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U.S. Film Commissions & Hollywood
Competitive Rivalries and Strategic Realities

Reinvesting in Older Industrial Cities
New Strategies for Economic Competitiveness

The California Innovation Corridor
Transformational Change through Regional Economic Development

New Tools for Economic Development Targeting and Strategy
Applying a Local Economic Assessment Package

Do Structured International Trade Missions Improve Corporate Performance?
A 10-Year Analysis of NAFTA Visitations

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Ronnie L Bryant, CEcD, FM
IEDC Chair

dear colleague

The months have certainly flown by since I was elected IEDC's chair. I have thoroughly enjoyed working with IEDC's outstanding staff and all the Board members to further our goals of providing quality services to our members and advancing the profession of economic development.

In October and November, I'll be representing the organization at a number of events around the world. Sydney is the site for Economic Development Australia's 2007 Annual Conference and Awards. In addition to being a guest speaker, I'll also assist in conducting a master class on current U.S. economic development initiatives. A new organization, Economic Development Australia was founded in February 2007 and now has a membership of over 300.

In Malaysia, I'll be speaking at the 7th Annual World Free Zone Convention (WFZC) on "Incentives for Relocation or for New Enterprise – A Comparison." And finally, EURADA, the European Association of Regional Development Agencies, has invited me to speak at its annual event, Agorada 2007, in Brussels. The conference's focus is "Innovation in Business Support Service Schemes."

We have been especially pleased with the growth internationally of the Basic Economic Development Course (BEDC) and the opportunities this presents to economic development practitioners in Mexico where IEDC now has three accredited BEDCs. The purpose of BEDC, which is equivalent to IEDC's Introduction to Economic Development Course, is to provide those interested in economic development, or those new to the field, with a foundation of the primary elements of the economic development profession.

IEDC's accredited programs are operated independently by our recognized partners. BEDC course directors collaborate regularly through the organization to ensure the quality of course content. Currently, there are 29 accredited BEDCs in the U.S. and Mexico.

I am looking forward to seeing all of you at the Annual Conference in Phoenix. The conference is as always the most comprehensive economic development event of the year. With fellow attendees from around the world, participants learn the latest trends, hear from industry experts, and make new friends and professional connections.

On behalf of the Board of Directors, I would like to express appreciation to Barry Broome, president and CEO of Greater Phoenix Economic Council, as the chair of the Annual Conference Host Committee and to co-vice-chairs Ioanna Morfessis, Ph.D., HLM, founder and president of IO.INC and Judie Scalise, CEcD, FM, HLM, principal of ESI Corporation, for their continued effort and support for the IEDC Annual Conference.

I hope to see all of you at the Chairman's Reception on Sunday, September 16, as part of the Annual Conference.

R. L. Bryant

Ronnie L. Bryant, CEcD, FM
IEDC Chair

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Economic Development Journal

TABLE OF CONTENTS

PAGE *5*

U.S. Film Commissions & Hollywood 5
Competitive Rivalries and Strategic Realities
by Isaiah A. Litvak and Marilyn M. Litvak
The U.S. motion picture production industry, a multi-billion dollar high wage sector, finds U.S. states and foreign governments promoting incentives to attract film production to their respective jurisdictions.

Reinvesting in Older Industrial Cities 14
New Strategies for Economic Competitiveness
by Barry Bluestone, David Soule, and Joan Fitzgerald
Identifies a series of barriers or "deal breakers" that must be overcome if older industrial cities are to compete successfully for private sector investment and economic development.

PAGE *20*

The California Innovation Corridor 20
Transformational Change through Regional Economic Development
by Judy A. Turner, CEcD and Victoria Conner
The California Space Authority, a small industry focused nonprofit, is driving transformational change across California and the nation to support the needs of the space industry and American competitiveness.

New Tools for Economic Development Targeting and Strategy ..30
Applying a Local Economic Assessment Package
by Glen Weisbrod and Brett Piercy
Shows how economic development strategy and development of business attraction targeting have been changing over time, and how new analysis tools are enabling economic developers to become more sophisticated in identifying and refining feasible target strategies.

PAGE *49*

Do Structured International Trade Missions Improve Corporate Performance? 41
A 10-Year Analysis of NAFTA Visitations
by Dr. Don R. Beeman, Hans Rosebrock, and Oanh Tran
FirstEnergy Corporation's EXPORT NOW program reveals that small to medium sized manufacturers, open minded about international trade and willing to explore opportunities, with assistance, can find them and create jobs in the process.

Ex-Im Bank: A Valuable Partner 49
Helping U.S. Small Businesses Grow through Exporting
by Marianna Ohe
Through its City/State Partners Program, Ex-Im Bank works closely with state and local governments and private sector organizations to help small and medium sized businesses obtain export financing.

IEDC News 39
IEDC Calendar of Events 40

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

u.s. film commissions

& HOLLYWOOD

By Isaiah A. Litvak and Marilyn M. Litvak

INTRODUCTION

U.S. states and foreign countries trying to diversify their regional economies view film, television, and video (FTV) production as an industry sector with a bright future, one that is regarded as environmentally friendly. The industry has been one of the fastest growing high-wage sectors in the United States and is labor intensive. With locational site promotion activities and campaigns driven, in large measure, by the need to create jobs, U.S. states and foreign governments are competing aggressively and investing in proactive strategies aimed at attracting film production and related business activities.

Tax incentives, subsidies, labor costs, and exchange rates influence location decisions that are film production specific. Most U.S. states offer a range of incentives for the film production industry. This fact is not lost on Hollywood's film production companies which are in a strong position to cherry pick among competing U.S. state and foreign locations for productions, because, unlike companies in other major industry sectors, they are relatively footloose. Project-based enterprises have long prospered in filmmaking. Indeed, one might say that today's motion picture industry is largely sustained by the growing importance of temporary enterprises; i.e., film producing companies that are essentially disbanded upon the release of the film.

Location shooting and off-lot production became increasingly common when the large studios (or majors) changed their focus from relatively small-budget formula films to big-budget feature films. Among the forces that contributed to this shift was a major restructuring of the Hollywood motion picture industry. The production system was reconstituted in the form of an aggregation of small and medium-size film production companies – studio projects; studio-backed independent productions; and negative pick-up films, i.e., films made independently and then sold to a studio. The structural transformation from largely independent studios to strategic business units of publicly owned conglomerates that push for higher stock values has created a climate for filmmakers to find production locations that give them greater cost savings. The issue of

Photo Credit: The Memphis & Shelby County Film and Television Commission.

Mud Island Amphitheater – downtown Memphis on the Mississippi River– used in filming "Walk the Line" as the exterior of the Pacific Bowl.

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COMPETITIVE RIVALRIES AND STRATEGIC REALITIES

The U.S. motion picture production industry, a multi-billion dollar high wage sector, finds U.S. states and foreign governments promoting incentives to attract film production to their respective jurisdictions. Competition for Hollywood production dollars has taken on the character of an arms-war mentality with film commissioners and economic development officials functioning as foot soldiers. The economic and political competitive environment, which shapes the industry context, is highlighted as location decisions are made as to where the production is to be filmed. Cases about "Cold Mountain" and "Walk the Line" illustrate the dynamics and strategic realities of locational site competition in the film industry.

'Runaway Production'[1] has become a cause for concern, especially for Los Angeles County.

This article is divided into four parts. The first part presents a brief overview of the economic importance of the U.S. motion picture production industry. The value chain is employed in the second part to illustrate the sequence of activities that are performed in the industry, with special reference to production location decision-making. The third part introduces the role of film commissions and the competitive challenges they face as they try to attract potential Hollywood runaways. Two case studies – "Cold Mountain" and "Walk the Line" – are presented to illustrate the dynamics of locational site competition: the former being an example of global competition and the latter being one of U.S. interstate competition. The fourth and final part provides some summary observations.

ECONOMIC IMPORTANCE

The U.S. motion picture production industry is a multi-billion dollar high wage sector. According to the Motion Picture Association of America (MPAA),[2] its members have a trade surplus with every country where they do business. This makes the motion picture industry quite unique in today's U.S. economy. The MPAA estimates that in 2002 motion picture production spending on payroll and purchases from vendors was $56.6 billion nationally and $34.3 billion in California. Measured in terms of employment, it was 353,076 people nationwide with 245,900 residents in California. Film production workers collectively earned $21.2 billion nationwide, of which $17.2 billion was realized in California. Indeed, the bulk of California motion picture employment is in Los Angeles County, 87.5 percent according to County Business Patterns.

The U.S. motion picture production industry is a multi-billion dollar high wage sector. According to the Motion Picture Association of America (MPAA),[2] its members have a trade surplus with every country where they do business. This makes the motion picture industry quite unique in today's U.S. economy. The MPAA estimates that in 2002 motion picture production spending on payroll and purchases from vendors was $56.6 billion nationally and $34.3 billion in California.

Regardless of the data and methodology employed, California and Los Angeles County specifically, which includes Hollywood, is the economic and creative engine of the FTV industry. Few would question Hollywood's image of itself as the world's pre-eminent film industry.

Dan Glickman, chairman and CEO of MPAA, senior studio executives and U.S. film commissions are quick to emphasize that FTV productions generate significant job numbers and expenditures in locations in which filming takes place. Motion picture production is an extremely attractive business. Small productions alone may employ hundreds of people, however short-term they may be. No small wonder most U.S. states and a growing number of foreign countries are legislating and aggressively promoting competitive tax and other financial incentives to attract film production to their locales. Speaking for the industry, Glickman explains

> *"So while 65 percent of productions occur right here in California, many filmmakers have no choice but to explore opportunities every day in other states and other countries."*[3]

California

Inter-state and inter-nation competition for Hollywood economic runaways was succinctly captured by Chris Essel, vice president, Paramount Pictures and chair, California Film Commission

> *"…I've seen the landscape for location production continue to grow more competitive each day. Other countries, such as Canada, England and Australia, have been successfully pursuing our production jobs with rich incentive programs for many years. However, now the industry is being aggressively targeted by other states as well. In fact, twenty-nine states have recently passed new production incentives or have increased existing incentive packages after experiencing the economic boom that motion picture production brings. It's imperative for California to become more competitive if our state wants to remain the filming Capital of the world."*[4]

In 2006, California had approximately 40 local film commissions and film offices, in addition to the California (State) Film Commission. The California Film Commission and its sister affiliates have been lobbying for the enactment of state credits to keep film and television productions from going to other U.S. states and foreign countries. U.S. states such as New York are viewed as aggressive poachers. New York City, in particular, is considered a formidable competitor because of New York's more attractive tax incentives and recent infrastructure improvements, including large scale sound stages.

Much to the chagrin of local unions, industry executives, film commissioners, and select legislators, Assembly Bill 777, which had the support of Gov. Arnold Schwarzenegger, died in September 2006 with the expiration of California's Legislature's term. The goal of AB 777 was to help level the playing field by allowing California to compete for film projects potentially lured away by more attractive tax incentives to

other U.S. states, including New York. The bill would have provided 12 percent credits for wages and equipment with a cap of $3 million per production if 75 percent of the project was shot in California.

Three factors in particular made the passage of the bill doubtful. First, the yearly average wage of an FTV worker in Los Angeles county was approximately $100,000, more than twice the average for all industries in Los Angeles; second, the FTV industry was experiencing an overall job growth in spite of the runaways; and third, other key industries were worse off in terms of employment and wages such as the aerospace industry.

THE VALUE CHAIN

Hollywood's major studios dominate the film industry, most of which operate as strategic business units (SBUs) within larger multinational media, entertainment, and diversified conglomerates such as Paramount Pictures Corporation, a subsidiary of Viacom, a media conglomerate.

In recent years, the major studios increased their reliance on their small subsidiaries and independent film production companies (indies) for film products. While the indies produce primarily small budget films, they represent an important film production constituency in Hollywood. Not surprisingly, the indies, having more limited production and distribution capabilities than do the major studios, for the most part, rely on the major studios for distribution and financing.

Goods or services tend to be produced through a series of vertical business activities. As shown in *Figure 1*, such a sequence of activities is to be found in the motion picture industry. The making of a motion picture typically begins with a producer acquiring the motion picture rights, or option on such rights, to a literary property. If that property is not in script form, a writer will be hired to draft a screenplay. At this point in the value chain, the project is in the 'Development and Finance' stage. The producer seeks production financing and tentative commitments from a director, the principal cast members, and other creative personnel. A preliminary production schedule and budget is also a prerequisite. The decision of whether or not to "greenlight," or approve for production is made at the end of this stage.

Once greenlighted, the enterprise goes into 'pre-production.' At this stage, the producer hires creative personnel not previously on board, finalizes the filming schedule and production budget, obtains insurance or self insures, and secures completion guarantees, if required. It is at this phase in the value chain that the producer decides on the film locations, secures the necessary studio facilities and stages, where necessary, and programs the start of principal photography.

Principal photography takes place during the 'Production' phase. Completion of principal photography is followed by the 'Post-production' stage, in which the motion picture is edited; optical, dialogue, music, and any special effects are added; and voice, effects, and music soundtracks and pictures are synchronized. In post-production, release prints of the motion picture are printed from the final negative. 'Distribution' of a motion picture involves the licensing of the picture for distribution or market exploitation in both domestic and international markets.

Production Location Decision-making

Deciding on the production location(s), in particular, is based on a number of critical factors, the sum total of which must generate a cost competitive advantage if filming is to take place outside Los Angeles County, notwithstanding creative considerations. The producer and his/her team will normally have to make a detailed assessment of the cost components and the film project's production requirements (needs). Generally speaking, the smaller and tighter the budget, the greater the trade-offs between production cost components and production capability requirements (see *Figure 2*). Indeed, the more successful the producer is in reducing production costs, the more likely more monies will be available for the marketing budget.

Figure 1: The Motion Picture Value Chain

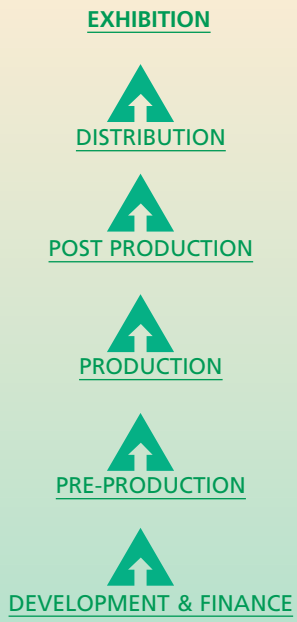

Figure 2

Location Decision Making Factors

PRODUCTION COSTS		PRODUCTION REQUIREMENTS
• Above-the-line • Below-the-line • Exchange Rates • Residuals • Government Incentives	Decision Process	• Infrastructure • Crew Quality • Crew Depth • Finance Vehicles • Talent/Creative Pool

A key budgetary category labeled 'above-the-line,' includes producer, director, story rights, screen writer, and principal cast. These are usually fixed fees. Activities such as crew costs and facilities and equipment rental fall into the 'below-the-line' category. Union contracts covering work rules and rates impact heavily on labor costs. The cost ratio between above-the-line and below-the-line varies from picture to picture, but since most theatrical films are cast driven, the tendency is to weigh the budget heavily toward above-the-line costs. In the case of studio theatrical film productions that employ one or more A-list actors, the budget ratio would be more heavily weighted in favor of above-the-line. Generally speaking, the smaller the budget, the greater will be the percentage spent on below-the-line costs.

Meeting production requirements is also an overarching concern and includes capabilities such as infrastructure, crew depth and quality, and locations that are appropriate and accessible. The impact of talent and creative considerations come into play when finalizing the location decision. Here we have the requirements of the story, preferences of the director and "celebrity status" actors about where they wish to be, and the effect on the producer's ability to control the production.

According to MPAA, the average major studio picture has a production budget of approximately $60 million, with about one-third of the budget generally spent on location. No small wonder U.S. states and foreign governments and film commissions actively promote their regions as ideal sites for a film shoot. While artistic integrity is always a consideration when deciding where to shoot a film (e.g., script), today's industry driver is cost containment or to put it plain and simple "money." It often costs less to shoot outside of California or in a foreign country than in Los Angeles County.

Belle Island Quarry – Richmond, VA (5 minutes from a 5 Star Hotel, yet used as the remote cliff for a dramatic scene in "Cold Mountain").

U.S. FILM COMMISSIONS

Film commissions, ubiquitous in the United States, are generally operated and funded by various agencies of government, such as the governor's office, the mayor's office, the county board of supervisors, chambers of commerce, convention and visitors' bureaus, travel commissions, and business and economic development departments. They function much like economic development agencies, rather than cultural agencies. Their mandate is to attract FTV production and to promote their regions as ideal locations for investment in businesses that are supportive and related to the entertainment industry.

Film commissions as agencies and/or agents of governments are keenly aware of the economic benefits that FTV production can bring to their areas. Some film commissioners like to compare FTV production activity to tourism, namely an export industry that, for the most part, brings in money from outside a region, contributing to the growth of the local economy, especially when measured in jobs. It is not surprising that U.S. film commissions are constantly lobbying their state and federal governments to introduce state and federal tax incentives and subsidies, designed to attract film production activity to their areas as well as help stem the outflow of U.S. film production activity to foreign locations.

CASE: NORTH CAROLINA AND "COLD MOUNTAIN (2003)"[5]

It was a natural – a movie set, for the most part, in North Carolina, based on the epic novel "Cold Mountain." The author Charles Frazier was born in Asheville, North Carolina, and the book was written in North Carolina. Published in 1997, it became immediately a New York Times Best Seller. By year's end, the film rights were acquired by United Artists (UA) for Oscar-winning British director Anthony Minghella with Sidney Pollack of Mirage Enterprises and Ron Yerxa and Albert Berger of Bona Fide Productions to produce.

North Carolina was fast off the mark. The state mounted a sophisticated and targeted campaign. As early as the summer of 1997, North Carolina's Film Office started talking to producers, Ron Yerxa and Albert Berger of Bona Fide Productions. According to Bill Arnold, director of the North Carolina Film Office, they courted Yerxa and Berger pretty heavily, taking them out for dinner every time the Film Office went to a trade show on the West Coast. The Film Office also provided great numbers of photos showcasing North Carolina's mountainous terrain. Even the governor got into the act. So intent was the state on gaining the shoot, in 2000 the then Gov. Jim Hunt flew Arnold out to L.A. for a luncheon meeting with Minghella, Yerxa, and Berger to further advance the cause of doing the "Cold Mountain" shoot in North Carolina. During the courtship phase, to Arnold, it appeared that Yerxa and Berger had not considered shooting in other locations.

But a location courting process is not easy inasmuch as the players keep shifting. Five years were to pass before production was begun and during that time UA was replaced by Metro Goldwyn Mayer (MGM) in partnership with Miramax. Believing the production budget too high, MGM pulled out, leaving the bulk of the monies coming from Miramax. "Cold Mountain" was the most expensive film Miramax had ever done. Producers Mirage and Bona Fide were the constants, with Minghella becoming a full partner in Mirage Enterprises in 2000.

Despite early indications of success with Yerxa and Berger and the targeted efforts of North Carolina's Film Office, NC lost out to Romania. It was definitely not due to lack of infrastructure, inasmuch as North Carolina boasted a world-class crew base of more than 1500 film professionals, 400 service and support companies, eight studio complexes, and 30 sound stages – offering more than one million square feet of production space. And even when production shifted to the United States for a short few weeks, North Carolina was left out of the picture. It was South Carolina and Virginia locations that were considered crucial to the film.

The failure to gain the "Cold Mountain" shoot was a blow to efforts to reinvigorate North Carolina's sagging film industry. The industry, which had grown dramatically from 1980 to 1993 when production reached an all time high of $504.3 million, had fallen to half the production values at $250.6 million by 2001.

