3/22/18

Testimony of the Michigan Chemistry Council for the Michigan Senate Education Subcommittee on the Michigan Merit Curriculum

Thursday, March 22, 2018

The Michigan Chemistry Council is the voice for Michigan's chemical industry, one of our state's top five largest manufacturing sectors. Our companies support nearly 120,000 Michigan jobs and generate $262 million in state and local taxes. 96% of all manufactured goods are directly touched by the business of chemistry, making our industry essential to every facet of Michigan's economy.

Michigan's chemistry companies are increasingly focused on the issue of talent and workforce needs. Our workforce is extremely diverse, from chemists to supply chain managers to plant operators. It is also highly-compensated, with an average wage of more than $85,000 (31% higher than the average manufacturing wage).

On the one end, our companies invest heavily in highly-educated professionals for research and development – chemistry represents 20% of all U.S. patents. As the headquarters of Dow, Midland Michigan has been ranked as the U.S. city with the highest per-capita proportion of PhDs. Many of our other companies – like BASF in Troy and Taylor - also employ some of the most highly-educated residents in their communities. Fortunately, Michigan's universities continue to have strong engineering programs, in particular, and our companies report that they continue to be able to attract and hire these white-collar workers from Michigan and across the nation.

In contrast, our industry – like many others – has had more difficulty in finding workforce in the skilled, non-degreed trades. Many manufacturing jobs are going unfilled because of lack of available, interested, skilled workers. For the business of chemistry, our plant equipment operators require a much different aptitude than construction or even other manufacturing sectors. There needs to be a significant understanding of process, instrumentation, and safety. These potential workers also tend to be more local as compared to more mobile degreed professionals.

So our industry is focused in increasing both the quantity of workforce potentials in the pipeline, as well as the quality. For Michigan, one of our challenges is our flat or declining population, which means less potential workers. This compounds our existing disadvantages – relative to some of our Southern states – in the areas of raw materials logistics and infrastructure, as well as energy costs; these factors drive investment to other areas instead of Michigan. Increasing our skilled workforce would be a significant factor in helping us be competitive.

There also needs to be a synergy between industry, construction, education, and government to more effectively foster a workforce pipeline. For example, we need a stronger construction force to address the challenge of costly capital investment in our state. So we support policies to increase the overall number of students in the technical and skilled trades pipelines. We think that providing better flexibility within the Michigan Merit Curriculum – and indeed in some cases solidifying existing efforts – should be a priority of this committee and the Legislature in 2018. Even if the necessary actions are taken, with all the known headwinds, Michigan's workforce situation is still likely to get worse before it gets better. We support the work and the priorities of the Career Pathways Alliance. We urge the Legislature to move beyond just talking about this issue, to addressing concrete opportunities.

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Mission: Represent our members to influence policies that promote and grow a safe, environmentally responsible, and competitive business of chemistry in Michigan.

Michigan

GLOBAL CHALLENGES, CHEMISTRY SOLUTIONS

American chemistry is essential to our economy and plays a vital role in helping to solve the biggest challenges facing our nation and our world by driving innovations that make our lives and our world healthier, safer, more sustainable and more productive.

Unprecedented access to domestic natural gas is helping to drive a renaissance in U.S. manufacturing. Renewed competitiveness in America's chemical industry is helping to create jobs, grow payrolls and generate new tax revenue, affirming the chemical industry's role as the cornerstone of our country's economic future.

September 2017

Michigan chemistry...

At **$15.9B**, is the **5th largest** manufacturing industry in the state

Makes Michigan the **16th largest** chemistry producing state

Provides **29,5928 direct jobs** and another **28,530 related jobs**

Generates **$2.5B in payroll** across **387** establishments

Has an average wage of **$85,447, 31% higher** than the average manufacturing wage

Generates **$262M** in state & local taxes, and **$414M** in federal taxes

Invests $701M to build & update equipment and facilities

Ships $4.5B in products to customers around the world

Generates an additional **41,551 jobs** in plastics & rubber products

American Chemistry Council

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