other tax experts in the room or from JCT might be able to answer that question but in terms of the actual dollar amounts how much companies normally take, I would suggest they take the maximum possible which would be the full employment cost.

Ms. VELAZQUEZ. Chairwoman, I would like to ask a question.

Mrs. KELLY. Yes.

Ms. VELAZQUEZ. Mr. Murphy, I would like you to explain or Mr. Pence, when you say that businesses deduct employees' salaries and training costs, why then this legislation is necessary to provide the type of incentives to train unskilled workers?

Mr. MURPHY. I think what we are trying to do is trying to expand the opportunities and as I said earlier, trying to encourage people to take in additional workers. Hearing some of the earlier testimony about people trying to hire for their companies, I got the impression they were trying to hire people that were already trained by somebody else. What we are trying to do is we are trying to encourage—rather than advertising for a skilled position, we are trying to—in our case we take kids from high school and college and beyond and bring them up and raise them up to the level that we are after and so we are trying to encourage companies to do more of that training.

Ms. VELAZQUEZ. Mr. Pence.

Mr. PENCE. As a matter of the Tax Code, tax credits are always worth a great deal more than tax deductions above the line. The tax deduction above the line is always subject to other provisions that may—adjustments that may reduce the value of your tax deductions. The below the line tax credit is a dollar for dollar reduction in your taxes. So it has a much greater financial impact on the company to take the tax credit as opposed to a tax deduction.

Ms. VELAZQUEZ. Thank you.

Mrs. KELLY. Thank you. I have just got a couple more questions here. Again, I have been—I understand from Mr. Murphy that you think that we need to explicitly state that multi-employer programs are going to be covered in this bill. I believe I read that in your testimony. It is my understanding that House legislative counsel clarified that multi-employer programs for training apprentices are going to be eligible to receive the SWEA tax credit and so I am not sure why we need to explicitly state this. Can you answer that?

Mr. MURPHY. I think one of the issues that we had with that was that the—we have some employer—some of our larger employers and I talk about the quantity of these companies, out of 175,000 companies that are in the trades that I represent, there are only 330 or so that are above this 250-employee level. In other words, we have a lot of very small businesses but the larger companies as well, the few that there are, we would like to see them included. They contribute to this program as much as we do on a cents per hour basis and we would like to be sure that they can also receive the credit and since they are funding it just like any of the other members.

Mrs. KELLY. Thank you.

Mr. Holdsworth, I told you I had a question for you. As a non-profit educational organization, you can't lobby Congress for this bill but you are here today to give us some educational information and I am glad of it because I think we really need it. Do you support the concept of this legislation and do you think it can help alleviate the current shortage of the highly skilled trades?

Mr. HOLDSWORTH. Yes, I personally do. I liked what I saw here very much. I am not as I said earlier conversant in the Tax Code as you have got some other people up here that are much better at that than I. But I do see the need and I do look for solutions, and I personally see something here that is needed. We have people who do need training and we don't get a highly skilled workforce by simply putting them on the job or running them through a simple high school vocational program. We at the vocational level view ourselves to be entry level preapprenticeship training. Apprenticeships are where the rubber really meets the road in this country in terms of high skilled workers. So if this legislation is something that is going to help develop that kind of activity, I am all for it.

Mrs. KELLY. Thank you very much. One final question for you, Mr. Pence. Is the shortage of highly skilled workers as acute as the shortage of lesser skilled workers and how do the costs of the training of the highly skilled workers compare with those of the training of lesser skilled workers?

Mr. PENCE. It is an interesting dynamic out there because we see lots of news reports about skilled and unskilled workers on the

news these days. One of the issues we try to impart in our testimony is that the issue of skilled workforce training and the short-falls that develop in skilled workforce training is really a more intractable issue, and from an economic standpoint we think a more dangerous issue, that needs attention on a rapid basis. The reason is these are not programs that can be solved by having a weekend job fair and putting somebody on board. These are training programs that are in all cases, and under this legislation before us today, last for a period of years, at least 2 years and up to—if the bill is changed, up to 5 years. So it is going to take a long lead time to get people into the system and get them trained. You are going to have to pull off skilled workers off their profitable jobs and put them on to overseeing in many cases the new trainees coming into the program. So it can take 2, 3, 4 years before you really see the fruits of today's recruitment, skilled workers that you can send out on their own to work on the most profitable jobs in the economy today.

If I could take care of one matter here before we leave this issue. We talked earlier at the very first part of the questions about the hours to change from 2,000 to 1,500. When you work on legislation, you find out things you didn't know. Our intent was to come up with a program that would benefit full-time training programs. We operated under the assumption that that meant 2,000 hours per year, a number which seems to have come into the vernacular of work life these days. After doing research with IRS and other elements of the government, we found out there is no requirement in law for 2,000 hours as defining full-time employment. So we had a bit of a conundrum here. We might have had the 2,000 hours in the bill with no real rationale or reason for it to be there.

We also talked about the issue of some of the industries, including the masonry industry, being conducted outside and you are subject of course to weather delays, things beyond control. So we were searching for a mechanism or a criterion that would keep us in the range of serious full-time employment designed to create skilled workers that are going to be in the career for many, many years. Serious employment. And we came up with the idea that 1,500 hours might be the appropriate threshold meeting with the weather delay problems that some of us face but still being—somebody who is working for 1,500 hours is certainly not a part-time employee and is probably working toward a career in that particular trade. So that is the genesis of coming up with 1,500 hours. We support that at NCMA and would like to see something along those lines put in the bill to take care of all the problems we just addressed.

Mrs. KELLY. I think that what you have said is very interesting and that is really what we were talking about here with Mr. Murphy and Mr. Gooding. I think that it would be interesting to hear from Mr. Murphy and Mr. Gooding in light of what you just said. Would you like to respond to that, Mr. Gooding?

Mr. GOODING. I agree completely that the 1,500 hours would work out perfectly in our trade, especially with some of the contractors in the areas we talked about previously. I mean, our problem is really just getting—we can't find skilled workers period in our trade so we have to start with unskilled and train them, but my

problem is that I am not looking for an awful lot. I am looking for somebody that has a desire to work, that are not on drugs, they have a pulse and they are willing to climb a ladder. That is all I am asking. I can't get them but if I had this tax credit, it is going to give me the impetus as well as other contractors to get out there and accomplish this. We are not asking for a lot in our particular industry but this act would be great to help get those contractors out there and get these people off the streets that are underemployed and get them in our workforce.

Mrs. KELLY. Mr. Murphy, do you want to address that?

Mr. MURPHY. Yes, I think my only concern with the 2,000 hour limitation is I agree what we are trying to do here is full-time programs and if I look at situations where we work 40 hours a week in our trade, we do not have makeup days for Saturday if it rains and many of the outside trades do. It would be very easy for someone to miss a week's time throughout the year somewhere and if now we fell in and it became that they worked 1,960 hours, you know, I would hate to lose the credit over having missed a week's time over a period of a year. In construction, it is very frequent that you will have some lost time due to conditions beyond your control, so I do want to be certain that we have—that we are covered for minor missed time throughout the year and we have some flexibility and we are not oh, gee, you only have 1,875 hours this year, you don't get the credit and that would be a shame.

Ms. VELAZQUEZ. Can I ask another question. What is the magic in the number of 1,500? Where do you get at that number? Why not 1,700 or 1,600, 1,650. Why 1,500?

Mr. PENCE. I think among the coalition of staff who have been working on the issue, there was a little bit of a ballpark guess involved in this due to talking with the members of the associations and understanding that there is a bit of a track record here. The idea here is not to create a tax credit that somebody is going to lose inadvertently. The feeling is that 1,500 hours is going to at least meet the threshold of serious employment but is not going to force you to lose the credit because of unforeseen consequences.

Mrs. KELLY. I would like to reclaim my time for a minute. Are you finished?

Ms. VELAZQUEZ. With your knowledge of the Department of Labor standards, would you think that that would conform with what they have in place?

Mr. MURPHY. The 1,500 hour would conform?

Ms. VELAZQUEZ. Yes.

Mr. MURPHY. Frankly, I don't know. I would have to get back to you on that.

[The information may be found in appendix:]

Chairman TALENT [presiding]. The other gentlelady from New York.

Mrs. KELLY. I am interested in this hour situation from another standpoint and that is if you are taking people who are having to learn a skill and become skilled, what amount of hours—has anybody done any studies that you know of, Mr. Pence, that indicate the number of hours after which somebody is going to look at that training program and say, hey, I just cannot do it, that is too long?

There is a discouragement factor that can be built into that training I think and we have to be cognizant of that as well.

Mr. PENCE. Are you talking about the psychological or marketing aspects to the trainees?

Mrs. KELLY. I am thinking about Mr. Holdsworth here who is talking about going into schools and training and reaching people and we were talking earlier about reaching out to people in schools saying look, you can do this, you don't have to go to college to do it. This is a good trade. You are going to make a lot of money in this, really doing the kinds of PR that we need to try to bring people into the trades, but if they then are told, if you join this trade you are going to have to go out and put in 5 years of 2,000 hours every single year, are you talking about a lot of hours? And people may look at their lives—I am thinking about my kids. I am thinking that they may look at their lives and say, I am just not going to put 10,000, 20,000 hours into this job. I want the job. It is a good job but I am not sure that that amount of training—that I want to take that much schooling.

I don't know, Mr. Holdsworth, you may want to jump in here too.

Mr. HOLDSWORTH. I do have this observation which is probably not a very good one to make at this moment. There is something about seat time and competency. Seat time doesn't assure competency. There are some people who are going to learn something in a hundred hours and it is going to take somebody else 300 hours. So it seems to me that the standard that we probably should be looking at—instead of the traditional education model of somebody sitting in a seat for a semester—and rather ask what are the standards that we are working toward and has that individual achieved that competency? It becomes a little more difficult.

It is easier within your legislation to say X number of hours covers everybody. You don't have to get into some of that standard stuff. But I don't like to leave it on that seat time because you are right, there are going to be students who are going to say, man, that is a long time. On the other hand, I know that there are apprenticeships, National Tooling & Machining Association for example has their apprenticeships, the students are going to school full-time during the evening and they are working full-time during the day. So their college is being paid for and they are getting their apprenticeships. I certainly hope this legislation would cover that kind of an arrangement.

Mrs. KELLY. I just watched my husband study as a journeymen carpenter with that hammer in his hand and it was a long time.

Mr. MURPHY. Addressing your issue over the 5-year period now, in our program, when an apprentice comes in they start out at a base wage. Then every thousand hours as they progress through the program they get increases until they reach their full journeyman status after 10,000 hours of training. The first 2½ years they spend the day a week in school and it is not just in a chair. We have labs where there have been pipe and pull wire and makeup control modules and do fiber-optic work and telecommunications work and so forth. So there is a lots of hands on and book learning. And then we have grades. This is like regular school. You have tests and grades and you have got to pass or you get out of the program. It is a regular schooling program but you have one day a

week for 2½ years in school and then the rest of the time you are on-the-job training.

Mrs. KELLY. But you are saying you also get a carrot at the end of that stick so to speak. You get more money as you get up in the program.

Mr. MURPHY. Every thousand hours you are going to get an increase in your wage.

Mrs. KELLY. Thank you.

Chairman TALENT. I thank the gentlelady and I want to just say I regret not being able to be here for most of this panel. I had another hearing that was getting on. I do understand that you covered most of the issues and I am not going to make everybody rehash them. We will leave the record open for 10 days if people have additional questions and we will continue working on this bill and those who want to go can.

One thing I want to get into and maybe refocus this hearing right at the end, let me ask you all, what do you envision happening if we don't do something effective in the government to help you with this? What solutions are you going to be able to develop or are you going to be able to develop? As this problem pinches more and more, what are we going to see? Businesses going out of business? Businesses not expanding? Let me just—sitting here as a person who is not always in love with government solutions, is the market going to come up with something if we just sit tight and do nothing? Are you all going to be able to figure out some way around this? Tell me what is going to happen where you see the current trends taking us unless something changes it, and whether you think something might change it outside of some government action and then I will let you all go run your businesses.

Mr. MURPHY. What we are seeing in St. Louis happening is projects are taking longer to come on-line. Buildings will get to a point and we will need iron workers, sprinkler fitters, pipefitters, whomever, and they simply aren't available. So we are stretching out the time on the jobs, whether it takes 2 years to finish a job instead of 18 months. There is financial impact there on the owner and on the revenue generation from that building.

So I think that that is one of the things that you will see. I mean, things are just going to take longer and what we have seen over the past 10 years is people want buildings faster and faster and faster, and if we start going backwards on that, they are not going to be very happy with that and perhaps do less building and find other ways of making it happen.

Mr. PENCE. I would have to say in most cases you are going to see it is going to be Economics 101, things we learned about in the first year of economics in college. You are going to see inflationary factors as we have to increase wages to attract more people and keep people in the skilled occupations. We are going to see—somebody mentioned earlier this morning and I think it is absolutely correct—employee burnout because you are going to see a lot more people, the ones who are working, are going to be working more overtime hours. That is good for the paycheck in the near term. In the long term I am not sure it is best for that worker. We will see construction delays and cost increases.

One factor I think we have to keep in mind here in Washington, D.C., is that one of the biggest customers if not the biggest customer out there is the taxpayer. At the local, State, and Federal levels, government construction is one of the major costs for the taxpayers. So anything that increases construction delays and the appurtenant cost increases in government construction as well as in the private sector is a major concern to all policymakers at all levels of government.

Chairman TALENT. Mr. Holdsworth, you want to comment?

Mr. HOLDSWORTH. Of course I come at it from the education side. I am going to add here that you are going to see issues in terms of quality of what is produced. We have heard that referenced in an earlier panel this morning and I concur with that. I have heard that from industry. They say: "Our problem is our products are not being appropriately applied". I am very concerned when I see the recruitment side of things in this country in vocational education. We are seeing students who are not being encouraged to go into vocational education. You talked about government a moment ago and I realize education is not really within the purview of this Committee, but we have education policy in this country and practice that has tended to discourage young people from going into these occupations. As a matter of fact, there are occasions when if we stop and look at it, education is encouraged to keep students within their own high schools, for example, rather than sending them off to the area vocational center because they keep the tax dollars right there at that school.