The decision to film in Romania was without question a case of economics. Making a "big" picture with a slightly better than average budget ($83 million) was the driving factor. Minghella as both director and producer (Mirage) was intent on doing the picture and with a heavy above-the-line cost budget, owing to the high-priced stars, he and his co-producers were on the look out for a less expensive way to accomplish the film. The production team had grown increasingly concerned with what it would cost to film the story in North Carolina. The team needed to create the town of Cold Mountain, and according to Pollack, "we were able to build exactly what we needed for a fraction of the cost of building in the states, and on top of that, we got a tax benefit."

Production in Romania took nine months – April through December 2002 – and though filming in a location where the average salary was, at that time, $US130 a month, was the driver, there were other contributing factors to the decision. Romania is equipped with large studio capacity. Castel Film, with eight sound stages approximating 100,000 square feet and able crews, provided production services. The developing and the printing of the over one million feet of negative was done by Kodak-owned Romanian operation, Cinelabs.

U.S. diplomats indicated the film had a considerable impact on the local community. The crew employed local construction and production talent through a Romanian film company and the region's restaurants, bars, and resorts played host to the almost 100 production crew of Italians, Britons, and Americans.

When the film was released, it was greeted with a great brouhaha because it was filmed abroad. "Cold Mountain" was after all a quintessentially American story and the North Carolina film industry had been left out in the "cold," so to speak. The Film & Television Action Committee (FTAC), an organization formed in Hollywood in 1998 to address the issue of the outsourcing of American film workers' jobs (Runaway Production), attacked the film condemning the producers, in particular the Weinstein brothers of Miramax fame, and even started a letter writing campaign to bring attention to the issue of "runaway" productions. To counter this attack, the producers issued forth all manner of reasons, chief among them being: Western North Carolina's landscape had become too modern – dotted with electrical wires etc. (Canada was dismissed in the same fashion); their executive producer discovered the similarity between NC and Romania during a hiking trip; and so on. But there is no question that Romania was chosen for economic reasons. For example, the production obtained the services of the Romanian army for 11 weeks of grueling battle scenes for an astonishing $300,000. In addition, the exchange rate favored the U.S. dollar.

Carter's Grove Plantation – Williamsburg, VA – Exterior scenes shot as the hospital for "Cold Mountain."

North Carolina, having lost the production, still hoped to benefit from the film's production. Asheville Convention and Visitors Bureau partnered with the producers to cross promote the film and the region as a tourism destination. On-line links were established between the *"Cold Mountain"* web site and the Bureau's. By doing so, the bureau hoped "to turn a trip to the movies into a trek to the mountains." Additionally, the regional economic development agency AdvantageWest

launched an international plan to bring Europeans to see the real Cold Mountain in Haywood County. According to Dale Carroll, AdvantageWest director, it was the first major tourism effort the agency made in connection with a motion picture.

Tourism benefits notwithstanding, North Carolina was still intent on bringing film industry jobs to its state. With the dramatic fall off of film production and the "Romanian effect," as it is known in the region, it was decided that a more attractive package was needed. In August 13, 2005, a law providing a 15 percent tax credit was enacted. However, a flaw in the legislation reduced the 15 percent credit to 8.1 percent, and so the act was amended. In August of 2006, Gov. Mike Easley signed into law legislation that provides for a full 15 percent tax credit on productions over $250,000, and not exceeding a credit per project over $7.5 million. The new incentives went into effect January 1, 2007.

The loss of the "Cold Mountain" shoot to North Carolina and attendant brouhaha appeared to be a wake-up call and, in no small measure, contributed to the "political will" to enact more competitive incentives designed to attract film production and restore the state to its former status as a major U.S. filming location.

CASE: TENNESSEE AND "WALK THE LINE (2005)"[6]

Though "Walk the Line (2005)" had a long road to the screen, it came away a winner for the producers and actors, but, apparently, not for the Tennessee film commissioner and quite possibly not for the Tennessee film industry as well. The movie won Golden Globes for Best Picture and Best Actors for both leads and the Oscar for Reese Witherspoon, and the film's afterglow helped create a climate for the promotion and adoption of a film grants incentive program called, the "Visual Content Act of 2006."

For many years, Johnny Cash was courted by filmmakers who wanted the rights to film his "from rags to music legend" saga. It was not until the mid-1990s that he decided his friend and film producer James Keach would do justice to his story. Among the filmmakers interested were director James Mangold and producer wife Cathy Konrad and in 1999, after being vetted by Cash, they were brought on board. Well known screenwriter Gil Dennis worked with Mangold on the script. And so the film project was off, but was not quite running. At first Sony was interested in the project but then pulled out. And according to Konrad, no one wanted to make the movie. Konrad and her husband Mangold said they met with many studio heads in Hollywood. They told them the budget was $25 million and everyone passed, except Fox 2000 President Elizabeth Gabler. In December 2003, Fox closed the deal.

Once the deal was set with the budget rising to $28 million and principal cast in place (Joachim Phoenix and Reese Witherspoon both agreeing to do the film for a much reduced rate), the team began to scout locations. They identified the south as the preferred location, wanting to imbue the production with a southern ambiance. Though Tennessee was the true creative location, given Johnny Cash built his fame and fortune there, Louisiana's generous incentives beckoned.

At that time, Louisiana had and still has one of the most generous transferable tax incentive programs, offering an investor tax credit of up to 15 percent and an employment tax credit of up to 20 percent.

> *Its keystone was transferable tax credits, a kind of indirect rebate. A movie company gets a percentage of tax breaks, or credits, for coming to the state and spending money. Since the movie company is not subject to state taxes, however, it sells the credits, or transfers them, at a discount to local businesses and corporations – which can apply them toward their own taxes at full value. The movie company pockets the money; the local business pays lower taxes. (See EN 6 – Ridley)*

The incentive program was enacted in 2002 and the state, within two short years, average film production revenues grew from $20 million to about $200 million a year. To this day and despite Hurricane Katrina, filmmakers, always on the lookout for a bargain, still consider the state, given its generous incentives, a viable location for filming, albeit not in New Orleans.

Photo Credit: The Memphis & Shelby County Film and Television Commission.

The Orpheum Theatre – downtown Memphis – used in "Walk the Line".

20th Century Fox stood to save $3 million of its $28 million budget by filming in Louisiana rather than Tennessee. Given the modest budget and that savings are derived from the below-the-line budget, the Louisiana savings represented a goodly portion of the cost. Nonetheless, Tennessee won the shoot through the hard work and determination of Shelby County Film Commissioner Linn Sitler and Tennessee Film Commissioner David Bennett. They cobbled together a soft incentive package which included free use of government facilities, Shelby County and Memphis city hotel and motel tax refunds for the film crew, and the use of free office and warehouse space. Indeed, they were even able to persuade the Government of Tennessee to allow the use of a state plane to scout locations.

Photo Credit: The Memphis & Shelby County Film and Television Commission.

S. Main St. – downtown Memphis – area used in "Walk the Line."

Star power came into play as well. According to Tennessee booster and native, Reese Witherspoon, she took it upon herself to try to convince Governor Phil Bredesen to make Tennessee more financially attractive to the "Walk the Line" producers. While it may be doubtful that her pleadings with the governor had anything to do with the location decision, it is more than possible she used her considerable star power to influence Fox's final decision – she was determined to have the film shot in Tennessee.

Most of the "Walk the Line" film was shot in Tennessee. Thirty-one of the 47 local shooting days took place at 26 locations in West Tennessee (See EN 6 – Beifuss). The film also had a short location shoot in Arkansas, Cash's birthplace. But during the 2004 summer shoot, the cast and crew moved to Memphis neighbor, Tunica, Mississippi, for about 12 days. Tunica is the third largest gaming destination in America, and the production company was able to make use of one of the large-scale barge casinos by transforming it into the now defunct Mint Hotel in Las Vegas in the 1960s. Though the reason for moving the production to Tunica was the casino, "Walk the Line" was the first film to benefit from a newly enacted Mississippi incentive package that went into effect in July 2004. The Mississippi incentives included a 10 percent payroll tax credit, a 10 percent rebate on in-state production expenditures, and a broad set of sales tax exemptions and reductions.

After the near miss, Tennessee's Film Executive Director David Bennett was determined that Tennessee develop a competitive Film Production Tax incentive program. To that end, he recommended that Dama Chasle be hired as a consultant to help develop an incentive program. Bennett had dealt with Chasle during the "Walk the Line" negotiations when she was Tax VP, 20th Century Fox. To illustrate the problem in simple terms, Chasle prepared a comparison for the Tennessee Film Production Advisory Committee charged with developing the proposed legislation. Chasle's comparison illustrated the difference in savings offered by Louisiana, Georgia, and Tennessee. Film production budgets benefited by about 25 percent in Louisiana, 14 percent in Georgia, and 5 percent in Tennessee. The comparisons and what has become known as "The Romania Effect," – i.e., the loss of "Cold Mountain" to Romania where the cost-benefit to film production was so great – were held like the Sword of Damocles over the heads of the Legislative Assembly. And it worked.

In 2006, a $10 million non-recurring "Film/TV Fund" was established, with program start date January 2007. The incentive was vastly different from the tax incentives programs originally proposed; nevertheless, there was great joy and hope among promoters of Tennessee's film industry. In a strange twist of fate, as reported January 13, 2007 by *Memphis commercialappeal.com*, Film Commissioner Bennett was forced to retire because of political pressure from Gov. Phil Bredesen's administration.

Great concern was expressed by the film community on two levels. First, Bennett was well-liked, well-respected and considered by fellow film commissioners and business as having done a great job in attracting FTV production to Tennessee. Second, and perhaps more importantly, according to Sitler, development of criteria for distributing the FTV fund has been delayed and this delay could result in the money being returned to the state's general fund. This view is not far fetched, given rumor has it that Governor Bredesen and some of his close advisors neither supported nor endorsed the package even though the governor signed the state budget, which included the $10 million film/tv incentive package in 2006. According to Bennett, without the Film/TV Fund incentive program, Tennessee's Film/TV business will flounder.

SUMMARY OBSERVATIONS

Movie productions are mobile and flexible when it comes to deciding where to shoot the film. Generally speaking, each film has its own budget; no sunk costs tying it to an existing location; potential customers which are increasingly worldwide; and distribution costs which are not production-location-dependent. Not surprisingly, incentives are very effective in attracting productions. Louisiana is one such striking example. Production expenditures grew from $12 million in 2002 to $330 million in 2004 after the adoption of its incentive program.

While incentives are critical in attracting film production activity, investment in the capabilities of a film commission is necessary if the full benefits of film shoots are to be realized. For example, streamlining the permit process and making the city/county a hospitable environment for film making are two important elements in any strategy that has as its goal to attract film shoots. Having a film commissioner who understands what it takes to help a production run smoothly as opposed to a political appointee who knows very little about the dynamics of film production is also an asset.

A key challenge for film commissions is to insert themselves as early as possible in the film production location decision making process, and preferably the development stage. There are a number of sources of information that a film commission can tap into which list the development and production status of feature film projects. Feature film projects are identified according to each critical stage of the film value chain; namely, active development; greenlighted; pre-production; production; post production; and releasing (distribution).

Relationship marketing is a central strategic ingredient if a film commission is to succeed in getting the right information at the opportune time to make the necessary pitch. Studio executives, producers, agents, lawyers, and location consultants are among the important players in the multiple location decision making process. Given that most film commissioners operate with small budgets and generally employ fewer than five staff members, their ability to proact with peripatetic location decision-makers is limited. It is for this reason that a rifle rather than a shotgun, customized rather than a broad based marketing approach is likely to be more successful.

It is equally important to recognize that there is a high executive and staff turnover rate in the motion picture production industry. It is therefore vital that film commissioners, incumbents and recently appointed, work on an ongoing basis to develop and sustain solid working relationships with key location decision making players – a high maintenance activity that requires diplomatic skills, the schmooze facility, and a solid supportive traveling/entertainment budget.

Generally speaking, when comparing different jurisdictional location advantages, film commissions that are more aggressive, service oriented, and possess superior staff resources and connections ultimately do better, especially if their jurisdictions offer the more attractive incentive benefits. Typically, the film commissioners of such organizations are better at developing working relationships and networks with "Hollywood" decision makers and, generally, are more adept in handling the "schmooze factor."

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Finally, the falling value of the U.S. dollar, coupled with the enhanced array of financial incentives offered by many U.S. states, other than California, has helped mutate the Hollywood "off-shore" runaway phenomenon to one that is becoming more "U.S. state runaways." Nonetheless, U.S. states and their film commissions while "thinking locally must still compete globally." The MPAA members benefit from the global competition in government incentives; in fact they help fuel such competition in the U.S. and abroad. It is in their bottom line interest to do so!

FOOTNOTES

1. Runaway productions are categorized as creative and economic. Creative runaways are those productions that are shot on locations related to story/script requirements, whereas an economic runaway is defined as U.S.-developed feature films, movies for television, TV shows, or series which are filmed in another country for economic reasons; i.e., to achieve lower production costs.
2. The MPAA represents the American motion picture, home video, and television industries whose members include Buena Vista Pictures Distribution, Metro-Goldwyn-Mayer Studios, Inc., Paramount Pictures, Sony Pictures Entertainment Inc., Twentieth Century Fox Film Corp., NBC Universal, and Warner Bros. Entertainment Inc.
3. Hollywood Chamber of Commerce, "Doing Business in Hollywood," September 15, 2006, http://hollywoodchamber.net/business/entertainment.asp (accessed December 2, 2006.)
4. Ibid.
5. Information for the case was taken from the following sources: Sunshine, Linda, (ed), *Cold Mountain - The Journey from Book to Film,* Newmarket Press, New York, 2003, p.11.; Clark, Paul, "N.C. film industry still smarting from 'Cold Mountain' snub," *Citizen Times,* Dec. 23, 2003; North Carolina Film Office, (http://www.ncfilm.com/directory_film.asp); "Films romance Romania," Reuters November 18, 2003, (http://www.theage.com.au/articles/2003/11/17/1069027031914.html); McDonald, Kara, "A Warm Reception on cold Mountain," State Magazine, Feb 2003, p. 30, (http://www.state.gov/documents/organization/17522.pdf); Jones, Tammy, "WNC tourism leaders hope to turn "Cold Mountain" into cold cash," *Citizentimes*, Dec. 25, 2003; NC Film Office, (http://www.ncfilm.com/ film_incentives_benefits.asp); Schreiner, Mark, "Industry seeks film incentive fix," Wilmington Star, July 06. 2006.
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reinvesting in older

INDUSTRIAL CITIES

By Barry Bluestone, David Soule, and Joan Fitzgerald

OVERVIEW

As a nation, we face critical choices about our economic future. We need to grow our economy in a way that builds on our strengths, doing so in an ever more efficient and sustainable manner. We need economic development that provides balanced growth between urban and suburban areas, bringing employment opportunity and economic and social vitality to both.

During the last half of the 1990s, as we came roaring out of the recession that began the decade, many urban centers did not experience anywhere near as much development as their suburban counterparts. Generally, attempts to encourage growth in many underutilized urban settings have not succeeded.

Given the desire to balance suburban growth with urban redevelopment, the Center for Urban and Regional Policy at Northeastern University set out to answer a number of key questions: What really are the right conditions for attracting new development? What are the "deal breakers" – the obstacles and barriers – that make it difficult to attract new business to older areas? What can be done through a collaborative effort between the commercial real estate industry and local and state public sector partners to make these deals happen? The Center for Urban and Regional Policy (CURP) was launched in 1999 at Northeastern University as a "think and do tank" – a center where faculty, staff, and students from the university pool their expertise, resources, and commitment to address a wide range of issues facing cities, towns, and suburbs. (www.curp.neu.edu)

Taunton, MA, on Boston's outer belt – I-495 – has a mix of older industrial sites available for redevelopment.

Considerable anecdotal evidence suggests that the *real* concerns of firms and the "deal breakers" business developers face in urban settings are often inadequately addressed. For the most part, this is not because municipal leaders and state officials are blind to the barriers or unresponsive to business needs. Rather, in an increasingly globalized, competitive economy, the business climate is constantly changing, requiring a high level of flexibility and rapid response. Moving quickly to meet changing business requirements and tailoring programs to particular industries is no easy task. Government officials at both the local and state level need to better understand this changing economic environment and must develop policies and programs that make doing business in older industrial cities profitable to stockholders and satisfying to managers and employees alike.

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NEW STRATEGIES FOR ECONOMIC COMPETITIVENESS

Given the desire to balance suburban growth with urban redevelopment, we attempt to answer a number of key questions: What really are the right conditions for attracting new development? What are the "deal breakers" – the obstacles and barriers – that make it difficult to attract new business to older areas? What can be done through a collaborative effort between the commercial real estate industry and local and state public sector partners to make these deals happen?

For ease of access and consistent local and state regulatory systems, we chose to limit our study area to the Commonwealth of Massachusetts and its localities. However, we believe that the issues and recommendations transfer easily to other areas because our focus is on the factor conditions in the real estate market. This research focused on cities in the Massachusetts area identified by business and government leaders as important urban centers – Boston, Chelsea, Holyoke, Lawrence, and New Bedford, and on six key industrial sectors, all identified as strategic by the Massachusetts state government: health care/life sciences, biotechnology, information technology, financial services, traditional manufacturing, and travel and tourism.

More than 50 business leaders and commercial real estate professionals were interviewed in order to determine the factors most important in location decisions. We focused in particular on firms that had an existing or recently established urban presence in one of these Massachusetts cities to determine which factors contributed to the decision to locate, expand, or remain in these urban locations. (The project can be found at www.economicdevelopment.neu.edu)

RESEARCH INSIGHTS

We expected confirmation of the prevailing perception that older inner cities are more unsafe and more polluted than "greenfield" sites, with under-performing schools and an insufficiently trained labor force. We did find these concerns voiced with respect to some of the cities, and undoubtedly those beliefs, whether reality – or simply perception – pose a high entry barrier for a good number of firms.

We also heard a wide range of anecdotes about amenities, suggesting that urban and suburban locations harbor a different set of advantages and disadvantages. One of our firms wondered "Where would we eat lunch if we located there?" That does not seem to enter into location decisions in suburban office parks far from the pubs and bistros that enhance many urban neighborhoods, but it raises an important competitive question that underlies misgivings about some urban settings. Another firm that specializes in athletic equipment pointed out that "our employees want to run at lunchtime or before or after work. Our location decisions must factor that into the equation."

Amesbury Mayor Thatcher Kezer III and his staff meet with David Soule and other CURP officials on a site visit.

Our interviews also confirmed the importance of what economists call "agglomeration" economies. Firms want to locate where other firms in the same industry already are established and where suppliers, distribution networks, and support services already exist. Many suburban locations seem to understand this well. Both beltways surrounding the Boston inner core pride themselves as "technology" corridors offering such agglomeration economies tied together by these circumferential highways. Our interviews clearly point to the importance of "getting that first firm in" and then building agglomeration economies by attracting others to the same area. Chelsea's success in attracting a biotech firm to anchor its urban renewal area is just one example. It is sufficiently close to East Cambridge's concentration of

Open Square in Holyoke, Massachusetts, is a multi-building mill complex which is being renovated for office and commercial use.

similar firms to provide the dense network of services and suppliers required.

It also became clear through our interviews that businesses seeking new locations for their operations – and the location specialists those businesses employ – often initially explore various location possibilities from afar by checking websites to gather relevant data on local communities. It is difficult for local officials to even get a chance to "show their wares" to prospective businesses unless they have attractive, compelling, and information rich websites that provide the precise information that firms normally seek when making location decisions.

We also identified a critical concern related to the risk/reward threshold that is factored into any location decision. The community development review and decision process, designed to maximize citizen participation in decisions affecting their neighborhoods, can create a sense of added risk and cost for businesses considering locating in urban areas. The cost of an extended approval process can discourage firms from choosing such locations, resulting in lost development opportunities. The extent to which municipal officials are perceived as partners in economic development and, more importantly, can manage the review process fairly, effectively, and efficiently, plays a significant role in attracting business investment.

