



Statement of the Arlington Chamber of Commerce

**ON: AMERICAN DECLINE OR RENEWAL?
GLOBALIZING JOBS AND TECHNOLOGY**

**TO: HOUSE COMMITTEE ON SCIENCE & TECHNOLOGY
SUBCOMMITTEE ON INVESTIGATION AND OVERSIGHT**

BY: WES JUREY

DATE: MAY 22, 2008

The Chamber's mission is to serve as the primary catalyst for Arlington's economic development, fostering a positive business environment through the enhancement and diversification of our economic base, representing the business community on public policy and community issues that impact the ability of Arlington citizens and businesses to reach their full economic potential.

The Arlington Chamber of Commerce

The Arlington Chamber of Commerce is one of North Texas' largest business federations, representing more than 1,400 businesses and organizations of every size, sector, and region.

More than 96 percent of the Chamber's members are small businesses with 100 or fewer employees, 70 percent of which have 10 or fewer employees. Yet, virtually all of Arlington's largest companies are also active members. We are particularly cognizant of the problems of smaller businesses, as well as issues facing the business community at large.

Besides representing a cross-section of the Arlington business community in terms of number of employees, the Chamber represents a wide management spectrum by type of business and location. Each major classification of American business -- manufacturing, retailing, services, construction, wholesaling, and finance -- is represented. Also, the Chamber has substantial membership throughout North Texas.

The Chamber's state and national engagement is substantial as well. The Chamber has been and continues to be a participant in a number of state and national pilot projects and innovation grants, focused on the Innovation Economy and developing and maintaining a competitive workforce.

Our positions on state and national issues are developed by a cross-section of Chamber members serving on committees, subcommittees, and task forces. More than 300 business people participate in this process.

Wes Jurey, President & CEO

President & CEO of the Arlington Chamber of Commerce since 2001, Jurey also serves as Chair of the U.S. Chamber's Institute for a Competitive Workforce; was appointed in 2007 to a six year term on the Texas Workforce Investment Council; and appointed in 2008 to a two year term on the U.S. Department of Labor's Advisory Committee on Apprenticeship. He was one of nine individuals appointed to the U.S. Department of Labor committee charged with developing DOL's five year research plan for 2002-2007.

He founded the Center for Workforce Training & Preparation in El Paso, Texas; was a partner in the establishment of the Center for Continuing Education & Workforce Development in Arlington, Texas, and is the founder of the Arlington Technology Incubator.

Testimony of

Wes Jurey

President and CEO of the Arlington, Texas Chamber of Commerce

Before the

Subcommittee on Investigation and Oversight of the

House Committee on Science and Technology

May 22, 2008

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“American Decline or Renewal?

Globalizing Jobs and Technology”

The United States today finds itself in unprecedented and uncharted waters. For the past several decades, our super power status has largely gone unchallenged, something seldom seen in history other than perhaps the Pax Romana nearly 2000 years ago. It has been an unprecedented time of global economic growth and expansion, fueled, I would argue, by two seemingly unrelated events in the 1980s.

The first was the end of the Cold War, symbolized by President Reagan's pronouncement to Premier Gorbachev to "Tear down this wall". What should be noted is that the end of the Cold War allowed under developed nations to shift their focus from defense to develop educational systems and economic and transportation infrastructure necessary to compete.

The second was the discovery of the internet in a U.S. federal lab, enabling everything from x-rays to engineering design to be transferred world-wide with the simple click of a mouse. Viewed from an historical perspective, those two seemingly unrelated events in the 1980s have enabled global economic development during the past 20 years.

In his book, *The Post-American World*¹, Fareed Zakaria argues that we are living through the third great power shift in modern history. The first, the rise of the western world, around the 15th century, produced the world as we know it now – science and technology, commerce and capitalism, and the industrial and agricultural revolutions. It also led to the prolonged political dominance of the nations of the western world.

The second, in the closing years of the 19th century, was the rise of the United States. Once industrialized, becoming the most powerful nation in the world, stronger than any likely combination of other nations.

The third, the one we are experiencing now, is the rise of the rest of the world, largely driven by a global economy that has dramatically accelerated. Zakaria further argues that this post American world, although an unsettling prospect for Americans, is not a decline of America, but rather the rise of everyone else, fueled by the Innovation Economy.

