

An IEDC Advisory Services Panel Report

MARKETING PLAN
for
STENNIS-MICHOUD
TECHNOLOGY CORRIDOR



INTERNATIONAL
ECONOMIC DEVELOPMENT
COUNCIL

MARKETING PLAN
for
STENNIS-MICHOUD
TECHNOLOGY CORRIDOR

November 2010
(updated March 2011)



International Economic Development Council
734 15th Street N.W., Suite 900
Washington, DC 20005

Letter from the IEDC Advisory Services Team

On behalf of the International Economic Development Council (IEDC), we are pleased to release the *Marketing Strategy for the Stennis Michoud Technology Corridor*. The purpose of this report is to help build cooperation and collaboration among civic, community and economic development stakeholders in growing and sustaining this technology corridor spanning from Southeast Louisiana to Southwest Mississippi.

IEDC greatly appreciates the input and assistance received from more than 30 regional stakeholders committed to this economic development initiative. This report is the result of their input, combined with critical feedback provided by an additional 40 stakeholders during a site visit in May 2010. IEDC Advisory Services Panel team members, which included Charles Hayes, CEcD Research Triangle Regional Partnership, Bernie McShea, Space Florida, Charles “Sid” Saunders, Pendulum Group, and Mark M. Sweeney, McCallum Sweeney Consulting, Inc., in partnership with IEDC staff helped to shape the report’s recommendations.

IEDC released a draft version of this report in the Fall of 2010 for comments. The following stakeholders provided additional feedback to strengthen the report:

- Bob Fudichar, Louisiana Economic Development
- William “Skip” Scaggs and Christine Lusteck, Mississippi Development Authority
- Mark York, National Aeronautics and Space Administration Authorization (NASA)
- Bobby Savoie and MaryAnne Schmidt, Geocent
- Kara Renne, New Orleans Regional Planning Commission
- Amy Quirk, City of New Orleans
- Michael Hecht, GNO, Inc.
- Tish Williams, Hancock County Chamber of Commerce and Partners for Stennis
- Brenda Reine-Bertus, St. Tammany Economic Development Foundation
- George Harker, University of New Orleans
- Ray Vogel, Jacobs
- Charles Beasley, Mississippi Enterprise for Technology

Their comments are summarized in three sections below: positive feedback on the report; updates and changes needed for the report; and concerns about the report’s observations and recommendations.

Positive feedback on the report recommendations included:

- Marketing/branding recommendations are practical and achievable
- Michoud Assembly Facility reporting to Stennis Space Center is a good recommendation
- Bi-state marketing organization is good but needs clear support from the Governor’s office in both states and leading economic development agencies to move forward
- Interesting marketing opportunities to pursue in light of the Master Plan for Stennis-Michoud Corridor recently released by Geocent
- Appreciate marketing recommendations and suggest incorporating these ideas into state’s existing economic development plan for region
- There is agreement of the challenges associated with having one of the existing economic development organizations play a role in marketing/branding efforts in both states.

Marketing Plan for Stennis – Michoud Technology Corridor

Comments regarding information to add or update in the report included:

- Update on Front Door project
- Add newly established Gulf Coast Government Contractors Association (GCGCA)
- Update facts about Michoud Assembly Facility
- Add renewable energy industry to consider as a target industry
- Update mission of Partners for Stennis (which is expanding to include Michoud); would like to see the organization play a more pro-active role in these marketing efforts
- Other data corrections.

Comments reflecting concerns with the report included:

- Establishing a new organization with a large budget in light government cutbacks; suggested a scaled down version of the organization
- Need further rationale of the benefits for changing Michoud's administrative reporting from Marshall to Stennis
- New organization might be redundant with so many economic development organizations in region; still, there is need for mechanism to improve collaboration, including across state lines
- First, align economic development activities between local, state and federal level in each state
- Harrison County, Mississippi is missing as an important partner in region
- Lack of information on establishing a sector/cluster-focused organization
- Consider establishing a commercial space authority with bonding power to serve as a federal-state partnership with legislative authority
- Update/modify Mississippi law on technology transfer to enable leveraging of Stennis assets.

IEDC was asked by local stakeholders to address the challenging task of both suggesting effective tactics to brand /market the region as well as identify the appropriate governing structure to facilitate the implementation of such efforts. While we understand that a new organization may not be feasible at this stage with current local and state budget shortfalls, the IEDC team stands by the report's recommendations as the best option for the region's long-term growth prospects. Where appropriate, we have taken the above comments into account in editing and producing the final report. While we have not added new recommendations to the report, the comments are outlined here as a point of reference for regional stakeholders to consider additional actions.

IEDC will be scheduling a conference call in the next few weeks to gather input on appropriate follow-up assistance to this report. One option is for IEDC to hold a one-day strategic planning retreat that would focus on implementation of the report's recommendations and next steps. We look forward to your participation on this call.

We hope this report inspires greater regional collaboration to build stronger, more resilient economies along the Gulf Coast. Please direct any further questions about this report to Carrie Mulcaire, cmulcaire@iedconline.org, (202) 942-9489.

Sincerely,



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President & CEO



Carrie Mulcaire
Senior Associate

ACKNOWLEDGEMENTS

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ABOUT IEDC

The International Economic Development Council (IEDC) is the premier economic development membership association in the United States. IEDC helps its members create high-quality jobs, develop vibrant communities, and improve the quality of life in their regions. IEDC’s over 4,500 members represent the entire range of economic development experience - from public to private, rural to urban, and local to international. IEDC relies significantly on the expertise of its members to educate on industry trends, introduce best practices, and set high standards of practice in the economic development field.

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Introduction and Overview

The International Economic Development Council (IEDC) has been retained by the U.S. Economic Development Administration (EDA) to provide technical assistance support to local, regional and state economic developers in the Greater New Orleans area to support long-term economic recovery efforts from Hurricane Katrina.