Despite all of these potential barriers to inner city development, our research leads us to the conclusion that older industrial cities can still win the competition to attract a fair share of economic investment. This is already occurring in a number of the cities we studied. The first step is an honest, thorough appraisal of a city's strengths and weaknesses. We suggest that cities perform such a self-assessment with private sector partners as key participants in the appraisal. Perceptions need to be corrected when they are mistaken, and confronted when they are accurate. Who better to assist cities to accomplish this then the very firms they are trying to attract?

Cities have the ability to create their own destinies, but they require resources, tools and information to compete successfully. From this vantage point, our research concludes that there are five critical issues that need to be addressed if we are to create the vibrant urban development environment that we believe is desired. These five ***"deal breakers"*** are addressed in detail in the next section. From our extensive interviews with industry leaders, and city and state officials, we have developed a series of action steps designed to "make the deal." Implementing these ***"deal makers"*** can help reduce or alleviate many of the barriers that firms face when they consider locating in older industrial cities.

Chelsea, Massachusetts, is a small urban center across the Mystic River from the city of Boston.

KEY DEAL BREAKERS

From this research, we identified a series of barriers or "deal breakers" that must be overcome if older industrial cities are to compete successfully for private sector investment and economic development.

Deal Breaker # 1

Due to rapidly changing market conditions in the global economy, municipal leaders in older industrial cities often lack complete, up-to-date information regarding the specific location needs of particular industries and the recruitment efforts of competing locations. As a result, they are not always fully prepared to assist firms in a timely and effective manner, helping to overcome obstacles to inner city investment.

A mayor, city manager, or economic development staffer who understands the needs of an industry and is empowered to be responsive to those needs is one of the most important factors in helping a deal move forward. In fact, such individuals can do more to enhance the competitive advantage of an urban setting than any other single factor. In fact, such individuals can do more to enhance the competitive advantage of an urban setting than any other single factor.

Chelsea's city manager, Jay Ash, is a model for 21st century urban leadership. He aggressively markets the city to prospective new companies; professionally applies the variety of incentives available; interacts with city agencies, boards, and commissions that must issue permits; and pursues favorable actions by state agencies and authorities in a timely manner. Cities do not necessarily need to change their form of government to one involving a city manager, but they do need to empower someone in the administration to specifically oversee the

development process and respond aggressively and proactively to the needs of firms considering the city as a site for location.

Action Steps

- **Create a powerful self-assessment tool for cities to better clarify their economic development goals and identify their competitive strengths and weaknesses relative to other urban locations. Cities should work with a team of private sector developers to undertake an internal review of all aspects of the development process using the assessment tool.**

The interviews conducted for the study clearly indicate that cities play the development "game" differently, with differing rates of success. To provide a useful appraisal of a city's potential for economic development, a continual internal self-assessment, performed with the assistance of a private sector team, can provide critical information to city officials. This assessment involves evaluating a city's economic Strengths and Weaknesses, Opportunities and Threats – a so-called SWOT analysis – focusing on such issues as demographics, land costs, parcel availability, brownfield remediation efforts, public safety, and city amenities, along with an assessment of public agency efforts to reduce zoning and regulatory barriers.

The development of a computerized, comprehensive, interactive self-assessment tool would permit city officials to compare their city's performance with other municipalities around the state and around the country. Proper use of such an evaluation tool would help inform adjustments to a city's own development efforts.

For example, based on its research, CURP has developed a self-assessment tool that contains performance measures that are weighted depending on the relative significance of various factors in firm location decisions. Key "deal breakers" are weighted more heavily than other factors. Cities can see how they compare on over 200 key factors to their peers who have also undertaken the assessment. Individualized results allow each community to assess its relative strengths and weaknesses against all the others that have taken the survey.

Deal Breaker # 2

Business decision makers have well-defined "cognitive maps" – perceptions or expectations – about the attributes of and opportunities in older industrial cities that adversely affect the way they think about locating in these urban locations.

Older cities can win the race for *new* business enterprise as well, not simply retain what they already have. An observation made by one real estate specialist in a technology firm suggested a possible niche market for cities to explore. "We put our payroll and accounting functions in class 'A' office space. This is expensive and may not survive tough cost cutting measures down the road. We want our employees to be happy, but we could probably get away with cheaper space." If Class A space continues to increase in price, other areas may become highly cost effective.

Action Steps

- **Assist cities to make their websites more attractive, graphically rich, easy to navigate, and more useful to firms, developers, and location specialists. Improved websites would include information on the characteristics of individual available parcels, zoning and regulation, available financial incentives, and background data on demographic and economic characteristics of the locality. Websites could include testimonials from existing business leaders and messages from city leaders indicating the support firms receive in their municipalities.**

Cities in our study and across the country have websites designed for a variety of purposes, including attracting business investment. Developing an inventory of the "best" elements from city websites from across the country would enable the creation of website templates that can be used to guide the redevelopment and improvement of existing sites. A panel consisting of leaders from firms, developers, and location specialists could be assembled to help vet the best sites across the country in order to produce these templates.

Deal Breaker # 3

Specific urban site deficiencies can add excessive costs to doing business in older industrial cities.

Urban sites are often smaller in size than in suburban locations. Assembling urban parcels large enough to be competitive with open suburban areas can be a cumbersome process for the private sector. In past decades, cities were empowered through redevelopment authorities to intervene in the land assembly process and then to market the sites for new uses. But the federal assistance available for urban renewal has disappeared and

In the heart of the Hyde Park neighborhood in Boston, the former Westinghouse property is near commuter rail and other urban services.

state financial participation is uncertain, at best. A number of municipal officials we interviewed suggested parcel size and site assembly are still an impediment.

Action Steps

- **Encourage cities to create urban overlay zoning districts in which there can be flexible use, expedited permitting, focused public safety efforts, and amenity packages essential to creating competitive advantage in an urban setting.**

Cities should be encouraged to develop overlay-zoning districts as one component of a comprehensive response to the dilemmas of urban development. These can be of any size and take any shape. They are superimposed over land that is currently subject to specific zoning regulations including industrial and commercial use.

An overlay zoning district permits other uses to be specified and can include a wide range of controls and conditions that must be met in order to obtain site plan approval. Of the cities in our study, several are already using this provision to enhance economic viability in particular neighborhoods. These districts can be used to encourage high density mixed use around transit stations. Our research suggests that this mechanism, combined with several others, including expedited permitting, enhanced public safety efforts, focused education and training initiatives, if enhanced by various state incentives, could create a significant set of opportunities for urban locations.

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Deal Breaker # 4

State and local review processes can add excessive costs to doing business in older industrial cities.

The review and enforcement process associated with cumbersome local zoning regulations and antiquated building codes can undermine a business deal by adding time, expense, uncertainty, and risk to the development effort, particularly in older industrial cities. The enforcement of state regulations can also pose significant hurdles to the development process.

Action Steps

- **Identify market ready, pre-permitted sites for industrial and commercial uses and market these parcels through city websites, site finder services, and other commercial site services.**

Our research indicates that this concept of "pre-permitted" sites could offer cities a compelling advantage in attracting industry to urban settings. While this proposal does not exclude community participation, it clears a number of hurdles out of the way before a firm even considers a location decision. This can be combined with an expedited permitting process that specifies the clear opportunities for community involvement, but establishes defined limits to the number of those opportunities and a fixed time period for development review decisions.

Pittsfield in Western Massachusetts benefits from new construction as well as older industrial sites including the former General Electric facility.

Deal Breaker # 5

Traditional public sector financial tools such as tax abatements, tax credits, and subsidies, while often strategically important as a deal closer, are not sufficient to attract high value business investment if previous deal breakers are not overcome.

It is extremely important, and well within the capability of state and local officials, to resolve critical development hurdles in a timely fashion. "From our perspective," one development official reported, "time is money. We may actually be able to make a deal work more effectively if we can receive expedited permits and infrastructure enhancements, than by factoring in a tax subsidy into our pro forma." State and local officials need an effective protocol for communication and coordination on permits, grants, contracts, and information necessary to expedite location decisions and can potentially forego granting a tax subsidy if they pay attention to reducing these other costs.

Action Steps

- **Expand state economic incentives available to older industrial cities.**

Our research indicates that having financial incentives available assures firms of the city's commitment to aggressive competition. Cities that communicate that "we're open for business and that you're welcome" can compete successfully in the 21st century economy. To ensure that incentives are targeted to older industrial cities, it is important that at least some development tools of the state be heavily weighted towards urban factors (e.g. income, race, housing tenure, unemployment, etc.) in grant awards.

CONCLUSION

Implementing these "deal makers" can help reduce or alleviate many of the barriers that firms face when they consider locating in older urban cities. Despite all of these potential barriers to inner city development, our research leads us to the conclusion that older industrial cities can still win the competition to attract a fair share of economic investment. This is already occurring in a number of the cities we studied. Cities have the ability to create their own destinies, but they need sophisticated partners who can help them develop the tools and access the information required to compete successfully.

Chelsea's first new hotel in its urban renewal area benefits from high occupancy due to its proximity to Logan International Airport.

Working together, city officials, state development agency personnel, private developers, and economic development experts can help transform older cities into attractive sites for business investment. They may not be able to overcome all the "deal breakers" nor attract every firm, but based on our research, we sincerely believe that older cities can compete successfully for a share of new economic development.

the california innovation

CORRIDOR

By Judy A. Turner, CEcD and Victoria Conner

How can a small nonprofit organization help accelerate economic development, education and workforce development transformation for the 21st Century? Sometimes as an economic development professional, you need to be careful what you hope for because sometimes you are successful!

In January 2006, the California Space Authority was one of three grant proposals submitted by California Governor Schwarzenegger to the U.S. Department of Labor (DOL) for funding under the WIRED (Workforce Innovation in Regional Economic Development) request for proposals. CSA's proposal, comprised of more than 60 partners, identified 25 projects across 13 counties stretching from Alameda County in the North down to San Diego County to the South.

In the grant proposal, CSA effectively established the need for assistance based upon three factors: 1) Entrepreneurship was seriously under potential as reflected by the results of the Entrepreneurial Index; 2) California had suffered a huge loss of manufacturing jobs (438,500) between 1990 and 2004; and 3) there is currently an inadequate technical workforce in the training and educational pipelines to replace the anticipated loss of technically skilled workers due to the looming boomer retirements projected in the next seven to ten years.

In February 2006, DOL announced that CSA was one of 13 regions across the nation to be awarded a three-year, $15 M WIRED grant. The work being accomplished through the WIRED grant program is leveraging the talents, skills, and abilities of more than 100 entities throughout the California Innovation Corridor to facilitate a region wide "transformational" workforce strategy while fostering entrepreneurship development, supplier/manufacturing competitiveness, and 21st Century talent development. (See Figure 1.)

Former Apollo 11 astronaut Buzz Aldrin attended the NASA Regolith Excavation Challenge, co-sponsored by the California Space Authority. Here he reviews an excavator created by university students.

BACKGROUND

Governed by a statewide board of directors, the California Space Authority (CSA) is a 501(c)(6) nonprofit corporation representing the commercial, civil, and national defense/homeland security interests of California's diverse space enterprise

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TRANSFORMATIONAL CHANGE THROUGH REGIONAL ECONOMIC DEVELOPMENT

The California Innovation Corridor is more than a geographic region spanning 13 counties. It is a living organism representing a burgeoning network of more than 60 partnering entities focused on heralding innovation. It is a living organism, a coalition built on collaboration that collectively is pulling together the pieces of complex solutions to address the mounting pressures of global competition through entrepreneurial support, industrial rejuvenation, and 21st Century talent development. The California Space Authority, a small industry focused nonprofit, is driving transformational change across California and the nation to support the needs of the space industry and American competitiveness.

stakeholder community which includes entities from four domains: industry, government, academia, and workforce. CSA's strategic purpose is to retain, grow, and create California space enterprise. Its stated mission is "To provide California space enterprise voice, visibility, and a competitive edge." CSA is a member-based enterprise association working closely with stakeholders statewide to foster California's high technology competitiveness and space enterprise vitality.

A $22 B economic enterprise representing 31 percent of the U.S. space market and 19 percent of the global space market, California space enterprise impacts 265,000 jobs statewide with a wage impact of $13.4B and a total economic impact of California space enterprise exceeding $50B. Consumer, business, industry, and government activities now dependent upon or heavily utilizing satellite services include international communications and data transfer; global news, sports, and entertainment; weather and climate forecasting; wildlife tracking and environmental monitoring; position and navigation services; precision farming; urban and rural planning; public safety; distance learning; telemedicine; and inventory, fleet and resource management. Comprised of space-related companies, entrepreneurs, government agencies, and academic research programs, California space enterprise provides or supports the delivery of these and hundreds of other space-related products and services.

CSA is designated, by the State of California, as the "California Spaceport Authority." In this capacity, CSA is charged with facilitating the development of California-based spaceports with lift capability for existing or emerging spacecraft. In addition, CSA elicited participation by stake holders statewide to contribute to the development of a space enterprise strategic plan in 1998, 2004, and again in 2006. Many of the initiatives identified in those plans were established to address issues faced by space enterprise companies and were symptomatic of competitiveness issues faced by U.S. industry at large. As a result, these same issues were identified in the DOL request for proposals for the WIRED Initiative.

The WIRED RFP was a great fit for many of the initiatives identified in CSA's strategic plan: technology innovation and entrepreneurship, manufacturing support, and talent development. On February 1, 2006, the California Innovation Corridor proposal led by CSA was announced as one of 13 regional proposals nationwide to be awarded a three-year $15 million federal grant.

THE CALIFORNIA INNOVATION CORRIDOR

So it was that a small California nonprofit with fewer than 12 employees began the WIRED journey of garnering the support of more than 100 partners and supporters to form the "California Innovation Corridor" (Corridor). A "region of regions" composed of 13 contiguous counties from Alameda in the North to San Diego in the South, each supporting three strategic transformational goals of 1) innovation support, 2) industrial rejuvenation, and 3) talent development of the workforce for the 21st Century global economy. The shared vision of the integration of education, workforce, and economic development systems and innovation strategies into a regional framework became the basis for formulating the overarching goal of the California Innovation Corridor: "Optimize the entire corridor for innovation and 21st Century workforce competitiveness (Regional adaptation of national intention, from "America's Task," page 7 of *Innovate America*).

Figure 1. The California Innovation Corridor Region

The vision of the California Innovation Corridor partnership incorporated what the DOL termed "transformational change" and is intentionally planned to be institutional, organizational, and behavioral while addressing resource alignment, barriers, and unintended consequences.

Characteristics of the integrated transformation are:

- Purposeful innovation and innovation support,
- Regional continuity,
- Business-driven approach with business engagement,
- Anticipation of market trends,
- Enhancement of relationships and interfaces that define a common language and a set vocabulary for innovation, and
- Relevant data knowledge collection and dissemination.

The California Innovation Corridor WIRED initiative serves as a catalyst to accelerate momentum of a decade

of transformation across the corridor in a transformational environment impacted by contributions from information technologies, biotech, nanotechnology, space technology, and advanced manufacturing. The driving inspiration behind the 25 projects outlined in the California Innovation Corridor initiative was threefold:

1) Industry and stakeholder inputs to the 2004 California Space Enterprise Strategic Plan;
2) The National Innovation Initiative as articulated in *Innovate America,* a 2005 call to action by the Council on Competitiveness; and
3) The principles and recommendations outlined in *Rising Above the Gathering Storm*, a 2005 Congressionally-commissioned study by The National Academies, along with other relevant studies, materials, inputs.

In the California Innovation Corridor WIRED proposal, three strategic goals were identified – Innovation Support, Industrial Rejuvenation, and Talent Development. These three goals or "centers of gravity" are all characterized by the transformational integration of workforce, economic development, and education with outcomes for transformational goals that are relational, transactional, or both. Some of the 25 WIRED projects are more focused on economic development with a workforce element, some workforce with an economic development element, and some educational with both a workforce and economic development aspect. The three strategic goals follow:

1) Innovation Support – *"Create new companies and high-skill, high-wage jobs by designing a replicable and sustainable "innovation support architecture" to increase innovation and entrepreneurship"*

Strategic Transformational Goal (1.0):
Create an atmosphere in which the culture, environment and systems are characterized and driven by robust innovation and flourishing entrepreneurship.

Current State:
Ad hoc innovation and entrepreneurship.

Desired State:
Purposeful support for innovation and entrepreneurship, where an innovation-driven ecosystem aligns resources, enhances knowledge, accelerates linkages, and integrates programs and support across domains and jurisdictions throughout the California Innovation Corridor.

Following are the seven CIC WIRED projects that support innovation:

- Creation of an Innovation Driven Economic Development Toolkit.
- Development of 21st Century Job Profiles to define future workforce skills and needs.
- Compilation of a California Innovation Asset Inventory to foster innovation and entrepreneurship.
- Support of entrepreneurial companies to identify best practices that lead to product or services commercialization.
- A pilot program set to identify and replicate an existing successful model of technology transfer from a university into the business community.
- Identification of a new model for student payload ride share on military space lift (currently American student payloads use Russian or other foreign launch support).
- Development of a Workforce Investment Board Toolkit focused on identification of best practices and support of entrepreneurial companies.

2) Industrial Rejuvenation – *"Improve the international competitiveness of the region's supply chain by developing and executing a "Smart Supplier Strategy" that supports manufacturers, small businesses and entrepreneurs in adapting to the global manufacturing transformation"*

Strategic Transformational Goal (2.0):
Ensure common "smart supplier," competitiveness and enterprise-driven outcomes across supply chain provider/support network.

Current State:
Lack of continuity in program/service outcomes across Corridor's supplier provider/support system.

Desired State:
Continuity of program/service outcomes across Corridor's supplier provider/support system.

Following are the four Corridor's WIRED projects that support the industrial rejuvenation strategic goal:

- Identification of high priority supplier training needs through survey, forums, and industry input.
- Characterization of "Smart Supplier" competitiveness skills.
- Outreach to companies regarding resources that support "Smart Suppliers" within the Corridor.
- Development of an industry driven community college Manufacturing Technician Training Program within the Corridor.

Former Apollo 11 astronaut Buzz Aldrin sits with a crowd of children attending the Robotics competition that ran concurrently with the Regolith Excavation Challenge. CSA co-sponsored the challenge with its educational arm, the California Space Education and Workforce Institute. It was a day for young and old.

3) **Talent Development –** *"Accelerate development of a highly skilled 21st Century talent pool by creating pilot projects and activities capable of supporting a continuum of math, science and engineering education (K-U), and lifelong learning relevant to the 21st Century worker"*

Strategic Transformational Goal (3.0):
Integrate consideration of current and future industry enterprise needs into workforce and educational planning and policymaking.

Current State:
Systems are not aligned with "real world" needs, not pro-active in responding to global change, system/enterprise metrics not aligned, lack of continuity across systems.

Desired State:
Responsive, flexible education/workforce systems which anticipate and respond to global market changes, workforce needs with continuity across systems.

