

**Remarks by Grant Godwin to the
North Carolina Economic Development Association
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I appreciate the opportunity to appear before you and talk about current manufacturing in North Carolina. I have always had an interest in economic development and had the pleasure to work with Tom Broughton and Ray Denny back in the '70's when I was in Commerce. Last summer, as I was looking for a plant site, I was pleased to see that tradition carried on as we worked on a plant search with western Commerce representatives. They did a great job working with us and I would highly recommend the state, regional and local economic development teams to any firm involved in relocation.

Today, I will attempt to provide some background as to how I think we arrived at our current environment, then discuss current manufacturing and offer some suggestions as to how to deal with economic development. In addition to our own experience, my remarks pull from discussions with associates in a range of industries, as well as, recent articles in various business publications. I hope my remarks will do more than high light the nature of the problem, but will provide some insight and reinforcement as to strategies.

In that most of you aren't familiar with Martin Marietta Composites, we engineer and manufacture advanced glass fiber products for transportation and construction. Basically, we take advanced materials technology that was developed for aerospace and adapt it to address deficiencies in traditional materials of steel, aluminum and concrete in conventional markets. We have marketed glass fiber bridge decks for about seven years and this fall will commence marketing of glass fiber commercial truck trailers. The benefits are high strength (greater than aluminum, can be comparable to steel), low weight (20% of steel) and non-corrosion. For example, our lighter weight truck trailers will reduce transport costs by approximately 15%, quite significant in an industry under severe strain.

Over the past several years, I have traveled over a number of states and foreign countries. For what it is worth, you are not alone in struggling to address huge changes in economic development issues. Around the country there is controversy on how to address plant closings and I know of no one that has identified the silver solution.

In the 1960's, Bob Dylan sang "the time's, they are a'changing". Today, Dylan sings, "the times changed ----- and nobody paid attention". North Carolina has a proud heritage in manufacturing ----- and it's not gone, ---- but the face, body and substance of manufacturing have dramatically changed and perhaps forever altered. I would equate the shift as being comparable to the turmoil in rural areas caused by mechanization of farming that occurred in the 1950's. On our own farm we utilized 40 – 100 seasonal workers for tobacco and cotton harvesting. The mechanical harvester hit the market, enabling far higher productivity, and in one year, those jobs were wiped out. Other

examples include the loss of steel to Pittsburgh and the greater Ohio area of thirty years ago.

In the '70's and '80's, our traditional manufacturers were doing extremely well. We were on the Top 10 list for growth and were on everyone's relocation list. In that period, the state diversified through the attraction of a broad range of new industries and after 15 years, the Research Triangle Park stabilized and really took off with computer, telecommunications and pharmaceutical firms.

Through the '90's, a number of seemingly disparate factors came together ---- all to the disadvantage of North Carolina. These factors included: the dot.com craze, reduction in trade barriers, domination of big box retail, globalization and recession.

Two trends that defined the '90's -- electronics and telecommunications firms were eating the same pecan pie with too much sugar in that they all seemingly bought into the same "it'll never end market projections" of the dot.coms, and all ---- over invested in capacity. Thus, when the dot.coms crashed, electronics, telecommunications and computers went down with them, thus severely impacting North Carolina's diversification and the basis of our defined future.

The second trend was the rise to retail dominance of the national, big box chains. As they gained economic purchasing power, in order to enhance margins, they drove suppliers to cut prices, which unleashed or reinforced continuing rounds of quality compromises, production shifts to reduce costs in an effort to retain some degree of margin or to even survive. There was little price flexibility so everyone was forced to find means of cutting costs. Overall reduction in trade barriers and NAFTA happened to coincide with that need and allowed industries to add overseas sites as production alternatives.

Wal-Mart alone spent \$24 billion in China last year. It is not a fair comparison, but that number alone from the world's largest retailer is approximately 50% of the current trade deficit. The slogans "We buy American" or "Buy American" of the '70's and '80's quietly disappeared along the way --- and no one noticed as textile workers lost their jobs but continued to shop and praise the big box chains for having low prices.