IEDC's technical assistance is to develop a marketing plan aimed at building cooperation and consensus among regional stakeholders on a course of action for marketing/branding the Stennis-Michoud Technology Corridor, including facilitating the alignment and leveraging of marketing messages and resources. There is consensus among stakeholders that this region needs a clear and articulate implementation plan to raise awareness of the region's strongest technology assets located in and around this technology corridor. This sub-regional marketing focus is to be in sync with the broader regional marketing campaign in the Greater New Orleans region and Southwest Mississippi area as well as the marketing efforts in the States of Louisiana and Mississippi.

Background

From October 2008 to June 2009, IEDC met with over 20 regional stakeholders in the greater New Orleans region to discuss their economic development and marketing needs. A clear need was identified that local and regional organizations needed some assistance in helping to identify specific tactics they can pursue to implement some of their marketing strategies, as well as suggestions on how to better align marketing messages and leverage efforts among regional stakeholders in a coordinated fashion.

From their feedback, it was decided to focus these efforts on the region's strongest technology assets, which exist along a technology corridor that is anchored by two NASA facilities: John C. Stennis Space Center in Hancock County, MS and Michoud Assembly Facilities in New Orleans, LA. There is increasing consensus that this region needs a clear and articulate plan with specific action-oriented marketing tactics to raise awareness of these 'hidden' technology assets.

IEDC has been tasked with the scope of helping to bring key players together around the creation of a plan to build off of the existing marketing campaigns, plans and studies focused on the Stennis-Michoud technology corridor as well as connect to the broad regional marketing efforts already underway by local stakeholders. Funding for this project comes from a disaster recovery grant provided to IEDC by EDA.

IEDC's Process for Technical Assistance

IEDC's support for these efforts has revolved around its peer-review process. This process includes the development of a background report, a four-day site visit by a team of economic development practitioners and experts with experience in the successful operation of regional marketing efforts and knowledge of marketing technology and other federal assets effectively to a target audience along with IEDC staff (IEDC team), followed by this final report. A detailed background report was prepared prior to the site visit to provide the IEDC team with a detailed understanding of the region's technology assets and marketing

efforts prior to their arrival. In addition, IEDC conducted a business survey to gain a better understanding of perceptions of doing business in the region per the request of local stakeholders.

IEDC conducted a site visit to Southeast Louisiana and Southwest Mississippi on May 4 to 7, 2010. The IEDC team included:

- Charles Hayes, CEcD Research Triangle Regional Partnership
- Bernie McShea, Space Florida
- Charles “Sid” Saunders, Pendulum Group
- Mark Sweeney, McCallum Sweeney, Inc.
- Jeffrey A. Finkle, IEDC
- Carrie Mulcaire, IEDC

The site visit began with a kickoff meeting of approximately 27 economic development stakeholders committed to this regional marketing initiative to discuss the project process, review business survey results, and discuss project expectations. In addition, IEDC team members gathered valuable input from over 80 local state stakeholders during the four day site visit. The team met with representatives from various local and regional economic development organizations, government agencies, NASA leadership, business representatives (small and large), workforce development providers, financial institutions and business service providers to gather important local input.

This final report is a follow-up to the site visit presentation given on the last day, May 7th, 2010, which included observations and key findings as well as recommendations for moving forward. The final report includes detailed recommendations organized into the following categories:

1. Organizational Development
2. Marketing
3. Michoud Assembly Facility Improvements

A draft version of this report was circulated in November 2010 to regional stakeholders and updated based on received comments.

As a follow up to this final report, IEDC is available to hold a one-day strategic planning retreat with regional stakeholders to review implementation of the report’s recommendations as well as to facilitate a discussion of next steps.

Objectives / Goals of the Report

The intent of this report, *Marketing Strategy for the Stennis-Michoud Technology Corridor*, is to provide recommendations and best practice suggestions to help regional economic development stakeholders to reach their marketing goals. Regional stakeholders can choose to implement part or whole of this report depending upon the market conditions, availability of resources, and economic development priorities.

IEDC was asked to develop an action-oriented plan for marketing that accomplishes the following:

- Builds off the current marketing strategies
- Consolidates information on technology assets and marketing efforts in one background report
- Conducts a business survey to identify perceptions of region’s business climate
- Aligns marketing efforts and messages among regional stakeholders
- Has stakeholder buy-in from those engaged in marketing the corridor

To achieve these goals, the IEDC team was tasked with the following:

- Identify specific and practical marketing tactics that are based on best practices
- Identify creative and effective ways to leverage limited funds
- Identify the governance structure to ensure implementation and monitor progress of a marketing plan

IEDC is focused on helping to build capacity and strengthen the coalition efforts so that resources are leveraged and strong, succinct marketing messages are developed to reach both a regional and national audience.

Report Format

This report is divided into three main sections. After this introduction, the first section reviews the IEDC team’s observations and findings from the site visit and background research. The second section outlines the recommendations and tactics for marketing the technology corridor. The final section includes a series of case studies highlighting examples of how comparable EDOs are structured and how similar communities have implemented some of the suggested marketing recommendations. The appendices provide additional information and resources to supplement the recommendations and case studies presented in this report.

Observations

The IEDC team visited the Southeast Louisiana and Southwest Mississippi region in May 2010 at an opportune time when the region is faced with an interesting mix of economic challenges as well as opportunities. NASA leadership has indicated a new direction in space exploration, which is likely to have repercussions on the future of NASA workforce at Michoud Assembly Facility (MAF). Since the team's visit, Congress has passed the National Aeronautics and Space Administration Authorization (NASA) Act of 2010, which provides hope for job retention of NASA contract work at Michoud (pending further legislation and budgetary considerations); a new mayor for the City of New Orleans was inaugurated, indicating new civic leadership and a renewed sense of hope for the city's revitalization; a new public-private partnership to lead the economic development efforts for the city of New Orleans has been established with a new CEO at its helm; and a master plan for the 'Stennis-Michoud Economic Corridor' has been launched to help guide development priorities for the entire region.

Set against this backdrop, the Deepwater Horizon Oil Spill off the Louisiana Gulf Coast has led to economic uncertainty throughout the Gulf Coast. In this environment, regional economic development stakeholders showed interest in practical, action-oriented ideas to effectively market the region in a coordinated fashion.

