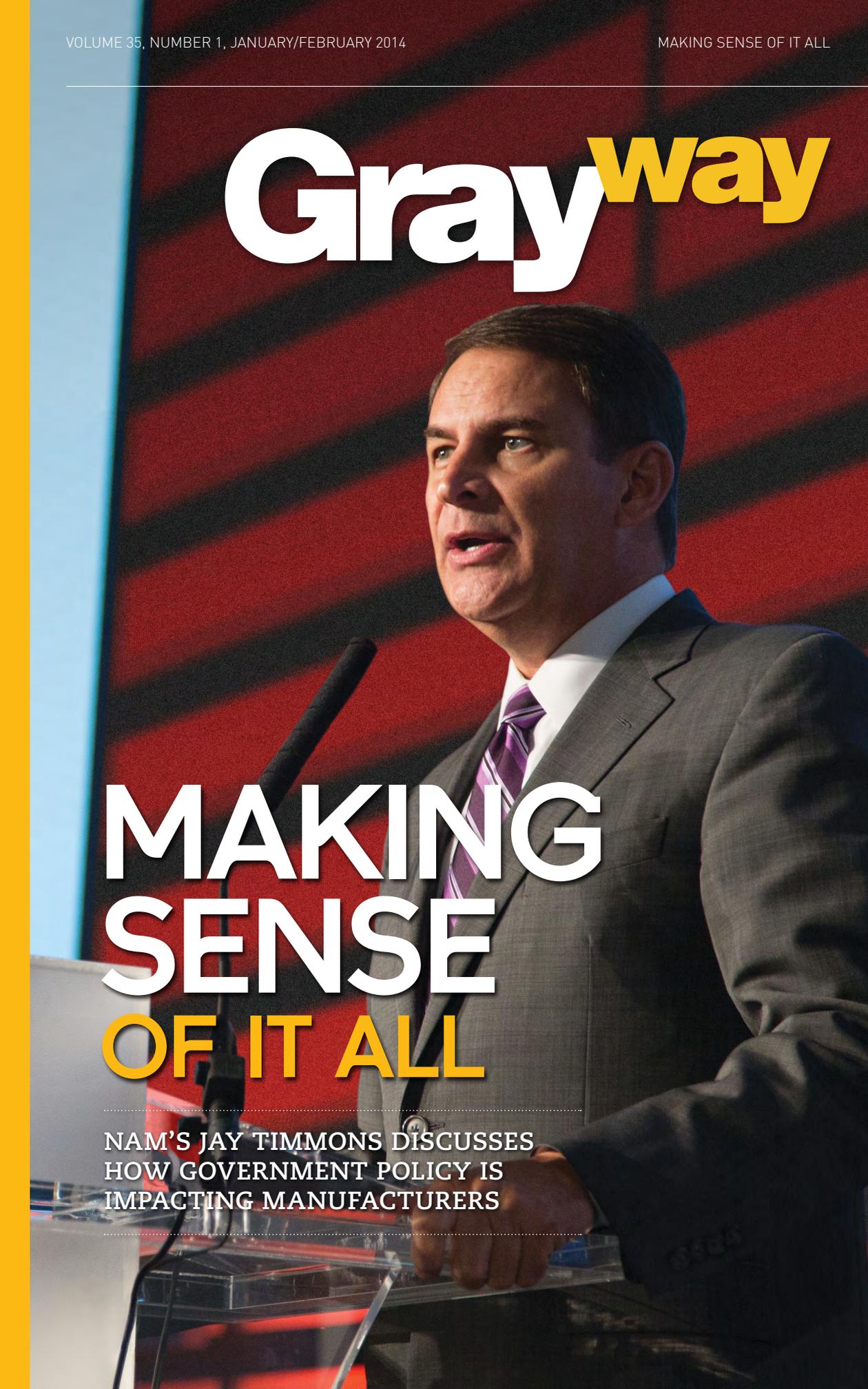


Grayway



MAKING SENSE OF IT ALL

NAM'S JAY TIMMONS DISCUSSES
HOW GOVERNMENT POLICY IS
IMPACTING MANUFACTURERS



THIS ISSUE / Making Sense of it All



Stephen Gray
Chief Executive Officer

Manufacturing in the U.S. has a bright outlook, but how bright?

