

DAVID T. MORGENTHALER'S SPEECH TO
Cleveland State University
Maxine Goodman Levin College of Urban Studies
March 22, 2007

Thank you.

Let's talk about the business of the economic development of this region, which is of vital interest to everybody who lives here. The newspapers have been full of our problems – stagnant population growth, loss of good manufacturing jobs, bad weather, a brain drain of bright students, aging infrastructure and housing, a poor K-12 education system, etc. All these problems are true and real. But, is the cause that, as a lot of people in our region have said, “oh, if only the river had not caught on fire,” or “we just need a good advertising slogan,” or “why doesn't The Plain Dealer stop writing those critical articles? Everything would be all right then.” I don't think so. I very much don't think so! I think The Plain Dealer is calling the situation as it sees it, and that its call is just about right. I'm not happy with some of their stories about the Clinic, but there isn't time to talk about that.

Forty-eight years ago I moved a company to Cleveland, and the city was a world-class manufacturing center. It isn't today, and it is moving toward being a

nice regional distribution center with significant manufacturing activities. That isn't all bad – such centers can be very nice places to live with lots of amenities that make life pleasant. But, with that approach, you don't stay world class – so we have to decide what we want to do, what we need to do, and how to implement it.

What will make a region's economics grow? Obviously, if a number of people move in, the service industries will grow to take care of them. But what will make people move in? If people are retired with pensions or personal wealth, then nice weather might bring them. If you enhance this with low death and income taxes, then retirees will be particularly attracted. Think of Florida – low living costs also help, but not without either a pension or a job.

So, few regions can count on growth from non-working type people moving in. Of course, a new discovery of gold, oil, natural gas, or any other natural resource would bring people in, but there don't seem to be any important new discoveries being made in the US. Or, some sudden magic health effect from the water or the air would bring people, but that doesn't seem to be happening either. Bottom line, if you want to bring in people, you have to create jobs, and if you want high powered creative people, they'd better be high value-adding jobs, so they will pay well.

Some think the arts, our orchestra, drama and other culturally enriching things will save us. Some think these amenities will bring the creative people flocking here, and they will innovate ideas that will rejuvenate this region. Some even give the impression that “Since the creative people like coffee houses – just line up 50 Starbucks on Euclid Avenue, and you will revitalize downtown.” I suggest you read Richard Florida’s “The Rise of the Creative Class.” He’s a friend – I helped him with his first book, and he says nice things about me on national TV, but I don’t agree with some of the conclusions people are drawing from his work. Fifty Starbucks – even if you COULD get them – will NOT save us. Only high class jobs will bring creative people here (and, incidentally, it takes high paying jobs to afford the coffee).

Let’s learn a lesson from history. In the past, economic growth of a region in a free market society has seemed haphazard – a result of a seemingly accidental coming together of a variety of factors at a particular point in time.

We call these factors economic drivers and growth does not happen without them.

Originally, free land, furs, and timber brought settlers to Ohio. Then, probably the next major economic driver for the Midwest was the Erie Canal, which reduced the cost of shipping a ton of grain from Cleveland to New York from \$120 to \$6 a ton, opening up the world market to Midwestern grain. The

principal economic drivers that have influenced North East Ohio since then were first the making of metals and secondly the fabrication of these metals into a variety of things the world wanted – especially automobiles and all kinds of related products.

The factors that came together for North Eastern Ohio, as we all now know, were cheap water transportation, ready availability of the raw materials for metal-making, and the immigration of some people who knew the technology of metal. These factors enabled everything that happened. The demand that used these metal-making capabilities came from the development of first the steam engines that enabled railroads (Lima, Ohio was the locomotive capital of the world), and then the gasoline engines that enabled automobiles. The gasoline engines were made possible by the discovery of petroleum in Western Pennsylvania in about 1857. This was originally used to build the kerosene lighting empire that became Standard Oil. Originally, the demand was strictly for kerosene, which made John D. Rockefeller rich. Gasoline was a dangerous and unwanted refinery by-product. But, technology advanced, and the gasoline engine enabled 2000 buggy-makers across the country to become automobile manufacturers – now only three left, plus the foreigners. All the supporting industries of rubber, glass, machine tools, and nearly everything made out of metal arose to take care of the demand created by automobiles. Polymers followed later.

