

EMBARGOED UNTIL 11:30 AM ON WEDNESDAY, APRIL 25, 2018

Testimony

of

Glenn E. Johnson, M.A.

Manufacturing Workforce Development Leader
BASF Corporation

before the

Subcommittee on Human Resources
of the House Committee on Ways and Means

Hearing on “Jobs and Opportunity: Employer Perspectives on the Jobs
Gap”

1129 Longworth House Office Building
April 25, 2018
11:30 a.m.

BASF

In the United States, BASF has operations at 148 locations in 29 states and has more than 15,000 employees. We are dedicated to hiring and developing people in a wide range of roles, including operations, engineering, research, development, and marketing. We support a variety of education initiatives to help fill the workforce pipeline. In 2017, BASF contributed more than \$5 million to non-profit organizations supporting communities where we work and live throughout the U.S.

Manufacturing Jobs Can Take You Anywhere

There are those who would say that jobs in manufacturing are dead-end jobs, but I am here today to testify that that these jobs do not have a ceiling, they have options. Some of us in manufacturing prefer the live exciting hands-on aspects of technology roles in manufacturing and choose to make a lasting career in these ever-important positions. Some seek to move into administrative work. Manufacturing provides opportunities for both, today.

- Ms. Jana Truett
 - Was a cashier in a pharmacy when she decided to get her associate degree in process technology. She began work with BASF as an operator and now trains others in technology.
- Ms. Jalisa King
 - Was a cook when she decided to get her associate degree. She is now an operator in BASF and part of our Ambassador team telling her story to other young women.
- Ms. Tara McMahon
 - Worked in a recreation center. After completing her associate degree, now works at BASF as a Laboratory Technician.
- Glenn Johnson
 - 22 years ago, I was a proud young man living in a trailer park in western Kentucky with only a high school diploma. At that time, I began my first job in manufacturing. I ran assembly lines and stacked cases of product. As I worked through the ranks, I began to take advantage of the tuition reimbursement program. I progressed into leadership roles while continuing to train and educate with the support of my manufacturing employer. That proud man from the trailer park sits before Congress today to tell you that the manufacturing industry changed my life and continues to change people's lives in the same way, every day.

Strategy for Workforce Development

Important to Talent Acquisition is our pursuit to seek the best candidates. But Talent Acquisition begins with a strategy of enticing the best candidates to seek us. This includes direct involvement in all stages of workforce preparation; building continuous and meaningful relationships with workforce potentials and organizations, and providing continuous opportunities to deliver the Manufacturing Value Proposition to potential job candidates. Three directives drive our Manufacturing Workforce Development program:

- Quantity – Drive Career & Technical Education Awareness
- Quality – Cultivate Nested Educational Partnerships
- Synergy – Leverage Government and Industrial Partnerships

Quantity of Workers and the “Jobs Gap”

Recently, there has been national discussion around the “Jobs Gap.” There are numerous studies announcing the shortage of American workers that possess hireable skills within manufacturing and other industries with technology roles. However, if we are to solve this issue, we must treat the root cause, not the symptom.

EMBARGOED UNTIL 11:30 AM ON WEDNESDAY, APRIL 25, 2018

The lack of skilled workers, for example, is a symptom. The root cause however is much more basic. In this country we have allowed a narrative to develop that the “best” jobs are no longer in manufacturing, but in white-collar, office settings – although these jobs are also essential to manufacturing. Simply put, the way everyone from actual parents and teachers to fictional characters portrayed in movies and television talk about certain careers has led to a lack of interest in these careers. Furthermore, we compound the problem by leaving information out during counseling.

The Incomplete Message

We tell kids to “dream big, you can do anything you want.” Although I believe this general direction to be correct, it is profoundly incomplete. If 1,000 children dream to get a job that only has 2 openings, 998 will be unemployed – even if they are all “straight-A” students.

Countless stories about graduates that cannot find jobs have become a norm, seemingly accepted by society. Coexisting with this norm is the fact that industries, like manufacturing, simply cannot find enough workers for jobs that most often pay more, have better benefits, and are in every way as professional a career than the jobs these unemployed and misinformed Americans sought.

- According to the Bureau of Labor Statistics, manufacturing is one of the most stable and secure careers with the average tenure of employees being nine years—the highest among all private sector industries.
- Manufacturing jobs pay well. The average manufacturing employee earns nearly \$20,000 more per year than the average employee of other industries. (source: Bureau of Economic Analysis and Bureau of Labor Statistics)

We must assure that job availability is a part of the counseling we provide to students, transitioning veterans, and other retooling adults when they are making education and training decisions. This quantity aspect is only the beginning of what we refer to as, “the workforce development equation.” Individual companies – or even national trade associations such as the National Association of Manufacturers (NAM) – cannot solve this problem alone. There is a role for government leaders at different levels to play in addressing this issue.

Career & Technical Education (CTE) Awareness

Within CTE we endeavor to grow the pipeline of workforce potentials. Surveys report that 52% of all teenagers say they have no interest in a manufacturing career. However, the data also show that the most influential factor for students deciding what career to pursue is “personal experience” (to what they have been exposed). This drives our need to do more to familiarize these workforce potentials with jobs in manufacturing technology. Since 2010, more than 380,000 schoolchildren in grades K-12 have participated in science education programs offered by BASF.

In elementary school, BASF Kids Lab opens student’s eyes to chemistry. In the high schools, BASF Tech Academy enlightens students to successful career paths in manufacturing. In community and technical colleges, initiatives like the BASF FLAME (Female Leaders Advancing Manufacturing Excellence) program, develops women’s advancement by connection them to a growing vital network of mentors and colleagues.