In this GrayWay, we take a critical look at the weaknesses in the U.S. regarding our current national policies. Jay Timmons, president and CEO of the National Association of Manufacturers (NAM), summarizes the barriers to meaningful expansion of our manufacturing base. While there has been some expansion over the past two years resulting in about 500,000 new manufacturing jobs, a more significant expansion would include millions of new manufacturing employees.

While Jay gives us a big-picture look at manufacturing, NAM's chief economist, Chad Moutray, details the current economic outlook for manufacturing and his optimism for the year ahead. He cites the recent rise in manufacturing demand, a rise in overall GDP, Congress's cooperation on a two-year budget, and the energy boom in the U.S. as reasons for this optimism. Another big trend that Moutray details is the rise in foreign direct investment, and that's significant for Gray. Right now, 70 percent of our manufacturing customers are based overseas. That's great news for the U.S. because it signals that foreign companies see the U.S. as a good place to grow their businesses, and a safe place for their investments.



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OVERCOMING THE OBSTACLES



UNDERSTANDING THE ISSUES FACING TODAY'S MANUFACTURERS

By: [Jay Timmons](#), President & CEO, National Association of Manufacturers



For manufacturers in the United States, recent surges in demand have given rise to a newfound optimism. Consumer confidence is up, the economy is stabilizing, and government uncertainty has been somewhat diminished. But, despite this optimism, obstacles still lie in the path of sustainable growth for our industry. Heavy government regulation, the unrelenting issue of attracting skilled labor, and new costs associated with the Affordable Care Act are among the issues continuing to burden manufacturers and impede competitiveness.

The Regulatory Environment

Manufacturers support reasonable and balanced regulations, but over the past few decades, the regulatory system in the United States has gone off track. The [Manufacturers Alliance for Productivity and Innovation](#) looked at the past three decades and counted some [2,300 regulations](#) that have been imposed on manufacturers.

It's hard to identify a specific type of regulation that is hurting manufacturing growth because it's being hit from all sides. The Securities and Exchange Commission, Health and Human Services, the Occupational Safety and Health Administration, the National Labor Relations Board and others all make policy decisions that affect manufacturers.

But for many manufacturers, the biggest concern is the [Environmental Protection Agency](#) (EPA). The [National Association of Manufacturers](#) (NAM) commissioned a study of six major EPA regulations that concluded the [rules could cost manufacturers](#) more than \$100 billion annually and lead to the loss of 2 million jobs.

The EPA's impact, however, goes beyond the burdens it imposes directly on manufacturers. The EPA has gone from a government bureau intended to safeguard our air and water to an agency that is basically setting the energy policy of the United States.

The EPA's recent rule on carbon dioxide emissions from coal- and gas-fired power plants—the so-called

[New Source Performance Standards](#)—starts the U.S. down a dangerous path. The rule would effectively ban the construction of any new power plant powered by coal, foreclosing the use of an energy source that today provides nearly 40 percent of our electricity.

Manufacturers support an “all-of-the-above” energy plan because it provides price stability and energy security, both of which are critical to competitiveness. Manufacturers use one-third of the energy consumed in the U.S., so any disruption in supply or price shock has a major impact on the sector.

Regulators won't stop at coal. The EPA's next move will be to regulate not just new, but also existing power plants. Then it will move on to other industries, ultimately imposing carbon emissions limits directly on manufacturers. Eventually, unelected bureaucrats will regulate the entire economy.

What manufacturers need is for agencies to stop overreaching—clearly, Congress never intended to give the EPA such broad authority—and do a better job of weighing the costs of a regulation against its benefits.

The Burgeoning Workforce Development Issue

Eighty-two percent of manufacturers report that they have jobs going unfilled because they can't find workers with the right skills. Eliminating the skills gap is a priority for manufacturers, and the NAM is devoting significant resources to this problem. In fact, we recently created a task force to help craft solutions that can be effective across industry sectors.

In addition, [The Manufacturing Institute](#), which is an arm of the NAM, has a number of initiatives aimed at building a workforce that meets the needs of 21st-century manufacturing. At the heart of these efforts is a [skills-certification program](#), which allows American workers to receive a portable credential that demonstrates to manufacturers the skills they possess.

