

The Evansville Regional Economy: Today's Strengths, Opportunities for Improvement, and Strategies to Outdistance our Competition

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It is a privilege to be given this opportunity to share some thoughts about our region's economy. I am very appreciative of the high regard shown toward higher education in general, and, in particular, the affinity that exists between the business community and the business schools in the region. I value the thoughtfulness of all involved in planning this occasion.

As Jim McKinney mentioned, I have been a member of this community for the past 15 years. During this time, I have studied and given some thought to the issues highlighted in the title of my presentation, that is, the current strengths of the Evansville Regional Economy, Opportunities for Improvement, and Strategies for ensuring future competitiveness.

I would like to highlight three themes that I believe have a bearing on the future prosperity of our region. The first is the importance of infusing a sense of urgency at all levels of the community when it comes to decisions and actions pertaining to the future development of the regional economy, the second is a sharper focus on building on our strengths, and the third is a concerted effort to strengthen our entrepreneurial ecosystem—entrepreneurial meaning the pursuit of opportunity.

Suppose each of us had to make a list of the strengths of our Regional Economy, would our lists be identical? My guess is that it would be highly unlikely. However, I am sure that we would all pinpoint some common ones. From my perspective, there are FIVE key strengths, some enduring and others that will fade with time in our

present fast-paced world of technological advances and global competition.

A strength that has provided tremendous benefits over the decades is our locational advantage relative to the median center of the U.S. population which is 75 miles north of Evansville and gives us access within three and one-half hours to five cities with metro populations of over 1 million.

Another strength is the diversity of economic activity coupled with well-developed local clusters—groups of inter-related local industries—which have shielded the region from severe downturns in economic activity periodically experienced in the national economy.

A third strength is the sustained positive performance of established industries such as the plastics industry, automotive industry, metal manufacturing, prefabricated enclosure, and building and construction services.

A fourth strength is a tradition for generating responses to cope with complex and disruptive challenges, for example, the political and business response in the 1950s to the closure of a major automotive facility.

And a fifth strength is the tremendous community spirit exemplified by the way people respond to natural disasters within and outside our region as demonstrated during the recent tornado and Katrina relief efforts. It should not be surprising that the number of nonprofit organizations per 1,000 people is among the highest for counties with the most population in the state of Indiana. Vanderburgh, for

example, with 1,128 registered nonprofit organizations is on par with Marion county per 1,000 population: 6.5 nonprofits per 1,000 population for Vanderburgh versus 7.0 per 1,000 for Marion. {Data on nonprofits obtained from <http://nccsdataweb.urban.org>}

While some of these strengths are enduring, we are not immune from the challenges posed by intense competitive pressures and the ever-accelerating pace of change we are experiencing in many spheres of life. Thirty-six years ago 30 % of total employment in the Evansville MSA was accounted for by the manufacturing sector; today it is about 15 %. That has been a dramatic change in the economic structure of the region, and it has had implications for business activity, income growth, income distribution, and linkages in economic activity. Yet, this example of economic change will appear to be glacial compared with the changes occurring today and extending into the future. In particular, I am referring to the change in computer technology, in communications, and in biology which will have far-reaching implications for our region.

{The next few paragraphs reflect information and ideas from the writings of Ray Kurzweil, in particular his book: *The Singularity is Near* (2005), NY: The Penguin Group.}

With evidence suggesting that there is a doubling of the rate of technological progress every 10 years, it is not farfetched to expect that we will see the equivalent of a century of progress at today's rate in only 25 calendar years {Kurzweil, p.11}.

Some indications of this pace of change can be found in biotechnology, nanotechnology, and robotics, the three areas widely viewed as the technological frontiers over the next three decades.

For instance while it took 15 years to sequence HIV, it took only 31 days to

sequence SARS; and very soon it is projected that a VIRUS can be sequenced in a few days. Basically, we are doubling the power of these capabilities EVERY YEAR {Kurzweil, p. 74}.

Ten to fifteen years from now, little robots the size of blood cells will be able to go inside the human body and destroy pathogens, correct DNA errors, kill cancer cells, as well as go into the brain and interact with our biological neurons {Kurzweil, p. 300}.

This is not so farfetched since there are already neural implants that are FDA approved {Kurzweil, pp. 195, 255}. As a result we can easily imagine a future in which people will be walking around with computers in their brains. As an illustration, a neural implant for Parkinson's disease would allow patients to download new software to their implants from outside their bodies. A direct implication of these types of developments is the substantial growth in information processes.

Another illustration of rapid change is artificial intelligence at the human level. Currently, we are very integrated with our technology—for instance if we removed the artificial intelligence embedded in our economic infrastructure today, our society would grind to a halt. At the same time we are becoming increasingly intimate with our technology. Now we carry it in our pockets or bags. It will soon be in our clothing; it is already migrating into our bodies and brains.

What these changes bring are tremendous opportunities for business applications arising from increased longevity and an explosion of information processes and, therefore, in available information on all facets of life.

In the midst of the accelerating pace of change in communications, in biotechnology, in nanotechnology, and in

robotic technology, there is an emerging consensus among scholars and practitioners that economic prosperity in the 21st century will hinge on innovation and entrepreneurial dynamism so much so that knowledge and innovation are increasingly recognized as a third production factor besides labor and capital.

A recent study of 393 regions in the U.S. {Small Business Research Summary – No. 256, April 2005, Small Business Office of Advocacy, SBA} indicates that both entrepreneurship—new firms and growing firms—and innovation—patents, R&D, and hi-tech industries—are drivers in the growth of regional economies. Also, innovative regions need entrepreneurship to more fully develop local economies.