People moved into the region to fill the jobs all this created. Retail businesses, banks, lawyers, doctors, services, hospitals, and entertainment were set up to service these people. The wealth brought into the region founded and supported cultural institutions. Colleges to teach the people and train engineers were funded. Surrounding farms fed everybody.

In the end, unless you have something special, like an attractive climate and a favorable tax situation for retired people, such as Florida, it is the growth of attractive jobs that drives population growth in a region, and it is the export of goods and services from the region bringing back money that stays in the region – that builds up the wealth of the area. If the region does not export more of something – goods or services – for which it gets paid more money than it spends on imports, it will inevitably get poorer. It is as simple as that.

In Northern Ohio we lived on metal making and metal fabrication for over 100 years – we were fat, dumb and happy, and now these industries have leveled off, or are actually declining, as happens in any mature industry. We have done far too little to replace them. Beyond these two, we never got the critical mass to be world class in any significant industry sectors – it didn't seem important to the regional leadership. The good businessmen did what they had to do to make their own businesses grow, and those who didn't, declined or failed. No one planned remotely adequately for the region.

When young people graduated from high school, there were good paying jobs available in these mechanical industries that didn't require college educations, so there was less of a drive to get higher educations for children. Our unionized labor forces were probably the best paid in the world, but the costs made us less and less competitive.

We know from Russia and other state dominated societies that centrally planned economies do not work well, but in our region we have gone overboard in the other direction. While areas like Austin, Texas and the Research Triangle of North Carolina grew because they put in regional development plans 45 to 50 years ago, Northern Ohio started one in 2004. Silicon Valley started trying to improve its economy in the late 1930's, and got great impetus in 1957 when the semiconductor industry moved in. Boston got its economic driving forces with the industries born after WWII. Northern Ohio effectively missed the electronics boom – the economic driver of the economy for the last 40 years.

What went wrong? Our poor climate? Nonsense. I visited Palo Alto – what is now the heart of Silicon Valley – in 1949. I was a young engineer from Erie, PA, giving technical lectures to the power plant people up and down the West coast. Palo Alto housing was cheaper then than in Cleveland – today it is 3-5 times as much. Stanford University was turning out bright electrical engineers, but there was a brain drain. Why? They all moved east, to lovely climates like

Schenectady, Pittsburgh and Northern New Jersey for the good electrical engineering jobs at GE, Westinghouse, RCA, and the other electrical companies. So much for climate. I thought of moving my family to Palo Alto in 1949, but I didn't want to pick fruit or raise vegetables for a living.

What changed things? Stanford University was desperately trying to build local industry firms from the 1930's on, and got some small ones started. But the real break came in 1957, when Bill Shockley moved from Bell Laboratories in New Jersey back to Silicon Valley, bringing the semi conductor (which he had co-invented in 1947) with him. The semi-conductor is the story of the 2nd half of the 20th century. It enabled computers, telecommunications, mass television, and facilitated almost every device we use today. Cleveland, Buffalo and the other so-called Rust Belt cities missed practically all of it, and didn't realize what was happening. Then the San Francisco area did another good thing. The nature of DNA was discovered at Cambridge University in England in 1953, but in the 1970's at Stanford and UCSF, came the discovery of how to do something useful with this information, and the biotech industry was born in the San Francisco area. Effectively the Rust Belt cities missed this also.

Industries mature. When they do, the innovations that make people want more of their products slow down. If the new and growing industries go elsewhere, a region's growth slows down. As industries age, their costs rise, and a

region becomes less competitive. Legacy costs start to eat businesses up. It gets harder to increase productivity enough to match rising costs. Lower cost regions get the new plants. Now with modern transportation and telecommunications, most regions have to fight global competition. Like it or not, that is the reality, and it won't go away.

