



Special Regional Focus: Akron
DAVID BRENNAN: SCHOOL DAZE

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NORTHEAST OHIO'S BUSINESS ENTHUSIAST

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Institutes of Health grants — from all over the globe to Northeast Ohio. As a result, annual NIH funding in Northeast Ohio is \$200 million.

“More importantly, these researchers act as strong mentors and teachers to the thousands of life-sciences students and young professionals in the region, motivating our bright young people to stay here instead of taking their talents elsewhere.

“Multiple nonprofit civic and business groups have mobilized and energized support for the region’s bio-sciences industry. One of the leading drivers is Edison BioTechnology Center Inc., a partially state-funded program that works with local research institutions, biomedical/ biotechnology companies and community-development organizations to convert bioscience advances into commercial realities.

“Also heavily involved is NorTech, the Northeast Ohio Technology Coalition, a group of technology and business leaders with a vision to enhance the prosperity of the region through science, technology and innovation.

“In addition, the Greater Cleveland Growth Association works to facilitate a biosciences industry cluster in the region. Enterprise Development Inc., a not-for-profit subsidiary of Case Western Reserve University, operates three award-winning technology business incubators.

“Upon being elected mayor of Cleveland, Jane Campbell wisely created the position of ‘technology czar’ and proclaimed that continuing to build a high-tech economic environment focused on information technology and bio-sciences will be a high priority during her four-year term.

“Other regions across the nation — regions that don’t possess the resources Northeast Ohio has established — are putting millions of dollars toward creating the necessary infrastructure and marketing themselves as the future meccas for biosciences.

“How they would enjoy commercializing the research we do here and luring away our brightest young minds!

“This is not a time for us to mourn what we have lost. The days of big steel in Northeast Ohio are fading. We have lost the business to other parts of the world. However, 10 years from now, we cannot

afford to look back at how we failed to capitalize on the opportunities in the new economy. ”



Bill Sanford

SET A DEVELOPMENT AGENDA

“Becoming a center of product innovation requires harnessing the resources that Northeast Ohio has in abundance.”

Edward W. (Ned) Hill, professor and distinguished scholar of economic development, Cleveland State University’s Maxine Goodman Levin College of Urban Affairs

“The pain of the current recession and the loss of LTV is leading many to overlook the region’s real competitive strengths.

“Northeast Ohio is a world-class center of high-value manufacturing production, and it has a technologically intense economy based on the application of chemistry, metallurgy, and, increasingly, information technology.

“Saying Northeast Ohio is not a ‘high-tech’ region is a misinformed assertion. Indeed, 6.9 percent of all private-sector

employment in the Cleveland area is in technology-intense occupations, while in the Akron area that figure is 6.1 percent. The U.S. average is 7 percent.

“Therefore, Northeast Ohio’s economic doldrums are not based on the technology used to make things; they are based on what is made. Northeast Ohio’s companies are not innovating new products.

“Any development agenda must recognize the regional economic strengths and competitive advantages that are

apparent in the global marketplace and respond to why Northeast Ohio’s economic base is in danger.

“First, many of our technologically intense products are in the mature phase of their product life cycles. That is, the crown jewels of the economy are long in the tooth and slow-growing. Increasing profits in these industries is a painful battle for increased market share.

“Second, corporate bottom lines have grown through relentless investment in changes in operating practices that increase product quality while lowering production costs. The problem is that diminishing returns are setting in on these cost-savings. Focusing solely on increasing productivity is not a recipe for employment growth.

“Third, Northeast Ohio has a weak track record in new-company formation and a weak base in science and technology.

“Northeast Ohio needs a three-part portfolio approach to its economic-development investments, which must be accompanied by business-tax reform. First, the recession has not cured the region’s work-force problems, so work-force-development policies need to focus on increasing the technical literacy of existing workers.

“Second, Northeast Ohio needs to work with its existing economic base to encourage product innovation in new and existing companies and to continue the excellent track record in implementing process innovations.

“Third, the scientific and technical infrastructure of the region needs to be systematically and fundamentally strengthened. The region would have no nationally ranked program in science if it were not for the doctoral program in polymer science at the University of Akron. The only ranked program in the bio-life sciences is biomedical engineering at Case Western Reserve University.

“How both of these programs build on capacities that exist in the private sector is interesting. The real strength in the region’s medical industry is clinical, not pure bio-life-science research, and the corporate strength rests in biomedical instruments and products. The excellence in polymer research at the University of Akron is sustained through ties to industry.

“Research excellence in the bio-life sciences and engineering cannot be built in academic isolation. Excellence is an interdisciplinary endeavor with either chemistry or computer science at its base, and in the most highly ranked metropolitan areas, both are strong.

“This raises four challenges for Northeast Ohio.

“First, before public money is invested in institutions of higher education, the institutions should show a solid business case as to how investments will foster sustainable research excellence. Northeast Ohio should not concentrate on renting star researchers. It takes consistent, patient investment to first build competence and then reach for excellence.

“Universities also need to demonstrate how they will institutionalize selective excellence within their academic cultures and reward systems, as well as show how these investments relate to and build from existing areas of regional competitive advantage. You do not begin an economic-development



investment program by investing in demonstrated areas of weakness.

“Second, catalytic companies – firms that either voluntarily or involuntarily spin-off startup companies – or highly visible industry leadership is needed to cultivate regionally generated research. In many cases of technology-based development, a single company, such as Medtronic in Minneapolis, plays an important role in generating successor companies.

“Third, Northeast Ohio needs to alter its expectations that the greatest economic impact comes from new products and technologies spun out of laboratories, and that the next-largest source of economic benefit comes from technology that is transferred from labs to firms, while the lowest expectations are held out for the impact of students who are trained here.

“Research shows that these expectations are backward. The largest impact comes from former students, with most product innovations coming from peo-

ple employed in the private sector. The second source of economic benefit comes from technology transfer, as long as it relates to regional economic advantage. The smallest impact comes from products spinning out of labs – a low-probability event. The product that is most often exported from university laboratories is the knowledge that is paid for through research grants and contracts.

“Northeast Ohio cannot build on its own strengths by dragging out the economic-development copying machine, duplicating investment patterns and competencies that have decades-long histories in places like Boston or the San Francisco Bay area.

“Rather, the region must take a portfolio approach to development policy and make long-term investments in the development assets of this region, building from economic strengths to address weaknesses.

“Only in this way will Northeast Ohio formulate its own recipe for success. ”