The 25 California Innovation Corridor projects that support talent development include the following:

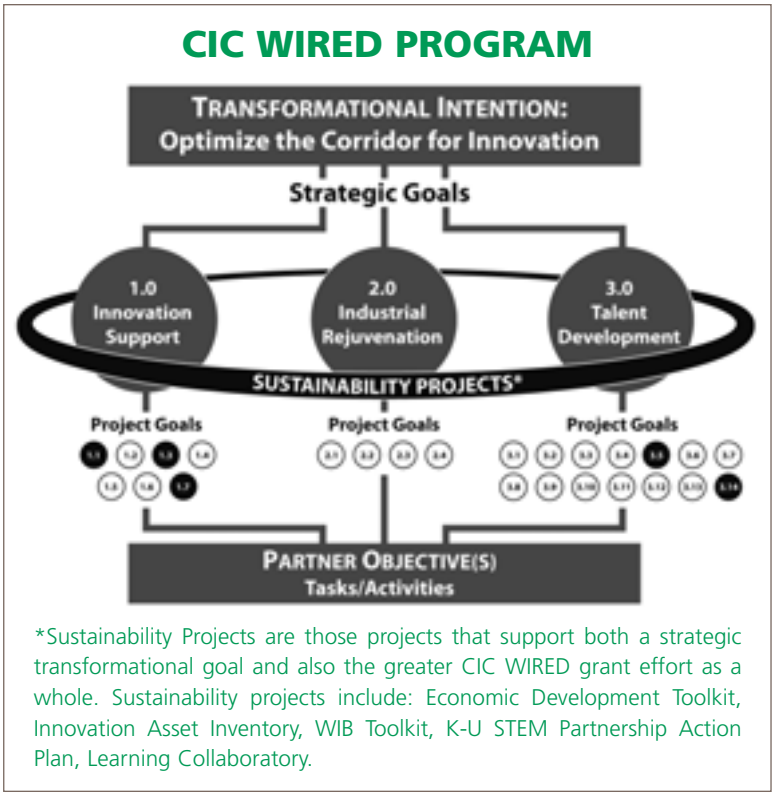
- Compilation of a Workforce Skills Analysis of 200 companies.
- Development of a Space Industry/University Consortium.
- Advancement of space related experiential university internships and mentoring programs.
- Development and execution of an outreach program to businesses regarding systems engineering training programs throughout the Corridor.
- Organization of appropriate high-level stakeholders to develop a statewide STEM (Science, Technology, Engineering and Math), education collaborative action plan.
- Creation and implementation of science & math middle and high school teachers institutes.
- Origination of an industry driven training program to retrain dislocated software specialists for aerospace related computer science work.
- Orientation of university and graduate advisors to innovation oriented acumen through the establishment of an industry mentorship link resulting in accelerated student transition from academia to science and engineering fields.
- Advancement of the Project Pipeline/Troops To Teachers recruitment and accelerated credentialing of math/science teachers.
- Establishment of a model university and high school mentoring program.
- Foster a community college industrial technology-based degree in Mechatronics.
- Produce real-world curriculum for educator conferences focused on STEM education and space science.
- Creation of the virtual California Space Center – a web-based research, education and workforce collaboratory using participatory internet technology to attract youth interest and demonstrate relevance of STEM disciplines.
- Building a "Learning Collaboratory" of training and best practices on innovative approaches to partnerships in support of an innovation ecosystem.

A full description of the California Innovation Corridor's 25 projects can be found online at www.californiaspaceauthority/org/wired.

Transformation fostered through the California Innovation Corridor WIRED grant award will be driven and sustained through the execution of five key "SUSTAINABILITY PROJECTS". Each Sustainability Project, while subordinate to one of the strategic transformational goals, also links to projects/outcomes in other strategic transformational goals, thereby providing continuity and sustainable change across the Corridor grant activity. These five projects are:

1) Innovation Driven Economic Development Toolkit,
2) Innovation Asset Inventory Across the Corridor,
3) Workforce Investment Board Toolkit Focused on Innovation and Entrepreneurial Companies,
4) K-U STEM Collaborative Action Plan, and
5) Learning "Collaboratory" - Compilation of Workforce Investment Board Best Practices and Lessons Learned.

Due to the breadth and complexity of implementing the California Innovation Corridor (CIC) WIRED grant proposal, the Project Integration Protocol, (PIP), was developed to serve as a background and "big picture" orientation for developing and executing each of the partners' scopes of work. Each of the 25 project teams within the grant were asked to articulate a "project goal"



*Sustainability Projects are those projects that support both a strategic transformational goal and also the greater CIC WIRED grant effort as a whole. Sustainability projects include: Economic Development Toolkit, Innovation Asset Inventory, WIB Toolkit, K-U STEM Partnership Action Plan, Learning Collaboratory.

to align with the Strategic Transformational Goal under which the project lies. Each partner organization articulated specific objectives aligned with the project goal for which it serves as a project team member, with many partners on more than one project team.

To support the development and implementation of the scopes of work of CSA's partners, the partner role is shown in context in the diagram on the previous page.

The project integration protocol ensured that each of the partners understood how their involvement on a project rolled up into one of the three strategic goals and into the overarching transformational intent. This was key to developing the 45 separate partner contracts and 89 statements of work that provided the framework of the 25 projects constituting the California Innovation Corridor WIRED Initiative.

COLLABORATION THROUGH PARTNERSHIPS

One of the reasons why the CSA WIRED proposal was successful stems from CSA's long history of developing and supporting collaboration through partnerships. CSA celebrated its ten-year anniversary in 2006. As a nonprofit, most of the work accomplished relied on the support of unfunded partners from a variety of sectors, including industry, government, academia, education, and others. Most of the partners selected to submit a letter of commitment to participate in the WIRED California Innovation Corridor proposal to DOL were former participants in the CSA collaboratives that developed the strategic plans or worked with CSA on other initiatives.

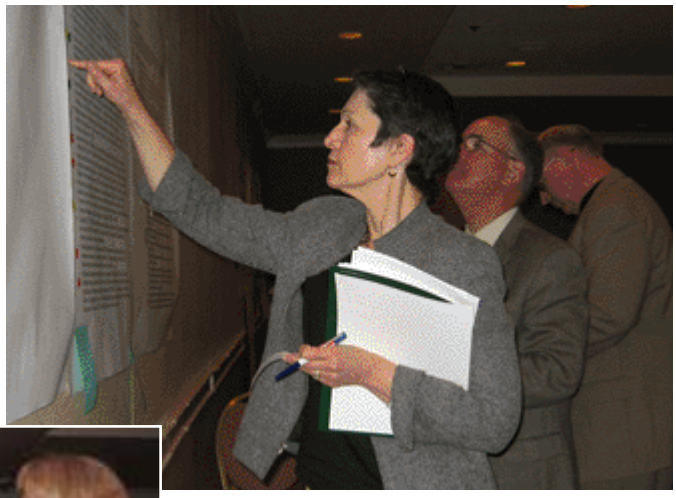
CSEWI Executive Director Deb Hirsch engages one of the attendees, Mike Gallo, at the recent STEMCAP forum.

Members of the Boards of Directors for both CSA and its educational arm, the California Space Education & Workforce Institute (CSEWI), are actively involved in the grant implementation, either as funded partners or providing in-kind support to industry advisory boards as well as the STEM (Science, Technology, Engineering and Math) Collaborative Action Plan. CSA in coordination with the partners who helped to develop the proposal, identified other key players who brought needed expertise and/or relationships to generate successful completion of the grant goals.

Such collaboration is predicated upon the fact that the partners can identify the alignment between their organizational goals and the goals of the grant. As the lead agency, CSA must also recognize that partner priorities may shift over time and other initiatives may distract them from completing their commitments under the grant within the time frames stipulated. As the lead agency, CSA must constantly monitor project progress and coordinate the efforts of all team members on a project.

The most prominent hurdle of the grant initially was the daunting task of getting all of the partners on contract. This required that the partners on each of the 25 projects come together, agree on the common goal of the project, and develop a work plan that identified the milestones, time frames, and deliverables of the project. In some instances, many of the team members had similar tasks but in differing regions of the corridor.

For example, the inventory of the California innovation assets required that each of the 12 partners identify the innovation assets in their particular communities. However, collectively, they agreed upon the common content of the four types of profiles to be completed for universities, research labs, and research and development companies. This project, like all of the Corridor 25 projects, has a project team lead and is assigned a liaison from CSA or CSEWI to ensure coordination of the team and successful completion of the project goals. Each region is gathering data on the regional innovation assets to be input into a common data base which will serve as a reservoir of all data for future use.



Educators contributed greatly to ideas on how to solve the STEM crisis.

This project will ensure that the partners involved make contact with key innovation assets and begin to develop relationships to foster future innovation development and commercialization. The inventory will also serve as one of the first tools of the economic development tool kit.

But other projects necessitate that various partners have differing but supportive roles in the successful completion of the project. An example would be that of the STEM Collaborative Action Plan where project team partners have specific roles to generate the necessary support of the key California entities including industry

Regolith Excavation Challenge drew a wide range of media coverage including the Discovery Channel, BBC Radio, and the New York Times Magazine.

Much of the work of the California Innovation Corridor projects will be based upon developing new relationships and launching innovative demonstration projects without proven track records. In some respects, we are learning as we go and developing new processes to enhance the prospects of successful completion, often times establishing new processes as we go.

representatives, University of California, California State University, community colleges, and representatives of the K through 12 system and informal science which includes museums focused on science and technology. A steering committee of both project team members and unfunded politically key players has been brought together for the first time to craft a plan to engage all levels of the California educational system in support of a continuum of math, science, and engineering education with an implementation plan.

On this particular project, team members have differing roles but collectively their activities must come together in support of developing the action plan. This project alone has the potential to generate monumental change across all sectors of the California educational system in support of developing the skilled workforce needed to maintain and support the California and U.S. economies into the 21st Century.

Much of the work of the California Innovation Corridor projects will be based upon developing new relationships and launching innovative demonstration projects without proven track records. In some respects, we are learning as we go and developing new processes to enhance the prospects of successful completion, often times establishing new processes as we go. Part of the excitement is associated with identifying new opportunities not previously anticipated and remaining flexible enough to take advantage of those opportunities. The development of new partnerships across the Corridor and the convergence of ideas and strategies will help to support development of innovative thought leadership.

However, this must be tempered with maintaining the focus of the overall success of the grant and not allowing "scope creep" to consume the time and energies of the teams. To ensure that the projects stay on track and meet stated milestones within specific time frames, CSA project liaisons are responsible for monitoring project progress and driving success of the project teams.

COMMUNICATING TO ENSURE PROJECT SUCCESS

A major factor to facilitate the likelihood of success is communication – among CSA, team members and partners; among teams; between leadership and staff; as well as among the DOL, the State of California Employment Development Dept. (EDD) and CSA. The DOL has funded the Collaborative Work Space to allow each of the 13 WIRED regions nationwide to share project information. In addition, CSA is utilizing project management software to track grant and project progress.

There is also a need to showcase all the activities taking place among the more than 60 partners in 13 counties on the 25 projects on which they are working. Their tasks and activities - forums, presentations, round tables, panels, interviews, surveys, events, assessments, training modules, etc. - need to be captured in a visual or descriptive way.

The "stories" inherent in the California Innovation Corridor WIRED grant achievements and successes will be accessible to potential sustainability funders, to the general public, to partners of like projects, even to WIRED colleagues working on sister projects.

To develop the website and populate it with data, CSA prepared a request for proposals, advertised it, and evaluated applicants against the stated criteria to hire the best qualified entity to:

1) Create a Web accessible database/web presence that contains profile information on the California Innovation Corridor WIRED grant projects, tracks their accomplishments through the grant cycles and highlights successes and best practices for sharing across the country;
2) Facilitate the leveraging of WIRED grant dollars with other private investment to increase the effectiveness of the program and ensure sustainability of the grant initiatives; and
3) Help to create a community-of-practice within the WIRED grantees to share knowledge that will help each grantee to become more successful. The website

is currently under construction and content from the 25 project teams is being collected. Capturing all of the ongoing success stories and posting them on the website for all partners, supporters and potential funders to access allows sharing of information across all levels of the 25 projects as well as the leadership of the DOL, the EDD, and CSA.

IMPLEMENTATION

The initial phase of the California Innovation Corridor WIRED grant was devoted to building the structure needed to get all of the 42 funded partners on contract and launching the 25 projects. Now that the partners are on contract and the project teams have begun their work, we are already seeing tremendous positive progress and in some cases with the evolution of products to another level. Following is a summary of the key developments to date from a sampling of the 25 projects underway.

INNOVATION SUPPORT

Project 1.1 (Innovation Driven Economic Development Model) Corridor partner and project lead, (San Francisco) Bay Area Science and Industry Council (BASIC), whose region includes the Silicon Valley, engaged a contractor to develop the Innovation Driven Economic Development Model. Collaborative Economics, which also served as a key consultant on the state's Regional Economies project and cluster development, began work in May. Current planning involves integrating the Corridor Innovation Driven Economic Development Model into the state's economic strategy, ensuring sustainability of the work accomplished while fostering integration into the state efforts.

BASIC also hosted an Innovation Network Roundtable last April to identify key emerging patterns and drivers of the next wave of innovation. Over 30 repeat innovators and thought leaders, including representatives from companies like Hewlett-Packard and Google, shared ideas about patterns of innovation, the power of collaboration and networking, and implications for future success. The results of this work are now being used to develop insight and content for the Innovation Driven Economic Development Model.

DOL WIRED technical assistance consultant, New Economy Strategies, completed research on best practices across seven global innovation regions. A comparative gap analysis of the best practices of these regions to the California Innovation Corridor with policy recommendations is in development. This too will become another tool in the toolkit.

Bringing the global marketplace to the Corridor, international component of Project 1.1, included CSA facilitating an International Business Matchmaking program where 25 companies participated in face-to-face meetings resulting in the facilitation of 16 email introductions and a request for quote. California companies were also connected with Corridor partner El Camino College's Center for International Trade Development (CITD) resources.

Project 1.3 (Innovation Asset Inventory) The completion of the one-year Innovation Asset Inventory project has significantly enhanced partner awareness of the innovation assets in their regions and will inform the Innovation Driven Economic Development Model/Toolkit in Project 1.1. The Project 1.3 team completed over 250 profiles of innovation-related companies, universities, federal labs, military installations, and research centers. Technical assistance (TA) provided partners by California Connectory principals provided much-needed orientation to the value, impact, and criticality of understanding the needs of the regional innovation community. A common understanding of "innovation asset" proved to be the lynch pin in coordinating this effort.

The final California Innovation Corridor (Corridor) Design Document for the Corridor portal of the California Connectory was completed and will be deployed as part of Project 1.1. Work on the Corridor Portal on the Connectory platform continues, with the integration of GIS/mapping capabilities progressing. Plans are underway to expand the Innovation Asset Inventory to capture all assets across California and across the nation with other WIRED regions expressing interest in replicating this work. The value lies in all the assets residing in one platform that is updated annually to ensure that the data is fresh and useful.

Project 1.4 (Replicable Training for 40 Innovation-based Entrepreneurial Ventures Demonstration Project) To launch this project, the project team hosted the California Tech 100 event on April 24-25, with top level members of the governor's cabinet participating from the CA Labor and Business, Transportation and Housing Agencies. In addition, the Governor's California Commission for Jobs and Economic Growth presented the California Innovation awards to 15 top companies from a list of 300 nominated, of which 75 were recognized as California Innovation "All-Stars" at the event dinner.

The Sherman Oaks 5th Grade class in Campbell, CA, looking forward to sending up their PearlSats in the upper atmosphere. Balloon flights featuring PearlSat payloads are a significant success story for fostering elementary science interest.

The project team was led by the San Diego East County EDC, which coordinated numerous panels and workshops, including five sessions featuring government programs. The multi-faceted event featured entrepreneur "boot camp," angel seminar, networking, all-star competition, dinner and a "Ballroom Blitz" showcasing 35 entrepreneurial venture snapshots for angel consideration. Next steps for the project include tracking entrepreneurial companies against a set of progress indicators and inputting the data into an economic impact software provided by WIRED partner Southern California Edison to determine the return on investment of these companies. A white paper and event template are being produced and will be shared as a tool for inclusion in the Project 1.1 toolkit.

Project 1.5 (Joint University Innovation Model) Significant progress toward "immersion" of university faculty and students in innovative industry environments has been made. In cooperation with the resident Anderson Graduate School of Management, the University of California, Riverside (UCR), the team developed a site visit questionnaire. Three site visits of innovative companies were conducted in southern California, with a workshop/seminar on methods and early findings presented as part of UCR's first TechHorizons Conference May 16, 2007. Participants have concluded that it is important that universities remain open to risk and failure and encourage innovation and entrepreneurial effort.

Project 1.7 (Workforce Investment Board Toolkit) Agreement was reached to organize the Toolkit to identify successful WIB practices in strategic planning for the development of local workforce policy. Key elements of the Toolkit have been identified, with sections on science and the economy already researched and drafted. Four key roles of WIBs have been identified: 1) convener, 2) workforce intelligence, 3) broker, and 4) community voice. The Toolkit draft is scheduled to be presented at the California Workforce Association (CWA) Meeting of the Minds symposium in Monterey in September. Project lead, California Council on Science and Technology has collected science and industry data on California's competitive position. The Toolkit includes six case studies to date.

INDUSTRIAL REJUVENATION/SUPPLY CHAIN COMPETITIVENESS

Project 2.1 (Characterization of Supply Chain Transformation and Identification of Priority Supplier Training Target Areas) After much research, dialogue and insight from multiple representatives of the Supply Chain Industry Advisory Group convened for this initiative, the Supply Chain Transformation Survey was developed and released in April. The purpose of the survey is twofold: 1) to be used to help educate suppliers that a supply chain transformation is in progress; and 2) identify how suppliers are performing during this transformation. CSA, Raytheon, Northrop Grumman, and California Manufacturing Technology Consulting (CMTC) provided major inputs to the Antelope Valley College-produced survey which will be used to drive a pilot project under Project 2.2.

Project 2.2 (Common Learning Outcomes Across the Supply Chain Provider Network) The Supply Chain Transformation Survey was distributed, targeting every level of the supply chain. A Supplier Resources Web Page has been developed to support survey and research efforts to identify training gaps and resources for an eventual supply chain transformation training matrix and white paper. Preliminary analysis of survey data being received endorses the need to develop training and program opportunities to support common smart supplier learning outcomes. Literature review on supply chain transformation is in progress and a Supplier Forum is scheduled for October to announce the initial findings identified by the survey.

As part of a national Manufacturing Community Transformation pilot project that is being led by a partnership with DOL, the National Association of Manufacturers (NAM), and National Council for Advanced Manufacturing (NACFAM), CSA is working with Corridor partner CMTC to use the supplier survey as the basis of a supplier assessment. It will reside on the InnovateCalifornia.net website and provide suppliers the opportunity to evaluate themselves in a self-assessment process and then point them to resources on a supplier resource page on the website.

TALENT DEVELOPMENT

Project 3.1 (Workforce Analysis on 100 Key Entities) This project was designed to intentionally create innovative partnerships between WIBs with EDOs to identify future workforce skills in predefined industries to 1) develop relations between workforce development and economic development entities, and 2) develop relationships with industry to facilitate the development of industry driven programs addressing the future workforce needs. The State Labor Market Information Division (LMID), an unfunded partner, is providing staffing patterns (existing and projected employment) for each region's three "top" industries, with "top" being determined through analysis of nine consensus-based criteria, e.g., a location quotient of 1.3 or greater. LMID is also providing company data and contacts with EDO and WIB partners, then arranging quantitative and qualitative interviews with key industry corporation executives.

Project 3.5 (STEM Collaborative Action Plan-STEMCAP) The Science, Technology, Engineering and Math Collaborative Action Plan (STEMCAP) is a unique project designed to bring together all diverse stakeholders working STEM issues. The STEMCAP is envisioned as a handbook of best practices, model programs, and content to be used by STEM practitioners, funders, and

supporters to advance the production of STEM students, graduates, teachers, professors, and mentors, leveraging resources of education/academia/industry/informal science. A key achievement was recruiting a high-profile Steering Committee of 20+ members, including representatives of the University of California president's office, the chancellor's offices of California State University and the community colleges, along with significant industry participation to ensure an industry-driven approach.

The May 19th STEMCAP Forum and Working Group Session brought together 90 educators, industry and workforce stakeholders, as well as representatives from two national organizations interested in the project: National Assn. of State Universities and Land Grant Colleges (NASULGC) and National Assn. of System Heads (NASH). The focus of the STEMCAP will include Recruitment/Retention, Relevant Curriculum, and Seamless Transitioning across the entire California educational system. Every day, new collaboration targets, partners, and opportunities are being identified, making the STEMCAP as a sustainability project a viable means of creating more STEM students, teachers, and mentors statewide.