One exciting program that uses the skills-certification process is [Get Skills to Work](#), which helps to match the skills veterans received in the military to skills coveted by manufacturers. If veterans need to learn new skills, the Institute can help them earn those credentials through partnerships with community colleges and other educational institutions. A number of manufacturers are part of this effort.

The NAM is also focused on manufacturers' future needs. The manufacturing workforce is aging, with many workers nearing retirement. To attract the next generation of manufacturers, the [STEP Ahead Initiative](#) seeks to bring women into the manufacturing workforce and the [Dream It. Do It.](#) campaign shows students the many career options manufacturing offers.

The Impact of Health Care Reform

When President Obama sought to lower health care costs and increase access to care, manufacturers shared that aspiration. Unfortunately, the [Affordable Care Act](#) won't achieve those objectives. It will raise costs and limit flexibility for employers and employees.

Manufacturers already provide generous health care benefits—some 97 percent of manufacturers offer health coverage to their employees. The [health care law threatens](#) our ability to provide these benefits by forcing us into a one-size-fits-all, government-blessed system. Even worse, it doesn't look like it will do anything to rein in health care costs. The law actually puts manufacturers and our employees in a worse position than the one we are in now. It makes the problem—how to provide affordable health coverage to our employees—worse.

As for future industry growth, rising health care costs could definitely have an impact. But perhaps the worst consequence will be that some employers will make hiring decisions based on the Affordable Care Act instead of the needs of their business.

Other Barriers to U.S. Manufacturing Growth

Currently, it is 20 percent more expensive to manufacture in the U.S. than compared to our major trading partners. Issues like regulations and lawsuit abuse contribute to this cost differential, but the largest driver is taxes.

Our uncompetitive tax system has an impact on manufacturers of all sizes. At the corporate level, manufacturers face a top rate of 35 percent—the highest among developed economies. Moreover, the U.S. is one of the few countries that taxes worldwide income. Manufacturers need a globally competitive tax system that encourages investment.

Small and medium-sized manufacturers face challenges of their own. In fact, two-thirds of manufacturers pay taxes at individual rates because they are organized as “flow-through” entities, like an S-corporation. Some of these businesses were hit with a tax increase at the beginning of this year and now face a tax rate of up to almost 40 percent.

Manufacturers have many other concerns—but we have solutions too. The NAM has a “[Growth Agenda](#),” which lays out a roadmap for strengthening manufacturing and our economy. It's a blueprint of manufacturers' policy priorities and a guide for lawmakers looking for a pro-growth strategy. The document is available at the NAM website, www.nam.org.

A GROWTH AGENDA

Four Goals for a Manufacturing Resurgence in America



GOAL#1

The United States will be the best place in the world to manufacture and attract foreign direct investment.



GOAL#2

Manufacturers in the United States will be the world's leading innovators.



GOAL#3

The United States will expand access to global markets to enable manufacturers to reach the 95 percent of consumers who live outside our borders.



GOAL#4

Manufacturers in the United States will have access to the workforce that the 21st-century economy demands.



“Manufacturers need a globally competitive tax system that encourages investment.”

— Jay Timmons



THE ECONOMICS OF MANUFACTURING

Indicators Point to Growth in 2014

Prior to the third quarter of 2013, manufacturing was growing, but at what many economists would consider a snail's pace. With Europe still emerging from its recent recession, the global economy remained sluggish and U.S. exports were down. This, combined with continuous government uncertainty due to a fiscal cliff scare, across-the-board spending cuts, a government shutdown and the debt ceiling, has eaten away at growth over the last two years, according to [Chad Moutray](#), chief economist for the National Association of Manufacturers (NAM).

But, since then, demand has been picking up as illustrated by November's [Institute for Supply Management \(ISM\) Manufacturing Index](#), which [rose to an unexpected 57.3](#), the highest since April of 2011. Indexes above 50 indicate growth; below, retraction.



Chad Moutray

"This suggests that manufacturers themselves are seeing pretty strong gains in their overall demand and, when you ask manufacturers about 2014, most of them are generally positive about output and demand next year," said Moutray. "So that's certainly a sign that we're starting to get some traction, and definitely an improvement from where we were in early 2013."