A few facts about institutional venture capital firms like ours. When Ohio was great 100 years ago, there were no such firms. Individuals, companies, and banks financed growth. Institutional venture capital began at the end of WW II in New York and Boston, and was small until the late 1970's; California had none until the semi conductor came. The money that financed the original semi-conductor activity came out of New York and Los Angeles. The reality is venture capital follows innovation; it does not cause it.

I founded my firm 39 years ago in Cleveland, and today we are one of the most national VC firms in the U.S. with offices in 5 cities. Four are where, we believe, most of the innovation will take place. We have a large early stage venture capital office in Silicon Valley in the center of a 2-mile cluster of the greatest venture capital firms in the world. In this center of competition we get more opportunities than in any other city of the world, because the area still has the leading cluster of new industries, and produces more innovation than anywhere else on earth. Fifty years ago, when Cleveland was probably near its peak, there

was no Silicon Valley, housing in Palo Alto was cheap, traffic was light so the climate was even better – just few good jobs. I repeat – they are the economic drivers.

A few words about venture capital. There are about 700,000 new companies formed every year, counting all the 1 or 2 person small companies. A majority don't last 5 years. Institutional venture capitalists fund only about 1000 new companies, or 1 in 700. The number is not very precise, but whether it is 1 in 500 or 1 in 1000 is not the key. Venture capitalists look for opportunities they believe can become big – so a disproportionate share of the high growth companies is funded from our industry.

What can our region do to improve things? Obviously, like all older regions, we have a whole variety of human and neighborhood problems that our municipal governmental organizations have to deal with every day. I am not trying to talk about these problems, but I don't think they are the cause of our decline. There is only time for me to touch on creating new jobs by trying to develop the new high growth industries, as many other regions are trying to do.

As we said, in 1957 Austin, Texas put together a plan for growth. Today, they have become a dynamic center for new industry, several times the size they were then. The Research Triangle in North Carolina did the same, and a strong growth followed.

Northern Ohio is belatedly getting its act together. Many are beginning to realize we cannot keep riding on the past.

No one knows for sure what will be the high growth industries of the future, but it seems clear that technology will drive most of them.

We must support and strengthen our research universities, and also demand they keep improving on technology transfer. They cannot afford to think like dreamy ivy covered colleges out in the woods – they must get into the 21st century as economic drivers, like M.I.T. and Stanford.

We must improve our schools and demand our children study and behave better. The public schools I went to 75 years ago would not have tolerated today's behavior for a minute. This is a major problem for parents as well as teachers, and the school system cannot do it all. Our society must demand its children behave and perform better – or the Asiatics will beat us in high technology as well as low-cost manufacturing.

We must think regionally – not municipality against municipality. We must realize the enemy is not the next suburb or Akron, but rather is Boston, San Francisco, Baltimore and the newer cities, and we must unite to fight them for the research dollars that come out of Washington.

We must quit fragmenting into so many small organizations that never get to critical mass, and unite into larger effectively run organizations. The Cleveland

area is known for its many small firms – that is partly good, but some things require larger mass. The consolidation of organizations into the Greater Cleveland Partnership is long overdue and gives me hope. Nortech is the first step I have seen toward a technology plan for the region, and it must be supported. JumpStart is the most promising incubator we have seen in the region.

What action steps do I recommend? A lot is starting to happen – carry it out. Make sure the following is accomplished:

- A regional organization is in place charged with preparing a Regional Economic Development Plan – Is NEO or GCP it? Quit competing locally (that is just rearranging deck chairs on the Titanic) – the outside globe is the challenge. Unite.
- A Technology Development Plan is prepared. Nortech is a start. Who is responsible for a plan?
- Everybody is responsible for thinking regionally. There is no such thing as only leaking in your end of the boat. Foundations (thank God) are now paying major attention to economic development.
- Strengthen education at all levels – and be dead serious about it.
- Make sure the research universities feel a duty to innovate, and have strong technology transfer functions. Then support them.