A secondary outcome, but also valuable product, of this project is the STEM Inventory of best practices of programs in place across the nation, arranged and organized in a searchable, user-friendly format for students, teachers, parents, and anyone else interested in finding a STEM program.

Project 3.7 (Retraining of Dislocated/Unemployed Software Specialists/Software Engineering for Aerospace and Defense Applications Certification) The first session of the four-month University of California Santa Cruz Extension certificate program began in April. Fifteen students have entered the program which includes guest speakers from corporations like Rockwell-Collins and Lockheed Martin, helping participants to understand the aerospace/defense job market, successful job search strategies, identification of jobs for which they were qualified, tailoring their resumes for aerospace/defense, and identifying skills gaps. Two students have already been successfully transitioned from the unemployment rolls to employment in aerospace.

Project 3.10 – (The Stanford Model Mentoring Program) Sherman Oaks elementary school in Campbell, California, had over 300 PearlSats in Stanford University's May 11th balloon flight which reached over 90,000 feet. Sherman Oaks is a charter school with a significant Latino population. Classes are taught half-day in English, half-day in Spanish. Mr. Alfred Tadros, Director, NASA/Civil and DOD Programs, Space Systems/Loral, is the Sherman Oaks mentor working primarily with fourth grade students. The balloon was launched from a pad near San Jose, recovered near Stockton, for about a 120-mile three-hour flight.

Balloon flights featuring PearlSat payloads are a significant success story for fostering elementary science interest. Mentors have met with teachers to evaluate initial WIRED efforts and begin planning 2007-08 school year activities.

Project 3.13 (CA Space Education Center) The virtual California Space Education Center (CSEC) is a web-based research, education, and workforce collaboratory that uses the latest community building, or "participatory" internet technology used by today's youth to increase interest and show relevance of STEM disciplines and expose students to consecutive steps in the STEM career pipeline. It also provides opportunities for students and potential entrepreneurs to become involved in a community of participatory learning focused around STEM careers. The CA Space Education and Workforce Institute (CSEWI) is now in the concept and development phase of the virtual center. This phase includes organizing the process of input from collaborators of its featured programs – the NASA Centennial Challenge and the Zero South project, designing a user-friendly, intuitive navigation of the Center's information and determining the physical look of the outreach site that conveys the right message to its target audience, K-16 students, educators, and those interested in STEM subjects.

An example of what a string of PearlSats looks like before being linked up with a balloon.

University students help prepare a high-altitude balloon for the children at Sherman Oaks Elementary.

In May, CSEWI hosted the NASA Regolith Excavation (Centennial) Challenge innovation event, with co-sponsor California Space Authority. The Regolith Excavation Challenge ran throughout the day concurrently with the 1st Annual California RoboChallenge that included nearly 40 teams of students K-12 using Lego© Mindstorm® kits. The students were able to observe the excavation machines and their inventors during the excavation challenge, In addition, Apollo 11 astronaut Dr. Buzz Aldrin; Dr. S. Pete Worden, director of NASA

Ames Research Center; and Col. Stephen Tanous, USAF, commander of the 30th Space Wing, were featured speakers.

CONCLUSION

Our focus now is to integrate the major outcomes and lessons learned to date across the projects to ensure that all are leveraging opportunities and benefiting from the work completed. We have created a communication strategy that we are beginning to implement to foster integration of the projects. Webinars, project leads, and all partner meetings are maximizing the impact of the project outcomes. All of the CA Innovation Corridor projects are posted on the InnovateCalifornia website – www.InnovateCalifornia.net, which relates the latest information on project progress and new developments.

From the accomplishments achieved to date, we have concluded that the alignment of the education, workforce, and economic development systems is critical to ensure long term and transformational change needed to leverage resources and develop the skilled workforce needed for future U.S. competitiveness. How we develop the strategy to accomplish such an arduous task will be incorporated into our work as we complete the WIRED grant.

In the mid-19th century, America's westward expansion recognized California as the "Golden State," a title born less from its gold deposits than to its great opportunities for anyone looking to build a brighter future. Hope is what drove the pioneers westward. Hope is also what drives our 42 organizations within the California Innovation Corridor today.

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Collaboratively as a living network, we are seeking new ways to do business, fresh ideas to organize manufacturing and supply chains, and dynamic approaches to energize workers and students towards attainment of higher technical skills. The often fractious and hierarchical industry, workforce, education, and economic development systems are beginning to shift towards an understanding that through collaboration we can leverage scarce resources and through collaboration, build a better tomorrow for California and the nation.

new tools for economic

DEVELOPMENT TARGETING AND STRATEGY

By Glen Weisbrod and Brett Piercy

EVERYTHING IS DIFFERENT AND YET IT LOOKS THE SAME

"I just want to say one word to you - just one word… plastics… There's a great future in plastics." That was the job advice given to the young college graduate played by Dustin Hoffman in the 1967 movie, *The Graduate*. It was actually not a joke. At that time, economic developers across the country were also seeking to attract the fast growing plastics industry to their communities and regions.[1] That technology target was replaced in later decades by "advanced ceramics and polymers," later by "electronics," followed by "back office telecom," then "computer software and hardware," and most recently "biotech".[2] Today, at least 40 states have developed economic development targets that include biotech. Are we all still guilty of all jumping on the same bandwagon?

EVOLVING "IN-VOGUE" TARGETS OVER 40 YEARS:

- Plastics
- Polymers
- Electronics
- Back Office
- Computers
- Biotech

Over the past three decades, there has also been significant change in the names of analysis methods that are used to identify economic development prospects and targets. The popular name for industry targeting methods has changed name labels over time, from "Economic Base Analysis" (based on Location Quotient and Shift Share), to "SWOT analysis" (Strengths-Weaknesses-Opportunities-Threats) to "Economic Cluster Studies." Yet if you look more closely at the components of these studies, you can see that core analysis procedures remain nearly the same. For instance, a recent article published in *Economic Development Journal* discussed how location quotients and shift share techniques – the core of Economic Base Analysis in the 1970's – are still a critical foundation of the more recently promoted concept of "cluster analysis."[3]

The Middle Georgia Economic Development Center in Macon used LEAP to help develop an economic diversification strategy.

In fact, regardless of the labels, nearly all economic development strategies developed over the past three decades have sought to balance three economic development goals: (a) to *diversify* our local economies away from mature core industries, (b) to *build on existing* local industry strengths, and c) to *broaden* into related or complementary industries. Twenty years ago, "industrial diversification" was the in-vogue keyword for strategy evaluation.

Glen Weisbrod is President of Economic Development Research Group, Inc. in Boston, MA. **Brett Piercy** is an economic development consultant with the firm.

APPLYING A LOCAL ECONOMIC ASSESSMENT PACKAGE

This article illustrates how economic development strategy and development of business attraction targeting have been changing over time, and how new analysis tools are enabling economic developers to become more sophisticated in their identification and refinement of feasible target strategies. The "LEAP" approach to economic development evaluation is described to illustrate how such new tools can be applied.

Until recently, "cluster strategies" was in-vogue as the term being promoted by consultants, though it is fading as evidence grows that some areas are also achieving economic success through alternative growth paths. For instance, recent research commissioned by the Appalachian Regional Commission shows that some areas can and do achieve economic development through growth paths based on tourism amenity resources, R&D or learning-based resources, supply chain transportation corridors or international trade connections – all growth paths that do not rely simply on geographic clustering.[4]

So despite the changing talk, we often end up with the same tools for analyzing our economies. And for good reason. After all, any type of economic growth strategy must start with a solid understanding of our own local economies. A typical local economic performance analysis would at least look at the area's economic performance and competitive characteristics and compare or benchmark them against other areas. The other areas may be competing regions, or they may be state or national averages.

It is the next step – what to do with that information – that is most critical. The most simplistic strategy is to just pick your preferred growth industries based on your conclusion from the local performance analysis, and then hire a firm to supply a prospect list. Twenty-five years ago, some (now defunct) firms sold target prospect lists representing America's fastest growing companies to eager economic development recruiters, who later found that their colleagues across America were all seeking to attract the very same companies. Needless to say, that approach has since lost some of its luster among economic developers, though it rises up from time-to-time as there are resurgences of industry chasing (most recently, the bandwagon pursuing biotech firms).

FORMALIZING STEPS AND FACTORS TO CONSIDER

We would like to believe that economic developers, as a profession, do learn and become more sophisticated over time. There is actually some evidence that this is true.

Table 1. Basic Steps in Economic Development Planning & Analysis[5]

1) Pre-planning/Assessment of the Local Economy
2) Formulation of Goals and Objectives
3) Identification, Evaluation and Prioritization of Proposals
4) Development of Strategies and Plans
5) Implementation of Plans
6) Monitor and Evaluate Outcomes
7) Revise and Adjust Implementation

Photo Credit: Lloyd Wolf.

The Development District Association of Appalachia (DDAA) represents 72 regional economic development agencies across 13 states. Based on discussions with the DDAA, the Appalachian Regional Commission supported LEAP and its use by LDDA members.

Evaluation Steps. First of all, the steps involved in the economic development process have become more formalized. The International Economic Development Council, with its training programs, has been a leader in that education process. The IEDC guidebook for certification, *Economic Development Planning*, lays out the core seven steps in any economic development planning and implementation process. This sequence of steps is shown in Table 1. As stated in the IEDC guide, this sequence starts out with assessment of the local economy as the foundation for formulating goals, priorities, and strategies. It ends with monitoring and evaluation of implementation outcomes, leading back to a reassessment and refinement of the local strategy. In other words, some form of evaluation of the local economy and its competitiveness is a critical foundation at the front end and back end of any complete economic development strategy.

Analysis Factors. Second, the factors to be considered in evaluating competitiveness have now been well studied and documented. Thirty years ago, researchers were conducting studies to determine what businesses felt were the key site selection factors affecting their site expansion, relocation and new startup location decisions. There is now a strong consensus on the key business location factors, which represent local competitiveness factors for economic developers. Those factors and some of the studies supporting the list are shown in Table 2.

A notable characteristic of this list is that many of the factors relate to *availability, quality* and *scale* of

available local resources, in addition to the cost of living and cost of doing business locally. While early economic models attempted to evaluate business attractiveness based primarily on cost differences,[6] it is now widely recognized by economic developers that availability, quality, and scale factors are equally important site location factors. In fact, non-cost effects (such as labor force size, worker skill training, and intermodal terminal availability) can represent fundamental location requirements for some types of business enterprise.

Therefore, a successful economic development strategy must determine the nature of the above factors in their own community relative to other communities, and improve non-competitive factors to the extent possible. Once competitive factors have been determined and shortcomings have been improved upon, a marketing campaign can be targeted to inform the relevant business and investment interests about local advantages.

A scan of state and regional economic development websites and marketing materials confirms that this approach is indeed being widely adopted. Figure 1 illustrates how some states across the nation are presenting themselves to potential businesses. Unsurprisingly, the features they address – either by emphasizing advantages or simply providing data for companies to view – coincide with the list previously shown in Table 2.

ANALYSIS METHODS: NEW OPPORTUNITIES AND PITFALLS

Three-Phase Evaluation Process. The seven basic steps in economic development planning & analysis can be supported by a three-phase evaluation process, with each phase aimed at helping practitioners identify target industries for economic development.

Table 2. Business Site Location Factors[7]

- Suitability of Business Parks, Land, and Buildings
- Scale and Skills of the Labor Market – Workforce
- Scale and Socioeconomic Characteristics of the Consumer Base
- Availability and Quality of Infrastructure – roads, power, water/sewer, broadband telecom, intermodal transportation terminals, and connections
- Access to Markets, as well as to airports, marine ports, and intermodal rail terminals
- Business Support services and business climate – job training, regulations, business organizations
- Quality of Life – including climate, arts and culture, recreation, and school quality
- Cost of Doing Business – including labor, utilities, infrastructure, and taxes

Figure 1. How States Present Themselves to Potential Businesses[8]

Iowa –

- Quality of Life: short commutes, low crime, great schools, clean air, recreation
- Worker productivity
- Top ranking academics, innovative environment
- Favorable tax policies
- Favorable business climate/business incentives

Vermont –

- Quality workforce: skilled, educated, strong work ethic, less turnover
- Accessible government officials, favorable business climate
- Telecommunications infrastructure/fiber optics
- Quality of Life: outdoor recreation, no traffic, low-stress
- Market access – 80 million pop. within 500 mi radius

Tennessee –

- Market access – great roads, central location
- Labor force: dependable, educated, right-to-work state
- Quality of life
- Business climate: incentive packages and project fast-tracking

Arizona –

- Growing "high-tech" workforce
- Competitive operating environment: low taxes, business incentives
- Easy access to major markets: Phoenix airport, Canamex highway corridor
- Reliable utilities, low cost of doing business
- Affordable, available real estate
- Quality of life

Oregon –

- Business climate
- Business costs
- Business incentives
- Business financing
- Business assistance
- Quality workforce, low workers comp cost
- Available industrial sites

The Local Economic Assessment Package identified how opening of I-86 would help the Southern Tier West region of NY State overcome transportation access barriers and create new growth opportunities in manufacturing, distribution, and lodging.

1) ***Economic Performance Assessment –*** An assessment of economic conditions and trends. This starts out by considering the performance of local industries and hence the relative success of the local area in achieving desired forms of economic growth.
2) ***Targeting Diagnostics –*** Identification of industries that can provide the most appropriate basis for economic development. This requires evaluation of the connection between (a) performance of local industries and (b) competitiveness of local facilities and resources for serving those industries. That also serves to identify local improvements needed to attract and grow target industries.
3) ***Policy Development and Analysis –*** Careful monitoring of results and examination of the potential economic development consequences of future policy initiatives which affect local costs, labor force quality, available site and infrastructure adequacy, and supporting resource availability.

When done properly, this three-phase process requires substantial time and effort, which is burdensome for even the most sophisticated, well staffed and adequately funded organizations. In reality, many practitioners find themselves slogging through with significant staffing and budgetary constraints in their attempts to assess competitive factors and determine their implications for economic development targeting.

New Data and Analysis Sources. Some help is arriving. As the process and techniques of economic development have become more methodical and standardized, technology has been enlisted to help reduce this burden:

- *Employment and industry analysis* is now available on the internet. While the free public sources have data withheld for some industries in many of the US counties, private analysis systems have emerged to fill in the missing data (based on surveys or interpolations) and then calculate business mix profiles and trends for areas.[9]
- *Cost comparison* information is available on the internet, particularly for local housing costs, labor costs, and taxes, along with cost of living data. Additional economic modeling tools can now compare various elements of the "cost of doing business" in different areas.[10]
- *Economic impact* models can now show the broader regional economic effects of business expansions and relocations for any local area. This includes indirect impacts on suppliers to the affected industries and induced effects of worker spending on consumer goods, as well as tax impacts.[11]

Pitfalls. Unfortunately, having a "hodge podge" of analysis tools can serve to further confuse economic developers. Each of these types of analysis has specific uses for displaying trends, comparisons, and impacts that are valuable for certain situations, but together they do not provide a coordinated toolkit to effectively support economic development targeting and strategy development. An uncoordinated set of tools will at best fail to address some issues; at worst, they can address the wrong issues. Examples of these problems include the following:

- Area industry mix patterns and trends are easy to assess, but most economic developers understand that such information is of limited value unless it can be compared to relevant neighbor and competitor areas to identify performance gaps, and then linked to business competitiveness factors to help explain those results.

An uncoordinated set of tools will at best fail to address some issues; at worst, they can address the wrong issues.

The problem of over-reliance on industry patterns and trends is that they can lead to a naïve conclusion that already strong industries represent clusters that should be the top priorities for further recruitment. More appropriately, economic development strategies should focus on identifying existing gaps and missed opportunities, desired growth paths, and the steps needed to overcome barriers now holding back achievement of those opportunities.

- Cost modeling is easy to assess and forms the core of economic simulation and forecasting models that focus on dollar flows and dollar cost differences to explain how industry growth and investment moves among areas. However, most economic developers understand that business location requirements also depend on a host of non-cost (size, quality, and access) factors that are at least as important as cost in determining competitiveness and resulting industry growth and investment shifts.

  The problem of over-reliance on cost comparisons is that they can lead to a naïve conclusion that local economic development strategy should focus just on cost incentives to attract economic growth. Often, economic development strategies need to focus more on identifying opportunities to overcome gaps in transportation facilities, job training, industrial park facilities, and/or business support services as ways to enhance quality.

- Economic forecasting and impact models can show how a given type of new business will generate additional flows of dollars to suppliers. However, most economic developers understand that part of their job is to make economic forecasting and impact models be wrong: (1) Economic forecasting models usually assume no change in competitiveness factors aside from costs, while economic developers may be working hard to make quality improvements in local facilities, job training or support services. (2) Economic impact calculations assume that dollars will "leak" out of the area if there are currently no local suppliers to serve a major new industry, while economic developers may be working hard to develop local supply chains that can keep those dollars in the local economy.[12]

  The problem of reliance on economic forecasts and impact models is that they can lead to a pessimistic view of future prospects for local economic development, and wrong priorities for industry growth and attraction targets. More appropriately, economic developers need to take advantage of opportunities to enhance local supplier networks as a way of enlarging the indirect benefits of business expansion and attraction efforts.

INTEGRATED EVALUATION: LEAP STRUCTURE

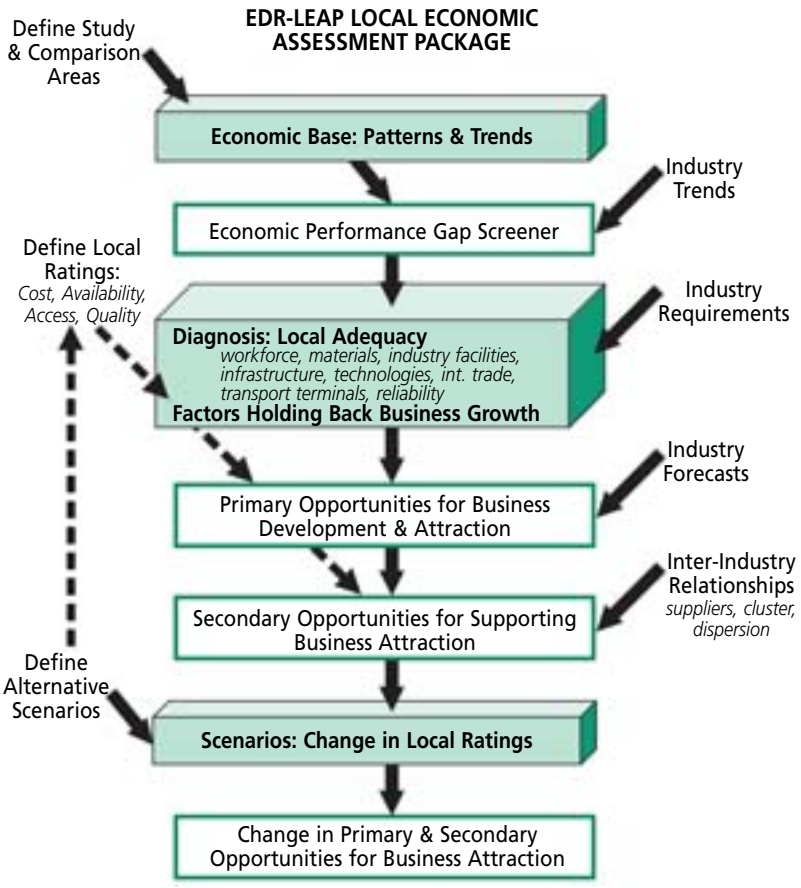
In recognition of these shortcomings, the Appalachian Regional Commission supported development of the "Local Economic Assessment Package," as a bundle of tools to give economic developers the ability to diagnose local competitive position, select appropriate targets, and design economic development targeting strategies that build on strengths and minimize weaknesses. The resulting package of tools follows the evaluation process supporting IEDC's *Economic Development Planning* guide and recommended targets and policy priorities. It is designed specifically to avoid the pitfalls just discussed.