This section summarizes the key observations (strengths, assets, challenges and issues), which the IEDC team gathered during its interviews with regional stakeholders. These observations are organized into the following three areas:

- 1) Southeast Louisiana and Southwest Mississippi region
- 2) Michoud Assembly Facility
- 3) Stennis Space Center

Strengths and Assets – Region

The Stennis-Michoud Technology Corridor region is being defined geographically by the IEDC team to include the four Louisiana parishes of Greater New Orleans, which includes Orleans, Jefferson, St. Tammany and St. Bernard Parishes and two counties in Mississippi, Hancock County and Pearl River County.¹ The corridor is anchored by two major NASA facilities: 1) Michoud Assembly Facility (Michoud or MAF) in New Orleans, LA, an advanced manufacturing community that has evolved from space exploration vehicles into a collection of both federal programs and commercial businesses and 2) Stennis Space Center (Stennis or SSC) in Hancock County, MS, a 'federal city' with the presence of NASA's rocket propulsion testing, 30 other federal agencies and 60 federal contractors and other private enterprises.

¹ Approximately 30 economic development stakeholders from these counties/parishes, regional organizations and the states of Louisiana and Mississippi have signed up to participate in this initiative to market the Stennis-Michoud technology corridor. Feedback received by several stakeholders in January 2011 indicated that this geographic region should be expanded to include Harrison County.

The surrounding parishes and counties serve as the major source of workforce, transportation, educational, research and business support for these two NASA facilities. Together, this region has a total population of 1.1 million people over an area of 5,264 square miles. Major technology and research assets within the region include the presence of 12 universities and technical colleges as well as research institutes and a technology park at the University of New Orleans (UNO), the Naval Support Activity in New Orleans, and the Maritime Technology Center of Excellence in Jefferson Parish. Major technology companies within the region include Lockheed Martin, Textron Marine & Land Systems, Bollinger Shipyards, Rolls Royce, Pratt & Whitney Rocketdyne, Applied Geo Technologies, Inc, and Jacobs.

The IEDC team gathered the following observations/insights on this region's strengths and challenges:

Internationally recognized brand associated with New Orleans – New Orleans with its unique cultural, historical and recreational assets has an internationally recognized brand that should be promoted. It is seen as a 'hidden jewel' with a special experience akin to a European experience.

University interest & engagement – The region is rich in the number of universities such as University of New Orleans, Tulane University, Louisiana State University, Xavier University, Mississippi State University, University of Southern Mississippi, and University of Mississippi offering bachelors, masters and doctorate degrees. Many of these universities have a presence at Stennis, which strengthens their engagement in commercial activities.

Community colleges present – There is a strong community college presence in the region to provide technical training and to effectively partner with local businesses on workforce training. Delgado Community College has niche programs in such areas as maritime science, emergency management, process engineering; provides technical training to major manufacturers (e.g. Bollinger). Pearl River Community College has some effective programs in training entry-level workers at Stennis in the GIS industry. Nunez Community College also has engineering and computer science programs that tie into the activities at Michoud and the local oil and gas industry.

Experience of cross-border support for Stennis and Michoud – Examples of this cross-border support can be seen in the work of *Partners for Stennis*² and *the Stennis-Michoud Aerospace Corridor Alliance*³, both of which engage stakeholders in Louisiana and Mississippi to support regional growth. *Partners for Stennis*, a network of economic development and community-oriented stakeholders in both states, advocates and

² Established in 1996, Partners for Stennis is a 501c(6) organization with the mission to create a better understanding of the economic, technical, and educational value of John C. Stennis Space Center among those who influence and/or benefit from the activities of Stennis.

³ Established by Senator David Vitter (R-LA) and supported by senators in both states, the *Stennis-Michoud Aerospace Corridor Alliance* is an informal assembly of key private and public sector leaders with a purpose of addressing the corridor's infrastructure, workforce, development, and marketing needs.

promotes the growth of Stennis and the surrounding region. The group is currently expanding its mission to provide additional assistance to the Michoud Assembly Facility.

Advocacy of Mississippi congressional delegation for Stennis – The Mississippi congressional representatives and staff play a critical role in helping to advocate for the growth of Stennis. They are a proactive economic development player and refer prospects to Stennis leadership.

Investment from Mississippi in Stennis/region – Since the 1970s, the state of Mississippi has made significant investments at Stennis to improve infrastructure and to promote the growth of the center. More recently, the state has invested \$140 million at Stennis.

Regional presence & expertise of defense/government contracting, and technology firms – The list of tenants at both Stennis and Michoud as well as list of companies in the region indicate experience in defense and government contracting. In addition, the Louisiana Procurement Technology Assistance Center (PTAC), a Louisiana-based organization, and the Mississippi Contract Procurement Center, have helped a significant amount of small to large companies in the region get access to federal government contracts.

In addition, the region has recently established the Gulf Coast Government Contracting Association (modeled after the Charleston Defense Contractors Association (CDCA)) as a non-profit comprised of organizations within the private sector, academia and non-profit sector with a common interest of fostering technology-focused economic development in the Gulf Coast region. Through quarterly outreach symposiums, this group is assisting with the facilitation of networking opportunities with government agencies to enable the exchange of ideas, develop relationships and learn about contracting opportunities.

Millions of dollars being spent on marketing in region – Many local, regional and state economic development entities (public, private, quasi-public, utilities, etc.) in the southeast Louisiana and southwest Mississippi region are spending millions on marketing individual assets. These efforts will benefit from a coordinated approach to market this technology corridor region. There is need for a collaborative model to more effectively tell the story of the region, including its strengths, assets and opportunities.

High quality of life – Both locals as well as visitors comment on the high quality of life that exists in the region from the perspective of the culture, housing, quality of schools, recreational activities, community amenities, etc. High quality of life is increasingly becoming a determining factor in attracting highly skilled workers and innovative companies.