So what we have seen—and I have heard this a long time from industry—is "My goodness, the people that they are sending over for vocational training are the ones that the schools basically will pay to send there. They call them 'road scholars'". They are the ones administrators will pay to get rid of, put on the road and send someplace else. When we are drawing from a shrinking force of qualified people, the quality is going to fall apart. We also are going to have a vision of what a skilled worker and it is not very good.

I will take also this observation. I am working with students all of the time. They look at a high-tech computer-driven economy, people making money on IPOs and so on. Let's face it, a lot of the students who we want to go into vocational education are the sharp ones and they have got lots of options today they didn't once have. They say; "I can go on over here and make a bundle instead of doing that". So we have got to find some way to make it attractive to be over there and that is becoming a very, very difficult problem, I think, for many of these industries.

Chairman TALENT. You don't see, I take it, from your comments anything on the horizon out there where you can say to yourself, oh, boy, we have been worried for these years but this is coming now and it is going to fix it?

Mr. HOLDSWORTH. I am not seeing it. I am not seeing it right now.

Chairman TALENT. This problem is not something that just sprung up last month or 6 months ago. Everybody has seen this coming for sometime. Mr. Pence, you mentioned about costs of

wages going up and it is still not alleviating the problem. Is that a fair statement to this point?

Mr. PENCE. Yes , a fair statement. We are here today because whatever has been done in the past is not working and we need to do more.

Chairman TALENT. Do you have a comment, Mr. Gooding?

Mr. GOODING. The only comment I have we are seeing employee burnout. In some cases we have men working literally two shifts to satisfy customers. We are finding out customers have asked us to do what we can. In some cases they are even changing their budgets because the fact that we can't get there in time. We are driving wages, just skyrocketing wages. We have roofers that are making 55, 65, \$70,000 a year but where does it stop? I have moved up my base starting rate 2.25 cents an hour in the last 8 months and I have only recruited two employees. I have \$2,000 signing bonuses. I am doing everything I can but we are still not getting those people that we need.

Mr. HOLDSWORTH. I do have another comment. It sounds awfully doom and gloom here. Let me bring something else in for just a minute. An interesting phenomenon is happening out there. In community colleges, the largest new enrollment area are called "reverse transfers". They are 4-year graduates. They are going back to community college to learn job skills. I think some of the stereotypes are breaking down. I think there does need to be more activity within the education community and business community to get to parents and to those people who are helping to make the decisions and say there are other options. These are challenging careers. They are well paid careers and they are careers that lead somewhere. I've talked to parents who see their children going into masonry and they believe their children will be hod carriers for the rest of their lives. That student today may be a hod carrier, tomorrow may be a subcontractor and a few years from now a contractor, and that is a leader in the community. People aren't seeing that right now.

Mr. PENCE. If I could add one last comment. This bill is seen in the industries as the number one answer that may help turn the situation around. I can't overstate there is real excitement growing about this bill as the information spreads outside the Beltway and more and more business leaders learn about it. In the survey that we have done at NCMA, they are telling us this bill alone will spur them to hire three to four more masons per company. Now, that is an outstanding response. People are coming to us at confabs and on the street and saying "this is really an excellent bill". "How can we get on board?". People I have never heard from before from other industries are calling me asking what is this wonderful legislation about, how do we get on board and how do we help. I think it is a good message to take back to the constituency in the districts. I think they are looking for an answer like this that really "bull's eyes" the issue that they are facing every day.

Chairman TALENT. We really need some method here of being able to count those perhaps somewhat less direct or, I don't want to say intangible, less direct benefits of a bill like that that will result among other things bringing money into the Treasury at the same time as we are looking at directly how much this is going to,

quote-unquote, cost the government. This is a struggle, of course, we are engaged in now how much this bill is going to cost and yet everything you have said tells me that if we don't do something like this or, at a minimum, if something like this speeds up trends that would otherwise occur in the marketplace, Mr. Holdsworth, because perhaps the passage of this bill generates publicity so that parents and counselors out there say, wait a minute, we need to look at this all over again. If it speeds the process up by a couple of years, it has got to generate more in terms of more projects you can do, Mr. Murphy, more people employed at higher wages, paying more taxes, less cost to the taxpayer because of delay in our construction projects. My guess is and it is just a gut guess, this bill pays for itself probably. And yet we are locked in this struggle internally here where we are not allowed really to take that into account in terms of scoring this bill. It is very unfortunate. The people who are most familiar with the situation believe so strongly it is going to have these very beneficial aspects to it.

Mr. HOLDSWORTH. I just have this observation as well. The average age of a college—community college student is 28 or older. That student graduated from high school when he or she was 18. There have been 10 years that that student has been underemployed. I can do this only anecdotally, but I can't tell you how often I have talked with students who have said: "I have been bouncing around, do you want fries with that? And now at the age of 28 I have got a family, I have got responsibilities, I have got these things". If this bill is able to get that student to work at the age of 20 or 21 instead of going back to school at 28, you have performed a tremendous service in terms of tax revenue because that person is now producing.

Chairman TALENT. I agree. I think it is real important to understand the bills we pass here occur of course in the broader context of what is going on out there in the country. I do think, not to be all gloom and doom, that there is a reaction setting in. You mentioned the community colleges and certainly in my area and in my State, they are stepping up and responding. State authorities are beginning to understand this. You are seeing the proprietary schools going into these trades and expanding them and working out arrangements with local trade associations to get machines on loans so they can train people. One of the ones in my area worked out a cooperative arrangement to get welding equipment so they can teach people that. But if we can help by putting this bill into that overall mosaic, if you will, and help complete it faster, it will have a tremendously positive impact; and, on the other hand, if the downside is true and this response is not coming quickly and we really begin seeing the impact in construction or manufacturing of this shortage of these skilled employees and the potential for the economy is very negative. So this is at a minimum a very wise hedge against possible recessionary influences against this kind of situation.

Mr. Gooding, I didn't intend this to last so long but what the heck, I am the chairman.

Mr. GOODING. Mr. Chairman, the only thing I would like to add to this is the welfare-to-work program as we see it in our particular industry hasn't produced the people that we need and I think that

your bill will certainly change that dramatically and I just hope and pray that it is accomplished in a very short order because we offer good benefits, but unfortunately we have just run out of ideas of how to get those employees to at least knock on the door.

Chairman TALENT. Mr. Pence, and then I will close this.

Mr. PENCE. I think your earlier comment about the dynamic scoring barrier, if we get past that somehow, it might be possible this bill would come up as a plus when all things are considered. We, just talking about it among staff and among the coalition, the numbers we have been seeing are clustering in an area that are not very expensive. We don't have the numbers back from JCT of course yet, but if they are at all close of what we have been talking about in our caucuses, this bill is not going to be that expensive and with dynamic scoring we would be in the plus range and home free.

Chairman TALENT. It would be great. Let's close this by bringing home what Ms. Velazquez and I were talking before about what this Committee is about and why we really try to make it about people and real opportunities for real people, both small business people and their employees. If this bill has the impact of enabling small business people to grow and expand and have more opportunities, and of enabling their employees, individuals, somebody hired in their late 20s wondering how they are going to be able to put food on the table for their family, and now the local machine shop or electrical shop is able to say to them we will send you to the community college, we will give you the on-the-job training, your whole life turns around now.

These are real people that we can help with this and I agree with you, Mr. Pence, what will end up being no cost to the government, and it is these kinds of things that we try and look for on the Committee. We do try and confront problems in legislation, concerns people have on a straightforward basis. Usually we can work them out and I am grateful to you all for being here.

Unless the gentlelady has any further comments or questions, I will adjourn the hearing.

[Whereupon, at 12:50 p.m., the Committee was adjourned.]

Opening Statement  
Chairman Jim Talent  
February 9, 2000

***“Shrinking Workforce Endangers America’s Small Businesses:  
Examining the Need for the Skilled Workforce Enhancement Act”***

Good morning. As we convene our hearing today, I am glad to report that the U.S. economy is performing amazingly – growth is steady, unemployment is low, and inflation is relatively low. In fact, last Friday, the Department of Labor announced that the unemployment rate for January 2000 was 4 percent; the lowest it has been since January 1970.

Despite this growing economic prosperity, however, we are faced with a shortage of skilled workers in trade industries. According to the results of a study conducted in 1999 by the National Association of Counties, seventy-five percent of the largest counties in America report that they face a shortage of skilled workers. Eighty-five percent said that this shortage has increased over the last five years, and ninety-seven percent characterize the shortage as serious to very serious. Officials stated that the sectors of the economy most impacted by the shortage of skilled workers included manufacturing and construction.

This hearing will explore the growing shortage of highly skilled workers. Our witnesses from various trades will testify on the shortage of skilled workers, the effects of this shortage on small business, the aging population of workers, and the high costs small employers incur in training highly skilled workers in their industries.

Small business owners, in particular, cannot find workers to fill their current vacancies. Many companies provide competitive wages and benefits, such as life, health and retirement benefits; but they still cannot find enough workers. In addition, the current workforce in these trades is aging. Most of the highly skilled trades find the average worker to be in their late 40s to early 50s. With this generation expected to begin retiring in the next ten years, the shortage of workers is expected to grow.

Small employers must invest substantial time and money to provide training. On average, the annual cost of training in the highly skilled trades is \$25,000 to \$50,000 per trainee. This is an investment worth encouraging and making. Recent press articles reveal that when small businesses take

the time to provide training programs, they often find employees become skilled, committed, and loyal to their companies.

Accordingly, it is in our best interest to help small businesses who are dedicated to their trades train more employees. The purpose of this hearing is to examine H.R. 1824, the "*Skilled Workforce Enhancement Act*," which I introduced on May 14, 1999. The bill receives bipartisan support of 49 co-sponsors including the distinguished ranking minority member of our Committee, Ms. Velazquez.

The "*Skilled Workforce Enhancement Act*" amends the tax code to allow small employers (with 250 employees or less) to take a \$15,000 tax credit to offset job training costs in highly skilled small business trades. To assure training is effective, eligible employers must provide an employee with 2,000 hours of on-the-job training and necessary classroom training each year. In exchange, the employer is allowed to claim a \$15,000 tax credit per trainee each year for up to four years.

Under SWEA, the “highly skilled trades” include: precision machinist, die makers, tool and die designers, roofing, masonry, heating, ventilating, air conditioning, and refrigeration (HVACR), plumbing, electrical contracting, and foundry technicians. Originally limited to the tooling and machining industry, we expanded the bill to include other trades for which highly skilled workers are in short, and shrinking, supply.

We are pleased to have Senator Mike DeWine testify before the committee this morning. Senator DeWine introduced companion legislation in the Senate last year. The Senator and I believe SWEA will assist small business owners train much needed workers and keep their shops open.

The concept for SWEA came to me from a constituent in my district who will testify today. As past president and owner of a machine company and a long time friend, Bill Bachman approached me with the severe shortage of skilled workers his industry faced and with the idea for a tax incentive to help remedy this growing problem. Bill, thank you for pushing this idea. I believe the other witnesses will also thank you since the growing shortage is affecting so many skilled trades.

A couple years ago, a friend of mine who owns a small business in manufacturing told me that “if we do not do something today, there will not be manufacturing in a few years.” I am sure that the construction industry that is here today will agree.

The *Skilled Workforce Enhancement Act* will provide relief to small businesses with very costly and surprisingly complicated training regimens. The bill, therefore, allows employers to assure themselves of a continuing capable workforce. Otherwise, existing tax burdens and the widening skills gap could force many of these companies out of business.

I look forward to working with Senator DeWine, Ms. Velazquez, our witnesses, and the industries represented here today to help small business owners hire and train new highly skilled workers. We should do something now while today’s generation of workers can train the next generation of skilled labor.

DONNA M. CHRISTIAN-CHRISTENSEN  
DELEGATE, VIRGIN ISLANDS

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MEMBER, CONGRESSIONAL  
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**Congress of the United States**  
**House of Representatives**  
Washington, DC 20515-5501

**OPENING STATEMENT**  
**REP. DONNA CHRISTIAN-CHRISTENSEN**  
**COMMITTEE ON SMALL BUSINESS HEARING ON**  
**"THE SKILLED WORKFORCE ENHANCEMENT ACT"**

FEBRUARY 10, 2000

THANK YOU CHAIRMAN TALENT AND RANKING MEMBER VELAZQUEZ FOR SCHEDULING A HEARING ON THIS IMPORTANT ISSUE ON EXAMINING THE NEED FOR THE SKILLED WORKFORCE ENHANCEMENT ACT. I WOULD ALSO LIKE TO WELCOME OUR PANEL OF WITNESSES. THEIR INSIGHT, EXPERIENCE, AND CONCERNS WITH THIS ISSUE IS MOST WELCOMED. I THANK ALL OF YOU FOR TAKING TIME OUT OF YOUR BUSY SCHEDULES TO BE HERE WITH US THIS MORNING.

CERTAINLY, TAX IS AN ISSUE THAT CAN BE MOST PERPLEXING AND FORTUNATELY IS BEYOND THE REALM OF THIS COMMITTEE. HOWEVER, AS A MEMBER OF THIS COMMITTEE AND ITS SUBCOMMITTEE ON RURAL ENTERPRISES, I TAKE A PERSONAL INTEREST IN DEVELOPING AND SUPPORTING INCENTIVES FOR SMALL BUSINESSES, INCLUDING TAX CREDITS.

