

Uptime: The Perfect Storm Intensifies

Written by Bob Williamson, Contributing Editor
Friday, 01 August 2008 00:00



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In last month's column, I pointed out that the United States is the most competitive nation in the world, as well as the most productive one, with the highest innovative potential in the world. However, I also pointed out that we are a nation at risk: other nations are gaining while the U.S. is slipping.

Some of the characteristics that made us a strongly competitive and productive nation are in serious need of repair. Moreover, what is going largely unnoticed is that the maintenance skills shortage— *which, very recently, was just a forecast of a perfect storm*—has come down on us with a vengeance. Are you ready?

Numerous conference speeches, articles, columns in the past several years have outlined the nature of the maintenance skills shortages, including this author's remarks. The national media, governmental agencies, politicians and educational systems have largely ignored what is happening—and, in many business and industrial sectors, it's getting worse by the month. We must take action now and well into the future. Let's begin by defining a perfect storm:

*October 30, 1991: An enormous extra-tropical low created havoc along the entire Eastern Atlantic Seaboard at 0700 EST. Labeled the "perfect storm" by the National Weather Service, it sank the swordfishing boat Andrea Gail, whose story became the basis for a best-selling novel by Sebastian Junger, *The Perfect Storm*, (later made into a major motion picture). A little-known and bizarre ending came to this monster when the storm became sub-tropical 30 hours later, just before the inner core developed into a tropical storm and later an unnamed hurricane—that came to be known as the Halloween Storm. [1]*

In other words, a perfect storm is a storm...within a storm...within a storm...within a storm!

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Today, we have conditions in place—*and intensifying*—that are beginning to damage capital intensive businesses, our infrastructure (power, utilities, pipelines) and construction projects. Some elements of this "perfect storm" are:

- An ever-growing maintenance skills shortage in all industrial sectors;
- A serious lack of vocational-technical and career education programs in schools;
- An over-emphasis by educators and parents on a "college degree;"
- High school dropout rates averaging 30%;
- Schools struggling to find and keep well-qualified teachers;
- Misinterpretation of productivity improvement as manufacturing job loss by major media and politicians;
- Manufacturing operations moving back to the U.S. from China and Mexico.

But, why should these "stormy" shortcomings hurt us? We are the most competitive nation in the world! We have the largest economy in the world in terms of gross domestic product (GDP) at over 13.2 trillion dollars—*that's more than Japan, China, Germany and the U.K. combined!* What could the future of our economy possibly have in common with the fate of the Andrea Gail? Here are some of the things that have begun appearing on our radar screens:

State incentives for new jobs!

Many states and local governments spend hundreds of millions of dollars recruiting new businesses with incentives such as free land, training, highways, railways, utilities, tax abatements, etc. Google and Dell recently landed in North Carolina. Kia Motors settled in Georgia. Not too long ago, Toyota found two plant sites in Texas and Mississippi and Hyundai was wooed into Alabama. This is just a smattering; the list goes on, and on and on. What impresses me is the size of the incentive packages it is taking to create jobs.

Kia received a \$258.25 million incentive package from Georgia to build its plant there. That amounts to between \$89,000 and \$99,000 per job created. But, that's mere chicken feed. Volkswagen just announced a deal to build a 2000-employee assembly plant in Tennessee—a *state that put together an incentive package worth over \$500 million.* This deal may reflect the most government assistance and largest tax breaks ever offered for an American automobile plant, amounting to \$250,000 per job created.

When looking into the recent incentive recruited manufacturers, I also discovered that the

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financial incentives are only a small part of why companies choose to settle in any particular area. Most have cited that "the availability of a skilled workforce and the availability of workforce training" as the top factor. Think about that for a moment. Regardless of free large tracts of land, tax reductions and proximity to railroads and highways, what good is a great plant location without the availability of a trained workforce?

1. Alabama*
2. Georgia*
3. Texas*
4. North Carolina*
5. South Carolina*
6. Colorado
7. Tennessee*
8. Kentucky*
9. Arizona
10. Florida

Of these top 10 states, eight (*) have received significant news coverage in recent years for having offered enormous incentive packages to major companies that locate new plants within their boundaries. Workforce training seems to be a significant part of these incentives. As an example, within the hefty package Georgia crafted for Kia, the state will spend nearly \$34.7 million on workforce training for 2800 employees. That equates to \$12,393 per employee for training. Just last month, Tennessee's whopping VW incentive package included nearly \$40 million for training 2000 workers. Do the math—*that's \$20,000 worth of training per employee!*
Very impressive, to say the least !

Public education report card!

The Institute for a Competitive Workforce, a non-profit affiliate of the U.S. Chamber of Commerce, published its "Education Report Card" in February 2007. This research addressed nine educational categories. The two that I found most interesting were 1- *Academic*

Achievement

(overall), and 6 -

Post-Secondary and Workforce Readiness

. When we look at the Report Cards of the states with the "Best Workforce Training Programs" (as shown in the ending Sidebar on the following page), we note some puzzling results.