Strong transportation hub – A strong transportation hub exists in this region through: 1) two east-west interstate corridors (I-10 and I-12) and two north-south interstate corridors (I-55 and I-59); 2) access to the Mississippi River and Gulf of Mexico through an interconnected and deep waterway system; 3) extensive port facilities; 4) railroad connections with six Class I railroads; 5) non-stop air routes from New Orleans

International Airport and Gulfport/Biloxi Airport; and 6) air freight services with Stennis International Airport.

Influx of young professionals and students – In the past few years, the area has attracted an influx of young professionals and students who want to be a part of the rebirth of the Greater New Orleans region.

Challenges and Issues – Region

Lack of coordinated marketing efforts in region – While there are several informal assemblies of regional stakeholders from both states (mentioned above) working around the technology corridor, there isn't a formal marketing mechanism for promoting the larger region. The region lacks a formal entity, which would oversee a branding and marketing campaign, ensure synergy between the Stennis and Michoud facilities, and engage economic development stakeholders in both states on marketing priorities.

Perception of poor quality of life outside the region – Interviews with local technology firms revealed concerns about recruiting skilled talent outside the region. Their biggest challenge was not finding qualified people with appropriate skills, but finding qualified people who would be interested in relocating to the area.

When trying to recruit prospective employees from outside the region, there is expressed concern about the perceived poor quality of life in terms of housing, K-12 education, public safety, and the lack of corruption in local and state government. This observation was not only expressed in interviews with local businesses but also appeared in IEDC's survey to business executives outside the region.

Yet, when visitors come to the region, they are impressed with the area. It is widely believed among local technology business owners that if they can get their candidates to visit the area, they are successful in "making the sale".

Natural disaster risk – The region is perceived by external and some local stakeholders to be vulnerable to natural disasters such as hurricanes, storms and flooding, despite significant progress that has been made to mitigate against potential hazards/threats. There is a lack of knowledge for places like Michoud and Stennis that stayed dry during Hurricane Katrina due to hazard mitigation projects and a reliant operations team that worked diligently to minimize potential damage to the facilities/center during and after the storm. In the business survey conducted by IEDC and in focus groups with local businesses, executives still expressed concern with the region's continued vulnerability to natural disasters.

Poorly-educated entry-level workforce – There is a recognized need to address workforce issues in terms of entry-level workers' lack of basic skills to perform their duties. The larger manufacturers such as Bollinger may have the training resources but then express frustration when these employees quickly jump ship to other local companies shortly after receiving the training.

Workforce recruitment and retention issues – As discussed above, small and medium size firms have expressed difficulty in attracting more skilled talent to the area over a concern about the perceptions of quality of life. Larger companies expressed concern about workforce retention issues, particularly as they invest in their training and shortly thereafter, these employees move to other competitor firms.

Lack of coordination among workforce development players – There is a lack of coordination between the activities of the Workforce Investment Boards (WIB) in the region. Part of this is due to the complexities of arising from state specific priorities and legislations. However, in order for this region to emerge as a strong region, workforce development activities need to be better coordinated across state lines. Further, workforce training programs tailored towards the needs of high-tech industries are lacking, particularly in Louisiana. Business executives and industry experts should be engaged in the development of such programs.

Lack of strong entrepreneurship support system – While there is much interest in entrepreneurship and recognized new entrepreneurial activity, particularly in New Orleans, the region lacks a strong, interconnected entrepreneurship support system, providing a seamless network of services to entrepreneurs. A support system to address both short-and long-term needs, such as assistance with the development of business plans, feasibility analysis and new market development, marketing, technology transfer and commercialization programs, as well as mentoring and networking opportunities. Economic development leaders are currently working on building this system with efforts to establish a new incubator in Jefferson Parish and St. Tammany's and GNO, Inc.'s involvement in establishing a venture capital network (i.e. Leapfrog).

Limited access for international firms and non-US employee to NASA facilities – NASA's security at the gates of Michoud and Stennis is considered appropriate for only specific companies. Firms that receive foreign visitors or non-US based employees are unlikely to be attracted to the site as foreigners need a 45-day advance window to apply for a visitor pass. This is likely to detract certain high technology and advanced manufacturing firms with a global employee and/or customer base.

Lack of diversity in economic development / community leadership – The economic development and community leadership in the region lacks the diversity that is represented in the area in terms of race and ethnicity. Further, there also appears to be limited engagement of new and emerging small businesses in the economic development leadership of the region. Small businesses in high-tech industries can bring not only new resources to the table, but also new ideas and enhanced capabilities to implement the marketing initiatives discussed later in this report.

Air service needs improvement – There is recognized need of improving air service and the number of direct flights out of New Orleans International Airport as well as Gulfport/Biloxi airport in order to attract larger businesses, particularly to important areas such as Washington D.C. (access to Federal agencies) and to major aerospace manufacturing centers such as L.A., Denver, and Chicago.

Lack of regional identity – While Stennis and Michoud anchor this high-tech corridor, the area has not emerged as a cohesive region in terms of an identity. Industrial players outside the region are not aware of the tremendous assets that exist here, though they may be aware of the two NASA facilities. A branded identity like Research Triangle Region and Silicon Valley does not exist at this time.

Closed culture to people outside the region – In interviews with local firms, executives commented that there is some concern over the openness of locals to newcomers. While locals are friendly to both people who visit and relocate to the area, it takes time before they accept you into their local culture.

Limited university research in region – While there is significant university presence in the region and universities with strong engineering departments, such as UNO, are producing significant human capital, there is limited research activity. UNO's engineering department has research expenditures of only \$15 million per year on federal programs, which is a small budget in comparison to the top 100 engineering programs at North American universities.

Recent state budget cuts in Louisiana and Mississippi are already having their impact on the resources available to these universities to fund promising areas of research in sciences, engineering, and technology. Currently, universities within the region are not collaborating in these types of research projects. Combining and leveraging each other's resources should be further explored in light of decreasing support from state sources of research funding.