THE VIABILITY OF A SMALL BUSINESS IS CLEARLY DEPENDENT ON ITS WORKFORCE. WHAT BETTER WAY CAN AN EMPLOYER ENSURE THAT HIS/HER WORKFORCE IS TRAINED FOR THE PARTICULAR NEEDS OF THAT BUSINESS THAN PROVIDING FOR THAT TRAINING THEMSELVES. THE REASON THAT WE ARE HERE TODAY IS BECAUSE WE KNOW THAT SUCH A TASK CAN BE EXTREMELY BURDENSOME ON SOME, IF NOT, MOST SMALL BUSINESS OWNERS. H.R. 1824 ATTEMPTS TO GIVE SMALL BUSINESS OWNERS SOME RELIEVE FROM THIS COST. THIS BILL ALSO ATTEMPTS TO ADDRESS THE ISSUE OF A SHORTAGE OF "SERVICE INDUSTRY" WORKERS.

THIS SHORTAGE IS OF GREAT CONCERN BECAUSE IT IS OCCURRING IN A RAPIDLY GROWING SEGMENT OF OUR POPULATION, THE CONSTRUCTION AND MANUFACTURING INDUSTRY. IN MY DISTRICT, THE VIRGIN ISLANDS, AS IN PUERTO RICO, FLORIDA, AND THE CAROLINAS, AMONG OTHERS, THE CONSTRUCTION INDUSTRY IS A VITAL PART OF OUR ECONOMY; ESPECIALLY, WHEN IT COMES TO REBUILDING OUR COMMUNITIES AFTER NATURAL DISASTERS, NAMELY HURRICANES. UNFORTUNATELY, WE HAVE EXPERIENCED MORE THAN OUR SHARE OF NATURAL DISASTERS IN THE VIRGIN ISLANDS. HOWEVER, NOT ONLY IS THE CONSTRUCTION INDUSTRY OF VITAL IMPORTANCE DURING REBUILDING EFFORTS BUT IT IS ALSO INSTRUMENTAL IN PROVIDING JOBS AND HELPING OUR COMMUNITIES TO THRIVE.

WHILE IT IS IMPORTANT THAT WE PROVIDE TAX INCENTIVES FOR WORKFORCE TRAINING, IT IS ALSO IMPORTANT THAT WE LEARN HOW THIS LEGISLATION AFFECT SMALL BUSINESS AND HOW WE CAN IMPROVE THIS LEGISLATION. I LOOK FORWARD TO HEARING THE TESTIMONY OF OUR PANELISTS AND THANK ALL OF YOU, ONCE AGAIN, FOR TAKING THE TIME FROM YOUR BUSY SCHEDULES TO BE HERE TODAY.

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**TESTIMONY  
HOUSE COMMITTEE ON SMALL BUSINESS  
HEARING ON THE SKILLED WORKFORCE  
ENHANCEMENT ACT  
U.S. SENATOR MIKE DEWINE  
FEBRUARY 9, 2000**

Thank you, Mr. Chairman, for giving me the opportunity to discuss the Skilled Workforce Enhancement Act. It has been a great experience to work with you on this legislation, and I appreciate all the hard work that you have already done on this legislation. As the Chairman of this committee, you have been a truly outstanding leader for small business.

Mr. Chairman, during the 105<sup>th</sup> Congress, I spent considerable time and effort getting the Workforce Investment Partnership Act enacted into law. This law brings a flexible, locally driven,

business-oriented solution to our nation's system of federal job training programs.

Despite our legislative success, our work is not done. Right now, our nation is suffering from a dangerous shortage of skilled workers. For example, in 1999, the National Association of Counties conducted a survey of its large urban caucus, a caucus which contains Cuyahoga, Franklin, Hamilton, and Summit counties in my own state of Ohio. In this survey, 85% of the county officials responding said there was a shortage of highly skilled workers in their regions. Moreover, 96% characterized this shortage as serious or very serious, and a majority indicated that this was negatively affecting their counties' ability to attract and retain businesses. In another study, the National Institute

for Metalworking Skills -- an organization of which one of today's witnesses, Bill Bachman, is a board member -- estimates that there is a need for over 22,000 skilled workers in five regions of the country, alone.

In my own home state of Ohio, the December 1, 1997, edition of the Cleveland Plain Dealer featured an article on the shortage of workers in Lake County in Northeast Ohio. The article includes an interview with Christopher Burton, a machine shop owner in Mentor. He notes that even with increased benefits, he is still having problems finding new workers. According to Mr. Burton: "We can't find experienced machinists at all." Mr. Burton is not alone. The same thing is happening all over the country. I am sure that many

of the witnesses on our second panel will have similar stories.

This legislation would reward employers who provide training to workers, such as precision machinists, die makers, mold makers, tool and die designers, heating and cooling contractors, plumbing contractors, pipefitting contractors, roofers, masons, and others. These highly skilled trades are an essential part of our economy. They provide the parts used in manufacturing. They provide the services that allow our nation's businesses to grow and expand. They are the motor driving our nation's unprecedented economic expansion.

By giving a limited tax credit to provide training for these highly skilled workers, the Skilled Workforce Enhancement

Act would help keep this motor humming.  
Mr. Chairman, I hope that with your  
leadership and my help, we can ensure the  
swift passage of this legislation.

Mr. Chairman, thank you again for the  
opportunity to discuss this important  
legislation.



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# STATEMENT

**BEFORE THE  
U.S. HOUSE SMALL BUSINESS COMMITTEE**

**FEBRUARY 9, 2000**

**"THE SKILLED WORKFORCE ENHANCEMENT ACT"  
H.R 1824**

**BY  
Mr. WILLIAM G. BACHMAN, SR.  
FORMER PRESIDENT OF  
BACHMAN MACHINE COMPANY, INC.  
St. LOUIS, MO**

**On behalf of the  
NATIONAL TOOLING & MACHINING ASSOCIATION  
9300 LIVINGSTON ROAD  
FT. WASHINGTON, MD 20744**



Good morning. Mr. Chairman, Members of the Committee, I thank you for the opportunity to testify on behalf of the 2,600 member companies of the National Tooling & Machining Association regarding H.R. 1824, the Skilled Workforce Enhancement Act, which we in this industry consider absolutely critical to the successful training of highly skilled workers.

My name is William G. Bachman, Sr. Before I retired in 1997, I was the president of Bachman Machine Company, Inc. of St. Louis, MO, which has been in business since 1927 and employs 130 men and women. The company supplies finished materials for several industries including, agriculture, appliances, automotive, lighting, transportation and hydraulics.

The metalworking industry includes precision machinists, die makers, mold makers, as well as tool and die designers. Without them, the mass production of manufactured goods would not be possible. However, even though America depends on manufacturing and manufacturing depends on us, our industry has been saddled for decades with a shortage of skilled workers. Today, our industry has upwards of 30,000 jobs that are going unfilled because we simply have no one qualified to fill them.

The Department of Labor estimates that the need for skilled labor in these trades is 2% annually of the current workforce. However, with the lack of "new blood" entering the industry, that percentage jumps to 5% when you take into account the average age of workers currently in the industry is better than 50.

This is particularly disturbing to me because until my retirement from Bachman Machine Company, I played a major role in the preparation and training of skilled journeymen in the metalworking industry. In my 35-year history of shaping the training of future precision machinists, I have worked with secondary schools, assisted in the formation of business partnerships with community colleges, served on the National Apprenticeship Committee, co-authored the training syllabus currently in general use throughout the U.S. for our industry, and established a registered apprenticeship training contract with the U.S. Department of Labor, Bureau of Apprenticeship and Training.

My dedication to training workers in this industry has not faded with retirement, as I am currently a member of the national board of directors of the National Institute of Metalworking Skills.

My desire to shape the training of highly skilled workers in the metalworking industry is a direct result of Bachman Machine Company's tradition of training apprentices in-house. My father trained me in our shop and for 60 years it has produced approximately 70 highly skilled precision machinists, die makers and mold makers.

As you can tell by those numbers, it is a slow and tedious process to train a skilled metalworking craftsman. However, I strongly believe that apprentice training conducted by small companies on their own shop floors is the best way to produce a loyal, hard-working, skilled machinist ready for immediate employment anywhere in America.

In fact, the major responsibility for the training of skilled metalworkers in our country has fallen on the shoulders of individual shops. Unfortunately, the small businesses comprising our industry are finding it harder and harder to setup or maintain these vital in-house training programs. One of the biggest hurdles most shops have to overcome is the lack of academic preparation, particularly in math and science, of potential trainees.

As fewer small companies engage in the training of apprentices, many willing and able men and women have been forced to wait for months, sometimes even years, to enter programs offered by large, impersonal facilities. Often these facilities utilize outdated equipment or techniques resulting in the need for small employers to retrain these employees before they can be productive. Still others are denied the opportunity to pursue a career in metalworking altogether.

Prior attempts to alleviate our shortage of skilled workers have failed miserably. Welfare-To-Work was presented as a good opportunity to find people to train for entry into the workforce. Unfortunately, almost every individual referred to companies in our industry lacked the basic skills needed to begin an apprenticeship.

Training conducted through government programs produced a number of so-called skilled craftsmen. In reality, what these programs turned out were merely button pushers and machine operators. When given the opportunity to apply the knowledge these program graduates received, it was plain to see that the creators of these programs overlooked the need to consult with experienced metalworkers. In putting together their programs they failed to teach trainees the analytical concepts that are the building blocks of those working in the industry. Thousands of man-hours had to be devoted to retraining these individuals, shifting valuable resources away from production.

The importation of foreign workers, widely used by big business, is virtually impossible for a small metalworking shop. The requirements established by the Immigration and Naturalization Service (INS) are numerous and confusing. Even Congressional immigration legislative aides have thrown in the towel on making sense of the hoops business owners must jump through to bring a skilled worker to this country. The common response to questions concerning this topic are, "Just get yourself a good lawyer and be prepared to pay a lot of legal fees."

With today's single digit profit margins, small companies cannot afford to pay lawyers a year's wages of the foreign worker in order to obtain a work visa. We cannot afford to invest time and money into retraining supposedly trained workers. Nor can we, as an industry, shift through hundreds of referrals looking for the one or two individuals that have the necessary skills to begin an apprenticeship in metalworking. Congress must act to allow small business to properly fill its role in training the next generation of apprentices. For, as has been said before, our industry is just one generation away from extinction.

As I mentioned earlier, Bachman Machine Company has taken this responsibility very seriously and has provided apprentice training in St. Louis for the last 60 years. We have aggressively attempted to involve educational institutions in our program at both the secondary and post secondary levels. Our efforts in this area have been warmly embraced as several community and technical colleges within a 100-mile radius of our shop provide an array of classroom instruction to our trainees. The high schools have been good distributors of information on the opportunities available in the metalworking industry and tours of our company by high school students have been very well attended.

Over the years, I have traveled to every region of this country to find out more about the state of apprentice training in our industry, and have found that most small shops seek to train only one or two workers. However, the tax burdens placed on these shops make it nearly impossible for most to even consider taking on the enormous cost of training apprentices themselves. The vast majority of metalworking training programs last four years and cost over \$200,000 per apprentice to complete.

The Skilled Workforce Enhancement Act (SWEA), through a \$15,000 tax credit per apprentice per year, would give small employers a much needed incentive to train apprentices in-house. While \$15,000 may sound like a lot of money, apprentices will repay the government in full through taxes

within three years of graduation. The Joint Tax Committee may score this proposal fairly high, but if we want to save the manufacturing infrastructure of this country from extinction, we must give small business this tool.

In return for this investment, small business will create well paying jobs in communities around the country with a corresponding increase in the local, state and federal tax bases. In addition, this investment will spur an increase in business as productivity rises once apprentices began to emerge from these programs and additional shifts are added. But most importantly, it will go a long way to ensure that America's metalworking industry—the backbone of mass manufacturing—is not lost to overseas competition through a lack of skilled workers in this country.

I do not make such bold statements lightly. I do not make them simply because the idea for SWEA originated with me. I make them because through years of helping to train metalworking apprentices in every region of this country, I know what is needed to empower the people best qualified and best equipped to produce a new generation of highly skilled workers. Every fiber in my body tells me SWEA is the road best traveled to ensure America's continued dominance in the metalworking industry. Without it, mass manufacturing in this country will be wholly dependent on foreign companies, and if that happens, potentially well paying jobs will be replaced by much lower wage earning service jobs.



Representing Manufacturers  
of Heating, Ventilating,  
Air-Conditioning and  
Refrigeration Products

**Statement of**  
**Thomas E. Bettcher**  
**Of the Air Conditioning and Refrigeration Institute (ARI)**  
**Before the Committee on Small Business**  
**U.S. House of Representatives**  
**Concerning**  
***The Skilled Workforce Enhancement Act, H.R. 1824***  
**February 9, 2000**

Good morning. Mr. Chairman, I am extremely honored to be here today to provide you and the other distinguished members of the Small Business Committee testimony regarding an issue that has tremendous impact on the heating, ventilation, and air conditioning industry.

Chairman Talent, I am the President and CEO of Copeland Corporation, whose global headquarters are located in Sidney, Ohio and is also home to the world's largest compressor research and development center. Compressors are integral components of all heating and cooling systems. With more than 8,000 employees, 26 facilities and over 800 wholesaler branches, Copeland's ability to serve the U.S. and Canadian HVACR market is without equal. Mr. Chairman, Hussmann Corporation, one of our largest customers and a major producer of commercial refrigeration equipment, is located in your district.

Copeland is a subsidiary of Emerson Electric Company which is a global leader in the application of innovative technologies in commercial, industrial, and consumer markets worldwide. With \$14 billion in annual sales and operations throughout the world, Emerson holds leadership positions in each of its business segments: industrial automation; process control; heating, ventilating and air conditioning; electronics and telecommunications; and appliances and tools. Headquartered in St. Louis, Emerson has more than 60 divisions selling products in more than 150 countries and employs 117,000 people.

Mr. Chairman, Copeland Corporation is a member of the Air Conditioning and Refrigeration Institute (ARI) where I serve on the Board of Directors. In the past year, our association has made one of our primary goals addressing the shortage of skilled labor in our industry. Attracting and retaining skilled and qualified workers is perhaps the most critical issue to come before our industry in recent years. In an effort to address this critical shortage, ARI has established an industry recruitment task force, of which I am the chairman. One of our main objectives is passage of the Skilled Workforce Enhancement Act.