- BASF Employee Resource Groups (ERGs) lead the way as Manufacturing Ambassadors within CTE activities. These groups focus on specific diversity segments and are uniquely qualified for outreach in these areas. Part of BASF’s workforce development vision is that people of diverse backgrounds see us as a company that doesn’t just seek to be, but **is**, diverse and sees value in being so.

The Workforce Development Equation

Hypothetically, let's say that one of our BASF site leaders determines that she needs three electrical technicians per year over the next five and 10 years. To hire three technicians, we must credential three. However, to credential three we must enroll six, because not everyone completes the program. However, to enroll six we must speak to 15, because not everyone is convinced to choose this path.

If we operate in such an isolated way, we are not considering the demand for the same job by our regional industry partners. It is unlikely our site would acquire the talent necessary to supply our demand because it is likely that some of these workers will be hired by other companies. Consequently, collaboration with our industry partners is pivotal to regional or national workforce development strategy. Instead of BASF creating a pipeline for our own needs, we work with our regional partners to determine the needs of the region to create a workforce pipeline that supplies us all.

Collaborative Synergy

Initial efforts within workforce development must be to join or create collaborative partnerships. In BASF, we seek these partnerships in every opportunity. For example:

- Within the East Harris County Manufacturers Association in Houston Texas, BASF joins forces with 12 colleges and 130 manufacturing and contractor companies. We identify critical crafts and agree on the competencies needed to assure we supply the quantity and quality of workers needed for the region.
- Within the National Association of Manufacturers' "Dream It Do It" platform, BASF joins multiple industry partners where, in 2017, we delivered the Manufacturing Value Proposition to 11,342 students and 1,690 teachers, parents, and other community representatives.
- Within the North American Process Technology Alliance, BASF joins 49 Colleges, 22 Industrial organizations, and 19 Vendors across America. Here we focus on curriculum and instructor skills for the Process Technology associate degree. This organization demonstrates the return on investment achievable within collaborative efforts.
 - Dr. Robert Bartsch and I published a research paper in *The Journal of Technology, Management, and Applied Engineering* titled "Comparing Process Technology Education and Work Experience" that demonstrates strong statistical evidence pointing toward collaborative value.
 - Within this degree we found that one year of training is approximately equal to 5.3 years of work experience. This is not to suggest that one year of education in general is equal to five years of experience. However, when industry and education partner to align curriculum with **collective** needs and assure that learning environments are close simulations of the job with applied performance criteria, Education/Training **IS** Experience.

Nested Educational Partnerships

Through a steadfast commitment to our Nested Educational Partnerships we seek to increase workforce pipeline quality. Within degree programs that align with our hiring projections, BASF:

- Joins/creates industry led educational advisory committees,
- Aligns education program learning with workplace knowledge and skill needs,
- Provides BASF site tours, student internships, and faculty externships, and
- Developed a "Nested Educational Partnership Playbook" that defines the roles and responsibilities of education and industry within this cooperation.

Closing

According to the American Chemistry Council (ACC):

- More than 96 percent of all manufactured goods are touched by products of chemistry.
- As of December 2016, more than 275 new chemical production projects had been announced since 2010 with a total value of more than \$170 billion, with a full 49 percent already complete or under construction. “The United States remains the place for chemical companies to invest,” (Kevin Swift, chief economist of ACC). Capital spending in the industry surged 21 percent in 2015, reaching nearly \$44 billion, and accounting for more than one-half of total construction spending by the manufacturing sector. By 2021, capital spending is expected to reach \$70 billion, contributing to four consecutive years of job growth in the industry (**if the “Jobs Gap” doesn’t prevent it**).
- The business of chemistry is a \$797 billion enterprise and one of America’s most significant manufacturing industries, accounting for more than 14 percent of all U.S. exports and 15 percent of the world’s chemicals.
- Production grew in every major chemical producing region in the U.S. during 2016. Over the next five years, the most dynamic growth will occur in the Gulf Coast region, followed by the Ohio Valley and Southeast regions. In the long-term, the U.S. chemical industry will grow faster than the overall economy (**if the “Jobs Gap” doesn’t prevent it**), and by 2020, U.S. chemical industry sales are expected to exceed \$1 trillion.

According to Forbes magazine, more than 350,000 manufacturing jobs are available right now. Beginning in 2016, 11,000 baby boomers are turning 70 years old every day. Combined with record investments in the U.S., over the next decade, manufacturing will have 3.5 million job vacancies and the skills gap is expected to result in two million of those jobs being unfilled. Additionally, research indicates that every job in manufacturing creates another 2.5 jobs in local goods and services. That is seven million jobs projected to go unfilled **if the “Jobs Gap” is ignored**.

We must act to prevent this:

- We must change our messaging to entice workers to seek jobs that are readily available, and that pay well,
- We must create education success metrics that indicate if we are filling the jobs most needed for America’s sustainability, not just how many people have four-year degrees,
- We must encourage federal education dollars to be weighted toward careers with high availability projections,
- The Department of Labor must provide job projections directly to Department of Education within an aligned and specific strategy to guide education funding pursuit as well as spending decisions for program development incentives.

Moving forward, BASF plans to advance and scale the activities mentioned today across North America. We are prepared to openly share the strategy and execution plan for workforce development with industry and government partners. America needs the manufacturing industry to achieve the growth we clearly see coming. Congress must catalyze this growth by acting now.