Need for improved infrastructure – While the region has an existing fiber optic cable network, the region lacks connection to several important computer networks that provide the infrastructure for important scientific and network research projects. Michoud and Stennis are currently not connected to the national LambdaRail⁴ or the Louisiana Optical Network Initiative (LONI)⁵, which provides the infrastructure for significant high-speed computing. This limits the ability to attract technology companies that engage in high-technology research and development activities such as encryption and cloud computing.

Strengths and Assets - Michoud Assembly Facility

A part of the Marshall Space Flight Center, the Michoud Assembly Facility (MAF or Michoud) in New Orleans is an advanced manufacturing community providing critical support to NASA's exploration and discovery missions for more than 40 years. MAF serves as one of the largest employers in New Orleans with federal, state, academic, and technology-based industry employees.

⁴ LambdaRail is a 12,000-mile, ultra-high performance computer network infrastructure that runs over fiber-optic lines. It provides the critical backbone from the world's most demanding scientific and network research projects.

⁵ Louisiana Optical Network Initiative (LONI) is a high-speed optic network that runs through Louisiana and connects supercomputers at Louisiana and Mississippi research universities to one another as well as links to the national LambdaRail network.

The IEDC team gathered the following observations/insights on Michoud’s strengths and assets:

Existing Infrastructure – The Michoud site covers 832 acres and houses one of largest production buildings in the nation with 2.2 million feet of manufacturing space, 900,000 square feet of office facilities, 400,000 square feet of warehouse space, 200,000 square feet dedicated to site operations, and more than 300 acres of available green space.⁶

Support for Large-scale and Advanced Manufacturing – The facility has been responsible for the manufacture and assembly of critical hardware components for the Space Shuttle and future space exploration programs. The facility has the capability of manufacturing very large structures, such as the external fuel tanks for the space shuttle program, which can be attractive to specific prospects. Michoud contains the largest collection of advanced friction stir welding equipment in the world, as well as automated fiber placement machines, non-destructive evaluation, large scale / high accuracy machining centers, extensive and highly advanced laboratory equipment, and a large number of machine shops. This state-of-the-art laboratory equipment performs highly specialized inspection and analysis services applicable to many different industry sectors.

Available Industrial Property – The main NASA facility has room for additional tenants to share the space – specifically 900,000 square feet out of the 2.2 million square feet of total manufacturing space. In addition, there is 300,000 square feet of available office space, out of the 900,000 square feet of total office space.⁷

Presence of UNO’s NCAM with Unique Manufacturing Equipment & Capability – The facility has substantial advanced manufacturing equipment owned and managed by UNO’s National Center for Advanced Manufacturing (NCAM), which are used by multiple tenants of the facility: friction stir welding, automated fiber placement, autoclave, automated machining, and high speed machining center. This provides the state of Louisiana with a mechanism to make low-risk capital investment into state-of-the-art equipment, which can be included as a part of incentive packages to manufacturers producing large numbers of new jobs in the state.

NASA’s Tooling Machines – The facility not only has the attractiveness of the NCAM manufacturing equipment, but also additional equipment owned by NASA, such as the extensive overhead crane network, tooling modifications, materials laboratories, etc. In addition, NASA and their contractor, Jacobs, can provide production and business support such as lead processing consultation, modeling and simulation, quality control, advanced supply chain management, media services, etc. Equipment is leased out using federal regulations preventing NASA from producing a profit, which translates into lower costs for manufacturers located at Michoud.

⁶ According to interviews with Jacobs (May 2010) and information from NASA’s Michoud Assembly Facility Fact Sheet (2007), retrieved from http://www.nasa.gov/centers/marshall/pdf/169340main_MSFC%20MAF%20FS-eps%20logo.pdf

⁷ According to interviews and marketing materials provided by Jacobs’ Technology (May 2010).

Transition of High-skilled Workforce – Serving as one of the largest employers in New Orleans, MAF employs more than 3,500 federal, state, academic, and private employees⁸, many of which are experienced in manufacturing space flight quality hardware and in other technology-based industries. This includes highly experienced engineers, craftsmen, researchers, project managers, and technicians. Previously, 5,100 Lockheed Martin employees worked on the External Tank program for NASA at Michoud, but over the years, this number has been reduced to 600 employees onsite today. Under contract with NASA, these Lockheed Martin employees are divided between working on the remaining work of the External Tank project and supporting NASA’s Orion project - the next generation human spaceflight program.

Lockheed Martin started a loan labor work program to loan employees to other employers in the region for job retention purposes. While this provided a short-term solution for retaining some of the workforce, there is need for a more permanent solution. As the space shuttle program ramps down further, and NASA transitions to the next generation of space exploration, it is important to retain this highly-skilled workforce at MAF through a multi-faceted effort of securing and/or expanding NASA manufacturing operations at Michoud as well as providing alternative employment opportunities with commercial industry.

Waterfront, Deepwater-port Access – The facility has direct access to a deepwater port that is approximately 36 feet deep and 250 feet wide, enabling the capacity to transport large structures. The port provides access to the Gulf’s intra-coastal waterway, which in turn provides access to the Mississippi River and the Gulf of Mexico by way of a lock system.

Utility Permits in Place – NASA/MAF owns and maintains a variety of utility permits such as waste-water treatment, gas and electric, etc, which can be attractive to manufacturers interested in establishing operations quickly and efficiently.

Infrastructure Capacity – The site has direct access to a deepwater port and dry harbor facilities, interstate highway access, as well as proximity to nearby major railway facilities with rail beds. In addition, the site has significant capacity to treat industrial waste-water at their on-site plant. MAF also provides on-site protective services such as fire protection, high-level security, and emergency medical services.

Dry Land During Katrina – The facility managed to stay dry during Hurricane Katrina in 2005 with a 36-person team that stayed during and after the storm. In addition, the state has also conducted a hurricane-hardening project and the levee system has been raised to 27 feet to ensure major hurricane protection for the site. This includes the updating of rooftops on all buildings and the adding of a new pump system.