The provision of a \$15,000 tax credit to contractors willing to hire apprentices and train them in several skilled trades is a major and important step in finding workers to serve these industries. It is extremely expensive to train workers. According to the Air Conditioning Contractors of America (ACCA), the average annual training cost of an apprentice is almost \$18,000. SWEA will help alleviate some of the financial burden on small employers as well as the shortage of skilled labor in this country. We cannot think of a more worthy cause and we applaud your efforts and hope to secure additional support and eventual passage of this legislation.

The number one issue facing the HVACR industry is the lack of skilled and qualified technicians. As manufacturers, we depend on contractors, many of whom are small businesses, to install and service our equipment. We are here to support the needs of our brothers, the contractors. *Their success is critical to our success.* We face the issue of this labor shortage together; we cannot survive without contractors.

As manufacturers, we will not benefit financially from passage of this legislation; SWEA will provide tax credits for *contractors*. The industry will benefit from the increase in the supply of skilled labor and from the increase in qualified technicians. Therefore, in order to attract workers into this field, it is essential that we work together for passage of SWEA.

There is nothing more alarming than the following statistics which demonstrate the pressing need to attract workers into the HVAC&R industry and the importance of immediate consideration of this legislation.

- The U.S. Department of Labor projects a **17% increase** in the need for heating, air-conditioning and refrigeration mechanics and installers by the end of the decade. This amounts to over 100,000 HVAC&R technicians and installers needed by 2006.
- The pool of adequately trained and available applicants going into the HVAC&R industry is dwindling. According to the Department of Education, enrollment in HVACR programs **declined 71%**, from 1982 to 1996.
- The labor force between the ages of 45 and 64 will grow faster than any other age group in the next decade, according to the Department of Labor.

As these aging workers and Baby Boomers retire, they will take their expertise, skill and experience with them, leaving new workers without the guidance of senior technicians.

This will further strain an already diminishing supply of trained and qualified workers, and take knowledgeable workers out of the industry.

The need for additional skilled workers can be attributed to several factors including low unemployment, declining enrollment in occupational courses, and the lack of training received by skilled laborers once in the work environment. In a recent survey, only 30% of precision production, craft and repair personnel took part in training to improve their skills, according to the Department of Education. College graduates, workers in executive, professional, and technical occupations, were more likely than other workers to participate in training to improve their current job skills.

As a manufacturer, I have concern for my company and our future in this environment of decline among new technicians. While sales are exceeding expectations as the economy continues to grow, we lack the supply of workers that are capable of installing and servicing this equipment. If this decline continues, there will not be enough workers left to install and maintain our products, which in turn will have a negative impact on sales. Along with this economic boom, there is a boom in building. New offices and retail spaces (in addition to new homes) are being constructed all around us, but there are not enough workers in many of the skilled trades to maintain *all* of our buildings, new and old. The number one problem of our contractors today is the inability to hire new technicians.

Another glaring problem facing our industry is product “takeback,” the return of products to the manufacturer. The number one cause of product takeback is the incompetence of technicians during installation leading to the return and replacement of units, even when there is absolutely nothing wrong with the product. This unnecessary replacement of good machinery drives up warranty costs and hurts our reputation, all because the installer does not have enough training to install the system properly in the first place.

Ensuring the proper installation and service of HVAC&R equipment has prompted ARI to support the development of the North American Technician Excellence program, or NATE. This technician testing program was created to promote excellence in the installation and service of HVACR systems. More skilled technicians will mean fewer service calls and more satisfied customers. According to ARI president and NATE Board member, Ted Rees, “With the proper installation of equipment there will be significant energy savings and reduced operating costs for consumers.”

In conclusion, we need skilled workers. The shortage of skilled workers is the biggest problem facing our industry today. Let’s make it more affordable for contractors to go into the marketplace and hire apprentices.



**AMERICAN FOUNDRYMEN'S SOCIETY, INC.**  
publishers of *modern casting*

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**TESTIMONY OF**

**CHRIS S. LETO**

**ON BEHALF OF**

**THE AMERICAN FOUNDRYMEN'S SOCIETY**

**BEFORE THE**

**COMMITTEE ON SMALL BUSINESS  
UNITED STATES HOUSE OF REPRESENTATIVES**

**CONCERNING**

**"THE SKILLED WORKFORCE ENHANCEMENT ACT"  
H.R. 1824**

**FEBRUARY 9, 2000**

**Introduction**

Chairman Talent and members of the Committee, I appreciate the opportunity to testify before you today regarding the impact of the shortage of skilled workers on the foundry industry.

I am the Vice President of Tampa Brass & Aluminum Corporation located in Tampa, Florida. Our foundry was founded in 1957 by my grandfather, father and uncle. The company has grown from 3 to 80 full-time workers. In 1995, we became federally certified as an 8(a) Small Disadvantaged Business of Hispanic decent.

We produce aluminum and brass castings and machine them to customer print specifications and then these parts go into equipment for the communication, defense, electrical, hardware and medical industries.

Tampa Brass & Aluminum is a corporate member of the American Foundrymen's Society (AFS). This is the oldest and largest metalcasting trade association in the nation. AFS membership includes 13,000 individuals from 3,000 foundries located in almost every state in the nation. Eighty percent of U.S. foundries are small and likely to be family-run operations, typically employing fewer than 100 workers.

One of the most critical challenges facing the foundry industry is the growing skills shortage. Each day, small foundries are faced with more and more job vacancies because there is no one qualified to fill these positions. In addition, they are spending large sums of money to recruit workers and then train them.

We applaud the Chairman's leadership in addressing this issue and for introducing The Skilled Workforce Enhancement Act (SWEA) – H.R. 1824. This legislation recognizes the high costs placed on small business to train workers for skilled jobs by offering a tax credit. My company and our national trade association, AFS, strongly support SWEA.

**Role of Skilled Workers in the Foundry Industry**

America's first and still most basic industry is metalcasting. In fact, metalcasting plays a critical role in every major manufacturing sector and remains the largest industry that is essential to other technologies. Our industry

provides over 200,000 well-paying jobs. Casting shipments in 1998 were valued over \$25 billion.

Each year foundries produce thousands of tons of different castings by recycling and utilizing metals such as aluminum, brass, bronze, iron and steel. Among the most recognizable cast products are automobile parts, faucets and pipes, propellers, manhole covers, and golf club heads.

Metalcasting has become a refined modern-day process and skilled craftsmen are essential to successful production at several points in the process. There is probably no other manufacturing process that requires a greater variety of materials and equipment than the production of metalcastings.

The first is the patternmaker. All castings regardless of their size, detail and the metal used begin with a blueprint and the skill of craftsmen to produce a precise pattern. A casting is only as accurate as the pattern produced by a patternmaker. Normally, a patternmaker serves as an apprentice at a foundry and must train for four to five years to achieve journeyman status.

Next in the process is the moldmaker who is forming and preparing the mold to receive the molten metal. It can be an extremely complex task and in many instances, the moldmaker has to exercise professional judgement and utilize his expertise from years of on-the-job training. By pouring molten metal into the mold, a casting is formed. Sometimes castings are used as produced, but more often they need to be machined or heat-treated, which requires the skill of trained machinists.

A variety of technicians are required to maintain the equipment, metal quality, furnace conditions, and sand properties. For example, as part of the inspection of strength and durability of a casting, we also rely on trained technicians to certify the physical and metallurgical properties of castings. It can take up to five years of on-the-job training and passing a variety of tests to become a Level 3 Technician in a Non-Destructive Testing Lab.

There are at least five diverse areas of engineering that are important to casting production. These are mechanical, metallurgical, materials, environmental and industrial engineering. In the areas of production and research, foundries rely on chemists as well. The chemist analyzes the casting, foundry air, effluent water and raw materials utilized in the casting process.

Within the foundry industry, the skilled workers perform essential roles in the production process and operation of a foundry. Each is vitally important to the continued success of the foundry industry.

**Tampa Brass and the Entire Foundry Industry Faces the Challenge of Filling Skilled Positions**

Throughout the last decade, the foundry industry has experienced increasing shortages of machinists, metallurgical technicians, maintenance technicians, engineers, electricians, and qualified journeymen in the patternmaking field.

Right now at Tampa Brass, we have the following vacant positions that we are trying to fill: six machinists, one metal quality technician and one patternmaker.

The combined factors of the lowest unemployment rate in the U.S. in 30 years; the aging of the foundry workforce; fewer individuals preparing for careers in the manufacturing sector; and, the shortage of skilled workers is straining foundries across the country.

The continued economic growth and prosperity, which the Tampa, Florida area is experiencing, as well as most parts of the nation, has created a situation where there is just not enough skilled workers to meet demand.

In fact, a survey conducted late last year among foundry executives revealed that for the past three years the labor shortage remains their number one concern. The shortage of hands-on experienced foundry workers is epidemic.

Furthermore, we are faced with the reality that the average age of many skilled workers in our industry is over 50. These aging workers are taking their expertise and skills and leaving our new workers without the guidance of senior craftsmen and technicians. This trend will further exert pressure on an already diminishing supply of trained and qualified workers.

With the demand for skilled workers outpacing supply, the dilemma of how to meet the growing skill shortage is one of the great challenges facing the foundry industry today. In response to this skilled labor shortage, foundries, particularly smaller shops like ours, are stepping up their recruitment, education and training efforts.

I would like to share just a few examples of how Tampa Brass & Aluminum is addressing the shortage of skilled workers and how it's affecting our company. For the past two years, we have invested more resources into recruiting and training, developing new recruitment strategies, as well as to continuing to offer competitive wages. In addition, we provide an employee retirement plan in the form of a 401(k) Plan, health insurance benefits, dental insurance, and sponsor a Group Term Life insurance program.

In 1999, our company spent approximately \$3,000 a month for a period of three months advertising for machinists in the Tampa Tribune and St. Petersburg Times. We did not have much success. Only one out of twenty applicants was actually qualified for our machinist position. We have also reached out to trades schools and technical institutes with limited success. Other foundries are actively recruiting former employees with good records to fill the job openings. Even retired workers are being recruited to come back to work in a part-time capacity.

Under our drug-free workplace policy, we drug test all applicants in the pre-employment process. In approximately 3 out of 10 cases, applicants failed the drug test. Mind you, each of these drug tests cost \$35 a piece.

Then, for the past six months, we've engaged five temporary agencies to help us locate ten qualified machinists. They have been successful in locating six machinists. However, we still haven't been able to meet our demand for additional machinists and the use of temporary agencies is rather expensive. We pay the temporary agency, as a finder fee, 55 percent over and above the new employees' salary for the first three months that they are employed.

In many instances, the skill shortage has required foundries to hire inexperienced workers and absorb the full cost of training them ourselves. After these workers have completed their training, some foundries have run the risk of losing them to another foundry or manufacture and thus, never being able to recover any of the training costs.

Due to the lack of qualified machinists, Tampa Brass & Aluminum is also investing resources to provide some of its workers training, both in-house and externally through the Pinellas Technical Educational College. In fact, we are

sending two employees through a four-year training program to become certified machinists.

In addition, we have an ongoing in-house training program for our metal quality technicians that range from two to five years, as well as patternmakers and moldmakers.

This company-sponsored training has showed our employees that we are interested in their growth and that we value their abilities. By encouraging them to become certified, these workers have more self-worth and better attitudes.

The American Foundrymen's Society estimates it costs in the range of \$25,000 to \$50,000 per year to train a machinist and patternmaker. Typically these training programs take approximately 2 to 4 years to complete.

While the job openings for machinists continue to go unfilled at Tampa Brass, we have been forced to maximize our current workforce and institute overtime. The use of overtime is substantially increasing our costs and could eventually lead to job burnout. In 1999, a machinist in our facility typically averaged a 45 to 50-hour workweek.

**Support of the Skilled Workforce Enhancement Act**

H.R. 1824, The Skilled Workforce Enhancement Act (SWEA), would help to offset some of the costs associated with training workers, by providing a \$15,000 tax credit to businesses with under 250 employees that undertake two to four year training programs. These are the companies that need it the most.

In addition, H.R. 1824 will serve as an added incentive for small foundries to begin training workers in the skilled trades where these shortages exist.

My company and our national trade association, AFS, supports SWEA with one small adjustment. AFS would like to see the bill changed to add foundry technicians to the "highly skilled trades" section of the bill. As indicated earlier in my testimony, foundry technicians possess skills that are unique to the casting industry and typically require technical school education and on-the-job training.

More than half of the small foundries surveyed last year indicated that they would take advantage of the tax credit set-forth in H.R. 1824. This tax incentive would help alleviate the burden that the job shortage and high costs of training that are being placed on small businesses, like my company.

### **Conclusion**

Foundries are working hard to recruit, train and retain qualified workers. However, the growing skills shortage is one of the great challenges facing today's plant. In order for the foundry industry and other industries to compete in the global marketplace, we must work together to reverse this skills gap. No one sector can face these challenges alone. The time to act is now.

The Skilled Workforce Enhancement Act would serve to assist small businesses already providing formal training for good paying jobs, but would also provide an incentive to those companies that have not yet implemented training programs for skilled jobs. We urge those committee members who have not sponsored H.R. 1824 to do so. Thank you. I would be pleased to respond to your questions.



*The voice of professional  
roofing contractors.*

**STATEMENT BY**

**JOHN S. GOODING**

**OF THE**

**NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)**

**BEFORE THE**

**COMMITTEE ON SMALL BUSINESS**

**U.S. HOUSE OF REPRESENTATIVES**

**CONCERNING**

**THE SKILLED WORKFORCE ENHANCEMENT ACT, H.R. 1824**

**FEBRUARY 9, 2000**

### **Introduction**

Chairman Talent and members of the Committee, my name is John Gooding and I am the Chairman and CEO of Gooding, Simpson and Mackes, Inc. I have two commercial/industrial roofing companies, one in Ephrata, Pennsylvania with 90 employees and one in Newark, Delaware with 35. I am also a board member of the National Roofing Contractors Association (NRCA) and this year's Chairman of the National Roofing Foundation's (NRF) Roofing Industry Alliance for Progress (the Alliance), an industry-wide partnership established to analyze, select, recommend and provide oversight for projects addressing critical industry issues, including the shortage of skilled workers in the roofing industry.

