

Prosperous Kentucky  
Keynote Speaker  
Frankfort Convention Center  
February 12, 2007

Thank you for inviting me to be part of this “Prosperous Kentucky 2007 Think Tank Summit.” As noted, the strategic purposes of this summit are to:

1. Focus on manufacturing; and
2. Present new ideas on what Kentucky can do to keep existing manufacturers here and to attract new manufacturers to our state.

This is a critically important policy discussion for us in Kentucky; for we know from our history that manufacturing has been, and will always be, a critical sector of our economy. The future of manufacturing will help determine our ability as a state to grow and prosper.

I applaud the Kentucky Association of Manufacturers for bringing together the participants for today’s conference to address these issues.

As I thought about my remarks and what “value” I could add to today’s discussion, I realized that more often than not when a president of a university is asked to speak to a community group or professional group, we trot out a worn out script of all the great things that are happening at our universities and complete our discussion with a plea for how underfunded we are.

Our focus on manufacturing today is too important for such a monologue so I won’t have the opportunity to tell you the many great things that are happening at UofL that are important to our community and state.

I don’t have time to mention that the only FDA approved vaccine that prevents a cancer – cervical cancer – was developed by two professors at UofL. Nor do I have time to mention this vaccine costs \$360 but that we are now working, using the tobacco plant, to produce this vaccine at a reduced cost.

I don't have time to tell you about our new Cardiovascular Innovation Institute, approved to do clinical trials using the latest technology in assist devices and artificial hearts – making us the leader in the country/world.

I don't have time to mention many other activities we are focused on to build a strong life science/health care economic cluster – a cluster whose growth is dependent on a strong advanced manufacturing industry – in our state.

I also was further challenged in putting together my thoughts for today by wondering if I should try to speak as an economist or as an educator (not that these are mutually exclusive). My background is as an economist focused on addressing the very issues that are the focus of this conference. Unfortunately, much of my understanding of the state economy has been forgotten in recent years – a combination of old age and the overwhelming issues that one deals with at a major research university.

So, I will try to “add value” by first focusing on some givens and then three policy initiatives that we should think about as we move forward as a state.

So let's begin with our givens:

**Given #1.** Historically, so goes manufacturing, so goes the Kentucky economy. Kentucky has had and still does have a greater percentage of its workforce employed in manufacturing than the national average (14% in Ky v. 10% U.S.) While economists, in the strict sense, talk about both durable and non-durable manufacturing, it is clear that in the aggregate manufacturing provides some of our best paying jobs in Kentucky, so the success of the manufacturing has had a more pronounced impact in Kentucky than nationally, in terms of both employment and income.

**Given #2.** Our economy – nationally and in Kentucky – continues to change. In 1990 there were about 275,000 manufacturing jobs in Kentucky. While we experienced some drop in employment during the economic slowdown of 1991-92, beginning in 1993 we saw extraordinary manufacturing employment growth in Kentucky manufacturing until the end of the year 2000. At that time our manufacturing employment peaked at over 310,000 jobs but since 2000 we have seen a steady drop in manufacturing to the current level of today – 255,000 manufacturing jobs.

This means that we have fewer manufacturing jobs today than we did 17 years ago.

**Given #3.** The reasons for the drop in manufacturing jobs are many – certainly including globalization. While the concern about loss of manufacturing jobs is real, we should recognize that we as a state are, in fact, producing more goods than ever before. Because of productivity improvements, it takes fewer people today to produce more goods than 10 years ago. Over the last 10 years we have seen manufacturing output going up while manufacturing employment has gone down. We have seen an increase in productivity per worker.

So a corollary to Given #3 is that there will always be the need for a strong manufacturing sector in our economy. We as consumers, consume; and while our buying patterns often shift, we will always have a high demand for the latest technological advances in all types of products – from automobiles to TV's to sound systems to computer systems, etc.

**Given #4.** We are fortunate in Kentucky in that, by and large, we have an attractive business climate that includes a good location, low energy costs and high worker productivity.

Site Selection Magazine in particular continues to rank Kentucky one of the very best states in terms of business climate. In fact, our ranking has improved within the past year.

**Given #5.** There is no question we live in a new economy. Economies go through transitions and we continue to transition today to a new knowledge-based economy where the most important input into the production process is human capital – brain power – our ability to critically think, react and communicate.

**And Finally, Given #6.** Per capita personal income in Kentucky continues to be about 83% of the national average. When we drill down to discover why this is the case, our low cost of living is a factor. But even adjusting for cost of living differences across the country our per capita personal income is about 92% of the national average. Why is our per capita income below the national average?

Research shows this is primarily because we have an undereducated workforce and, in particular, too few people with college degrees.

So, let's now take these 6 Givens and see if we can define a policy prescription for the future – a policy agenda that allows us to continue to grow and prosper.

First. Focus on productivity. We have said we need a growing, strong manufacturing economy in Kentucky to be successful. Strength in manufacturing will come from, in large part, increases in worker productivity – resulting from worker training as well as the identification of new production processes, techniques – new and better ways of doing things.