Some presence of recent tenants - Other federal agencies also maintain a presence at Michoud, including U.S. Department of Agriculture (USDA)’s National Finance Center, Department of Defense (DOD) Contract Audit Agency and Contract Management

⁸ As of January 2010.

Agency, as well as government contractors such as Lockheed Martin Space Systems and Boeing. More recent tenants (arriving after Hurricane Katrina) include the University of New Orleans' National Center for Advanced Manufacturing (NCAM), Lockheeds' Thermal Protection Products, as well as the U.S. Coast Guard Integrated Support Command, which made the largest facility investment in the history of MAF.

Recent accomplishment of attracting private sector tenant – Blade Dynamics, a British-based company which designs wind turbine blades, recently established operations at MAF to serve as there U.S. manufacturing facility for blades that increase the efficiency and performance of high power (multi-megawatt) wind turbines. The company will create 600 new jobs at MAF by 2015 with an average annual salary of \$48,000 and make a capital investment of approximately \$13 million. Louisiana Economic Development (LED) put together an attractive, \$30 million performance-based incentive to close the deal, which offers:

- Financial assistance of \$5.4 million to offset MAF's lease costs
- Financial assistance of \$6 million to offset equipment purchases
- Financial assistance for relocation expenses
- Customized employee recruitment, screening, training development and training delivery services provided by the Louisiana Workforce Commission

Over the next 10 years, LED estimates the Blade project will result in \$35.8 million in new state tax revenue and \$23.9 million in new local tax revenue⁹.

This recent accomplishment demonstrates the attractiveness of the MAF site as a space for advanced manufacturing production for the following reasons: access to complex, specialized equipment through NCAM, support for specialized training through state training grants, access to critical transportation infrastructure such as the deep water port, proximity to quality of life in New Orleans and beyond, and the state's commitment to further invest in the Michoud facility.

Challenges and Issues – Michoud Assembly Facility

Lack of BRAC-like transition process at NASA – The DOD's Base Realignment and Closure (BRAC) transition process provides funds and technical assistance support for a community being negatively impacted by BRAC to assist with their local redevelopment efforts. Its Office of Economic Adjustment (OEA) provides comprehensive assistance to support transitional activities such as redevelopment planning as well as development and implementation of economic strategies to adjust to defense industry cutbacks. NASA lacks a process, funds, and resources to provide similar assistance to NASA facilities such as Michoud despite significant downsizing due to the retirement of the Space Shuttle Program and uncertainty of the Constellation program.

Lack of entrepreneurial support services – While there is recognition that New Orleans and the region has witnessed increased entrepreneurial activity in recent years, MAF lacks support services on-site to fully take advantage of the assets located there. At one time, a technology transfer office was located at the site, but NASA cutbacks eliminated

⁹ From Master Plan for the Stennis-Michoud Economic Corridor (January 2011), prepared by Geocent, Inc.

the one staff person working at the office. There is recognition that a certain percentage of the transitioning workforce is likely to be interested in venturing into their own business locally and would benefit from either on-site entrepreneurship support services or a referral office.

Isolated Michoud entry / low-curb appeal – The drive into Michoud from multiple directions lacks way-finding signage, is visibly unattractive with overgrown grass, and needs appropriate landscaping that highlights its importance to the local and regional economy. In contrast, the Stennis Space Center has appropriate signage and very attractive landscaping both inside and outside the gate. While the State of Louisiana has set aside funds to build a NASA administration building, there is a delay in this project until NASA provides clear direction and a firm commitment of tenancy. Efforts such as the \$6.2 million Front Door initiative, a beautification project to improve the entry-way to Michoud through signage, curb appeal, resurfacing and flood mitigation efforts, is in the final stages of approval and ready for implementation.

Need to Improve Michoud's promotion & visibility efforts – While there is recognition of the progress that is being made in business development and promotion at Michoud with the new Jacob's contract, there is still a need to improve marketing visibility for the site. Currently, Jacob's has just one full-time employee devoted to marketing efforts with limited funds to market and promote the site nationwide. There are limited funds to develop an appropriate list of prospects for recruitment, design an attractive website to advertise the site and space, produce collateral materials, and limited knowledge on the critical channels for distributing those materials to both site selection consultants and company decision makers. As mentioned above, Michoud needs to continue to build upon the recent success of the announcement of Blade Dynamics. Stennis Space Center should serve as a model example in terms of marketing material information, how they effectively promote to their target audience, and work with prospects to close the deal.

Lack of significant commercial tenant presence – While the recent announcement of the Blade Dynamics locating at MAF is a positive step, the site currently lacks a significant list of commercial tenants that would serve to attract similar types of tenants.

Lack of rail access – While Michoud has access to rail beds and transport studies have been conducted to evaluate scenarios of rail spurs connecting to specific sites, sites still lack direct access to rail. Both heavy and light manufacturers often require rail to come directly to their site to save on significant transportation costs. A prospect is likely to want to see the infrastructure in place before they express strong interest in a facility. The plans for these infrastructure investments to connect specific sites to the rail beds (and the nearby intermodal facility with six Class I rails) should be part of any master plan for the facility.

Poor image of New Orleans East – The Michoud facility is located within the New Orleans East area, which has been tainted with images of being completely flooded by Hurricane Katrina and characterized somewhat by blighted properties such as the empty Six Flags facility. While the Michoud facility remained dry during the storm, the negative perception associated with the entire area is negatively impacting the facility.

Limited resources at local, state and federal level to support Michoud investment – The City of New Orleans and the State of Louisiana have limited financial resources to make significant infrastructure improvements at the Michoud facility. There is also concern about the uncertainty of NASA’s budget that has put certain plans on hold. There is room for improvement for coordinating efforts among parties at the local, state and federal level.

Stennis serves as a good model for Michoud in that state leadership (starting with Senator John Stennis) provided a long-range vision, critical funding and support to enable growth and the attraction of other federal agencies to the Center. That tradition continues today.