NRCA is an association of roofing, roof deck and waterproofing contractors. One of the oldest construction trade associations, we are celebrating our 114<sup>th</sup> year having been founded in 1886. NRCA has over 4,600 members represented in all 50 states and 51 countries. Our U.S. contractor members represent approximately 65 percent of all roofing installation in the United States. More than 90 percent of roofing contracting firms are considered small businesses; many are family-run operations where family members work side by side to make their companies successful. NRCA contractors are privately held companies and the average member employs 35 people during peak season with sales of just over \$3 million per year.

We thank the Committee for holding this hearing to open a dialogue on the shortage of skilled workers in our industry, and the many other skilled service trades. The director of the Department of Labor's Bureau of Apprenticeship Training, Anthony Swoope, recently said that more than 240,000 skilled workers are needed in the building and allied trades. For the roofing industry alone, the Bureau of Labor Statistics (BLS) projects 29,000 average annual job openings that could result in a 50,000-worker shortfall over the next 10 years.

### **Skilled Workforce Enhancement Act**

I commend you in particular, Mr. Chairman, for introducing the Skilled Workforce Enhancement Act (SWEA). SWEA recognizes and addresses a growing crisis in the roofing industry. Specifically, small businesses – like roofing contractors – must spend higher amounts to find pools of workers and recruit them, and then pay additional costs associated with entry-level worker training. This has become so difficult that contractors at times must turn down work for lack of trained employees.

SWEA will help small employers take on the daunting challenge of training and retaining skilled workers by defraying the high costs involved through a tax credit. NRCA supports SWEA with one small adjustment; the bill says an employer must implement classroom and on-the-job (OTJ) training for a total of 2,000 hours a year (for a 2-4 year period). In the roofing industry, due to weather conditions, a full-time employee probably would not make it to the 2,000 mark. NRCA would like to see the bill changed to, "a minimum of 1500 hours," which would be more reasonable for our industry.

NRCA represents about 20 percent union shops and 80 percent open shops. While the unions have strong training programs in some markets, 80 percent of our members do not have

access to these programs. As such, the training is left to the individual roofing contractor – a small business that SWEA would cover. We are aware that some associations representing strictly union employers are concerned that multi-employer training facilities would be excluded from using the credit under SWEA. Our understanding is that SWEA would extend coverage to any employer paying for training, including those who choose to train through multi-employer facilities.

Some union employer groups have also recommended that SWEA specify that only the Bureau of Apprenticeship Training (BAT) is capable of certifying training programs. NRCA has no problem if an employer wants to have its program BAT certified, but we do not think it is wise to have only one “gatekeeper” for recognizing legitimate training programs that would qualify for SWEA’s tax credit. National industry associations, such as NRCA, are perfectly capable of establishing curricula that would more than satisfy their members training needs without a mandate for BAT certification.

### **NRCA and NRF Alliance for Progress Initiatives**

NRCA’s primary mission is to represent and serve the interests of professional roofing contractors, as well as promote professionalism in the roofing industry. Professional roofing contractors strive to meet the highest standards – both professional standards and government regulations – for installing high-quality roof systems, using equipment and practices that protect workers, building occupants and the public from significant hazards.

NRCA’s members have been enjoying the country’s strong economy with two record-setting years in a row in the residential market and the third strongest in NRCA’s history projected for 2000. In addition, the commercial roofing market has been growing at a record pace for the past three years. This has exacerbated the severe shortage of skilled workers and our members cannot find the qualified help they need to fill the positions they have. In a recent survey of NRCA members conducted by the association’s Washington Office, 31 percent said they could use between 1-5 new employees, 34 percent need 6-10 employees, 10 percent could hire between 11-20 employees, and 7 percent could use over 20 new employees. (18 percent gave no answer, or need no employees currently.)

In response to the shortage of labor, NRCA and the NRF Alliance for Progress have been pursuing numerous initiatives to help our members find, recruit, and train skilled roofers. We are developing a 31-module training program that addresses low and steep-slope roof systems, specialized applications, safety and equipment. These portable modules are available for \$150 each, and \$5 per workbook. Ten of the modules are currently available, or will be very shortly. They are: *Overview of Low-Slope Roofing; Introduction to Safety; Administrator and Trainer’s Program; Roof Calculations and Measurements; Job Set Up and Tear Off; Overview of Steep-Slope Roofing; Introduction to Built-up Roof Systems; Application of the Hot Built-up Roof System – Felts and Surfacing; Application of the Hot Built-up Roof System – Flashings; and Roof Insulations – Flat, Tapered and Crickets.* NRCA and the NRF Alliance have each funded the development of these modules to the tune of \$750,000!

The NRF, other contractor associations, and the academic world have formed the Specialty Construction Institute. This consortium is developing a specialty construction curriculum to be offered by various leading academic institutions. These include: Georgia Tech, Penn State, the University of California at Berkeley, the University of Kansas, the University of Washington, and Virginia Tech. The academic partners, with strong industry participation, will develop the curriculum. Each partner institution will develop one new course in a distance-deliverable format as part of an integrated curriculum to be shared among all partners. The result will be a six-course concentration in specialty construction delivered at all six institutions.

NRCA also offers our members the service of listing job openings on our 1-888-ROOF-321 line. A caller will be sent an information package about the roofing industry and a state-specific list of job openings. Radio spots entitled "Career Opportunities in the Roofing Industry" are also airing in 46 states with an audience of over 7 million listeners.

This past fall, through the Alliance for Progress, NRCA began a pre-apprenticeship program aimed to help first-generation Hispanics in McAllen, Texas. We had 13 individuals complete the training in September. However, attempts to enroll a second class failed because of red tape with the participating schools and local governments, and a lack of willingness on the part of the worker to relocate to a part of the country that needed him or her. Nonetheless, this program did yield a positive result – the development of a preliminary, portable training curriculum for entry-level workers. With a little more refinement, the curriculum will ultimately be made available to NRCA members desiring to offer worker-training programs.

NRCA is also in the preliminary stages of negotiating a partnership with Goodwill Industries, and working with the juvenile justice system in Broward County, Florida to find and train workers. Also, NRCA is starting a pilot program with Job Corps in Glenmont, NY that if successful – and we expect it to be – may lead to a roofing partnership program with Job Corps nationally.

NRCA is currently moving forward with plans for a new Headquarters building in the Chicago area. We intend to build a permanent training facility that can be used by the entire industry to meet our educational needs and help mitigate costs. Recent surveys by NRCA, BLS and *Engineering News Record* indicate that it costs between \$25-50,000 to train one employee per year, including salary.

### **Gooding, Simpson and Mackes' Experience and Initiatives**

For over 50 years, Gooding, Simpson and Mackes, Inc. has struggled with trying to recruit, train and retain good employees. In our Pennsylvania location, we have been involved with the ABC (Associated Builders & Contractors) Apprenticeship Program for sheet metal workers off and on for the last 30 years. This program involves four years of on-the-job training and in-house training six hours per week throughout the normal school year (September through May). After a four-year program, these individuals will receive journeyman wages and the opportunity of advancement to job foreman. This program is dependent on other contractors recruiting students interested in learning to become sheet metal journeymen and willing to give up two evenings a week (without pay) through the school year. In the past we have been unable

to depend on interested employees, availability of qualified instructors, classrooms and enough students from other companies to justify the costs for instructors and classrooms. SWEA might give us the financial freedom to pay students a small stipend for taking night school classes thus recruiting more workers.

Two years ago, our company started a two-year roofing apprenticeship program supplying both our facility and an instructor for our local ABC chapter. Our instructor used both the ABC Apprenticeship Training Program and the new NRCA Training Modules to provide a very good classroom experience. Besides the actual classroom training, our employees are working approximately 2000 hours on the job site as well as attending monthly safety training and a special program put on by our insurance carrier (PMA) and our trainers during inclement weather.

Our Pennsylvania company has spent over \$100,000 on a large training room that can hold 100 employees. We are now looking into building another facility that would allow us to work with hot asphalt and other roofing products in a well-ventilated facility for hands-on training in a classroom environment.

Two years ago, I approached the New Castle County Delaware Vocational Technical Schools and asked if they would consider establishing a training program for roofing mechanics if I could provide employment opportunities through the state with our company in Delaware and other commercial and residential roofing contractors. They agreed to this proposition and sent their instructor to an NRCA Training Program. I then employed him during the summer to give him a better understanding of what is expected of his students, and a better understanding of tools, equipment and products. Our Delaware company purchased and will continue to buy all the training modules produced by NRCA and I personally plan to monitor the program as it unfolds.

The Delaware Vocational Technical School system is better adapted for OTJ training during the school year because their students work in sequences of two weeks in the classroom and two weeks on the job. This allows the employer to fill a job opening by rotating two students every two weeks. This also gives the students the opportunity to maintain a good part-time job and hopefully start to learn a trade prior to graduation from high school.

My long-term goal would be to hire students from the vo-tech schools and also continue their training, as well as educating unskilled employees by using the vo-tech night classes and/or in-house training.

The tax credit for training costs under SWEA would allow me to buy a van and go the cities and hire people who don't have other transportation to get out of the city to our job sites and business locations. We would be able to go into the cities of Wilmington, DE and Lancaster, PA and recruit employees, providing good jobs with excellent wages and benefits. Although our companies are in the service industry, we provide our employees with life insurance, paid vacations, a pension plan, a 401(k), and health, dental and vision care. Our employees typically work 45 hours a week throughout the year except on days with high wind, rain or snow. Our

average employee works 2,000 hours a year, but other companies in our industry may work 1,200 to 1,500 hours per year depending on their geographic location.

We purchased land and built our facility in Newark, DE in 1989. We anticipated having 100 employees on the payroll within 10 years and today, 11 years later, our workforce is only at 35. Something has to be done to encourage people to come into our trade. I feel that the Skilled Workforce Enhancement Act would encourage more employers to hire and train their own employees instead of continuing to complain and not achieve the results they want.

**Conclusion**

All these initiatives by NRCA, the NRF's Alliance for Progress and my companies are aimed at recruiting, training and retaining qualified workers for the roofing industry. Mr. Chairman, your bill, the Skilled Workforce Enhancement Act, is one more step in helping small roofing contractors attract the labor they need by giving them an incentive to train their employees in a formal program. NRCA urges every member of the Small Business Committee who is not already on SWEA to cosponsor the legislation.

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Pursuant to the terms of rule XI, clause 2(g)(4), of the Rules of the U.S. House of Representatives, NRCA has received the following federal grant, contract, or subcontract in the current and preceding two fiscal years:  
International Trade Administration (U.S. Department of Commerce) Award Number 4036-97-8A95, Special American Business Internship Training Program, Amount - \$29,500.

**Statement to the House Committee on Small Business  
United States House of Representatives  
Regarding the Skilled Workforce Enhancement Act (H.R. 1824)  
By Thomas W. Holdsworth  
Director of Communications and Public Affairs  
SkillsUSA-VICA  
Wednesday February 9, 2000  
Room 2360 Rayburn House Office Building**

Thank you Mr. Chairman—and thank you to the members of the House Committee on Small Business—for inviting me here this morning to speak on the issue of America’s preparation of a highly skilled workforce. My name is Tom Holdsworth. I am the director of communications and public affairs for a nationwide non-profit education association called SkillsUSA-VICA. At our founding in 1965 our association was called VICA or the Vocational Industrial Clubs of America. We changed our name the past July 4<sup>th</sup> in large part because we wanted to alert education and the public to the focus of this legislation: *skills* are what make the difference in the workplace. In a very real sense, America is America because of the quality and contributions of our skilled work force.

SkillsUSA-VICA is one of American education’s largest public-private partnerships with nearly one-quarter million members annually in all fifty states and three territories. We are an association of students and instructors in vocational-technical education at the high school, postsecondary and college levels. Our chapters are located in 4,000 public high schools, vocational technical centers, and two-year colleges including some apprenticeship programs. We specifically include students and teachers in each of the occupational areas covered by the *Skilled Workforce Enhancement Act*.

Students who are preparing to become carpenters, machinists, and masons are among our customers. So are their instructors, but that’s only half of our partnership. We also enjoy the active support and involvement of over 1,000 corporations, trade associations, labor unions, and businesses at the national level alone. Many of our partners—particularly at the state and local levels—are small businesses as described in this bill. We consider them to be our customers as well.

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Our association's mission is to prepare our student members to become the nation's world-class workforce and responsible American citizens. In carrying out that mission, we count upon the direct involvement of business and labor. Helping to set and meet standards for technical program training is as much in their interest as in the interest of students. It's also in the interest of our business partners to recruit new entry-level workers and to retain experienced employees.

I don't believe anyone can question the fact that we have a skilled labor shortage in America. We have a shortage of both experienced and entry-level workers. This is particularly—although not exclusively true—for the occupational areas covered in this bill. If anything, the shortages are even more acute for small employers than larger ones. Small employers are less likely to offer the benefits, pay scales and opportunities for advancement of larger companies and as a consequence they have difficulties with recruiting and retention. Compound that with the fact they operating with smaller margins and therefore cannot invest in training to the degree that large companies can.

Small business has traditionally counted on vocational-technical education as its source of training for its workers. A study done by the U.S. Small Business Administration in 1989 showed that vocational schools at the high school and postsecondary level accounted for more of the formal training done for employees than any source except on-the-job training. At that point, high school training alone exceeded apprenticeship programs as the formal source of training.