Mexico became an increasing choice for expanded production. It was slow at first and not many worried. The shifts then became dramatic and in the past three years or so, with the onset of recession, China became the buzzword, the dam broke and the loss of manufacturing jobs has been a torrent. As noted in a recent article in IndustryWeek, external investment in China in 2002 alone was \$52 billion. Of the 500 largest U.S. companies, 400 have a significant presence in China. Type "manufacturing in China" into an Internet search engine and you will have 1.3 million hits. The jobs in North Carolina's traditional industries plunged to where they account for less than one-fourth of our manufacturing jobs, one-half the impact of a decade earlier. With the major changes in our economy, the income gap between higher and lower income workers has increased.

But the shift hasn't just affected the hourly wage textile and furniture workers. Look at the unemployed mid and upper level managers, sales and technical personnel in the Research Triangle Park. Thousands were earning \$100,000 plus salaries. Presently, rather than full-scale, in-house programming and developmental work, a few persons now manage teams of contract engineers earning \$10,000 each in India, Pakistan and elsewhere on a project by project basis with work being exchanged through the internet and timed around the world so that development work continues around the clock. IBM and Nortel are shadows of their early '90's operations as they've shifted manufacturing to the Far East in order to remain competitive. Today, if you call a technical support or customer service center, it is more likely you will be talking with someone in India trained to speak in a Midwestern accent than it is you are actually talking to someone in Kansas.

This has not been a normal recession in which jobs are reduced and the plants hire back when things turn. This recession coincided with a trend of total displacement and relocation of production capacity to offshore locations. Whether the shift was by contract, joint venture or direct investment, once the investment is made, a reversal of asset investment is not easy or likely until the investments can be fully depreciated. The likelihood of reinvestment in the states is not high. It is more likely companies will seek ever-lower labor rate advantages. It is important to note that Mexico has lost as many jobs as the U.S. over the past two years as industry has left \$3.50 per hour labor in favor of \$0.60 per hour. No one is interested in \$10 – 15 per hour labor offered across the southeast U.S. In addition to China, Pakistan, Malaysia and India have benefited greatly. Last week, a firm mentioned they were looking in Africa in an effort to leap frog all competition in establishing a competitive advantage. ----- No disrespect intended, but if Africa is deemed to be stable for plant investment, we have a very long-term problem.

In the '80's, there was concern over Far East firms copying our furniture and textiles and undercutting our manufacturers on price. That was, and is, a problem, but much of the current malaise cannot be blamed on the foreign firms and governments, for to quote Churchill "we have met the enemy and it is us". In most cases in the '90's, foreign competitors didn't copy our specs and undercut our prices, nor did they close the American plants and shift the production. The American consumer demanded premium products at ever-lower prices primarily through big box chain retail. In what I expect is a majority of the cases, the American business community in an effort to cut costs, gain market share, remain competitive and enhance margins made conscious decisions to relocate production. It has been a matter of survival, keeping up with whoever was chasing market share and being globally competitive ----- but with strong negative side effects. The concept of globalization is wonderful and it is fantastic to be able to source optimum quality and price, but the proponents forgot the basic principle of labor economics --- in which production always seeks the lowest unit labor cost. It is the American economic way, at our best and our worst. As recently stressed by the president of the National Association of Manufacturers, "Manufacturing is at a crossroads. We face fundamental changes, which if left un-addressed, could result in huge economic losses and the erosion of our industrial leadership."

This is not new, in that with roads and electricity back in the '30's, North Carolina was the "China" of New England as 1000's of textile jobs shifted south to take advantage of low cost labor and non-union attitudes. It is just that it hurts when it happens to us. For those of you that have traveled in New England, you have seen the old mill buildings either still standing empty or have long been adapted for other uses.

I learned engineering on the slide rule, the same one that my brothers had used 10 and 15 years before me. I learned computers on a cardpunch behemoth the size of three city busses. My first laptop was the size of a large suitcase. Twenty short years later, I am overseeing several dozen engineers scattered over six states and four foreign countries as they collaborate on product development on an interactive website in which red flags are thrown if one happens to make a change that conflicts with another. Many of them are consultants hired on a project basis for specialties that I do not need full time, and they don't have to move from the beach or travel extensively to my location. This collaboration often directly involves suppliers and customers so that the time to market is greatly reduced, the quality of the product is far higher and the probability of success is much greater. We achieve far more with lower fixed costs, but our fulltime head count is lower and those we didn't hire are many times left with project contracts to others.