The structure of this approach is shown in Figure 2. It revolves around three steps or modules, shown by the shaded three-dimensional boxes: (1) Economic Assessment, (2) Targeting Diagnostics, and (3) Policy Analysis. They implement the three-phase evaluation process that was previously discussed to provide information for the IEDC economic development planning process. Most importantly, this approach avoids or minimizes the pitfalls of incomplete and inappropriate conclusions by making the critical connection between (a) local economic performance results to date and (b) local competitiveness factors (costs, quality, access, and market scale differences). That provides a basis for determining (c) potentially feasible business growth/attraction targets and actions needed to make them possible.

The steps are as follows:

- ***Economic Base Assessment –*** This step develops profiles of business mix and performance trends by industry, and benchmarks them against adjacent or

Figure 2. LEAP Structure



competing areas to identify leading & lagging industries, performance gaps, and business types with the greatest local growth or attraction potential.

- ***Targeting Diagnostics –*** This step rates competitive strengths and weaknesses of the area in terms of various costs (e.g., utilities, housing, land, labor, taxes), qualities (worker skills, industrial/office park amenities), access (to airports, highways, railroads), and supporting infrastructure (broadband, business resources). It uses a knowledge base of industry requirements, thresholds for business location, and inter-industry relationships to identify the key factors that are constraining local attractiveness for each industry, and potentially achievable business attraction targets.
- ***Policy Analysis –*** This step allows users to assess how changes in economic development conditions can affect the size and nature of potential future business attraction. It estimates changes in job growth associated with positive or negative changes in labor skills training, industrial/office park amenities, land availability, broadband access, and/or transportation accessibility. It provides a basis for prioritizing future economic development initiatives.

An interesting aspect of this kind of integrated system design is that it can be flexible in the choice of economic development targeting objectives, as the assessment of gaps, opportunities, and targets can be viewed in terms of (a) job creation, (b) income generation, (c) maximizing local value added or (d) increasing business sales. The choice can make a big difference in findings and recommendations, as some industries are growing in business sales while jobs or effective salaries are being cut. It is also flexible in the choice of comparison areas for benchmarking, which can be adjacent areas, national or regional competitors, or other areas that will be linked by new transportation corridor connections. That decision also depends on the purpose and use of the analysis.

Recognizing its flexibility, this system has now been adopted by the Appalachian Regional Commission and distributed to its Local Development Districts in 13 states to support and enhance their economic development targeting efforts. Applications of it have won national recognition awards from IEDC and C2ER (the Council for Community and Economic Research).[13]

SPECIFIC FACTORS TO CONSIDER IN CARRYING OUT AN INTEGRATED EVALUATION

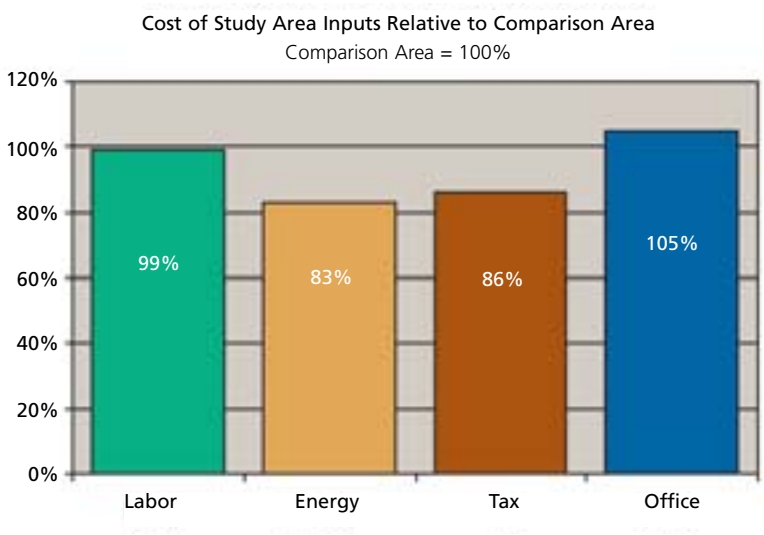
Assessment of the Economy. As noted by economic development textbooks, the three principal tools that form the starting basis for economic base analysis are Location Quotient (business mix analysis), Shift Share (business trend analysis), and SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis.[14] These techniques are not new and they often form part of Comprehensive Economic Development Strategy (CEDS) documents funded by the US Economic Development Administration.

Nor are these techniques inherently complicated. In fact, they can be done quickly with spreadsheets following instructions in regional economic textbooks. The difficulties lie in (a) collecting data on dozens of industries at the appropriate level of detail, and then (b) making the right comparisons to extract findings on local strengths and weaknesses.

This is one area where LEAP diverges from traditional analysis approaches. The traditional approach for economic base analysis has been to compare a local area against national patterns and trends. Economic models similarly also compare local costs against national costs. The problem, of course, is that a rural region does not necessarily expect to compete against big metro regions for the same industries, nor does a lake recreation area expect to compete against mining or industrial centers. That is why a benchmarking approach, which compares local industry mix patterns and growth trends against relevant competing areas, will lead to totally different types of findings on local gaps than a comparison to state or national averages. Figure 3 is a graph generated by LEAP that illustrates a comparison of business cost factors in a study area relative to a user-defined comparison area.

Targeting Diagnostics. The diagnostic phase of LEAP includes an assessment of local advantages and disadvantages for each industry in which there is a potential for further business growth and attraction, as identified in the assessment phase. This set of diagnostics identifies "critical" and "important" weaknesses that need to be addressed if the area is to fulfill some of the growth potential identified in the local area assessment.

Figure 3. Relative Cost Factor Comparison



A major problem holding back systematic analysis of economic development opportunities in the past has been difficulty pulling together information on just how a local area stacks up against competing areas in terms of various "competitiveness factors" -- which can range from very specific (such as tax and utility rates) to very vague (such as business climate and quality of life). Traditional economic models sidestep the problem by ignoring those non-dollar factors and concentrating instead on the more easily measured business output trends and costs. Yet economic developers know that these scale, quality, and access factors can be at the core of economic competitiveness and addressing them can be critical to achieving success in business growth and attraction.

The LEAP approach takes this issue of information assembly head on, as it attempts to recognize all of the major business location considerations that are important to economic developers. The solution is two pronged:

- ***Use of Broader Data Sources.*** Information on many factors that are not readily available can in fact be obtained through an up-front research effort to tap proprietary databases, with costs greatly reduced if they are spread over many users. That is done with an on-line version of LEAP, which includes measures for every US county of: (a) cost factors including labor, utilities, taxes, and buildings, (b) size and quality factors including delivery markets and education characteristics of the workforce accessible within a 40 minute drive, (c) access times and size of available commercial airports, marine ports and intermodal truck/rail terminals, and (d) availability and magnitude of broadband facilities, recreation activities, and international exports. Figure 4 illustrates this type of comparison.
- ***Use of Local Information Worksheets.*** To assess local conditions for some important factors that are not readily available, it is necessary to rely on locally completed worksheets. These include ratings based on detailed criteria for judging the quality features of local business parks and buildings, quality ratings for local training, business support services and business climate, and quality rating for local tourism support facilities and services. Practitioners have shied away from such measures in the past because they require judgment in assessing business facilities and supporting resources. However, the LEAP approach is based on an understanding that these factors cannot be fully measured by available public or proprietary databases, but they also cannot be ignored. By providing and allowing for optional use of local assessment worksheets, the system can provide a more robust and complete picture of local competitiveness factors.

Opportunities and Barriers. The crux of the matter, then, is to connect an area's economic performance gaps (unfulfilled opportunities) to its shortfalls in the various competitiveness (cost, scale, quality, and access) factors. To diagnose which of the competitiveness factors are acting as barriers to business growth and attraction, LEAP relies on a base of information concerning detailed industries, their relative business requirements for these factors, and how industries respond to changes in these factors.

This approach recognizes that industries must meet thresholds for some factors in order to make their business operations economically viable at a given location. For instance, the thresholds can be minimum market size requirements (common for financial and business services), maximum access times to airports (common for electronic products), and/or delivery time and reliability requirements along supply chain corridors (common for just-in-time automotive parts). Additional elements of the information base include baseline industry growth forecasts and inter-industry supplier and buyer relationships, which together provide information on how attracting one industry can create spatial cluster opportunities to also attract additional growth through complementary industries.

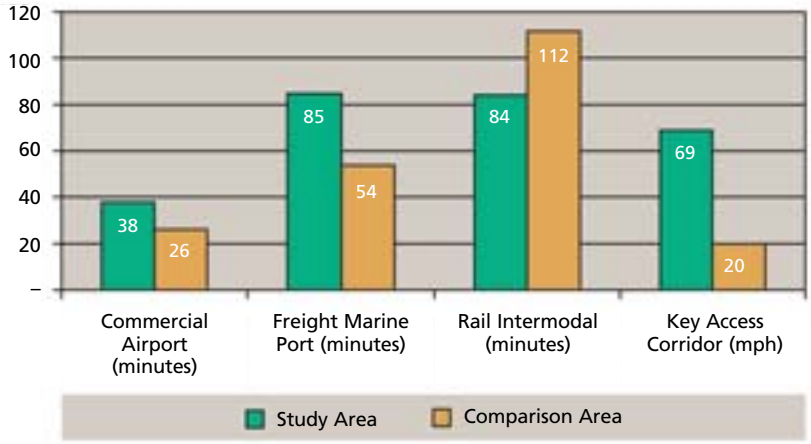
In this way, LEAP identifies sets of industries that are good targets for economic development based on the match of local characteristics and the operating requirements of each industry. For those industries that are currently lagging but could offer future growth opportunities, it identifies the nature of current disadvantages that need to be overcome in order to effectively promote more local business activity.

Armed with these diagnostics, LEAP identifies industry targets with the greatest opportunities for direct business attraction, the magnitude of potentially achievable growth, and the factors that must be addressed to realize those results. It also helps practitioners consider oppor-

Figure 4.

LEAP Comparison of Area Access Characteristics

(note: access data obtained via ESRI GIS system)



The fundamental concepts of performance benchmarking, identification of barriers, and assessment of business attraction opportunities, have many types of application. They are illustrated by the range of ways in which LEAP has been used.

- **The Tennessee Dept. of Transportation** commissioned a study using LEAP to assess opportunities for attracting more jobs as a result of completing the Corridor "J" highway link between Chattanooga, TN and London, KY.
- **The Middle Georgia Development Center** used LEAP to develop an economic diversification strategy plan in response to possible military base realignment. (The report is available on its web site at http://mgrdc.org/jointplan/documents.html .)
- **The Colorado Springs Economic Development Corp.** commissioned a study using LEAP to help assess local competitive strengths and weaknesses and the effect of utility costs on business attraction. The results were used to help refine city utility fees for new business.
- **In NY State, the Southern Tier East Regional Planning and Development Commission** used LEAP to generate reports on shifts in business patterns, and is now applying it for their CEDS (Comprehensive Economic Development Strategy) report.
- **The Coos Valley Regional Development Center** in Georgia applied LEAP for its CEDS report and for identifying competitive business attraction strengths and weaknesses. It is now starting to use LEAP as part of an effort to assess job training needs.

tunities for building upon inter-industry linkages – in other words, sets of industries that build on common needs and buyer-supplier relationships. Complementary industries are types of businesses which are not primary target industries, but which may nevertheless represent growth opportunities because they are suppliers of goods and services to the primary target industries or otherwise interact with them. In this case, any direct opportunities for business growth may also indirectly create opportunities for growth in complementary industries that do not directly depend on highway access.

Economic development targets identified via LEAP or any other analysis system will only be achieved if a strategy plan is put in place to address remaining needs and to actively entice such business growth and attraction.

Policy Analysis considers how some barriers to business growth and attraction can be minimized or overcome by the programs and projects of local planners and economic developers. Local public policies and programs and projects can include improvements in the availability and adequacy of local education; workforce skills training; infrastructure enhancement; business site development; access to airports, sea ports, and rail; and improvements to highways or initiation of improved support services. By applying the base of information on industry growth factors, the system can then identify the potential impact of proposed policies or projects on business attraction, and present estimates of the range of resulting impact on jobs, income, value added or business output. The impacts are expressed in terms of range estimates, based on risk factors including industry volatility and sensitivity to business cycles.

Follow On Actions. Economic development targets identified via LEAP or any other analysis system will only be achieved if a strategy plan is put in place to address remaining needs and to actively entice such business growth and attraction. Once potential opportunities for targeting future business growth and attraction have been identified, along with needs for addressing existing barriers, the economic developer must devise a process to work with other area agencies and leaders in forging a strategic plan to address those issues. This includes agreement on targets and goals, and a program of action steps covering organizational, staffing and financing plans to pursue the goals, as well as some form of monitoring and evaluation of results.

ENDNOTES

1. This was pointed out by economic development consultant, Thomas Ticknor.
2. Source: Biotechnology Industry Organization (BIO) as discussed in Krizer, Ken. "Expanding Biotech Companies Use Clusters to Grow Their Operations," *Expansion Management*, April 1, 2006.
3. Heike Mayer, "Cluster Monitor," *Economic Development Journal*, Fall 2005, p.45
4. Economic Development Research Group, Regional Technology Strategies and MIT, *Sources of Growth Paths for Economic Development*, four volumes, prepared for the Appalachian Regional Commission, 2007.
5. *Economic Development Planning*, International Economic Development Council (2002).
6. Treyz, George: *Regional Economic Modeling: A Systematic Approach to Economic Forecasting and Policy Analysis*, Kluwer Academic Publishers, 1993.
7. The top site location factors are widely recognized in the field of economic development today, though most of the research to identify them took place over the prior decade. Sources include: (1) *Portland 2002: Strategy for Economic Vitality*, Appendix 2-3: "Location Factors," 2002, (2) Sloagett, Gordon and Mike Woods. "Critical Factors in Attracting New Business and Industry in Oklahoma. Oklahoma Cooperative Extension Service;

   (3) Kotler, Philip et al. *Marketing Places*. The Free Press, 1993; (4) Lyne, Jack, "Quality of Life Factors Dominate Many Facility Location Decisions," *Site Selection Handbook*, August 1988, and (5) Finkle, Jeffrey. "Developing Strategies for Economic Stability and Growth," Council for Urban Economic Development, 1997. For quality of life, also see (6) Segedy, James. "How Important Is Quality of Life in Location Decisions and Local Economic Development" in R. Bingham and R, Mier (Eds.) *Dilemmas of Urban Economic Development*, Sage, 1997.
8. As found on respective state economic development websites: www.iowalifechanging.com ; www.dca.state.vt.us ; www.state.tn.us/ecd/bizdev_new.htm ; www.commerce.state.az.us/whyaz.asp ; www.oregon4biz.com/index.htm
9. Analysis systems that fill in non-disclosed data and show industry mix and trends include LocalEconomy.net from Regional OneSource, Economic Forecaster from EMSI , DevSight from REMI and LEAP from Economic Development Research Group (using custom data from IMPLAN). All of these sources involve a charge to users.
10. Analysis systems that calculate and display various elements of the cost of doing business by industry and area include DEALS from Dealtek, LEAP from Economic Development Research Group and Policy Insight from REMI. The first two address many facets of industry competitiveness, while the third one focuses just on cost competitiveness. All three are proprietary systems offered for a fee by private providers.
11. Analysis systems for calculating local economic and tax impacts of business expansion/contraction include Retention and Relocation Model from Elliott Pollack & Co., IMPLAN Model from Minnesota Implan Group, REDYN Model from Regional Dynamics and Policy Insight Model from REMI. All are proprietary systems offered for a fee by private providers.
12. An economic impact model applied before the opening of the BMW assembly plant in South Carolina would normally have calculated that the flow of dollars to auto parts suppliers would go mostly out of state, since there was no major auto parts industry in the state at that time. It would not have known that the cooperative efforts of BMW and the state would subsequently lead to the attraction of 49 new auto parts suppliers, creating thousands of additional jobs.
13. Council for Community and Economic Research 2006 National Award for Applied Research; IEDC 2005 Recognition Award for Research Studies.
14. Bendavid-Val, Avrom. Regional and Local Economic Analysis for Practitioners, fourth edition. 1991.

NEWS FROM IEDC

IEDC'S ECONOMIC RECOVERY VOLUNTEER PROGRAM

IEDC's Economic Recovery Volunteer Program deploys members to regions of the hurricanes Katrina and Rita impact zone to provide technical assistance to EDOs and businesses located in the Gulf Coast area. Launched in September 2005 with an EDA grant, the Program was named in June to the 2007 Associations Advance America Honor Roll and was a finalist for EDA's Excellence in Economic Development Award 2007.

Over 119 volunteers have contributed 750 days of service to locations in southern Louisiana, Mississippi, and Texas. IEDC member John Zakian, CEcD, has been one of the most enthusiastic and successful program participants, as a seven-time Gulf Coast Economic Recovery Volunteer.

ANNUAL CONFERENCE FEATURES BI-LATERAL MEETINGS

During the 2007 Annual Conference, IEDC is scheduling bi-lateral meetings with its international partners to promote an international exchange of information, experience, and best practices among practitioners and organizations. The collaboration seeks to facilitate international learning and the development of networks for information sharing among organizations and members.

IEDC will meet with the Economic Development Association of New Zealand, the European Association of Development Agencies, and the World Association of Investment Promotion Agencies. An additional bi-lateral meeting will take place between IEDC and Mexico.

FALL EDUCATION COURSE OFFERINGS

IEDC's education course offerings are the leading source of learning for economic development professionals at all levels. Courses are interactive, providing a national perspective focusing on real-life experiences, best practices, and tools you can use in your community. Instructors include some of today's top experts in economic development.

The fall lineup includes: Oct. 11-12, Managing Economic Development Organizations, Dallas, TX; Oct. 22-24, Economic Development Credit Analysis, St. Petersburg, Fl; and Nov. 13-14, Economic Development Strategic Planning, Baltimore, MD. For the full calendar, visit www.iedconline.org.

INTERNAL REORGANIZATION UNDERWAY AT IEDC

An internal reorganization is underway at IEDC, setting the stage for increased efficiency and organizational growth. IEDC is shifting to staff departments organized by "key functions" as compared to "program areas." Following are new departments and staff leads:

Professional Development & Education
(programming, content development)
Shari Garmise, Vice President

Marketing, Business Development & Membership
(marketing, communications, member relations)
Jill Frick, Vice President

Meetings
(meeting planning, logistics)
Dawn Keane, Director

Advisory Services & Research
Ed Gilliland, Vice President

Finance & Administration
(accounting, IT, human resources)
Sharon Coy-McDavid, Senior Director

Association of Defense Communities
(affiliate management)
Paul Kalomiris, Executive Director

IEDC PROVIDES TECHNICAL ASSISTANCE TO CITY OF WENDENG, CHINA

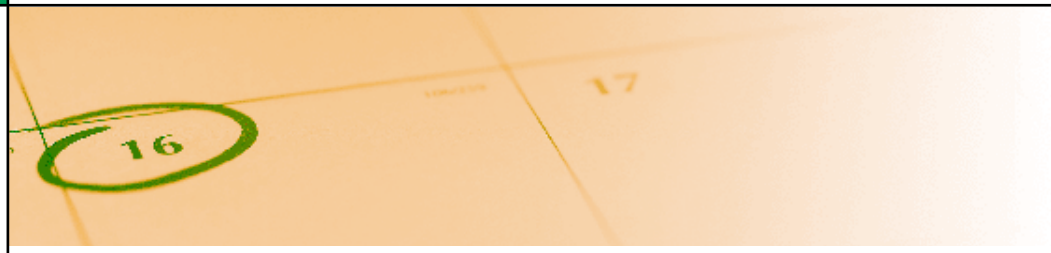
IEDC is working with the United Nations Industrial Development Organization (UNIDO) China office to provide the City of Wendeng, China with technical assistance on its economic development zone. IEDC is providing strategic recommendations on upgrading the zone to include higher wage, higher tech employment, encourage SME growth, and for sustainable development of the local economy.