¹ *The Post-American World*, Fareed Zakaria, W.W. Norton & Company, Inc 2008

From my perspective, the Innovation Economy really isn't new; it simply is a relatively new way of describing what has always been the driver of wealth creation. Historically, research resulting in technology innovation has been the primary driver of economic growth and development.

For the most part, technology led economic development has clustered around and been driven by universities who understood that commercializable research is the basic cornerstone in the creation of technology start-ups. The most successful innovation economies have been the result of effective partnerships between universities and the private sector, focused on technology transfer from the lab to the marketplace. Clear examples include the role Stanford University and the University of California played in the evolution of Silicon Valley; MIT and Harvard in the development of the Boston Biotech Corridor; and Duke and the University of North Carolina in the growth of the Research Triangle.

In these regions, applied research is the basic cornerstone for the creation of technology start-ups, new applications for existing technology, as well as new technologies. The resultant products form the basis for thousands of companies.

What is new, however, is the unprecedented challenge we face in our communities, regions, states and as a nation in terms of global competition. As examples, the emergence and evolution of India, China and Brazil during the last two decades from an economic perspective is truly staggering. If we clearly look back to the early 1900s, technology discoveries resulted in the creation of the assembly lines that sparked the industrial revolution. In a similar manner, the discoveries that led to the internet essentially sparked the Innovation Economy we find ourselves competing in today.

George Kozmetsky, one of the founders of Silicon Valley, stated "All human affairs – political, social, economic, cultural, and business – are conducted by human beings; people's motivations, ingenuity, and creativity ultimately determine success or failure in all these human affairs."²

His statement supports the U.S. Chamber's premise that "the toughest, most important competition in the 21st century worldwide economy will be the global race for talent and workers."³ From my perspective, the outcomes will largely determine U.S. competitiveness in the future.

²*Embracing the Global Demographics Transformation 1950 - 2050 Sharing Peace and Prosperity in the Global Marketplace, George Kozmetsky and Piyu Yue, IC2 Institute, University of Texas at Austin.*

³*The State of American Business 2008, Thomas J. Donahue, U.S. Chamber of Commerce*

We are competing in an era in which the U.S. represents only 4% of the world's population, while consuming approximately 26% of our planet's available resources with the U.S. population projected to decline for the next 50 years. At the same time, most of the planet's natural resources, people, capital, and markets reside some place else, generally in countries where the populations are projected to grow for the next 50 years.

In recent columns, dated April 26 and May 4, 2008 in the *Financial Times*, Laurence Summers, Harvard University professor, argues that America's economic policy has supported an integrated global economy, stimulating the development in poor countries, particularly in Asia, at unprecedented rates. Yet American commitment to internationalist economic policy is ever more in doubt. He further argues that this has been the right economic policy, and that withdrawing from the global economy is untenable, ultimately reducing U.S. competitiveness.⁴

And from the Federal Reserve Bank's March newsletter comes this opening line; "Innovation is key to global growth in rising living standards".⁵ My response is that our ability to remain highly innovative depends largely upon our ability to continue to train, educate, and retain a highly skilled workforce.

In responding to the committee's request to explore the issues of U.S. competitiveness, and in particular those factors that drive and influence U.S. firms' decisions to retain existing production and research capacity at home or take it abroad, I offer the following observations and suggestions.

I'll begin with an observation. Since 1990, corporate location decisions have increasingly been driven by two key factors; the availability and competitiveness of the workforce in areas in which the company locates, and the competitiveness of the regulatory environment. Both determine the ability of the company to remain competitive. Much has been said and written about incentives. In practice, I have found that they are not the primary determinant, since the ability of a company to remain profitable month after month, quarter after quarter, and year after year is highly dependent upon the competency of the workforce and the cost of doing business in a particular location. In a free market economy, it generally comes down to that. From that perspective, I offer five suggestions to the committee.

⁴ *The Financial Times Ltd, Lawrence Summers, 2008*

⁵ *Economic Letter, Federal Reserve Bank of Dallas, March 2008*

First, the manner in which we allocate and deploy funding for workforce development should enable and empower our publicly funded workforce development system to become talent developers rather than funders of training. Allow me to explain. Since 1990, I have been highly involved with the U.S. Department of Labor, the Texas Workforce Commission, and two local workforce development boards. I have done so because in the communities I have served, I have found that the most critical need is to ensure that the companies we are attempting to both attract and retain have access to a highly skilled, highly competitive, highly innovative workforce.