As I noted earlier, we did a plant search last summer. For those of you from rural areas, just so you don't think everyone wants to be in the RTP, I want you to know that we sought a rural location. We did so for the superior mechanical skills and strong work ethic. I also wish to emphasize that at any point you should not apologize for who you are, where you are or for what you are not. Several parties last summer actually began their presentations apologizing for not being closer to a metro area. One reason we selected the site we did, which was Sparta/Alleghany County, was that they presented their strengths with confidence and pride. The people on the plant floor, that they knew was being closed, came across with a determination and zeal that they could overcome any hardship and survive. We were impressed and naturally ranked them higher than those apologizing for not being closer to a city.

As for manufacturing, I am setting up a manufacturing plant in which a customer will be able to pull a wireless PDA from his pocket with greater power than the computer that sent man to the moon. The customer will be able to dial his dedicated website at our facility, spec his \$70,000 piece of equipment and transmit it to our sales and production managers for review. At transmission, software will instantly scan the specs, check inventory, check production schedules and advise our manager whether the schedule can be met, what has to be ordered and when in order to meet schedule --- and, if needed, suggest alternatives. Once accepted, the inventory will be reserved or parts orders will be issued; ---- at the appropriate times, work orders will be issued and parts will be listed for shifting to work stations. Upon completion, the customer will be issued a shipment notice, an invoice transmitted and all accounting records updated --- all of that is electronic. We purchased the software for \$74,000 and I have not even bothered to count the number of sales, inventory, shipping, accounting and mid-manager personnel that we won't be hiring. In our case, we are using assembly workers; but in many cases, the

assembly would be by robots and the only personnel would be monitors of computer data screens. Most public discussion has related to the loss of production jobs, but in advanced manufacturing, all levels of plant operations are impacted.

Another example is the new aircraft to be manufactured by Boeing. The state of Washington is trying to keep production in Seattle by stressing the 15,000 machinists that are available. The problem is that Boeing doesn't plan to use machinists and welders. Most of that aircraft will use advanced materials and the entire fuselage will be wound on a spindle using a process called filament winding.

Times ----- have changed, whether we were paying attention ---- or not. Things are different ---- and they are not going back. But, it is easy to focus on the short term. Today, it seems inconceivable to think of North Carolina without a major presence in textiles, furniture and tobacco. But, in the late 1800's, my great-grandfather made his living floating logs, tar and pitch from the Port of Fayetteville to the Port of Wilmington and sold for use in construction of wooded sailing vessels. Sounds quaint? Yes, ---- but I am certain that the people in Wilmington at that time could not imagine an economy without wooden ships.

We can mourn or we can be proactive. At one particularly heated battle of the Civil War, when Lee cabled Longstreet and inquired of his situation, Longstreet replied, "My right flank is collapsing. Heavy casualties from cannons to the front. Location of cavalry is unknown. ----- We are attacking."

Internationally, we can question how long a communist government attempting a capitalistic economy to survive. If there is political turmoil, it is bound to cause firms to second-guess their wisdom, but it is unrealistic to count on the collapse or great political turmoil in China. Think of them what you will, but they have had a written language for 5000 years and they have been amazingly adaptive. Certainly, their currency is undervalued which gives exports from China an unfair advantage. The feds should strive to correct that, but ironically, U.S. businesses who have placed production there benefit from the exchange rate and take it into account. It may sound strange, but we need to do what can be done to develop a consumer economy in China to increase income levels and absorb production. Terrorism and SARS are having a significant impact in tempering the headlong rush to the Far East. Decision processes are being impacted, but U.S. companies are finding ways to have their cake and eat it to. For example, rather than traditional buying trips, they are requiring Chinese suppliers to travel to the states and to do so ten days early in order to avoid the risk of SARS. We can take heart that of the billions invested in China, only a small portion has been from the states. Most of the shifts from the U. S. have been on contract and can be changed. However, we can't count on it being that easy.