In fact, an argument could be made that small business is the training ground for larger businesses. Back in the mid-eighties, one of our sponsors from a large truck manufacturing company disputed our assertion that we were headed into a shortage of skilled workers. He said he asked his personnel office if they were having trouble recruiting workers and he was told "no problem." He then asked a neighbor who ran a small machine shop if he was having trouble recruiting workers. The neighbor said: "Are you kidding? Businesses like mine go frantic every time you're hiring. You offer a couple of dollars more than we're paying, and all of our employees go to you. We have to recruit and train our workers all over again."

One of the things that has changed from the mid-eighties is that the supply of skilled workers has dropped due to retirement and a decline in new entries. In the words of business: "the supply line

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is empty.” Simultaneously, demand for skilled workers has gone up. According to the U.S. Bureau of Labor Statistics, the demand for skilled workers has gone from 20 percent of the labor force in 1950 to 65 percent of the labor force today. The professional sector has remained the same at 20 percent. What has dropped is the unskilled labor force, down from 60 percent to 15 percent today.

According to the Occupational Outlook Data from the Bureau of Labor Statistics, there will be an eight percent increase for jobs in the construction trades between 1996 and 2006. That translates to 1,127,000 job openings due to growth and net replacements. According to another study—this one by Harvard University’s Joint Center for Housing Studies and published in *Professional Builder* (January 1999)—the construction industry needs to replace 18,000 carpenters a year but apprenticeship programs produce on average only 5000 new carpenters each year. According to this same study, during the past five years demand is up about 20 percent.

Heating, air conditioning and refrigeration mechanics and installers are also in demand. According to the Bureau of Labor Statistics, employment in these areas will grow to 300,000 by 2006, a 17 percent increase. There will be 104,000 job openings due to growth and net replacements.

I can assure you, at SkillsUSA we have heard a great deal of concern from employers about the supply and preparation of future workers in both construction and heating, ventilation and air conditioning, particularly over the past two to three years.

We’ve been hearing the concerns even longer from the machining and manufacturing side, which may seem a little surprising because the occupational outlook data projects a decline in the overall number of people employed as metal workers, machinists and tool and die makers. The reasons for their concern aren’t just the numbers of workers but the quality, sophistication and training of employees. Occupations such as tool and die makers have always been highly skilled. Today’s and tomorrow’s workers across the board must be even more skilled to run their equipment and increase productivity. For example, in the growing area of Numerical control machine tool operators, today’s workers not only need to run parts, they have to program the computers that run their machines as well.

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When we look at the supply side—as I alluded to a moment ago—there’s ample reason for concern. To coin a phrase, sometimes surprises are predictable. The public seems surprised that there are delays in homebuilding or commercial construction. They seem surprised that it’s difficult and costly to put an addition on their homes. They seem surprised, in short, that there isn’t an abundance of skilled workers.

Speaking now from the vocational-technical education side—which is the supply side—I can tell this committee that there are at least three major reasons why there are shortages.

First is the simple matter of demographics. During the past several years we have been going through the baby bust. There have been fewer high school students and young adults period to go into these occupations. Of course the good news is that we are now on the cusp of seeing that 16-24 age cohort increase with the echo baby boom.

Second is public policy and practice in education. Since the early 1980s—and for some very good reasons—secondary public education has focused on academics and increased core academic graduation requirements. As a consequence of this shift in emphasis, however, we began to see vocational programs turned into applied academics courses, cluster programs where a little was taught about broad occupational areas rather than skill proficiency in specific occupations. This means that an area such as carpentry has seen enrollment declines since 1987 while the course called building construction has increased enrollments. Where students used to spend a semester—or two or three—working to pre-apprenticeship competency in carpentry for example, today students are getting a couple of weeks on each of the different areas of construction within the semester. Of course, when enrollments went down in the occupationally specific courses they were closed because they were considered too costly. We’ve seen this at both the high school and college levels by the way.

Third, but very much related to the second, is a public misperception of the careers awaiting the technical student. The second-class status stereotype of blue collar—or other skilled workers—is alive and doing damage. Too often the public does not see the financial rewards of these occupations nor do they see the career paths that lead from them. By contrast, the public appears to believe that success is achieved only those with a four-year or advanced college degree.

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Ironically, they often don't realize there's some stereotyping here as well. Put succinctly, too many people believe skilled occupations and training are fine. . .for someone else's children.

[I'll just add here parenthetically that a lot of vocational students chuckle over this. Not long ago I spoke to a vocational graduate and former SkillsUSA member at a collision repair business here in the Washington area. He said "Some of my old friends ask if I'm embarrassed because I didn't go to college for a four-year degree. I say heck no, at 28 I'm making more than all of my friends who went to college. I'm making more than their college educated parents." By the way, the small business he works for provides regular, ongoing training for their employees.]

As a consequence of these three reasons alone, is it any wonder that enrollments have declined in high school vocational programs? Using figures from the U.S. Department of Education's High School Transcript Study, enrollments in through the '80s and into the '90s have declined in masonry by two thirds, air conditioning, refrigeration and heating by two thirds, and metal trades by 60 percent. This is not the road to meeting the skilled workforce needs of employers.

Recently, the fastest growing area of enrollment in community colleges has been a group called "reverse transfers." These are four-year college graduates who are returning to a two-year college to learn occupational skills. They have discovered that their four-year degree itself does not ensure success because employers are looking for skills far more than credentials. It's also instructive to note that the average age of the two-year college student is 28 and older. Speaking from personal experience, these are students who have bounced around in lower skilled jobs, now have children, families and responsibilities and are returning to school to learn the skills they need to begin their careers.

I don't believe there can be any question that the greater the amount of training for an employee, the greater productivity and profitability will be realized by the employer. Greater profitability should translate into better pay and opportunity for the employee.

It seems to me a key question before this committee. . .and one I hope will be answered by one or more of the other speakers. . .is whether or not those companies which train their workers can retain their workers. I can only speak to this anecdotally, but it seems there was a time when

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businesses did not want to invest in training its workers because they feared they would take their new skills to another employer. Frankly speaking, I see that attitude as shortsighted and more a reaction to labor shortages than good business practice. I also believe that kind of thinking put into practice is one of the reasons why we find ourselves in the situation we're in today. It's well known that training is one of the first areas cut when times are difficult for a business and one of the last reinstated when times improve.

This brings us to a fourth area of concern regarding skilled worker shortages: competition among industries for qualified entrants. Particularly in times of shortages of workers, but also as the degree of sophistication and skill sets increases, industries are no longer competing vertically for qualified workers but horizontally.

I'll give you an example. Several years ago, a computer manufacturer came to our association and asked for a list of automotive service technician vocational programs. The obvious question was "Why?" The answer was instructive: "We've been preparing engineers to be computer repair technicians and here's what we've found: They don't want to do it and they're not good at it. We've looked at the skill sets we need for computer service techs and realize what we need are individuals skilled in diagnostics and manipulative skills. The group that meets those criteria best are auto service technicians."

Of course, the automotive industry has returned the favor by putting more computers on board an automobile than there were on the first lunar module to put man on the moon.

Apropos of that point. . .and now moving to some good news about training. . .when Jack Smith, the CEO of General Motors announced GM would begin a service technician program called A-YES at the high school level, he said "We're not interested in finding the best students who want to be auto service technicians, we're interested in finding the best students to become auto service techs." That's one of the most succinct statements I can think of when it comes to recruiting, training and retaining skilled workers in today's environment. I'll hasten to add that the Automotive Youth Education System is industry based— not just a GM creation—and that each of the participating companies is supporting their dealer network. A-YES puts two years in high

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school together with two more years of training at the postsecondary level to be coupled with ongoing training and certification for technicians on the job.

Caterpillar has also initiated a Dealer Service Technician Program to meet their projected need of between 3 and 5,000 technicians during the next three years. Caterpillar has created a two-year training program combining college instruction and on the job training for its CAT dealer technicians. All instruction is set to world-class standards and the programs are being established at community colleges. Students who complete the program are certified and receive their associates degrees. By the way, when we try to get a handle on what a shortage of technicians costs an employer, I'll throw out this simple equation: Some CAT dealers could use 100 technicians right now. Multiply their shortage of technicians by \$65 an hour and that's what they estimate they're losing in revenue.

One of the most positive developments I have seen in recent years is a change of attitude in community colleges. There is still a way to go, but in my opinion two-year colleges now see themselves more in the area of occupational training than they once did. Of course, technical colleges have long seen their role as serving the training needs of business. I hope this receptivity to serving the needs of business and labor for training will continue.

This still begs the issue of initial recruitment, helping young people while they are still in high school see that there are careers available to them. I received a call just last week from a board member of the South Carolina Home Builders Association. Her concern was that construction programs at the high school level were being closed down in her state. She said: "The schools are closing construction programs. All that's left are technology programs for computer training. Who do they think will put the buildings around the computers?"

I told her what I'm about to tell you now, public and policy maker perceptions of these occupations have to change. People have to understand that today's mason isn't in a dead end job. Today's mason is tomorrow's subcontractor, and the day after that he or she is a contractor. These are jobs that require skills beyond—but including—academics. They are careers that are well paid and rewarding.

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That is one reason why we hold an annual national conference involving 12,000 people in Kansas City, Missouri. A centerpiece of that conference is a nationwide competition in 68 skilled trade and leadership areas called the SkillsUSA Championships. All of our partners—students, instructors and industry—are involved as a way of demonstrating to the public the importance and opportunity provided by these occupations.

In conclusion, I will tell you that this year the SkillsUSA-VICA association is gathering one million signatures from employers, employees and union members in support of America's highly skilled workforce. Called the Building Skills for America signature campaign, we are asking our students to go out into their communities and remind the public and local policy makers that the success of America has grown from the contribution of our skilled workforce. The Empire State Building, the Golden Gate Bridge, the space shuttle and the internet all exist because of the quality and preparation of our workers. As a reminder of their achievements, and recognition of their work, we will be bringing those signatures to Washington in September of this year. I hope we can count upon this committee to recognize the request of business for a skilled workforce and to honor the dedication of our students in training.

Mr. Chairman and members of the committee, I'm going to conclude with one last story. Two years ago I met a student in Kentucky who was thirty years old, with a wife and family, going to college full time to become an electrician and working full time as a hospital orderly. He told me: "It's tough holding it all together. Paying for college, supporting my family and holding down a job I know isn't going anywhere. . . it's tough to do. I need to get from here to there and I know I can do it." I hope this bill will help business. I hope it will help apprenticeships. I hope it will help colleges. Most of all, I hope it will help people like my friend in Kentucky put his career on track to support his family and his community.

Thank you Mr. Chairman and to the House Committee on Small Business for inviting me to appear before you this morning.

**Statement  
of the  
Mechanical-Electrical-Sheet Metal Alliance  
on  
H.R. 1824, the Skilled Workforce Enhancement Act  
February 9, 2000  
before the  
House Committee on Small Business**

Mr. Chairman, members of the House Committee on Small Business, my name is Patrick Murphy. I am the owner of Crest Electrical Company in St. Louis, MO. Crest Electric is a family-owned business that has been operated since 1953. I have been the owner for 21 years I currently employ approximately 220 union electricians in the St. Louis area.

I am a member of the National Electrical Contractors Association (NECA), and am pleased to be here today on behalf of the Mechanical – Electrical – Sheet Metal Alliance to discuss the Skilled Workforce Enhancement Act (SWEA). The Alliance, which is comprised of the Mechanical Contractors Association of America (MCAA), NECA and the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), represents more than 12,000 specialty construction contracting firms that employ more than 540,000 skilled union trades people. Alliance contractors hold a growing market share of more than 60 percent of the nation's non-residential construction activity.

As an electrical contractor in St. Louis and a former member of our joint apprenticeship and training committee, I know first hand the benefits of training in the construction industry. I feel that quality apprenticeship and training is important for my employees because it increases the speed and quality of their work, improves our customer relations, creates loyalty within our workforce and creates a pool of skilled labor to replace retiring journeymen.

Sophisticated firms like mine require these qualities in our employees to handle the complex projects on which we work. For example, Alliance member firms have been responsible for all the major specialty construction work on major projects in St. Louis, including the TWA Dome, the St. Louis Arch, the Union Station restoration, the airport and numerous jobs for clients such as Anheuser-Busch, Chrysler, Ford, Boeing and General Motors.

Alliance contractors in my area have chosen to make a significant investment in the future of our industry. The St. Louis Electrical Connection, my local labor/management training program, represents more than 100 contractors and about 2,500 union electricians working throughout eastern Missouri. There are nearly 1,000 students enrolled in the school, about 300 of whom are apprentices. Some 675 journeyman electricians are enrolled in evening continuing education classes.

In 1997, and again in 1999, the St. Louis Connection won the prestigious Construction Industry Cost Effectiveness Award from the local arm of the Business Roundtable (BRT), an association of the chief executive officers of the country's leading corporations. In 1999, this award was granted to our organization upon the completion of our new St. Louis Electrical/Data Training Center.

The Sheet Metal and Air Conditioning Contractors have an equally impressive training program in the St. Louis area. SMACNA is preparing to double the size of their training facility this year. Currently, the program trains 250 apprentices and offers continuing education to 1,300 journeymen each year.

The Mechanical Contractors Association of America and the United Association in St. Louis jointly have built an industry-leading apprenticeship program – the first in the nation to be accredited in the UA's training certification program.

As you know, the construction industry is currently facing a serious skilled worker shortage. The Alliance applauds Chairman Talent's initiative in attempting to promote and reward training programs in the skilled trades through SWEA. However, while we support the committee's objective of helping small business develop an adequate, competent workforce, the proposal as currently written raises a number of issues and potential problems for Alliance employers. In my testimony, I hope to provide you with background on the workforce shortage, steps that Alliance Contractors have taken to invest heavily in training through multi-employer programs and our suggestions for modifications in the current wording of the Skilled Workforce Enhancement Act which would resolve those problems.

#### **The Skilled Worker Shortage**

The current skilled worker shortage has been magnified by our nation's recent economic boom. However, as far back as 1987 the Department of Labor saw the looming problem when it issued its *Workforce 2000: Work and Workers for the Twenty-first Century*. Initiated by then Secretary of Labor William Brock, and conducted by the Hudson Institute, the study accurately predicted the current shortage of skilled workers in the construction industry.