Through my participation in a variety of national pilot projects, and service on various Texas Workforce System and U.S. Department of Labor advisory boards, committees, and commissions, I have found that it is not necessarily the amount of funding we allocate but rather the means by which we deploy it, and the restrictions we place upon it. As a recent example, the Arlington Chamber of Commerce is currently administering a grant from the Texas Workforce Commission; the primary purpose being to develop replicable, sustainable, scalable model pipelines that develop the talent and supply chain for advanced manufacturers, rather than simply funding job training assistance.

The focus of our work is fairly simplistic. The Chamber works to identify specific workforce challenges employers face. In doing so, we engage the local workforce development board, our local community college system, and our local university. Collectively, as partners, we identify the challenge, design the solution, and do what is necessary to resolve the employer defined challenge.

National Semiconductor, for example, recently spent \$50 million retooling 26 machines to convert production from a 6 to 8 inch wafer. Their challenge: to retrain their workforce, with no curriculum available to do so. In response, the Chamber engaged the university and community college to collectively catalogue training conducted by National Semiconductor, in order to develop curriculum. Grant funding provided approximately 20% of National Semiconductor's training cost. The outcome – retrained workers and curriculum for future training needs, meeting the critical need for the employer.

As another example, we began working with Progressive last fall, a local company that is one of Lockheed Martin's many subcontractors for the Joint Strike Fighter. Progressive indicated they will need to hire 400 CNC machinists over the 20 year life of the contract, and can not find the seven they currently need. This, despite the fact that their starting salary is \$86,000 annually. As we continued this work, we discovered that Progressive is not alone; that there are a significant number of

companies in need of machinists; and that the critical factor in North Texas is the lack of capacity to train machinists. As a result, we are allocating some of the funds directly to the Dallas County and Tarrant County Community College Systems to enable their collaboration to develop the training capacity necessary to train skilled machinists in North Texas.

It should be noted that in our discussions with employers, they indicated that they can pay machinists \$86,000 to \$106,000 because of the increased productivity of the United States' worker; however, they also indicated that as wages continue to escalate due to the lack of skilled machinists, there would come a point where cost versus productivity would meet, and they would be forced to move these jobs offshore.

As a third example, the General Motors Assembly Plant in Arlington is working with us to develop internships for high school students, apprenticeships for promising interns, entry level certification, and incumbent worker training. All defined as critical to their competitiveness. This example prompts me to point out that although participants in DOL apprenticeship programs are paid during their apprenticeship, there are essentially no DOL funds allocated to directly support this effort, other than direct staff technical assistance. This despite the fact that every federal dollar spent for apprenticeship leverages significant private sector dollars.

What is important to understand about all three models is that they would be difficult to fund under current DOL/WIA guidelines. First, the law itself is crafted, and the services and centers funded under WIA are based upon the job seekers perspective – the supply side – rather than the demand side. That translates into the need for state and local workforce systems to be highly creative in structuring grants or contracts in order to fund the types of activities I have cited.

Second, if it is truly our intent to create an employer driven system, then we must take into account that employers are faced with two primary factors critical to their competitiveness; speed to market, and rapid response to market conditions. That same criterion, however, seldom applies to public funding. Therefore, we must minimize both the time it takes an employer to secure funding, and the process employers' view as unnecessarily cumbersome.

Third, we should assess the performance measures that state and local workforce investment boards have to meet, because they don't reflect the factors determining industry competitiveness. Again, the focus of performance measures is on the

supply side, relative to job seekers, rather than the demand side, relative to jobs being created. These measures also place more focus on entry level, rather than incumbent workers who need enhanced skills to advance. By focusing on incumbent workers who gain the skills to move up the ladder, we also create the entry level positions job seekers require.

Fourth, the system should allow greater flexibility. I understand that a call for flexibility is often perceived as a request to not be held accountable for achieving results. In response, I firmly believe that recipients of these funds should be held accountable for measurable outcomes. I also believe you must allow recipients the flexibility to be innovative in the manner in which they work to achieve the measurable outcomes.