So, where do we go from here? In proactive attacking, it would be a gross misrepresentation to think any one strategy will work --- diverse strategies are critical. We must have faith in North Carolina's progressive and adaptive heritage. It is a time for strong, economic leadership at the federal, state and local levels, but primarily, it is a time

for internal resolve and determination to steer a course to better times. Traditional industries have dropped and are on the ropes, but they aren't gone. What is here can be built upon. I would hope you would continue doing everything you have been doing.

However, if you are waiting for white knights in terms of mid to large size firms relocating, they are going to be few and far between. Major concessions will be expected. Normal state assistance incentives are critical, but probably won't go far. Everyone touts quality of life so that alone is not going to get us there. Education is critical, but won't solve the problem alone for most of those in the Far East to which we are losing our jobs are uneducated --- so there is a disconnect in our pushing education and job training as a solution and thinking it will be a deciding factor. In the 1930's shift of textiles from New England, it made a difference --- for everyone perceived us Southerners of below normal intelligence. In the 1970's expansion of electronics, it made a difference for everyone assumed we were just leaving the farm and couldn't handle the complexities. Don't take me wrong, education is critical, especially for those that have been doing basic assembly; but the education needs to be targeted. The challenge is this --- look at any normal approximation of production costs. You could totally remove the tax burden and capital investment for a new plant and come nowhere close to offsetting the difference in labor advantage in a shift to the Far East.

However, there is a difference in "rote activity" and "decision oriented activity". For today's workers in advanced manufacturing, it is important that they demonstrate "rote skills", but it is more important that they demonstrate "logical evaluation and decision making". We must make certain our training programs adapt and incorporate such capability. Further, we must make certain we are asking the right question and presenting the proper perspective to firms that are being recruited or developed. We tend to speak in terms of years of school or GED's, when actually what is important to a production firm is ---- productivity. This is important to many in rural areas with perhaps lower than desired formal education levels. Figure out your mechanical and logical skill levels and argue your productivity strength. You will make a valid point with whomever you are recruiting.

Another balancing hand in the shift to the Far East is that much of the shift is commodity or low technology goods. I would think the prime potential for new plants or relocations to North Carolina would be in large or heavy products in which ocean freight would be very expensive; or, would be in technologically advanced products that companies do not wish to risk a loss of their intellectual property or core technologies to off-shore firms. None of the Far Eastern countries are recognized for respecting patents and trade secrets.

Traditional industries can be made more competitive, but it probably means a continuation of automation. However, nationally, textiles as an industrial sector had the highest growth in margins of any industrial sector over the past several years, but it was due to growth in industrial fabrics, carpets and niche household areas. Glass and carbon fabrics are growth industries for advanced composite materials and a number of states and universities including Georgia, Virginia, Delaware, Ohio, Texas, California and others are actively involved in promoting programs. Six years ago as I tried to get local

researchers involved in testing and development work for us, I was advised N. C. State was committed to concrete, not advanced materials. Eleven other universities actively sought our work and either had or proceeded to establish advance materials labs, including Georgia Tech, Clemson and Virginia Tech. Last year, N. C. State established advance material capability as a tag-on to Missouri and began to encourage us to bring our work back local. They are playing a catch up game rather than having been far-sighted a few short years ago.

I don't know whether NCSU Textiles is working on natural-fiber textiles, but I know several midwestern universities are developing textile fibers from wheat and corn. I would think tobacco would provide some of the toughest natural fiber possible, why not textiles from processed tobacco stalks? They're probably a decade away, but natural-fiber textiles have the potential to greatly reduce material costs and thus offset some of the Far East labor advantage. Either way, why not transition our research and closed clothing plants and textile efforts to new growth, value added areas.

Non-traditional industries have been doing well and should continue to have good growth in support of transportation and industrial sectors. Citing Dr. Mike Walden in a recent Bizlife article, production of electrical equipment has surged 400% and industrial equipment has jumped 300% contributing to an overall increase in non-traditional manufacturing to 78% of our production. These sectors should be encouraged and developed. For rural areas, many of these are small shop oriented and again, are mechanical skill oriented.