An expert panel team made several site visits to Wendeng. In July, Jeff Finkle, CEcD; Ed Gilliland, CEcD; and Carrie Ridgeway gave an interim presentation and hosted the Wendeng delegation in Washington, D.C. prior to a two-week US study tour, introducing strategic practices in industrial park management and development. The final presentation occurred in China at the end of August.

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

The Power of Knowledge and Leadership

CALENDAR OF EVENTS



IEDC sponsors an annual conference and a series of technical conferences each year to bring economic development professionals together to network with their peers and learn about the latest tools and trends from public and private experts. IEDC also provides training courses throughout the year for professional development, a core value of the IEDC. It is essential for enhancing your leadership skills, advancing your career, and, most importantly, plays an invaluable role in furthering your efforts in your community.

For more information about these upcoming conferences and professional development training courses, please visit our website at www.iedconline.org.

CONFERENCES

2007 Annual Conference
September 16-19, 2007
Phoenix, AZ

2008 Leadership Summit
February 3-5, 2008
Orlando, FL

2008 Federal Forum
April 13-15, 2008
Alexandria, VA

Building Cutting Edge Public-Private Partnerships
June 8-10, 2008
Charlotte, NC

2008 Annual Conference
October 19-22, 2008
Atlanta, GA

PROFESSIONAL DEVELOPMENT

Introduction to Economic Development
October 8-10, 2007
San Antonio, TX

Managing Economic Development Organizations
October 11-12, 2007
Dallas, TX

Economic Development Credit Analysis
October 22-24, 2007
St. Petersburg, FL

Introduction to Economic Development
October 29-31, 2007
Great Falls, MT

Business Retention and Expansion
November 1-2, 2007
Cape Girardeau, MO

Economic Development Strategic Planning
November 13-14, 2007
Baltimore, MD

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TRADE MISSIONS IMPROVE CORPORATE PERFORMANCE?

By Dr. Don R. Beeman, Hans Rosebrock, and Oanh Tran

INTRODUCTION

Because exports are a major driver of job creation, many organizations (government, non-profit and for profit) have programs to help firms become more effective in export development. Despite the abundance of such programs, it is unclear to what extent they actually serve as catalysts for increased exports, employment or other related dimensions of corporate performance. This article examines the impact of one such program, FirstEnergy's EXPORT NOW program, which has been carried out by FirstEnergy Corporation, a diversified energy company that has served the states of Ohio, Pennsylvania, and New Jersey, since 1995.

FirstEnergy customers have been invited by Groupo Femsa's Cuauhtemoc Brewery to bid on product and service needs on past EXPORT NOW trade missions to Monterrey, Mexico.

PERFORMANCE, EXPORTING, AND EXPORT DEVELOPMENT PROGRAMS

There is a significant body of literature addressing the connections among firm performance, exporting, firm characteristics, and export assistance programs. The research between exporting and firm performance is extensive but has shown very mixed results. Girma et. al. (2002) investigating UK manufacturing firms found that exporters were more productive; while, Bernard and Jensen (1999) found that exporters experienced faster employment growth but did not show greater productivity. Arnold and Hussinger, studying German manufacturers, concluded that high productivity firms self-selected into export markets but that exporting did not heighten productivity. These and other studies are summarized in Table 1.

Studies have also examined the relationship between firm size and export performance, again with mixed findings. Ali and Swiercz (1991) surveyed 500 corporations in Kansas, Missouri, and Nebraska, concluding that size influenced numerous aspects of export activity, but that this relationship was interactive with other variables. Bonaccorsi, studying 8,810 Italian companies, found that firm size was positively associated with propensity to export and negatively associated with

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A 10-YEAR ANALYSIS OF NAFTA VISITATIONS

Exports can be a driver for job creation. As such, many economic development organizations have established export assistance programs to garner employment growth. Small to medium sized firms, many of which do not have the resources and internal expertise to investigate global expansion, could be helped by export assistance programs. Literature regarding the effectiveness of such programs has been mixed. FirstEnergy Corporation's EXPORT NOW program has assisted 180 companies with exporting products/services between 1995 and 2004. Of the 180 companies participating in the program during this 10-year period, small to medium sized companies demonstrated clear job growth. FirstEnergy's EXPORT NOW program reveals that small to medium sized manufacturers, open minded about international trade and willing to explore opportunities, with assistance, can find them and create jobs in the process.

export intensity. Calof (1994) analyzed 14,072 Canadian manufacturers and came to similar conclusions. Sterlacchini's (2000) survey of 4,005 Italian manufacturing firms found that for small firms, there is a "positive and significant correlation between size and export performance". Voerman, et. al. in an empirical study of small and medium sized European enterprises (SMEs) found that country-of-origin, industrial sector, and *firm size* impacted export market information collected which in turn was positively correlated with export performance. Others have found positive relationships between size and export success. There have also been studies that found no relationship or even a negative relationship between size and export success. Patibandla (1995) reported a *negative* relationship between firm size and export intensity. Wolff and Pett (2000) surveyed 157 Midwestern firms and found *no relationship* between firm size and export performance as did Bonaccorsi, 1992; and Moini, 1995.

The literature also indicates that a major barrier to export success is the lack of market information (knowledge). Information is vital in reducing the level of uncertainty associated with foreign business environments (Welch and Wiedersheim-Paul, 1980). Informational barriers impact both the export management decision making and export performance (Morgan and Katsikeas,

Table 1 – A Summary of the Key Features of Studies of Exports and Productivity

Study	Country	Sample	Methodology	Results
Bernard and Jensen (1999)	US	50-60,000 plants 1984-1992	Linear probability with fixed effects	Self selection of exporters Absence of learning from exporting. Higher productivity of exporters
Delgado, Farinos and Ruano (2001)	Spain	1,766 firms 1991-1996	Non-parametric analysis of productivity distribution	Higher productivity of exporters Self selection of exporting firms Inconclusive evidence on learning
Aw and Hwang (1995)	Taiwan	2,832 firms 1986	Translog production function Cross section	Higher productivity of exporters Self selection Absence of learning from exporting
Castellani (2001)	Italy	2,898 firms 1989-1994	Cross section	Higher productivity of exporters Learning associated with export intensity
Kraay (1999)	China	2,105 firms 1988-1992	Dynamic panel	Higher productivity of exporters Learning from exporting
Clerides, Lach and Tybout (1998)	Colombia Mexico Morocco	All plants 2,800 firms All firms 1981-1991 1986-1990 1984-1991	FIML of cost functions Panel data	Exporting firms more efficient than non-exporting firms Quitters less productive No learning from exporting in Colombia and Mexico Some learning from exporting in Morocco Spillovers from exporters to non-exporters
Bernard and Wagner (1997)	Germany	7,624 firms 1978-1992	Panel data	Higher productivity of exporting firms Self selection of exporters
Wagner (2002)	Germany	353 firms 1978-1989	Panel data Matching	Higher productivity of exporting firms Absence of learning from exporting
Girma, Greenaway and Kneller (2002)	UK	8,992 firms 1988-1999	Panel data Matching Differences in differences	Higher productivity of exporting firms Self selection of exports Learning from exporting
Girma, Greenaway and Kneller (2003)	UK	658 firms 1988-1999	Panel data Matching Differences in differences	Lower productivity of quitters
Bigsten et. al. (1999)	Kenya Ghana Zimbabwe Cameroon	1992-1994 1991-1993 1992-1994 1992/93- 1994/95	Panel data Stochastic frontier production model	Learning by exporting effect Self selection of exports Increases in efficiency of exporting firms

1997). Stated differently, having foreign market knowledge positively influences export performance (Styles and Ambler, 1994; and Moini, 1995). Overall, the literature suggests a positive but indirect relationship between market information and export performance.

There are two ways to correct a lack of market knowledge: international marketing research or hands-on export experience including training programs. Numerous studies conclude that the extent of market research explains export performance (Dominguez and Sequeira, 1993; and Moini, 1995). Hands-on programs like export assistance programs generally are divided into two main categories (1) export services programs (e.g., how-to-export handbooks, seminars for potential exporters, export counseling, and programs on export financing) and (2) market development programs (e.g., dissemination of sales leads to local firms, participation in foreign trade shows, preparation of market analysis, and export news letters). Export services programs are often considered *informational*; whereas, the market development type programs are viewed as *experiential*.

Small firms that are not currently exporting generally give low ratings to all types of programs: government services, international trade shows, seminars or workshops, and government offices overseas (Howard and Herremans, 1988). The U.S. Department of Commerce itself estimates that some 20,000 small and medium sized firms with export potential were unable to successfully act on that potential because of ineffective federal, state and private agency assistance and promotion programs (Kathawala and Elmuti, 1990; and Rosenthal, 1989).

Trade missions, in which members of the business community along with government officials visit export market countries, are among the most widely publicized programs. Even though states describe gubernatorial trade missions as among their most successful export development initiatives, studies of their value are mixed at best. Moini (1998) found that trade missions ranked last among 16 assistance programs in terms of received or expected benefits. Exporters who had the most experience with trade missions, ranked them extremely low, indicating that trade missions were of little importance in export success (Silverman, Castaldi and Sengupta; 2002).

Studies of export development activities are conflicting. Howard and Herremans (1988) found **"trade fairs"** were ranked second in "helpfulness" among successful exporters from a list of 23 export assistance activities; whereas, Kedia and Chokar (1986) found that interest in trade fairs among both exporters and non-exporters ranked last among export promotion programs.

CONCLUSION FROM THE LITERATURE

In light of the complexity and contradictory character of the literature, the conclusions that can be drawn would seem to be that one:

1. Needs to evaluate the effectiveness of each program separately,
2. Must be careful on extrapolating the results to other locations and situations, and
3. We are just not sure what will work to make firms more productive exporters.

Hylsamex's Galvak Plant in Monterrey, Mexico, (galvanized steel coatings) has sourced materials from FirstEnergy EXPORT NOW customers.

EXPORT NOW

OVERVIEW

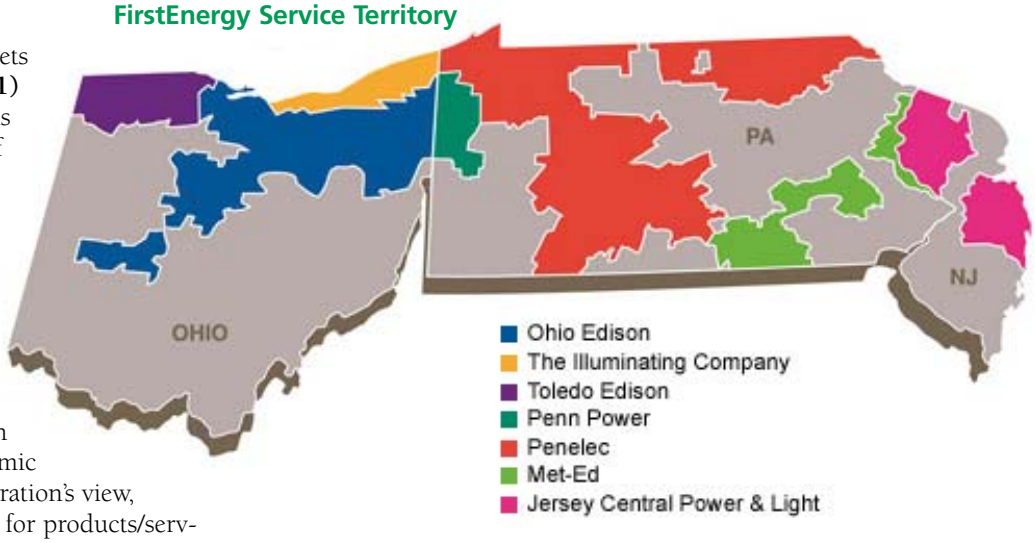
FirstEnergy's (FE) Economic Development Department established in 1995 an export assistance program, called EXPORT NOW, which provides direct support to small and medium sized manufacturers in Ohio, Pennsylvania, and New Jersey (see FE Service Territory Map). During the period from 1995 to 2004, FE helped 180 companies increase international sales by an estimated aggregate of $50 million to $117.6 million, following their participation in a trade mission/event. These results have been officially recognized at the state and national levels.

In 1998 and 2005, the State of Ohio recognized the program when it received the Governor's "Excellence in Exporting Award." The EXPORT NOW program won national recognition in 2000 by winning the "Export Trade Gold Award" from the Council for Urban Economic Development (now IEDC). In 2003, 2004, and 2005, the U.S. Department of Commerce offices in Ohio and Pennsylvania gave the program its "Export Achievement Award."

MISSION

The overall mission of the program is to assist small to medium sized manufacturers, although the program has also helped several large industries and service related companies, with selling products and/or services into

Mexico and Canada. These markets were selected based on three factors: **1)** the opportunities created for U.S. firms under NAFTA, **2)** the relative ease of doing business in these countries that share a common border with the U.S., and **3)** FE's belief that after mastering the learning curve for selling to our NAFTA partners, companies will be better prepared to sell to other international markets.



The mission behind the program is unique in that it accomplishes both a corporate and community economic development goal. First, in the corporation's view, the more demand that can be created for products/services sourced from FE's service territory, the more electric energy companies will consume in production. This in turn enhances FE's revenue and stockholder value and ties a geographically regulated utility indirectly to economic growth throughout the globe. EXPORT NOW is also seen as a valuable community economic development tool for maintaining or expanding investment and employment opportunities in the communities in which FE serves.

Hans Rosebrock, Economic Development, FirstEnergy, (left), Ernesto de Keratry, Senior Trade Specialist, USDOC Monterrey, Mexico, (middle), and Larry Morris, Economic Development, FirstEnergy (right) outside the offices of the Industrial Chamber of Commerce (CAINTRA) for Saltillo, Mexico.

STRUCTURE

REP COM/Trade Mission Format – When this program was being developed, several options were looked at for providing export assistance directly to FE industrial customers. It was decided to work directly with the U.S. Department of Commerce's International Trade Administration (USDOC). The USDOC (http://www.export.gov) has a long history of providing a plethora of services to U.S. firms wanting to sell internationally.

One channel of assistance has been what is termed REP COM and GOLD KEY trade events in particular international markets. REP COMs are horizontal trade shows, sponsored by the USDOC, geared for U.S. companies to make contact with potential sales representatives, distributors, and/or direct sale customers in an urban area or region of a particular country. These events are more than trade shows in that the show itself is just one component of three days' activities.

Another important component is outside appointments arranged for participants by USDOC staff. These GOLD KEY appointments are researched by USDOC trade specialists, housed in a U.S. embassy or consulate in the particular area where the event will be held, for a possible match based on the U.S. company's products/services and the potential buyer's stated wants.

Under the EXPORT NOW program, FE works directly with the USDOC officials located in Mexico and Canada to bring companies to scheduled REP COM events in Mexico City, Monterrey, Guadalajara, Toronto, and Montreal. FE then subsidizes companies that are interested in traveling to these events by partially or fully paying the participation fee the USDOC charges. This can equate to a value of up to $2,100 per company. EXPORT NOW on average takes eight to ten companies as a group to a REP COM event.

Recruiting for Trade Missions FE has a five-pronged approach to recruiting for REP COM and GOLD KEY events:

1) targeted mailings to industrial customers located in the service territory;
2) partnering with local, regional, and state economic development groups to disseminate information about upcoming trade missions and to obtain leads on companies that might have an interest in Mexico or Canada;
3) acting as a sponsor and participating in the annual world trade conferences and seminars;
4) working with domestic USDOC offices in Ohio, Pennsylvania, and New Jersey; and
5) informing other FE employees who deal directly with customers, such as customer service representatives, about upcoming trips.

In the recruiting for companies to take to a REP COM event, FE focuses on small to medium sized manufacturers that have done little or no exporting, although several large manufacturing firms and service related companies have participated. Another evaluation criterion looked at closely is products/services offered by firms and the potential for sales opportunities to be made in the market these firms have an interest in. FE is also cognizant of, and has established, a corporate policy to help provide business opportunities to female and minority owned businesses. As such, several female and minority owned businesses have participated in trips to Mexico and Canada.

Preparing for Trade Mission Trips – Once a group of eight to ten companies has been selected to travel to a USDOC REP COM event, FE provides a range of services before the actual trip to help participants with:

1) developing sales opportunities;

2) gaining practical knowledge of Mexico or Canada's business climate, customs, and practices;

3) appreciating cultural differences; and

4) shipping and travel accommodations.

FE provides technical assistance to the selected participants in regard to the forms and documents needed by the USDOC to begin the research phase of finding interested parties for the companies' products/services. It also provides extensive hardcopy documentation and organizes a pre-trip seminar that addresses doing business in the country where the REP COM will be held. Lastly before the trip, FE provides information on shipping sample products/display literature and on travel associated with airline and hotel options.

FE economic development staff also travel to the REP COM with participants and assist with various items at the event. It also co-hosts a reception for participants with the USDOC during the event, at the REP COM location, to help foster informal discussions with Mexican or Canadian business contacts. This is especially important in Mexico where the culture calls for developing a level of friendship before entities move on to establishing a business relationship.

Trade Mission Evaluation and Follow-up – After a trip is completed, FE performs an extensive evaluation using two survey instruments, one provided by the USDOC and the other developed in-house. Each company is interviewed to acquire quantitative data regarding the number of scheduled appointments, qualified sales leads, agents appointed, and projected sales revenues one year and two years following the REP COM event. Likert scale measurements are then taken regarding the service FE provides before and during the trade mission.

Companies usually need additional assistance after the event. It is at this time that EXPORT NOW works directly with state development agencies and local international trade assistance centers. FE recommends then working with state and local international trade officials and their staffs after the event to assist with sales lead follow-up and other issues associated with potential business transactions.

FirstEnergy EXPORT NOW participants enjoy a dinner reception hosted by the Governor of the State of Aquascalientes, Mexico, on a recent trade mission for automotive suppliers.

RESULTS

EXPORT NOW was established in 1995 and the first REP COM trade mission held in December of 1995 in Mexico City. At that first event, four companies participated with FE and generated projected sales of $875,000 for the one year following the event and $2.7 million two years following the event. Overall, FE's EXPORT NOW program has participated in 17 trips to Mexico and ten trips to Canada. From 1995 to 2004, 180 companies participated in the program and as a result of these trade missions have estimated new sales, in aggregate, ranging from $50 million to $117.6 million.

EVALUATING THE EFFECTIVENESS OF EXPORT NOW

Originally the plan was to study the impact of this program on both sales and employment; unfortunately, specific sales data for individual firms studied proved to be unavailable. Thus, the study was reduced to only the impact on employment before and after participation in this program.

On the basis of the research done of exporting, we sought to answer two questions.

Q1: Did EXPORT NOW help improve corporate performance of participating firms as a whole.

Q2: Did EXPORT NOW help improve corporate performance of small and medium-sized firms to a greater extent than larger firms.

From 1995 to 2004, 180 companies participated in EXPORT NOW. All participating companies are headquartered or have operations in the states of Ohio, Pennsylvania, or New Jersey served by FirstEnergy.

Table 2 -- Firm Categories

Categories	Sales Size
Size 1 – Small	1MM-4.9MM
Size 2 - Low Medium	5MM-9.9MM
Size 3 – Medium	10MM-24.9MM
Size 4 - High Medium	25MM-49.9MM
Size 5 – Large	>50MM

Participating businesses varied in size and other demographics, but manufacturers were the dominant group. Companies studied had annual sales from under $500,000 to greater than $500 million and employment levels from under five people to over 3,000 (See Table 2).