The simple truth is that employers don't use the publicly funded workforce development system. Whether real or perceived, they view it as difficult to work with and unnecessarily cumbersome.

My overall recommendation is that a detailed analysis of the processes employers are subject to in order to utilize these funds should lead to opportunities to effectively streamline the process required, and re-think the measurements. I might add that a recent study by the U.S. Small Business Administration indicated that the average small business spends \$7,647 annually as the cost of regulatory compliance per employee.⁶ When you add to that the slow, cumbersome, regulatory process to access the publicly funded system, it may lead to a greater awareness as to why these funds are not more effective in achieving the outcomes we expect from their use.

I would also suggest that it would be helpful if the U.S. Departments of Labor and Education work together with major U.S. business organizations, such as the U.S. Chamber of Commerce, the National Association of Manufacturers, and other such national employer organizations, to clearly define workforce readiness precluding the fifty states from each separately trying to do so. Given our extremely mobile workforce, we frequently find that workers are trained and certified for jobs they can't find in the regions they are in, requiring them to move to other regions in order to secure meaningful employment. When they do so, their certification frequently doesn't reflect the work readiness credentials and

⁶ *The Impact of Regulatory Costs on Small Firms*, W. Mark Crain, U.S. Small Business Administration, September 2005

certifications established in other regions. An industry led and developed work readiness definition, universally accepted throughout the United States, would enable certification to be universally understood, increasing the likelihood of matching the supply of job seekers with the demand of jobs we've created, regardless of the geography.

Second, if we recognize that highly skilled innovative people are necessary to drive our economy, then we need to recognize that nearly 50% of the students in our graduate and post graduate programs at our nation's universities are foreign students and immigrants. In 2006, they received 40% of all PHDs and by 2010, 75% of all science PHDs in this country will be awarded to foreign students. If our immigration policies allow these students to stay upon graduation, then innovation will happen here. If our policies force them to leave, they take their innovative talents with them.

In other words, the potential for American productivity may depend far more on a rational immigration policy that both secures our borders and welcomes legal immigrants to our shore, rather than on the quality of our actual education systems or amount we spend for research and development. Let me share a local example.

In 2002, the Arlington Chamber established the Arlington Technology Incubator in partnership with the University of Texas at Arlington. Our focus was very basic – we intended to support the commercialization of intellectual discoveries emanating from the labs of our university. At the time, UT Arlington had one of the first nano-fabrication labs in the southwest; and one of the few in the United States. This essentially meant that UT Arlington scientists could fabricate working mechanical devices at the molecular level. By contrast, the National Institute of Standards and Technology launched its nano-fabrication lab in 2007.

Our focus was on ensuring that research resulting in patentable, licensable discoveries would be nurtured through proof of concept, proof of product, and proof of market; providing access to venture funding to bridge the gap until the technology was ready for introduction to the marketplace. During the past six years, the vast majority of intellectual discoveries brought to the incubator are from scientists who are foreign students or immigrants.

Third, we should allocate federal R & D funding, to the greatest extent possible, to support industry academic research partnerships; thereby leveraging federal dollars with both private sector and university dollars while ensuring that commercialization activity resulting from such research takes place in the United States. Allow me to explain. During a meeting with Dr. Elias Zerhouni, Executive

Director of the National Institutes of Health, he indicated that of the approximate \$27 billion annually spent by NIH on healthcare and related research, most of the resultant commercialization takes place offshore, in countries we compete against economically. Under new programs developed by NIH, college and university systems are designated “translational centers” based on their ability to demonstrate significant collaboration among and between universities, while partnering with the private sector. Under the terms of the Bayh-Dole Act, granting the funds to universities who partner with the private sector ensures that the patentable discoveries are commercialized in the United States. This simple act - that of linking industry and academia while funding academia ensures that the commercialization of research financed by federal R & D dollars would inure to the benefit of our local, regional, state and national economies, and support the development of top tier research universities as regional economic drivers.