The U.S. Department of Labor estimates that between now and the year 2006, the construction industry will add approximately 500,000 jobs. In the major industrial areas of construction, manufacturing and mining, only construction is projected to post an employment gain over the next five years. At the current unemployment rate of around four percent, specialty construction contractors will have difficulty filling critical positions well into the foreseeable future.

In a 1997 report, titled *Confronting the Skilled Construction Workforce Shortage*, the Business Roundtable (BRT) found that:

“Although image may be the driving force behind the recruitment problems that the industry faces, career path is the driver for retention. Solving the retention problem, keeping skilled craft works in the industry, begins with craft training and development.”

#### **Benefits of Multi-Employer Training**

When several employers join together to fund a training program, usually on a cents-per-man-hour basis, it is referred to as a “multi-employer” training program.

The multi-employer training system is the most cost-effective way for construction firms of any size to offer extensive and comprehensive training to their employees. Multi-employer training programs allow all construction employers, especially small businesses, to pool their resources to provide a quality combination classroom and on-the-job training utilizing resources that they, as individual employers, would not be able to afford alone.

All construction industry joint labor/management apprenticeship programs are funded as multi-employer Taft-Hartley trusts. The overwhelming success of these union training programs is a result of their dedicated commitment to this highly effective multi-employer training system. According to the 1997 report by the BRT,

“The union sector always has excelled in craft training through the joint labor/management apprenticeship programs ... the lack of standardized training in the open shop now is taking its toll as their market share has grown.”

In this same report on *Confronting the Skilled Construction Workforce Shortage*, the BRT suggested that,

“Consideration should be given to pooling industry resources for the greatest impact on both the national and regional levels.”

Each year, Alliance contractors train over 90,000 apprentices. This training, as well as journeyman upgrade training, is provided at a cost exceeding \$175 million. Participating contractor firms and their local association chapters sponsor over 1,000 local training programs staffed by approximately 5,600 instructors. Equipment and facilities owned by the training programs are valued at more than \$500 million. Alliance apprenticeship programs are five years in length and are financed entirely through private funding – at no cost to taxpayers. Additionally, Alliance apprentices are paid during this five-year period so that they, in fact, “earn while they learn.”

Alliance apprenticeship programs provide a set national curriculum in each of the trades. This includes at least 144 hours of classroom training each year, and allows participants the opportunity to work for a number of different employers over the course of their

apprenticeship. This diverse experience exposes Alliance apprentices to a broad variety of work and management systems.

Skill, knowledge and attitude are the primary focus of Alliance multi-employer training programs. In addition to receiving skill training on the job, our apprentices are provided trade-related classroom training that develops the knowledge, competency and pride which, in turn, lead to true craftsmanship. Local training committees provide special classes with hands-on training to support classroom lectures and discussions. In many states, completion of an Alliance joint training program qualifies a graduate for up to 42 hours of college credit toward a degree.

In recent decades there has been an increasing focus on the need to increase the number of minority participants in skilled training efforts. You should know that the multiemployer apprenticeship and training programs sponsored by Alliance member associations account for 90% of the certified minority journeymen in our highly skilled trades.

#### **Current Tax Treatment of Training Expenses**

Under Section 162 of the Internal Revenue Code, any business may deduct the “ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business.” Included as these costs of doing business are employee salaries and training costs, if they qualify as “ordinary and necessary,” as opposed to capital expenses which are not deductible.

Under a 1958 Revenue Ruling (58-238), “contributions made by the employer to the joint apprenticeship and training fund, pursuant to a collective bargaining agreement, constitute business expenses deductible from income” under Section 162. Put simply, all businesses may deduct their costs of training under current tax law.

In meetings with staff regarding the legislation, we understand that businesses participating in collectively bargained multi-employer programs will be able to take advantage of the tax credit created by SWEA. While this is not directly stated in the text of the legislation, we again understand that the inclusion will be clarified through report language. We believe specific language in the bill itself is necessary to preclude any possible misunderstandings and to forestall possible costly and counterproductive litigation.

Multi-employer training indisputably has been successful in graduating knowledgeable, trained and productive journeymen into the skilled trades. Due to the critical level of the skilled workforce shortage, and to maintain consistency with the 1958 revenue ruling on deductible training expenses, we suggest allowing all employers who are party to an accredited joint multiemployer apprenticeship and training program to be considered eligible for the SWEA credit. This is particularly appropriate for an industry where the vast majority of the workforce may be working for one employer one day and another employer the next.

Critics of this idea may point out that allowing some large employers to qualify for the tax credit could make it too expensive. However, SWEA already covers all but a very few employers in the construction industry. According to the 1997 U.S. Census, there were a combined total of 176,826 construction firms in the plumbing, heating, air conditioning, electrical, roofing and sheet metal trades. Of this number, **only 339** businesses would **NOT** qualify for the \$15,000 tax credit under SWEA. If each of these firms hired just one apprentice using the current criteria in the SWEA proposal, the cost to the Treasury would be \$2,647,305,000.

Would every one of these employers offer a training program to take advantage of the tax credit? Probably not – but they might not have to, since current SWEA language does not require a contractor to prove that they actually have a proven, effective and comprehensive training program to graduate highly-skilled workers in place.

#### **SWEA vs. Federal Government Standards for Training Programs**

Simply labeling some activity an “apprenticeship” or “training” program does not make it so automatically. Real training – especially in highly skilled trades – requires real effort and real commitment. SWEA seems to defer to the Labor Department in defining a qualified, highly skilled trade; but it is not clear whether it fully adopts the DOL Bureau of Apprenticeship and Training (BAT) definition of a qualified training program.

State Apprenticeship Councils (SACs) and the BAT are available to assist employers in bringing their program into compliance with state or federal standards. The BAT maintains offices in all 50 states and assists employers in the 23 states where there is no SAC. This is not strictly a program for contractors using organized labor. Missouri, for example, has BAT certification for both union and non-union training programs. St. Louis County has plans to require BAT-certified apprenticeship as part of its mechanical code requirements.

The following are some of the characteristics of the basic apprenticeship standards under Title 29, Code of Federal Regulations, Part 29.5:

- full and fair opportunity to apply for apprenticeship;
- a schedule of work processes in which an apprentice is to receive training and experience on the job;
- the program includes organized instruction designed to provide apprentices with knowledge in technical subjects related to their trade (e.g., a minimum of 144 hours per year is normally considered necessary);
- a progressively increasing schedule of wages;

- proper supervision of on-the-job training with adequate facilities to train apprentices;
- apprentice's progress, both in job performances and related instruction is evaluated periodically and appropriate records are maintained;
- no discrimination in any phase of selection, employment, or training.

The Alliance suggests that compliance with BAT/SAC standards become a requirement for receiving the SWEA tax credit. The procedure is straightforward, simple, and open to all.

According to Dr. Peter Phillips of the University of Utah, Alliance training programs, which are exclusively multi-employer in nature, and which are ALL accredited through BAT/SAC, graduate an average 80% of their enrolled apprentices. By comparison, other programs, which use mixed methods for training, graduate an average of only 20% of enrolled apprentices. If our goal is to increase the skilled workforce by encouraging employers to provide necessary training for highly skilled jobs, Congress should ensure that employees truly are being taught the real-world skills and knowledge needed to succeed in a highly skilled trade. Again, the Business Roundtable acknowledges that:

“There is a need for a recognized and accredited training curriculum that can be utilized by open shop contractors to train craftsmen for industrial work by modern skill related methods particularly in the specialty trades.”

SWEA also limits the tax credit to programs that are a maximum of four years in length – denying the full tax advantage to five-year programs. The Alliance feels that this fails to address the workforce development aspects intended by SWEA, as rapidly advancing technology, systems, and facilities are requiring more ongoing training rather than less. The Alliance strongly urges that five-year programs qualify for the SWEA tax credit.

#### **Resolving the Skilled Workforce Shortage**

An increased investment in training is only one way to address the skilled workforce shortage. Alliance contractors have long recognized the need to invest in the future of our industries. In addition to our comprehensive training programs, the Alliance sponsors 2theTop, a program that promotes specialty construction careers to high school students and career counselors to in an effort to recruit high school graduates into careers in our industries. More information on this program can be found on the program's web-site at [www.2-the-top.com](http://www.2-the-top.com).

Mr. Chairman, each of our organizations has invited you to tour our training facilities in your area. Thus far your schedule has not allowed you to take advantage of this opportunity. At this time we would like to renew our invitation, and urge you to take advantage of it so you may see first hand the kind of commitment to quality instruction

and training that is necessary today to graduate truly skilled – highly skilled – workers in our increasingly high-tech industry.

In the construction industry of the immediate future, not only recruitment, but retention of workers will be essential to meeting workforce and skills requirements. The BRT study also notes that “Solving the problem, keeping skilled craft workers in the industry, begins with craft training and development.”

The Alliance has shown the commitment of its employers to alleviating the skilled workforce shortage and to investing in the future of our industry. Alliance firms have contributed to quality training in the plumbing/pipefitting, electrical and sheet metal trades for over 50 years. The proposed SWEA tax credit would allow us to continue to enhance these quality training programs, and to produce desperately needed highly skilled workers in response to the current workforce shortage.

Thank you for the opportunity to testify, and I will be happy to answer any questions that you may have.



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TESTIMONY OF

RANDALL G. PENCE, ESQ.  
PRESIDENT  
CAPITOL HILL ADVOCATES, INC.

ON BEHALF OF

THE NATIONAL CONCRETE MASONRY ASSOCIATION

BEFORE

THE COMMITTEE ON SMALL BUSINESS  
UNITES STATES HOUSE OF REPRESENTATIVES

REGARDING

HR1824, THE SKILLED WORKFORCE ENHANCEMENT ACT

FEBRUARY 9, 2000

Mr. Chairman, distinguished members of the Committee, let me begin by thanking you for your invitation to testify on behalf of my client, the National Concrete Masonry Association (NCMA), regarding HR1824, the Skilled Workforce Enhancement Act.

The highly skilled workforce in America, a linchpin in the robust economic growth and vitality in the United States, is in jeopardy. Workforce recruitment is a prime topic at every business confab in the country. It casts a shadow on Main Street. It is discussed in sobering tones on Wall Street. It is destined to become an issue at both ends of Pennsylvania Avenue.

Employers spread throughout every congressional district in America share this key concern for the future of their businesses. They recognize that without skilled workers, there is no skilled work. They look to Washington for help. They are focused on our action today.

There is already tremendous support outside the Beltway for passage of HR1824, and that support grows with every affected business executive who learns about it. HR1824 can be a highly effective mechanism by which the federal government can join with the threatened industries to attack a national problem before it reaches crisis stage.

This morning you will hear from witnesses representing industries on the front lines of the battle to bolster skilled workforce numbers, a battle that they are slowly losing. Without question, the numbers in skilled workforce training, as it regards new mason apprentices, is the number one issue confronting the masonry industry today.

I am sure that all your constituents who face this dilemma join me in expressing appreciation for your foresight and leadership on this issue.

#### NCMA, MASONRY AND THE ROLE OF THE MASON

NCMA is a 501(c)(6) trade association representing hundreds of manufacturers of concrete masonry (C/M) units such as concrete brick and block, architectural units, pavers, segmental retaining wall units and more. Located in Herndon, Virginia, NCMA has for many decades served as the representative of the C/M industry. NCMA actively engages in leading edge R&D, codes and standards development, product testing in its state-of-the-art laboratory facilities, convention services, government relations and public policy development. Members of the association are distributed throughout the United States and range in size from small family-owned businesses to large multi-national concerns.

The members produce concrete block and brick (also referred to as CMU – concrete masonry units), which are key construction materials highly regarded for the strength, reliability, durability, fire safety, sound-proofing and hazard resistance they provide in the construction of buildings. CMU are typically used in load-bearing configurations and literally provide the foundation and walls for the buildings in which they are installed. CMU materials comprise a major portion of the construction materials industry. CMU are also very widely used in the construction of taxpayer-funded government buildings, both civilian and military, including court houses, prisons, housing, schools, hospitals, military barracks and military base facilities, institutional and agency buildings of nearly every type and location, and many more. Taxpayer-funded use of CMU by all levels of government is substantial throughout the nation.

Skilled qualified masons install masonry made from other materials than concrete, including clay brick, stone and more. Perhaps the key unifying feature among all masons might be the required craftsmanship with the mortar and trowel. For the purposes of this discussion, I will address all masons who work with various forms of masonry.

Aside from the basic manufacture of the product, the primary consideration in the masonry industry is installation. The labor cost for installation of masonry on any given project is nearly always the large majority share of the cost of using masonry. The installation of masonry for building construction is performed by highly skilled qualified masons who have mastered the use of the mortar and trowel.

The degree of expertise required for a skilled qualified mason to work independently on the jobsite is extraordinary among construction jobs. An apprenticeship lasting generally

more than two and up to four years, with extensive on-the-job training under the oversight of another skilled qualified mason, is necessary. The training imparts the package of skills and experience to build masonry structures independently, competently and professionally.

A highly skilled qualified mason is essential to competently erect a structure using masonry. Without the mason, there is no masonry structure. Period.

It is the growing shortage of these workers relative to the rapidly expanding demands of the economy that brings us to Capitol Hill today, seeking your assistance.

#### AMERICA'S GROWING SKILLED WORKFORCE DEFICIT, GENERALLY

At the outset of the 21<sup>st</sup> century, America is facing one of the most unique and daunting challenges ever to our future economic health. We find ourselves in the midst of an unparalleled period of economic growth and prosperity. Yet, not unlike an army that advances so rapidly that it risks outrunning its logistical supply lines, this country seeks to further economic growth while the skilled trades are unable to keep pace with new skilled workers to fill the demand.