Still, employment overall is not where it was prior to the U.S. recession.

"That's true of both the larger economy, as well as for manufacturing," explained Moutray. "For the larger economy, we're getting close. We're at around

99 percent of the employment relative to where it was prior to the recession. Manufacturing, however, lost 2.3 million workers in the recession. We gained back some 543,000 since then so we're still a long way from being at our pre-recession levels."

From August to November, some 16,500 manufacturing jobs were added; over the previous five months, jobs were actually shed, Moutray said.

"In general, I think manufacturers will start hiring again when demand picks up and when they sense that the economy is starting to pick up and is on a firmer footing," he said. "I think that has held back hiring for much of the last year, which is why I think we are going to see modest gains in employment over 2014."

Moutray expects U.S. gross domestic product (GDP) growth to be over 3 percent in 2014. If his prediction rings true, this would be the first year since 2005 the U.S. GDP has grown to over 3 percent. He expects 2013's GDP growth to settle in between 2.1 and 2.2.

And now that Congress seems to be trying to avoid financial crises rather than encouraging them, manufacturers are beginning to have more confidence in the economy.

"Congress has enacted a budget and that will prevent us from having a shutdown for at least two years," said Moutray. "There still is some risk with the debt ceiling but, hopefully, that won't happen either."

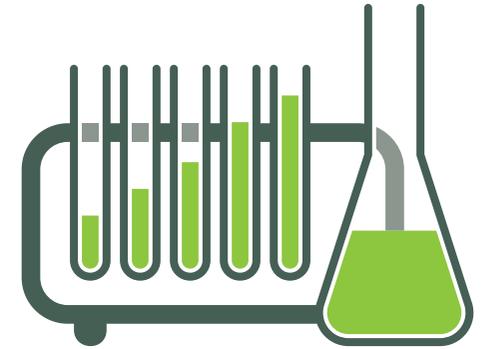
Upswings in the transportation sector, both motor vehicles and aircraft, are largely responsible for manufacturing's recovery, but Moutray says that is now starting to change.

"I think we are seeing broader-based recovery, even beyond autos and aircraft," he said. "I think we are going to continue to see growth in the durable goods sector, and part of that is a spinoff of the auto and transportation sector gains. So, machinery is going to do well, metals are going to continue to do well—that's really where we've seen a lot of the growth since the end of the recession, primarily in that durable goods space."

Beyond durable goods, Moutray sees great potential for investments in the chemical manufacturing sector.

"We've already had a number of announced investments in plastics, chemicals, fertilizers—those sectors which are utilizing natural gas as a feedstock," he said. "It's hard not to be bullish about manufacturing over the course of the next decade, but I think even in the next couple of years we're going to see a lot of improvements in terms of output, exports and hiring in plastics, chemicals, fertilizers... things which are taking advantage of the lower-cost energy."

The [American Chemistry Council](#) reported that businesses have announced 147 projects representing a cumulative investment of \$97.9 billion over the past two years. Moutray says many of these investments could take years before they are fully operational, so the benefits of these investments will be felt well into the future.



U.S. chemical output is expected to rise 2.5% in 2014 and 3.5% in 2015. In the long-term, the U.S. chemical industry will grow faster than the overall U.S. economy.

— American Chemistry Council

A recent study conducted by the global research firm [IHS](#) projects that the development of [shale oil and gas will boost employment](#) by almost 4 million jobs by 2025. Manufacturing output is slated to grow by \$328 billion in just 12 years.

More broadly, lower energy prices will have a ripple effect on all manufacturers, which use roughly one-third of the energy consumed in the United States. Energy is quickly becoming a major competitive advantage for manufacturers.

In addition to investments being made by manufacturers based in the United States, Moutray says the U.S. is also seeing a rise in foreign direct investment. From 2001 to 2011, foreign direct investment rose from \$476.5 billion to \$838.3 billion, according to data from the [Bureau of Economic Analysis](#).

"They're coming to the U.S. to build a facility to manufacture a chemical and then export it back to their home country—basically, to do some arbitrage. So, that's a pretty significant change, and certainly why people are talking about manufacturing and its importance right now."