This leads us back to the importance of our education system – our entire education system from early childhood education, through K-12, through higher education, and lifelong learning. Education is important to the success of our economy including our manufacturing sector.

I understand that the educator's solution to all issues is more education, but there is more to it than that.

It is important for the business community to re-engage with the education community and the education community to re-engage with business community to ensure that we are moving forward together so that we in education are producing what you need for your workforce and that our research activities provide you with the techniques, processes, and technology to compete in our global economy.

So, while **public policy initiative #1** must be to continue to strengthen our education system, we must reconnect the business community with education community beyond what exists today.

The Higher Education Reform Act of 1997 would not have been enacted had it not been for the strong support from the business community.

Unfortunately, for a variety of reasons there has not been the ongoing dialogue between higher ed and the business community in recent years. We applaud the work of David Adkisson and the State Chamber to provide a forum for this reconnection going forward.

**Public policy initiative #2:** What are new manufacturing opportunities for us in Kentucky so we can add to our economic base? In Louisville, we have been building new economic clusters over the past decade:

1. The Health care/life sciences cluster; and
2. The logistics and distribution cluster management

Let's talk for a moment about these clusters and their relationship to manufacturing.

Health care was identified over a decade ago by our community as an opportunity for employment growth. We have many strengths in this area from the number of health care providers that have grown up in our community – Kindred, ResCare, Humana (and companies that have grown out of these companies), and we have a strong health care provider network area including the University, Norton's, Jewish, Kosair Children's Hospital and even the Veterans Hospital.

Under the mandate given to us by the General Assembly in 1997, the University of Louisville is committed to translational research – the creation of new knowledge that can be translated into economic activity, both in terms of the new dollars we bring into our economy and the commercialization opportunities that arise out of our research labs that is taking our research “from mind to marketplace.”

For example, at the Louisville Medical Center Development Corporation (Jewish, Norton, and the University of Louisville), we have an economic development plan to either recruit or incubate 33 new life science companies within our community by 2010.

Today we have about 20 such companies. Working with Greater Louisville Inc., we understand that the incubation of life science companies takes time and is risky so you will note that I said part of our strategy includes the recruitment of new businesses. Targets of opportunity for us include medical manufacturing companies that produce stents, heart assist devices, medical equipment, and pharmaceuticals/drug related manufacturers.

For example, the University of Louisville was just designated by the Federal Food and Drug Administration as a location for 4000 clinical trials involving the artificial heart. We will also train other medical centers throughout the United States in the use of the artificial heart and other assist devices.

Given this cluster of clinical and research activity, we must effectively compete for the location of the manufacturing jobs that will support this effort.

Our cancer center at the University of Louisville currently has 15 different drugs in various phases of clinical trials. We have one of the top pharmacy schools in the nation at UK; we have several new pharmacy schools being developed in Kentucky but we do very little in the way of drug manufacturing. Again, a growth opportunity for us.

The competition will be keen but a defined strategy of marketing our strengths and targeted incentives can help us expand our production activities in these areas where we are not strong now.

Another potential for us in Louisville is around our logistics and distribution cluster. The growth at UPS has led to opportunities that several years ago one couldn't imagine. New industry clusters are springing up such as in the area of biologistics – blood samples/blood tissues can be flown into Louisville on a nightly basis to be tested, with the results emailed out in the morning. There have been opportunities for more than warehousing and distribution centers as part of the growth of UPS. There are also opportunities for more repair and maintenance jobs for computer equipment and other machines on an overnight basis.

**Public policy initiative #3.** The research that takes place on our college campuses, particularly the University of Louisville and the University of Kentucky, have played and must play a larger role in helping the cost structure of our companies.

In fact, our “rapid prototype facility” in the Speed School of Engineering currently has relationships with 70 companies. We use our expertise and resources to provide assistance across the state: from 2-man operations to Fortune 100 companies. This effort involves design, and assisting in developing manufacturing processes. We can do more!

We have also just opened a state-of-the-art Cleanroom on our campus which allows us to be a leader in both nanotechnology and Micro Electrical Mechanical Systems (MEMS). This clean lab can be, and is, a resource to business and industry in our state so we use nano and MEMS technologies to make us more competitive. At present five companies use our clean lab (other universities/research labs). Again, we can do more.

We must ensure that these partnerships are recognized by the Council on Postsecondary Education and state policy makers so that our efforts are supported.

So Public Policy Initiative 3 is to ensure enhanced productivity of our existing manufacturing industry in support for the development of the providing advanced manufacturing systems needed to be competitive.

#### PAUSE

So to be successful going forward, we must continue to build a close working relationship between industry and education so that we ensure your workforce needs and human capital needs are met; we must look at new manufacturing opportunities – the manufacture of goods that we have not previously produced in Kentucky, and goods that are needed as part of our efforts to build new economic clusters; and, finally, we in education must continue to find ways to assist and help our existing business industries so that they can be more competitive in the global economy.

This policy agenda, in combination with our existing economic development efforts, will help ensure that our manufacturing sector grows and, as a result, Kentucky continues to grow.

Thank you.