Transaction process is immature in terms of real estate contracts, inadequate pricing, and federal domain risk – NASA needs to improve their transaction process to make the space at Michoud more competitive with the commercial market. Since NASA operates much more like a non-profit corporation, the costs of running the Michoud facility are much higher than an average commercial operation. The main issues are:

- *Real estate contracts* require NASA approval, which slows down the transaction process significantly in comparison with the commercial sector.
- *Inadequate pricing* – NASA currently determines the price of its space, including the use of equipment and labs. NASA is precluded by law from competing with private industry in terms of real estate development. Prospect tenants for Michoud are likely to do more commercial work and scrutinize operating costs more than traditional cost-plus contractors. Therefore, lease prices for various uses (office, industrial, warehouse, etc.) should be cost-competitive, flexible, and market driven if they are looking to attract private sector tenants to the facility. Currently, costs are all inclusive; yet firms may not be interested in paying significant costs per square feet for additional site benefits such as security at the front gate.
- *Federal Domain Risk* – There may be a perceived risk/concern that NASA could ask the commercial tenant to move out of the facility with only a 45-day notice due to specific terms stated in contacts before 2009. In reality, this “45 day” language is not used in agreements requiring any degree of longevity or for commercial tenants making significant investment into their portion of the facility. Still, any perceived risk of business continuity to commercial tenants should be understood and addressed.

Strengths and Assets – Stennis Space Center

The 14,000 acres John C. Stennis Space Center (SSC or Stennis), surrounded by a 125,000 acres buffer zone, is located in Hancock County, Mississippi in the southwest corner of the state, near the Louisiana border. With over 5,000 employees, Stennis serves as a ‘federal city’ with over 30 federal agencies, including its core mission as NASA’s rocket propulsion testing ground.

The IEDC team gathered the following observations/insights on Stennis’s strengths and challenges:

Federal enclave that is over 30 years in the making – In the 1970s, NASA and State of Mississippi leadership developed a vision to turn Stennis into a multi-tenant facility as the Apollo program started to wind down and a reduced NASA workforce posed a threat. They pursued a diversification strategy to attract other federal agencies and private entities compatible with the adjoining land use as a means of sharing maintenance costs while retaining and attracting a highly skilled workforce. For tenant prospects, they specifically targeted organizations performing critical, national security related activities. Today, over 5,300 people work on-site in over 30 federal and state agencies and over 60 private businesses.

In recent years, the state of Mississippi has invested at least \$140 million at Stennis, mostly in the form of constructing buildings for new tenants. This includes the buildings for NASA Shares Services center, Mississippi Enterprise for Technology (MsET), Mississippi State (classrooms), University of Southern Mississippi (classroom and computer lab space), and Lockheed Martin (space for manufacturing satellite components).

Plenty of infrastructure and utility capacity – A master plan has guided the planning process for land use and laying the infrastructure to accommodate future growth at Stennis. They buy bulk power at wholesale prices at the gate and then distribute to tenants, which are individually metered up. Stennis has redundant power with three power feeds: two lines from the south and one from the north. At present, they are operating at half their capacity in terms of water and sewage. They also have achieved certification as a *Project Ready*¹⁰ site, which improves their perception of being ‘shovel ready’ when suitors call (discussed more below).

Campus-like feel - Stennis has a feel of a college or technology campus with amenities such as onsite recreation, food services, emergency management, a visitor center, attractive surroundings, and other shared services.

Attractive landscaping – Attractive landscaping and way-finding signage covers both the entrance from the I-10 freeway and throughout the grounds. As a result, they often receive positive reactions from prospects on tours. In fact, Stennis’ master plan includes a landscape plan and a land management plan to address national objectives for beautification, conservation and optimum utilization of natural resources.

Security buffer zone – A unique asset, the 125,000 acres buffer zone (approximately 6 miles in every direction) serves as critical component of Stennis’s security and protection from encroachment. Originally, it was established as an acoustic barrier for NASA to enable testing of large rocket engines and prevent scheduled restrictions. Many of the federal and commercial tenants existing at Stennis see it as a positive benefit. It was a deciding factor for the site location decision of Rolls Royce, which was experiencing

¹⁰ Project Ready certification is a program established by Mississippi Power, which helps potential development sites complete the long preparatory work in advance of development so the industrial park sites are perceived as ‘shovel ready’.

encroachment issues in their home base of England. It also serves the Navy well as a training ground for riverine warfare.

Proximity to airport for cargo – Adjacent to SSC, Stennis International Airport is a public airport that serves primarily freight only. It has one runway that is a total length of 8,500 feet, which has accommodated landing one of the largest aircrafts in the globe. The Hancock County Development Commission, which operates and maintains the airport, has current funding to get rail to the airport and is considering expanding by adding an additional runway.

Foreign Trade Subzone in place – The Mississippi Army Ammunition plant within the SSC and the Stennis International Airport currently possess a subzone status as a Foreign Trade Zone (FTZ). The FTZ status provides considerable financial benefits to potential commercial prospects such as: duty exemptions for re-exported merchandize; duty deferral until domestic merchandize leaves the zones; no duty on value added; elimination of duty on rejected freight, damaged or non-conforming items; zone-to-zone transfers; and the ability for merchandize to be stored, repackaged, manipulated, manufactured, destroyed or otherwise altered or changed. As commerce and supply chains become more global, the FTZ subzone status will become even more important as it provides the incentive to bring goods into zone, do additional work or warehouse the goods without paying a tariff on them.

Credibility on operations, testing, and applied research – The various federal agencies and firms at Stennis have core competencies and a focus on operations, testing and applied research.

Concentration of workforce expertise in geospatial, oceanography, data/defense intelligence – NASA was interested in attracting other tenants to Stennis not only to save operational costs (tenants provide NASA a 27-32 percent cost savings) but to maintain a skill base capability at SSC. At present, there are certain concentrations of skill-sets such as those in geographic information systems (GIS), remote sensing, oceanography, software development, and data intelligence management. There are more oceanographers working at Stennis than any other location in the world.

Only place in U.S. for large-scale propulsion testing – Stennis is the only place in the country to perform large engine propulsion testing. It is critical that no operations come on base that may disrupt NASA's mission of testing 24 hours a day, 7 days a week.