At the same time that demand for skilled tradesworkers is growing rapidly with the economy, industries are running into greater problems than ever before in attracting quality candidates to enter apprenticeships for highly skilled trades. Through a confluence of demographic changes, changing attitudes in the schools and the workplace, the draw of emerging high-tech employment opportunities, and the maximum efforts to place high school graduates in college, high-quality apprenticeship candidates that were formerly attracted by the prospect of learning a trade ensuring a life-long career are either in low supply or are going elsewhere. Many of the trades at issue today involve heavy physical labor, an impediment to youths who prefer the lure of work at a keyboard and computer screen.

The wages for skilled workers after they have become skilled are quite attractive, but the lengthy period for apprenticeships – and the lower apprentice wage scale during training – is unpalatable to many. Thus, depending on local conditions, the supply of new apprentices is either 1) remaining at a fairly steady rate (and falling behind demand), 2) rising slightly (but not as rapidly as demand), or 3) actually declining.

The trade of masonry is feeling the pinch as much as any other industry dependent on highly skilled workers, workers whose skills may only be acquired over a lengthy training period of time and at great cost and financial risk to small businesses. Let us focus on the problems currently developing in the trade of masonry, and the growing shortage of skilled qualified masons who play a large role in basic construction for the public and private sectors of the economy.

#### THE SUPPLY OF MASONS: FALLING BEHIND A DEMANDING ECONOMY

NCMA's examination of a number of U.S. Government job data sources indicated the range of 139,000 to 196,939 masons in the U.S. as of 1995. The wide range in the Bureau of Labor Statistics data is due to the fact that BLS data does not reflect self-employed masons, which comprise a substantial portion of the masons in America. On the other hand, the BLS figures often do not distinguish between highly skilled masons working with the mortar and trowel versus lesser skilled workers that are sometimes referred to masons only because they work with concrete. NCMA, using its direct contacts within the industry to obtain the most sensitive measurement possible within its resources, estimates the true 1995 figure in the range of 190,000.

Compare that figure with demand. The same year, NCMA estimated that 203,241 masons would be required to install the masonry manufactured in 1995 as reported by the masonry manufacture associations.

According to the most conservative reading of these data, the U.S. suffered a shortfall of at least 6,300 skilled masons in 1995; NCMA believes the shortfall was actually closer to 13,000. Further, the shortfall has been growing steadily since that time and is now considered by a majority of masonry executives the single most serious dilemma facing the industry.

Commentary in the latest BLS Occupational Outlook Handbook agrees that the demand for masons will outstrip supply, as the following excerpts demonstrate:

Job opportunities for skilled bricklayers and stonemasons are expected to be good as the growth in demand outpaces the supply of workers trained in this craft (*underlining added*). Employment of bricklayers and stonemasons is expected to grow about as fast as the average for all occupations through the year 2006, and additional openings will result from the need to replace bricklayers and stonemasons who retire, transfer to other occupations, or leave the trades for other reasons. However, the pool of young workers available to enter training programs will also be increasing slowly, and many in that group are reluctant to seek training for jobs that may be strenuous and have uncomfortable working conditions.

Moreover, the BLS Occupation Report estimates that from 1998 to 2008, the job category most specific to masonry employment opportunities will increase by just over 20% during the period.

Meanwhile, as the BLS commentary continues, BLS expects the effects of a rapidly growing economy, and the demand for new infrastructure, to proceed at a rapid pace.

Population and business growth will create a need for new factories, schools, hospitals, offices, and other structures, increasing the demand for bricklayers and stonemasons. Also stimulating demand, will be the need to

restore a growing stock of old masonry buildings, as well as the increasing use of brick for decorative work on building fronts and in lobbies and foyers. Brick exteriors should continue to be very popular as the trend continues toward more durable exterior materials requiring less maintenance...

-- *Bureau of Labor Statistics Occupational Outlook Handbook*

As the preceding excerpts hint, the number of masons is a dynamic phenomenon tied to the work lives of the skilled individuals in question. Current numbers of highly experienced skilled masons are constantly being trimmed through retirements, job changes and other forms of attrition. We can learn a great deal about what the future will hold for the masonry industry if we look to the age trends in this heavy-labor occupation. Specifically we need to look at the age distribution of masons to see whether the industry might be approaching a timing problem as well.

#### RISING MEAN AGE OF MASONS AND MASON APPRENTICES

NCMA and related organizations conducted the latest comprehensive study of the number of masons in America in 1995, and it remains reflective of the trends in the mason trade.

Figures from the 1990 Census indicated that the mean age of masons in America at that time was 37.7 years of age. However, subsequent questionnaires completed by masonry executives around the country in 1995 generated mean age data clustering in the low 40s. Considering the five year interval between surveys, the two studies are quite consistent with the proposition that the skilled mason workforce taken as a whole is aging, and that an insufficient number of new skilled masons are entering the workforce to maintain the mean age in a stable range.

What is most disturbing about these numbers is, if indeed the average age of masons increased by 3 to 4 years in a recent 5-year time span, the industry may actually be underestimating the speed of the developing problem.

These data are cause of serious concern in the industry. If the mean age of masons has rapidly moved into the 40s and is continuing to rise, it is a clear indication of an upward age concentration in the industry. Eventually these skilled workers will need to retire. If a large number of older workers leave the industry in a cluster, especially with insufficient new masons in the pipeline to counterbalance the generational shift, the acute impact on the industry would be enormous.

The same industry study indicated that the mean age of apprentices entering training programs is increasing as well, up to 26.9 years of age in 1995. This is also troubling to the industry because it means that, for a host of reasons, a diminishing number of high-quality high school students are entering the mason trade during the critical period immediately following graduation when career paths are chosen. Certainly the numbers

indicate that many of the best candidates are not choosing high-paying skilled trades after graduation as many of their parents did.

As with any skilled trade involving multi-year training and apprenticeship programs, the decision to enter the masonry trade usually connotes a life-long career decision. Or at least that is the hope of the masonry executives who undertake the substantial commitments of time, training, personnel and financial investments to train new masons. It is important to bring prospective apprentices into the training pipeline when such career decisions are customarily made, to attract more of the higher quality candidates at the prime career choice stage. It may take better and more expensive marketing to young people to join the masonry trade and it may take higher wages to apprentices, all of which will raise the costs and risks to employers even higher than they are today. The increasing costs, risks and difficulties of recruitment, which are already daunting for small businesses, serve as a disincentive to mason training precisely at a time when we should be making it easier for industries dominated by small firms to recruit and train.

If these trends are allowed to continue, in masonry and the other skilled occupations under discussion in HR1824, it will only be a matter of time until the workforce shortfall interferes with construction/manufacturing activity in the United States with infrastructure impacts beyond the industries in question.

#### COSTS, RISKS, AND SMALL BUSINESS BURDENS OF TRAINING

The masonry industries are comprised of companies of all sizes but it is fair to say that the very large majority of companies are small businesses (in fact, many masons are self-employed).

It is a decision of major consequence for any masonry small business to assume the burden of training a new apprentice. It is a long-term and risky investment in people that is unique in the general workforce today. There are the obvious employment costs for the apprentice, a worker who by definition will not begin to deliver a full profitable return on investment for a period of years. Those costs may rise from customary levels if additional compensation incentives and recruitment efforts are necessary to attract quality candidates. In addition, the employer will need to dedicate a substantial amount of training time and resources to the development of the apprentice. Among other things this means that existing skilled masons will need to take profitable time away from their installation duties to oversee the work of the apprentice. Costs are included for classroom instruction and attendance in training modules. Travel may well be involved. Costs to pay multi-employer training facilities can mount.

And there is no guarantee of a return on investment. The apprentice may wash out. Or at the end of this costly investment period, the candidate may walk across the street to work for a competitor. Cost is the most important restraining factor, but the cost looms even larger when compared to the risk of no return on investment.

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It is readily apparent why small businesses are often reticent, even unwilling to train new masons. For those who do train, their efforts are limited primarily by the costs. Estimates of the costs of training a new mason vary widely by geographic region and by the thoroughness of business executives in tallying the total cost of training. Through its surveys and other anecdotal information gained from NCMA members, NCMA estimates it costs in the range of \$25,000 to \$40,000 per year to train a new mason. As a matter of business judgment, both for what it means to the current bottom line and the disruption it causes for existing masons to train someone, many small business determine that they cannot afford to be in the mason training business. Others train less than they would if the costs were not so high.

Recent survey data accumulated in the industry indicate that HR1824 could have a very distinct, positive impact on the cost equation, and most small business executives indicate that the passage of HR1824 would have a dramatic affect on their mason training strategies. On average, respondents said that a \$15,000 per year per apprentice tax credit would allow them to take on an additional 3 to 4 apprentices per company. Spread across the highly diverse and fractionalized masonry industries, the majority of which are small businesses, HR1824 could go a long way toward reversing the disturbing trends in numbers of masons. HR1824 is perceived by masonry business owners as a strong training incentive that would effectively ameliorate cost, the most pressing small business constraint to training.

#### UNIQUE IMPACTS ON THE NATIONAL ECONOMY AND FEDERAL POLICY

Many of the skilled trades, including masonry, are important national industries in their own right, providing valuable goods and services, generating large payrolls, paying taxes, supporting thousands of families. Endemic labor problems in any large industry are worthy of federal policy concern.

In the case of many of the skilled trades, the impact of their labor problems will extend beyond to other industries as well, a factor which takes the public policy concerns we address today to a higher level.

In many cases, these basic industries that rely on highly skilled workers help create the country's hard-asset infrastructure -- literally and figuratively the foundation for economic growth throughout the economy and the continued expansion we hope for. Workforce shortages in such foundation industries could have a measurable limiting impact on the economy at the local, state and federal levels. Fundamental relationships between workforce availability and wage rates indicate that shortages in such foundation industries could also have a deleterious inflationary impact that would affect all customers for these skills, both public and private sector. And construction delays due to labor shortages are always costly in a host of ways.

Clearly, the federal government has a stake in ensuring that such foundation industries have the workforce necessary to feed the demands of the private sector economy,

continue job growth and enable economic expansion. But the federal government has a supplementary interest in this matter: the interest of a customer. Masonry construction, for example, has a huge presence in government-funded construction of all kinds and at all levels of government. As stated previously, masonry is very widely used in the construction of taxpayer-funded government buildings, both civilian and military, including court houses, prisons, housing, schools, hospitals, military barracks and military base facilities, institutional and agency buildings of nearly every type and location, and many more. Shortages in skilled qualified masons could increase the costs to the taxpayers and delay completion of important public works projects. Clearly, this is a dilemma affecting both public sector construction as well as private.

To compound the problem and make it even more distinguishable from other worker shortages, it is necessary to keep in mind that these are workforce issues that cannot be resolved quickly once shortages reach a crisis stage. Time is a key component in the training of a new mason. There is a long developmental period for these skills, requiring intensive on-the-job training and supervised apprenticeships spanning years. The long training time itself becomes a barrier to entry into the field, both for the prospective tradesworkers and the companies that must make the investment in training. Unfortunately it is not the kind of problem that can be immediately resolved by offering bonuses at a weekend job fair.

#### SPECIAL ISSUES AND RECOMMENDATIONS FOR HR1824

Some interests represented here today may request that the tax credit provided by HR1824 be limited solely to "BAT-certified" training programs, or to programs certified by the U.S. Department of Labor, or that some reference to standards based upon BAT certification be added as a qualification factor. With all due respect, NCMA would ask that no such provision or variant thereof be added to the bill.

NCMA recognizes that BAT-certified labor union programs do a fine job of training masons for the trade. We understand that employer expenses to send apprentices to labor union programs would be fully eligible for the HR1824 credit, and NCMA fully supports this benefit for labor union programs.

However, there are many training programs that are conducted by industry, are not labor union programs and do not seek BAT certification, and those programs produce fine masons as well. These industry programs are in wide use throughout much of the country and provide many of the skilled craftsmen in the workforce today. In a matter of days if need be, NCMA can produce a large number of favorable testimonials from around the country for the record praising industry mason training programs. I am sure other witnesses at the table today can do the same for their industries.

Speaking for the C/M industry, I can state that the producers of CMU take a back seat to no one when it comes to the demand for quality craftsmanship. No group has a greater stake in the skill of masons than the members of NCMA. Every installation becomes a

demonstration of the product. Both industry and labor union programs enjoy strong support in NCMA for the quality of the masons they produce. The only problem is that both are not producing enough masons to satisfy demand, and the numbers problem is what HR1824 is drafted to attack with a comprehensive, inclusive mechanism.

Adding such a one-sided provision would only introduce divisive factors that should not be at issue here, erode support for the bill, limit its positive impacts and stigmatize industry programs that do a very good job of training masons.

HR1824 does not discriminate. It does not favor labor union programs over industry programs, and it does not favor industry programs over labor union training. It is labor-industry neutral. NCMA sees a great deal of wisdom in that approach, and we hope to see it retained in the bill.

In a related matter, I understand that there has been a question as to whether expenditures by employers to send trainees to multi-employer training facilities would qualify for the credit. NCMA urges that the record clearly state that the bill indeed applies to such expenditures.

HR1824 is currently drafted to apply to training programs providing at least 2000 hours per year of classroom training and on-the-job instruction. As with other trades represented here today, delays due to seasonal weather problems can wreak havoc with construction schedules. In order to recognize this fact and avoid unintended loss of eligibility due to such events, NCMA requests that the requisite number of hours per year be changed to a minimum of 1500 hours.

In conclusion, I urge the Congress to consider the skilled workforce in America as an important national human resource which must be maintained through effective federal policy. HR1824 would provide the necessary targeted financial incentive necessary to help small business reverse the disturbing trends and ensure a skilled workforce large enough to keep the American economy growing. America will need to stretch its job training resources to the fullest to make sure that every person capable of high-quality productive work in key skilled trades is provided training to reach his or her potential. The most efficient means of bringing this about is to encourage employer-funded on-the-job training for the skilled trades via a tax incentive for those companies that undertake the risks and make the investment in people so important to the country.

Mr. Chairman, distinguished members of the Committee, once again I applaud your action and foresight on this issue, and I appreciate the opportunity to share my views on HR1824.