New technologies and industries should definitely be pursued. There is a great deal of R&D work at universities that doesn't get beyond a study on a dusty shelf because there is no coordination to develop good business plans and get the work into the private sector. Another speaker is addressing biotech, but it has enormous potential and could even positively impact traditional industries. For example, an application that could very positively affect tobacco is research by Virginia Tech to utilize tobacco plants as hosts for base ingredients for pharmaceuticals. Raising tobacco in order to reduce the cost of drugs to seniors – what a concept!

Nano-composites are the future high-end advance material with the potential to displace nearly all others. Why not an inter-disciplinary materials department at N. C. State and a major state initiative in this area? The traditional department structure between Textiles, Engineering and Agriculture no longer makes sense, at least with respect to advanced materials and many biotech applications. Research is critical and certainly should be considered, but why not create interdisciplinary entrepreneurial teams that compete for grant dollars based on success in public/private partnerships and transitioning R&D dollars to real products and markets?

For rural areas that are the most hard-pressed, the solutions of course are even tougher. Being from a tobacco farm near Spivey's Corner, I wish I had a package of short-term solutions, but they are not obvious. I've touched on several items that could be of assistance. Special loans, incentive packages and marketing assistance programs are

necessary. The Internet is not the be-all, end-all ---- but the playing field is probably the most level it has been in years for rural areas to be competitive. Internally grown businesses, or recruited professionals that wish to escape urban congestion, can provide engineering and design services via the web or can market locally grown products worldwide. Local manufacturing, assembly and processing -- Internet sales/distribution - - that has never been possible. If you view yourself as a tobacco town, you will have difficulties. If you view yourself as a hotbed of undiscovered innovation or a repository of Southern culture in which others might wish to partake, you might have a chance.

You must redefine yourselves if you want people to understand you are not who you were. You do not have to accept conventional wisdom as to who you are. If the rules are against you, you can either continue to play and lose; or, you can work to change the rules; or, you can work to redefine and change the game. The latter is most difficult, but it gives you the best long-term advantage if successful, not to mention how it confuses the competition. Agriculture should be re-defined from “the science of crops for food, etc” to the “science of crops for advanced industrial applications” assuming those can be developed. Rural North Carolina needs to be re-defined from the tired phrase of “strong in agriculture” to being strong in wherever you think you can take your future. For example, study how businesses in Maine and Vermont developed, sold and distributed worldwide the “New England lifestyle” and products. LL Bean grew out of just such desperation as many areas in North Carolina are now in. When was the last time you heard the term “rust belt”? That region had been written off in the ‘80’s, but is now doing pretty well because they dug in, redefined themselves, established new technologies and adapted. Pittsburgh redefined itself from steel center to glass and world financial center. It is difficult, but you are not going to move into the future by continuing who you’ve been. That is like driving by looking into your rear view mirror. For our rural areas, our traditional industries and our traditional development processes, it may be that we have to let something die in order to have rebirth. That does not make the transition any easier, but it is necessary.

In summation, there are no external saviors; you must execute traditional and current economic development initiatives more effectively than ever; but, more importantly, you must work from within; you must seek the innovative; you must pull unrecognized strengths from communities; and develop every possible angle for jobs development. There is a current book, Moneyball, that challenges the traditional means of valuing baseball players according to the homerun hitters and high visibility plays and paying them the most money. The point of the book is that games are rarely won by homeruns, but the most valuable players for winning games are really those that hit consistently, but are skilled at placing the ball, get on base and advance runners. We all want homeruns, but economic development and business advancement, especially in the current environment is really a game of good, solid, focused strategy implemented in well placed hits.

In closing, an analogy ---- every morning in Africa, a lion awakens and knows that to survive the day, he must out run the slowest antelope. And, every morning in Africa, an antelope awakens and he knows that in order to survive the day, he must outrun the

fastest lion (and the slowest antelope). It doesn't matter whether you are the lion or the antelope --- to survive --- you have to wake up running.

Thank you for your time and attention.