THE NEW FACE OF MANUFACTURING

A Q&A WITH MOLYCORP'S STEFANIE LENTZ

Q Why did you choose a job/career in manufacturing?

A I wanted to work in an environment that would allow me to work directly on a product, and particularly in a cutting-edge, advanced manufacturing facility. I have been able to advance in our company by working to optimize our new facility, and improve the quality of the advanced rare earth materials we make.

Q Tell us about your position with Molycorp—what's your official title and basic responsibilities?

A I work as a process development scientist for Molycorp, the only producer in the Western Hemisphere of rare earth oxides. Our materials are used across a wide variety of manufacturing sectors such as electronics, communications, clean energy, transportation, aerospace, defense systems and many others. I am based at our new rare earth production facility in Mountain Pass, Calif., and I help manage some of the new, state-of-the-art processing technologies that we have developed here. My work includes such things as mass balance accountability, operations staff support, and optimizing production throughput by testing and implementing innovative concepts.

Q What is the most rewarding aspect of your job and/or working in manufacturing?

A I have a passion for transitioning things from a lab concept to implementation on the production line. I get to see ideas turn into lab tests, lab tests move to plant tests, and then—when it makes sense—those new ideas implemented into process operations. To observe the effect a new idea can have on increasing or optimizing production is very satisfying.

Q What would you say to someone in high school today to recruit them to a manufacturing career?

A Producing a product that improves people's lives, like our products do, is extremely rewarding. Getting there is a direct result of hard work and understanding both the product and its markets. If you want a job that is challenging and rewarding, manufacturing is the way to go!

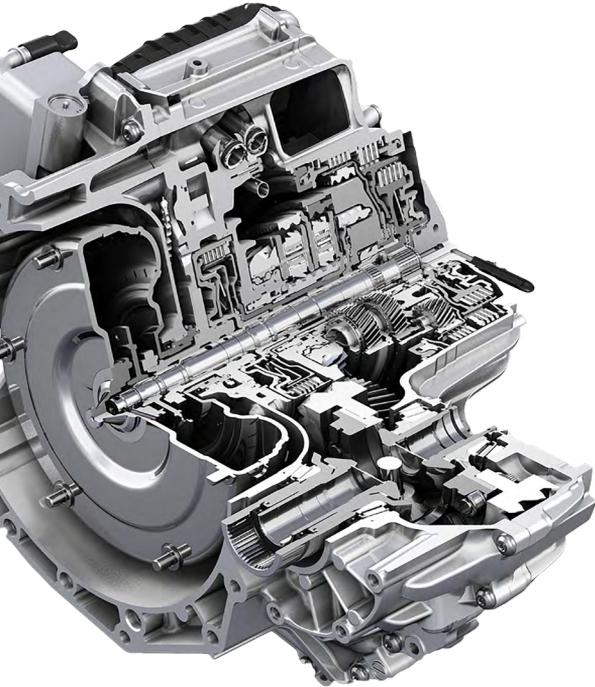
Q What's your best advice for those seeking jobs in manufacturing?

A Work hard and keep the end goal in mind. Have trust that your ideas can change things for the better.

GRAY... WE'RE BUILDING



ZF FRIEDRICHSHAFEN AG
Gray Court, S.C.



ZF's 9-speed automatic transmission

Gray was selected by German driveline and chassis technology supplier ZF Friedrichshafen AG to design and build a nearly 500,000 s.f. expansion to its existing transmission manufacturing facility, increasing the footprint by almost half to 1.4 million s.f.

ZF's total investment at the Gray Court facility represents the single largest investment ever made by the company outside of Germany in its nearly 100-year history. Once complete, the plant is expected to produce 1.2 million fuel-efficient 8- and 9-speed transmission units each year. ZF's 9-speed automatic transmission is the first of its kind introduced to the global market, and is currently available in the new Jeep Cherokee and Land Rover Evoque. It is designed to improve fuel economy by up to 16 percent.

The plant will be completed by 2016 and employ some 1,650 people.

ZF is one of the ten largest automotive suppliers worldwide with 121 production companies in 26 countries.



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