While entrepreneurial regions are likely to be associated with higher levels of technology, there have been some other important findings:

- The most entrepreneurial regions had better local economies from 1990 to 2001 compared to the least entrepreneurial. They had 125 % higher employment growth, 58 % higher wage growth, and 109 % higher productivity. This general finding held individually for large-, medium-, and small-sized regions but was most pronounced for large regions.
- The most entrepreneurial regions were associated with higher levels of technology. They expended nearly 54 % more of R&D, recorded 67 % more patents per labor force participant, had a 63 % higher percentage of hi-tech establishments, and had a 42 % higher proportion of college-educated population than the least entrepreneurial regions.
- The most entrepreneurial regions tended away from manufacturing as an economic base but not necessarily toward service industries. The most and least

entrepreneurial regions had 12.3 % and 18.5 % of their employment in manufacturing respectively, versus 31.5 % and 28.5 % in services.

The critical development question, therefore, is what makes a region entrepreneurial?

Related findings from the SBA (2005) study indicate that

- The most entrepreneurial regions possess significantly higher levels of R&D expenditures. These regions expend nearly 54 % more on R&D than the least entrepreneurial regions.
- The most entrepreneurial regions possess the highest proportion of the population with a college degree, 19.5%. The average for the most entrepreneurial regions is more than 42 percent higher than the average for the least entrepreneurial regions, 13.7%.

As we know from a recent study commissioned by the Indiana Chamber of Commerce, as a state we have not kept pace in the areas of innovation and entrepreneurship with some other states. Indicators also show that a Regional Entrepreneurship Index {Appendix, SBA 2005} places our region at the lower end of the spectrum with a 26.7 % ranking where 100% is the highest ranked region in the country. While the region is ranked 313 among 393 regions in a recent study with regard to average annual new firm births per 1,000 labor force {2.66— range from 2 to 9.2} and the average annual change in new firm birth was a minus 1.578 % {323— range from 11.7 % to a minus 8.3 %}, the area was ranked 148 in the percent of firms growing rapidly {4.58 % in a range from 2.3 % to 8 %}.

With these anticipated changes in mind, it is evident that our region needs steps that will allow us to more readily identify,

capture, and value opportunities of the future.

An overarching strategy is to grow our entrepreneurial ecosystem. This will involve building and coalescing around four areas:

Strengthening our culture of entrepreneurship: It is widely known that culture trumps strategy, so it is not only important to have a strategy but also to have a community culture that is aligned with the strategies for innovation.

Extending and deepening the network among entrepreneurs we can facilitate the sharing of ideas: We need to better understand the structure of collaborative networks within our region. Research has shown that more developed networks can improve the efficiency of society by facilitating coordinated action. Accessibility to technology through strong local networks is critical to innovation-based economic development. However, approximately 59 % of medium-sized regions are not realizing the level of entrepreneurship activity that their existing innovation capacity will support.

Identifying and unlocking the financial capital that resides in our region: It is not widely known for instance that, among all counties in the nation, Vanderburgh County has one of the highest rent, interest, and dividend incomes per capita with \$6.08 which places it in the 88th percentile among over 3,000 counties in the U.S. Only 12 % of these counties have rent, interest, and dividend per capita at or above \$6.08). {Data can be obtained at www.Kansascityfed.org/ruralcenter/Indicators/Indicators_main.htm} What this signals is that, as a community, we are good at accumulating wealth through effective strategies for growing interest, dividends, and rental income.

Nurturing the array of economic institutions that would facilitate an

agile, adaptive economic structure: As a community, we are already taking some steps to position ourselves to take advantage of future opportunities. Considerable work has already been done by a task force led by Bob Jones to identify ways to create an efficient, effective, and enabling economic development infrastructure, one that promotes a regional approach based on ongoing and comprehensive information collection and analysis. Here I see our educational institutions playing a critical role; and I am confident with the commitment of faculty and students in the College of Business, in particular, we can play a meaningful role in helping to address current regional informational needs. This, for example, could be in the form of a data initiative aimed at generating information that is available, easy to access, usable, easy to interpret, and timely.

Other signs that a focus on entrepreneurship is becoming a recurring theme at various layers in the community include the work of existing business incubators, the creation of the University of Evansville Business Plan competition, and the establishment of the Midwest Venture Club. As a College of Business, we are also committed to do our part.

We will have to respond more quickly and effectively to the emerging needs for data analysis and information processing skills. A direct result of the proliferation of information processes arising from the revolutions in genetics, nanotechnology, and artificial intelligence will be the tremendous accumulation of information. Increasingly, we will be moving from a world of limited information to a world of full and complete information—as economists would say, the ideal of perfect information. A current world-wide brain-scanning project, for instance, will allow marketers to understand more quickly and more definitively how consumers would respond to a particular stimulus. Data analysis skills, project management

capabilities, and skills for addressing complexity are all areas in business disciplines that will have to be addressed more fully and differently for our students to take advantage of the opportunities associated with an information-driven world.

Changes will have to occur in how we structure our assessments of students; for example, instead of requiring students to develop a computer program from scratch, we can follow the example of sharing the codes of computer programs and design more activities around building on what exists.

These are some general thoughts about the challenges we face. I believe that our region can meet these future challenges: first, by infusing in our thoughts and actions a sense of urgency in all those decisions that have a bearing on our ability to respond to the ever-accelerating pace of change in computers, communications, and information processes; second, by taking advantage of our strengths, for example, in plastics, in analytical devices, and metal manufacturing by exploring both obvious and less-obvious opportunities, for example, polymer research and the cosmetic industry; third, by focusing on pulling together the pieces of our entrepreneurial ecosystem so that we can experience growth in innovation and in recognizing, capturing, and valuing opportunities.

I hope I have been able to practice some of what I am advocating, namely that I have been able to stimulate some interest in thinking about ways that we can do more—much more quickly—to better position our region to take advantage of an uncertain, complex, and exciting future.