How can it be that these states with pretty marginal-to-abysmal grades for "post secondary and workforce readiness" (except for North Carolina!) are the most attractive to large relocating businesses? Are you ready for this conclusion?

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States attracting big headline-generating employers compensate for their respective public education systems through workforce training programs teaching the very skills students should have learned in school (that used to be taught in school). Furthermore, they provide this at no cost to the new employers! Yup! It's our tax dollars at work—producing results only AFTER our initial education-focused tax dollars have missed the mark.

This picture is wrong!

Ok. Let's recap. We have a shortage of skilled workers in the industrial maintenance field and our schools no longer teach these skills—*the types of skills that are essential for advanced manufacturing*. Companies are beginning to move operations back from China and Mexico because of, among other things, quality problems, increasing wages, energy costs, trouble getting raw materials and transportation delays and costs—*not to mention international skilled trades shortages*.

The U.S. manufacturing sector is the most competitive in the world, yet we are losing manufacturing jobs. But, EVERY manufacturing nation has lost manufacturing jobs because of productivity gains over the recent years. States spend huge sums of money (tax dollars) luring new businesses offering new jobs while at the same time doing nothing to keep existing employers and THEIR employees competitive and productive—*no incentives, no tax breaks, no tax credits and no workforce training*.
Are you ready for more?

Those "top 10 states with the best workforce training programs" generated nearly 30% of our Gross Domestic Product (GDP) in 2007! The total GDP from these "top ten" totaled \$3.8 trillion in 2007—*that's more than Germany's (\$2.9 trillion) and a bit less than Japan's (\$4.9 trillion)*.
Very, VERY impressive!

Storm alert!

Wake up, America! A perfect storm hasn't just been brewing—it's been intensifying at a dizzying pace. The skills shortages reported in the industrialized regions of the U.S. are real and dire. The Houston (TX) Business Roundtable projects a 20,000-worker shortage for next year's maintenance turnarounds along the heavily industrialized Ship Channel. Economically, this should not be a problem: Texas has the second largest GDP in America, comparable to all of Canada—*the 10th largest in the world*. We also have some of the largest untapped petroleum reserves right here in the northeast, upper Midwest and offshore. Doesn't matter, though.

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Despite financial boom times in our oil and gas industry, even this jewel in our industrial crown is having a difficult time finding skilled machinists, mechanics, rig hands and engineers. Qualified workers in this shrinking pool are going for the highest bid in the U.S. and Canada. What's next?

Workforce training works!

There is no doubt that workforce training works! It attracts new employers. It generates high-quality jobs. It supports our communities. Consider this: for every job created in the new automotive industry plants cited here, a minimum of four well-paying supplier jobs are being created in the community and the region. Not too shabby.

So, why don't our educators, politicians and governmental agencies realize how competitive and how productive our states and communities could be if they began "workforce training" in our schools? Why don't they have "vocational, technical and career education" curricula that address the needs of business and industry? Why do they assume that a child is being "left behind" if he/she is not on a collegebound track? Why do they miss the point that a one- and two-year post secondary tech school is also "college?" Why do they fail to recognize the fact that half of us learn by doing things as part of our education, rather than by academic studies? Why spend tax dollars twice for the same results: educating our population for life, for jobs, for a career?

Just as importantly, why spend money recruiting new businesses and little or no money making our current businesses competitive with "training for continuous improvement" incentives?

In 1983 the U.S. Department of Education published a letter pointing out that "we are a nation at risk" because of the shortcomings of our educational system. We also heard about the "forgotten half " of high school students who were not being offered the kind of vocational-technical career education learning experiences from which they truly could benefit. The "Global Competitiveness Report" referenced in the July installment of this column points to the weaknesses in our educational and governmental systems.

Let's take this message to our business leaders, politicians, bureaucrats and educators. Let's get our education and training programs aligned with the needs of the United States, our businesses and our industries. It all begins with you, our readers, in your plants and in your

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communities. **MT**

References:

1. [National Climatic Data Center](#)

PARTIAL FINDINGS OF EDUCATION REPORT CARD 2007

1. Alabama: *Academic Achievement* = F; *Workforce...Readiness* = F
2. Georgia: *Academic Achievement* = D; *Workforce...Readiness* = D
3. Texas: *Academic Achievement* = C; *Workforce...Readiness* = B
4. North Carolina: *Academic Achievement* = C; *Workforce...Readiness* = A
5. South Carolina: *Academic Achievement* = D; *Workforce...Readiness* = D
6. Colorado: *Academic Achievement* = B; *Workforce...Readiness* = B
7. Tennessee: *Academic Achievement* = D; *Workforce...Readiness* = F
8. Kentucky: *Academic Achievement* = D; *Workforce...Readiness* = D
9. Arizona: *Academic Achievement* = D; *Workforce...Readiness* = F
10. Florida: *Academic Achievement* = D; *Workforce...Readiness* = D