Fourth, we should take the lead to promote global cooperation in the international tax arena. Just as U.S. corporations frequently locate in states where the corporate tax structure favors their business model, firms that do business internationally increasingly headquarter in countries whose tax structure favors their business model. As we assess the issue of taxation, it should be noted that we fundamentally tax one of three things; productivity, consumption, or wealth. In turn, it is important to understand the factors that drive a particular business, in terms of assessing the impact of a country’s tax structure on that particular business. If, for example, a particular business is capital intensive, meaning their business model requires significant outlays for taxable property and equipment, then taxing wealth would be seen as a disincentive to that business. On the other hand, a company with little capital expense, but significant production cost would find a tax system built on taxing production as a disincentive. What we often fail to take into account is the impact of the allocation of tax in terms of production, wealth and consumption on the key industry clusters that drive our economy.

Allow me to provide a simple analogy. During my tenure in Hot Springs, Arkansas in the 1980s, a rumor surfaced that the Reynolds Aluminum plant might relocate. At the time, the regional director of Arkansas Power & Light assured me it wasn’t so, citing the expenditure by Reynolds of \$42 million to build the plant. However, my conversation with the plant manager put it in proper perspective. My cost isn’t people, he explained, although he paid his production workers \$25 to \$45 dollars an hour in the mid 1980s. My cost, he stated, is a \$100 million dollar a year electric bill to Arkansas Power & Light. In recent months we have been offered the same kilowatt hours for \$60 million annually by other cities. The cost of this factory including equipment, was only \$42 million. I could actually abandon the factory and move to one of the new communities offering reduced electrical rates, build a

new production plant, and still net \$80 million over three years in a highly competitive global business. When the plant closed, it left hundreds of people unemployed and Arkansas Power & Light with a \$100 million hole in its annual rate base. Simplistic, perhaps, but it is one more way to point out that the factors that drive U.S. companies to make decisions about where to locate are based on their ability to compete; and that a key factor is their cost of doing business, whether based on the tax structure or other key factors.

Fifth, we should focus our international economic diplomacy on the prevention of harmful regulatory competition. As an example, imagine the challenge of the United States maintaining economic prosperity if every state in the union had differing regulations that impacted interstate trade.

For example, imagine Texas imposing tariffs on the parts and components used by General Motors in Arlington received from more than 600 suppliers located throughout the U.S. The reality is the United States' economy is vibrant largely because interstate commerce is supported by an overlay of federal regulatory guidelines rather than competitive state guidelines. In a similar manner, the United States must acknowledge that the global marketplace increasingly needs to think about global regulatory competition. Just as companies in countries we compete against are integrating their production lines with developing countries, we must integrate our country's regulatory structure with the structure of the world's marketplace.

In closing, I would encourage the committee to recognize that the single most important thing the federal government can do is support economic policies that promote healthy globalization, strengthening efforts to reduce inequality and insecurity throughout the world.

For the past 60 years, the United States has encouraged foreign countries to open up their markets and increasingly in the last 20 years they have done so. During those two decades, the U. S. has also enjoyed unusually robust growth, low unemployment, and increased productivity, with most of the job gains coming from small and medium size businesses during a time of rapid globalization. I would argue that the opening of these international trade markets has been a critical driver of our economic growth, and as the world continues to globalize, we must continue to globalize with it; particularly in a time when 96% of the world's consumers live in foreign lands.

At the same time, we should remember we are a land developed by the hunger and energy of immigrants. In the process we have become the most open, flexible

society in the world. We have absorbed people – their cultures, their ideas, their goods and services. That very openness has inspired and encouraged innovation. And we are still dominant in the technologies that will drive future growth, such as nanotechnology, and our universities are still among the best in the world. In recent rankings, U.S. universities received 8 of the top 10 rankings, 37 of the top 50. Faced with continued international competition, we have adapted and adjusted; primarily through our ability to innovate.

I leave you with this closing thought. I was privileged to know George Kozmetsky, both as a mentor and a friend. Acknowledged as one of Silicon Valley's founders, he published a demographic analysis in 2000. He gave me one of the first copies with this comment; "Today 88% of the world's wealth is controlled by 12% of the world's population, all living in countries demographically projected to decline in the next 50 years. That means 88% of the world's population struggles to live on 12% of the world's wealth, all in countries demographically projected to grow over the next 50 years. What do you think that means?" I responded by stating I was far more interested in what he thought. His reply has stayed with me ever since. "It means one of two things, he said. We will ultimately go to war over the resources nation's need for people to survive, or we will learn to become an international marketplace where trade and commerce link and integrate the countries of the world, one to the other, providing the very motivation needed to stabilize our global economy".