Aggregate data related to sales, employment, and plant/facility size was collected for all 180 companies from Harris Infosource – an online business database and Harris traditional print directories which included Harris Ohio Industrial Directory, Harris Pennsylvania Industrial Directory, and Harris New Jersey Industrial Directory. Data was collected for the period of 15 years (1990 to 2004).

Bay Controls of Maumee, Ohio, participating with FirstEnergy's EXPORT NOW program at a Rep Com trade event.

Unfortunately, the sales data from the Harris directories provided only ranges and not actual figures. In order to compensate for this limitation, a telephone survey was attempted; however, the collected data was insufficient for a comprehensive evaluation of program effectiveness since it was difficult to get companies to supply sales figure at all and especially for periods dating back to 1990. For this reason, the study was limited to employment data for which accurate annual data was available. This was more than acceptable since from an economic development perspective, job creation is one of the major reasons for export promotion. Furthermore, employment levels can serve as a proxy for overall corporate performance.

In analyzing the effect of participation in this activity, PERFORMANCE (employment change) was assessed for three years prior and three years after the EVENT (participation in EXPORT NOW). The year of the event was viewed as "year t." Corporate employment levels were collected for three years prior to year t (t-1, t-2, t-3), for year t, and for the three following years (t+1, t+2, t+3). We compared the rate of growth of employment before participation (year t-3 to year t) with the rate of employment growth after (year t to year t+3). This approach is very similar to that employed by Wagner in his 2001 German study.

For some companies in the sample, complete data for all seven years was not available. These firms were removed from consideration and only those with no missing data were considered. To minimize any effects from national or regional economic cycles, we pooled all companies regardless of what year they actually participated in EXPORT NOW.

The result was completed data for 100 companies. These firms were representative of all major industries in Ohio, Pennsylvania, and New Jersey and ranged in employment from under five people to more than 3,000 employees.

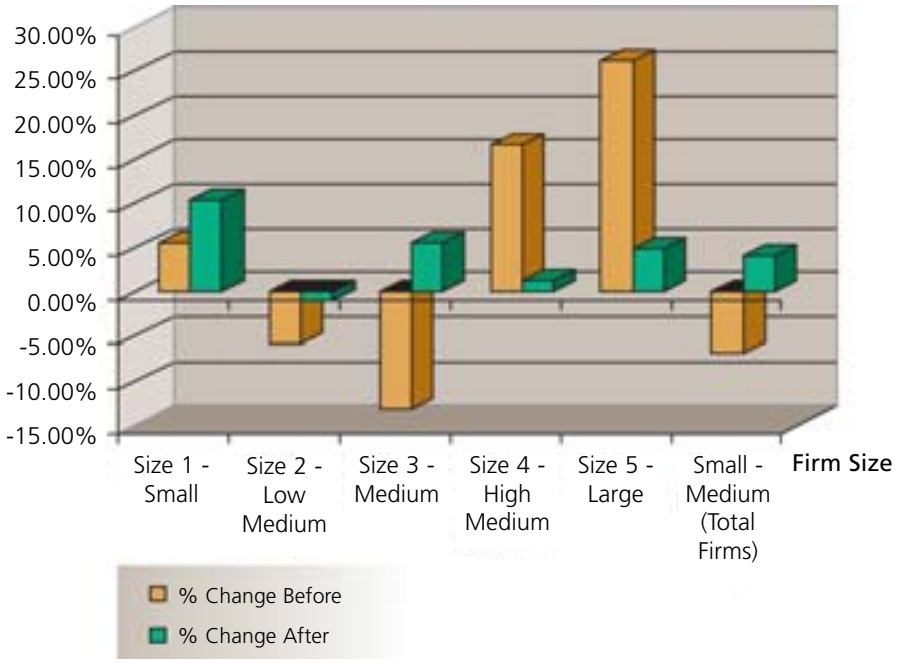
For the overall sample, the rate of employment growth before the international trade development visit was actually higher than after, 8.48 compared to 1.80 percent. Clearly the program did not improve the performance of the sample as a whole.

What was the effect on small and mid-size firms? To answer this question it was necessary to evaluate the employment trends by firm size and for the combined group of all small and medium sized businesses (See Figure 1). This allowed for an understanding of which groups seemed to benefit from the program. To do this, the sample was segmented into five groups according to their sales size (Table 2). Table 3 reports the results for each category. These data reveal that small to medium

Figure 1. Employment Trend (All Firms)

size firms (sales $1 million to $25 million) had the biggest growth in employment after their international visit. The employment growths before participation in the event were 5.43, -5.87, and -13.20 percent for small, low medium, and medium-sized firms respectively. The employment growth rates after participation were significantly higher: 10.30, -1.02, and 5.44 percent respectively. For each category, employment performance was improved: a larger positive growth rate, a lesser negative growth rate, and a change from a negative growth rate to a positive one (See Figure 2).

Figure 2. Percentage change of employment 3 years before & after international visitations



DISCUSSION

It is obvious from the above results that small and medium size enterprises (SMEs) that participated in the EXPORT NOW program increased employment. Overall, SMEs went from declining employment of nearly 7 percent to an increase of 4 percent. This suggests significant increases in sales and production. Small firms gained the most benefits from the structured international visitation program because their employment increased significantly. This group's employment growth went from 5.43 percent before the trip and 10.30 percent after, nearly double.

Employment in medium sized firms also grew significantly. This group of companies' employment had been decreasing continuously before they participated in the program, from 1,674 in year (t-3) to 1,453 in year (t), which resulted in a negative growth percentage change of -13.20 percent. After participating in the program, this trend totally reversed. Employment grew from 1,453 in year (t) to 1,532 in (t+3). This was a positive growth percentage change of 5.44 percent. Collective results for all small, low medium, and medium sized firms seem to confirm that the international visitation positively affected the performance of small to medium sized firms the most.

As the business environment continues to become increasingly globalized and competitive, Fortune 500 type corporations have the capital resources and internal knowledge to explore potential opportunities around the world. Small to medium sized firms, many of which do not have the resources and internal expertise to investigate global expansion, could be helped by export assistance programs. These programs can act as a catalyst to move small to medium sized firms to think more internationally and hopefully act on opportunities for growth. It is important for these businesses to understand how export assistance programs can help them and how they can make the most of the opportunity to utilize the programs. FirstEnergy's EXPORT NOW program demonstrates that small to medium sized manufacturers, open minded about international trade and willing to explore opportunities, with assistance, can find them and create jobs in the process.

It is also crucial for export assistance providers such as the federal government, states, and private organizations to learn what formats work best and which companies and industrial sectors actually benefit from such programs. This knowledge will in turn help providers allocate funds and activities more effectively in order to help potential exporters conduct international business more proficiently.

Table 3 Comparison of employment three years before and after international visitations

		% Change	Average	T-3	T-2	T-1	T	T+1	T+2	T+3	Average	% Change
Size 1 - Small	1MM-4.9MM	5.43%	781	718	776	850	757	747	821	835	801	10.30%
Size 2 – Low Medium	5MM-9.9MM	-5.87%	1,440	1,465	1,433	1,422	1,379	1,407	1,374	1,365	1,382	-1.02%
Size 3 - Medium	10MM-24.9MM	-13.20%	1,645	1,674	1,650	1,610	1,453	1,584	1,523	1,532	1,546	5.44%
Size 4 – High Medium	25MM-49.9MM	16.59%	472	458	479	479	534	495	515	540	517	1.12%
Size 5 - Large	>50MM	26.13%	3,170	2,870	3,720	2,920	3,620	3,575	3,805	3,797	3,726	4.89%
Small - Medium Firms		-6.95%	3866	3857	3859	3882	3589	3738	3718	3732	3729	3.98%

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ex-im bank:

A VALUABLE PARTNER

By Marianna Ohe

INTRODUCTION

Exporting is a key to economic growth for U.S. small and medium-sized businesses. U.S. economic developers can help companies in their communities compete in global markets by working with a valuable partner – **the Export-Import Bank of the United States (Ex-Im Bank)**.

Ex-Im Bank is an independent federal government agency that helps finance U.S. exports. It is the U.S. government's official export credit agency, similar to those operated by most developed nations, including Export Development Canada (EDC), SACE of Italy, and Nippon Export and Investment Insurance (NEXI) of Japan.

Many of the export transactions supported by Ex-Im Bank are assisted through its **City/State Partners Program**, a national marketing initiative that brings export financing to small and medium-sized U.S. companies through cooperation with state and local governments and private sector nonprofit economic development organizations.

"Each U.S. company that we support through our City-State Partners has the opportunity to expand its workforce while reaching new markets," explains Ex-Im Bank Chairman and President James H. Lambright. "The program enables us to widen our reach and help many more small and medium-sized businesses than we otherwise could."

No transaction is too small for Ex-Im Bank to consider financing, nor is there any maximum amount, according to Lambright.

City-State Partners "walk" local businesses through the process of applying for a wide range of Ex-Im Bank financing tools that will enable them to better compete in international growth markets abroad. These tools include working capital guarantees and export credit insurance for U.S. exporters, and commercial loan guarantees for foreign buyers of U.S. goods and services.

Photo Courtesy of Anitox Corporation.

Anitox Corporation in Lawrenceville, Ga., a small-business pioneer in the development and manufacture of antimicrobial products, has used Ex-Im Bank's small-business export-credit insurance and working capital guarantees to export its products to international markets such as Mexico, Thailand, Malaysia, Brazil and Peru.

Marianna Ohe is a public affairs specialist with the Export-Import Bank of the United States.

THE IMPORTANCE OF GLOBAL TRADE

Never has it been more important to support U.S. exports. According to the World Trade Organization, exports worldwide totaled more than $12 trillion in current dollar values in 2005, a 13 percent rise for merchandise exports and 10 percent for commercial service exports.

Trade has fueled the greatest aggregate wealth

HELPING U.S. SMALL BUSINESSES GROW THROUGH EXPORTING

Economic developers have a valuable partner in the Export-Import Bank of the United States (Ex-Im Bank) in helping U.S. companies grow through exporting. Ex-Im Bank, a federal trade agency, provides financing to assist U.S. exporters, especially in higher-risk developing markets. Ex-Im Bank supports U.S. exports of all sizes and has a special focus on small business. Through its City/State Partners Program, the Bank works closely with state and local governments and private-sector organizations to reach out to small and medium-sized U.S. businesses to help them obtain the export financing they need.

creation in history by spurring productive enterprise. U.S. exports have soared from about $42 billion in 1969 to nearly $1.3 trillion in 2005. That represents an increase from about 4 percent of GDP to about 10 percent. Approximately one in 10 U.S. jobs is now dependent on exports, and statistics from the U.S. Commerce Department show that, on average, export-related jobs pay better.

Thomas J. Donohue, president and CEO of the U.S. Chamber of Commerce, noted in a July 2007 column that "[O]ur exports to the world support at least 12 million American jobs, jobs that generally pay 18 percent more than other jobs."

Over the past four decades, American exporting companies have helped create millions of jobs and $100 trillion of new net worth in the United States.

Photo Courtesy of Gerber Scientific Inc.

Photo Courtesy of Gerber Scientific Inc.

Gerber Scientific Inc., a producer of equipment and technology for sign-making and specialty graphics in South Windsor, Conn., used an Ex-Im Bank-backed working capital loan from Citizen's Business Credit Corporation in Boston, Mass., to export $113 million of its products and services.

AQUATECH INTERNATIONAL CREATES JOBS THROUGH EXPORTS

Aquatech International Corporation in Canonsburg, PA, a maker of cutting-edge water purification equipment, is an example of this trend. According to President and CEO Venkee Sharma, Aquatech's exports supported by Ex-Im Bank make up roughly half of the company's business. In the decade that Aquatech has relied on Ex-Im Bank's working capital guarantees, the company has grown from 75 to approximately 150 employees.

Aquatech is exporting a waste water recycle/reuse facility to an oilfield project in Oman valued at over $100 million with the help of a $23 million working capital loan guarantee from Ex-Im Bank. The facility will use MVC evaporation technology to desalinate and recycle waste water generated by an enhanced oil recovery facility. The loan from PNC Bank in Pittsburgh, PA, provides Aquatech with working capital to fulfill its contract to supply equipment and services to Occidental Mukhaizna LLC, a subsidiary of Occidental Petroleum, and Contractors Technical Services LLC in Oman.

As this export sale demonstrates, Ex-Im Bank's specialty is helping to finance U.S. exports to promising emerging markets where commercial financing is unavailable or insufficient. In other words, the Bank supports exports that otherwise would not go forward. These exports enable U.S. firms to expand production and sales and help developing countries and their companies obtain high-quality U.S. goods and services that they need to grow.

Ex-Im Bank now has 46 city-state partners in 38 states, plus the Commonwealth of Puerto Rico. These include finance assistance centers, international world trade centers, industrial/economic development agencies, offices of international commerce, and small business development centers.

WASHINGTON CITY-STATE PARTNER BOOSTS INSURANCE SUPPORT TENFOLD

"We exist to help small businesses with difficult credits," says Warran Gross, managing director and president of the Seattle-based **Export Finance Assistance Center of Washington (EFACW),** an Ex-Im Bank City-State Partner since 1989. "In most cases Ex-Im Bank is the only practical source of risk protection for U.S. small business exporters in Washington."

EFACW is a nonprofit organization funded on a contract basis by Washington state's Department of Community Trade and Economic Development. Historically, EFACW completes nearly 40 risk mitigation and financing commitments annually in partnership with Ex-Im Bank to support $40 million to $60 million of exports by Washington small businesses.

Since it began marketing Ex-Im Bank insurance, EFACW's insurance policy count in the state has increased tenfold, contributing significantly to this total export value. EFACW's staff is known and trusted by bankers, insurance brokers and government agencies, and can bring these organizations together with Washington small businesses seeking to export.

75 PERCENT OF FLORIDA CITY-STATE PARTNER'S FINANCING BACKED BY EX-IM BANK

The **Florida Export Finance Corporation (FEFC)**, a not-for-profit organization owned by the state of Florida, also is an Ex-Im Bank City-State Partner. FEFC does approximately $200 million in financing a year for Florida exporters that have been unable to receive financing from conventional lenders.

"About 75 percent of that financing is supported by Ex-Im Bank for transactions that we do not have the funding capacity to handle," says FEFC President and CEO Stephen Fancher. "A major hurdle for many businesses seeking to export is access to affordable working capital. We've lowered that hurdle by partnering with the federal government and the state's banking community. Now companies that otherwise couldn't export are competing globally."

FEFC focuses on packaging and quickly processing applications by Florida small and medium-sized businesses for export financing from Ex-Im Bank and other government agencies.

EX-IM BANK PROGRAMS AND POLICIES

Since its founding in 1934, Ex-Im Bank has supported close to a half trillion dollars in U.S. exports, and millions of U.S. jobs. In fiscal year 2006, the Bank authorized nearly $12.1 billion in transactions supporting almost $16.1 billion of U.S. exports. More than $3.2 billion of these authorizations, representing 2,253 transactions, directly supported U.S. small businesses as primary exporters.

Photo courtesy of PTSI.

Pharmaceutical Trade Services Inc., (PTSI) a small-business exporter of U.S. prescription drugs and pharmaceutical supplements in Gautier, Miss., uses Ex-Im Bank's short-term export-credit insurance to export to customers in Europe, the Middle East, Southeast Asia, Africa and Latin America.

Ex-Im Bank provides all the support and resources its City-State Partners need to work with local companies, including training and marketing materials at no cost; highly qualified trade finance specialists to speak at partners' events; assistance with joint marketing and outreach campaigns; a network of lenders, insurance brokers, and U.S. government export resources; and one-on-one trade finance counseling.

The Bank has a major focus on small business. It also serves as a catalyst that paves the way in opening up and cultivating more difficult markets.

Ex-Im Bank is active in about 90 markets. It supports every kind of export – from capital goods associated with large infrastructure projects, jet aircraft, medical equipment, and engineering and other services to consumer products and services by thousands of small businesses.

In addition to providing financing in areas where private capital alone cannot afford to take either the political or commercial risk that Ex-Im Bank underwrites, the Bank also seeks a level playing field for U.S. exporters by helping them to meet international competition supported by foreign governments.

Ex-Im Bank Working Capital Guarantees. Ex-Im Bank's working capital guarantee helps small businesses by covering 90 percent of the principal and interest on working capital loans for various export-related purposes, including the purchase of raw materials or finished products; production of exports; and coverage of standby letters of credit serving as bid bonds, performance bonds or advance payment guarantees.

Most of these working capital guarantees are done directly through commercial lenders that the Bank calls "delegated-authority lenders." These lenders can commit Ex-Im Bank's guarantee at the time of the credit decision without prior approval from the Bank – expediting exporters' access to capital.

In all, there are more than 200 of Ex-Im Bank delegated-authority lenders nationwide. The City-State Partners work closely with these lenders.

Ex-Im Bank Insurance. The Bank's export credit insurance protects mostly small-business exporters and their lenders against the commercial and political risks of a foreign buyer defaulting on payment. Export credit insurance – which can cover multiple buyers, countries, and transactions – also enables exporters to extend short-term credit terms directly to their international buyers.

Medium-term insurance opens up major opportunities to U.S. companies seeking to sell their capital goods in emerging markets. It is a niche that the private sector does not fill since private insurers do not like the longer terms of this insurance, especially in riskier markets.

Ex-Im Bank Guarantees. Ex-Im Bank's medium- and long-term guarantees of commercial bank loans are widely used to support larger exports such as capital goods. The Bank can provide capacity in markets such as Brazil or China where private sector lenders have reached their internal limits, thus helping them manage their exposure requirements.

Special Initiatives. Ex-Im Bank also has enhanced financing (including extended repayment terms) available for certain categories of U.S. exports, including environmentally beneficial goods and services, medical equipment, transportation-security equipment, and freight financing.

Ex-Im Bank Outreach. Ex-Im Bank works through seven regional offices. In addition to City-State Partners, the Bank widens its reach by working with the above-mentioned delegated authority lenders and a nationwide network of insurance brokers that help their clients select the best policies for their needs.

The Bank also works with other U.S. government agencies that are part of the Trade Promotion

Coordinating Committee, including the Treasury Department, the Department of Commerce (and its Export Assistance Centers located across the country), the Small Business Administration, the U.S. Trade and Development Agency, and the Overseas Private Investment Corporation.

Ex-Im Bank's Web site – www.exim.gov -- lists its partners and their locations. It also provides information on financing products, key transactions, export opportunities, and available training.

WHO IS ELIGIBLE TO BECOME AN EX-IM BANK CITY-STATE PARTNER?

Organizations that wish to join Ex-Im Bank's City-State Partners Program should have as their mission the promotion, creation, and expansion of U.S. businesses by making available financial assistance and entrepreneurial services to support exports. They must recognize the importance of assisting local businesses in creating jobs through exports.

City-State Partners stay up-to-date on Ex-Im Bank products and services, conduct export finance seminars and represent the Bank at seminars sponsored by the U.S. Export Assistance Centers, put exporters in touch with Ex-Im Bank trade finance specialists, and report annually on export outreach activities. To learn more about the program or apply to become a City-State Partner, please e-mail or call Wayne Gardella, vice president of Ex-Im Bank's Domestic Business Development, at wayne.gardella@exim.gov or 202-565-3787.

Ex-Im Bank is committed to strengthening its small business support. Growth in the City-State Partners Program will help achieve this goal. By pooling strengths, Ex-Im Bank and organizations with local-market knowledge and outreach can accomplish together what neither could do alone.

Image courtesy of PowerLight Corporation.

PowerLight Corporation of Berkeley, Calif., a leading global provider of solar power systems, developed and deployed a 1-megawatt solar power project at the Kim Dae Jung Exhibition and Convention Center in Gwangju, Korea. The project is being financed by a 15-year Ex-Im Bank-backed loan from City National Bank in Los Angeles.