- Do what we can to hold existing businesses and attract new ones – and realize this is limited. Businesses will do what they must do to survive in a competitive global market.
- Promote health care services and medical products. This is where we have a relative advantage. The Cleveland Clinic and University Hospital are among the best in the country but are health care agencies – not research centers. Follow up on nanotechnology, MEMS, fuel cells, alternative energy and any other new technologies as they emerge and try to develop a comparative advantage in one or more.
- Most growth in the future will be technology driven because that is where innovation will come from. The key to industrial growth is innovation – real innovation – not climate and not just amenities. If we can produce really exciting new technology or concepts, venture capital will be there. I repeat – a misconception is that venture capital causes innovation – it doesn't, it follows it – anywhere and everywhere.

How does science fit in? It teaches us to understand how the universe works. It enables technology – which is the application of science to provide something mankind wants. Then innovation is the process of thinking up something NEW mankind wants, or will want and can pay for when he sees it. Innovation may be technology based, or it may not, but in the future increasing

amounts will come from technology. The wheel, the paper clip, the tin can, the mold board plow, the ballpoint pen, and the many other simpler innovations you use everyday have already been invented, and most of the new things we are buying come from – or are enabled by technology.

So, we'd better pay more attention to science and technology – it's our hope to maintain our leadership in living standards, and China and India have started to train a frightening number of engineers and scientists.

We must face reality and not bury our heads in the sand. In the 1950's and 60's I spent a lot of business time in England. When one pointed out problems, their answer was "Oh, Britain will always muddle through." – It didn't. – Now Japan has taken their place as the second largest economy in the world. Today, when we talk about competition for innovation, you hear "Oh, Yankee ingenuity will save us." That works a lot better if the discoveries are going to come out of the basement or the barn. I don't think it will work so well if the new innovations will require platoons of highly educated but low cost scientists and engineers with multi-billion dollar labs and fabricating facilities, collaborating in the new world of instantaneous world-wide free Internet communication.

So what do we take away from all this?

If the region (and America for that matter) is to maintain its economic edge and a superior living standard, it must innovate products, services, and ways of

doing things. The poorer parts of the world are studying us, emulating us, and mean to catch us and pass us up economically if they can. They have no reason to feel it is our God-given right to be richer and superior. We are not paying enough attention to this danger to our future.

Most of the future desirable innovations will almost certainly be technology driven. Most all of the things you and I have bought recently are technology enabled – Computers, I-Pods, cell phones, games, cable and satellite – you name it. And, remember our soldiers are brave and well-trained, but it is the technological advantage that has made the huge difference in army-to-army combat in both Gulf Wars. We must stay ahead in technology and innovativeness, or our living standard will not progress. This takes motivation of our children, education, research funds, sensible laws and tax structures.

What are the implications of this view of the future for the major cities? Urban studies are not my field of expertise, but from my point of view, the outlook for downtown districts of cities in a knowledge-driven economy is not particularly good. There are still some needs for urban concentrations of people, but mayors should be hiring consultants and worrying.

- Obviously, a large convention center and a concentration of hotel rooms nearby is a huge attraction of out-of-town dollars to a region. (Witness the problem Cleveland has with an old convention hall and no really

large mother-ship hotel nearby – many large motels in suburbs or near the airport.) Entertainment clusters downtown also make sense, but suburbs are competing.

- A negative factor is that there is limited land available to locate companies near the research universities.
- There is congested travel, expensive parking, and decreasing demand for very large numbers of relatively uneducated people who expect to live near the factories that employ them. O'Mara's book points this out very well, and I have personal experience as a director of companies located both in Silicon Valley and on Route 128 near Boston. And, in Si Valley little of the company-founding growth took place in downtown San Francisco – it started near Stanford University, which is 35-40 minutes from downtown San Francisco – it's in Palo Alto (and S.U. owned a huge amount of land), and the growth has mostly continued farther out. At the height of the dot-com boom, some service-type companies actually were located in downtown San Francisco, but these mostly collapsed, and no one ever put much research or manufacturing downtown. The same was true in Boston – they just went even further out from the central city. Even some of the financial institutions, like venture capital, mostly went to the suburbs. Am I too alarmist? Maybe, but, as the great CEO of

Intel, Andy Grove, likes to say, “In the world of today, only the paranoid survive.”