Shared services and workforce – NASA established the NASA Shared Services Center (NSSC) in 2006 to centralize NASA's administrative processing services for its 20,000 NASA employees and partners across the U.S. NSSC is a partnership between NASA, CSC (as the operating contractor) and the states of Louisiana and Mississippi.

In addition, Stennis has a shared workforce of engineers and craftsmen (welders) among the various companies. The quality of the local workforce has been cited as the major attraction for new tenant prospects.

Stennis management is pro-active and effective – NASA’s management at Stennis is effective at partnering with the local economic development organization, Hancock County Development Commission, and with Senate staff for the growth and development of SSC.

A lot of available land and space–site certification – Stennis has a significant amount of available land and space for development. In order to further promote this asset to prospects, Stennis management pursued the *Project Ready* certification, a ‘shovel ready’ certification program established by Mississippi Power. To date, Stennis is one of four sites in the State of Mississippi with this certification. Stennis has laid the basic horizontal infrastructure such as: 1) potable water distribution system 2) sewage collection system and 3) electrical power to support a broad spectrum of projects and developments.

Flexible, creative deal making and defined transaction mechanisms – Stennis leadership with the critical partnership of the State of Mississippi has led to flexible, creative deal making with federal agencies and firms to attract them to SSC.

Presence of supercomputers & datacenter space for future federal tenants – The Naval Meteorology and Oceanographic Command operates one of the world’s most capable supercomputing centers for oceanographic, meteorological and mapping services. In addition, the National Center for Critical Information Processing and Storage (NCCIPS), a federally owned and managed facility with a shared federal data center, has one of two major supercomputers in the country.

High-wage jobs for region – SSC provides high-wage jobs for the region with an average salary of \$80,000, while the median household income for Hancock County is \$35,202.

On-site university presence – Stennis has a strong university presence with The Center of Higher Learning at Stennis, a coalition of five universities and colleges: Mississippi State University, Pearl River Community College, University of New Orleans, University of Southern Mississippi, and University of Mississippi. Other educational resources include the Mississippi State University’s Northern Gulf Institute, and University of Southern Mississippi College of Science and Technology’ Department of Marine Science. Through these institutions, SSC provides the highest number of advanced degrees in Mississippi.

Stayed dry during Katrina – Stennis Space Center not only managed to stay dry during Hurricane Katrina but also became an important base of hurricane recovery operations for the state of Mississippi.

Challenges and Issues – Stennis Space Center

Lack of business development & marketing support – Stennis has a heavy reliance on congressional support for prospect targeting, and lacks a formal, institutionalized

business development support function. This more formal function would enable the long-term sustainability of growth efforts as it would be less dependent on personalities that may move on. In addition, SSC has a limited budget for marketing and lacks the resources to quickly disseminate new information (i.e. via a website).

Access for foreign nationals & limited access to customers – Similar to Michoud, NASA’s security at the gate is appropriate for only specific companies. Firms that receive foreign visitors or non-US based employees are unlikely to be attracted to the site as foreigners need a 45-day advance window to apply for a visitor pass. The advantage is the security for those firms that are not customer-intensive and do not receive a lot of foreign visitors.

Lack of patent/research/technology transfer – Stennis lacks a history of significant commercial development of local research ideas as most firms focus on operations and applied technology. Despite the university presence, there is limited amount of research at Stennis (with the exception of NOAA, where most of their research is classified as top secret) and therefore, a limited amount of technology transfer opportunities. In fact Stennis has only produced three to four patents. Some at Stennis noted that the Mississippi law needs to be updated to leverage Stennis’ assets and enable more technology transfer to occur at the Center.

At present, Stennis may be a good location for accelerating the development of technology and/or a place for small companies to get access to federal contracts.

Pricing challenges for commercial tenants – There is a perception among small and medium-sized technology firm that Stennis is not industry friendly unless you have a contract with NASA. Pricing for commercial tenants needs to be improved to attract and grow a variety of business types such as small and medium sized companies.

Still, it should be recognized that Mississippi Enterprise for Technology (MsET)’s small business incubator does serve as a unique access point for smaller-sized businesses to gain access. In addition, MsET has also created the Stennis Business Consortium as a new mechanism in place to support the procurement community (federal agencies, prime and sub-prime contractors, support organizations, etc.) to come together to share information and build a network.

Recommendations

Based on the above-mentioned strengths and challenges, the IEDC team believes that the region is in need for a major marketing effort to brand the technology corridor and raise awareness of its' valuable technology assets. Local marketing organizations are in agreement of their need for assistance in identifying specific tactics they can pursue to implement some of their marketing strategies as well as leverage each other's marketing efforts and better align marketing messages across the region. A number of regional stakeholders within this corridor also communicated the need for the IEDC team to assist in identifying the organizational structure for implementing the recommended marketing strategies and tactics.

In response to local needs and expectations, the IEDC team has developed a number of recommendations, which are organized under the following categories – organizational development, marketing strategies, and improvements to Michoud Assembly Facility (MAF). The organizational development recommendations provide the framework and mechanism for implementing the marketing and branding recommendations to further grow and attract industry and high quality jobs to the region. The recommendations for improving Michoud suggest means to improve one of the key technology anchors in the region to maximize its economic development potential.

ORGANIZATIONAL DEVELOPMENT RECOMMENDATIONS

The close proximity of two NASA facilities, Stennis Space Center and the Michoud Assembly Facility, both actively involved in the nation's space exploration program, presents a unique opportunity to grow and attract other similar technology-based businesses to this multi-state region. However, it is unclear who is the lead agency for site selection assistance. Currently, there is no organization with the appropriate management capacity and financial resources to undertake a major marketing campaign for this super region and engage local stakeholders to effectively carry out these important economic development efforts. The area lacks an organization marketing the entire economic region, which crosses substantially into both Louisiana and Mississippi.

The IEDC team recommends the creation of a new organization as opposed to designating an existing organization with this marketing responsibility to ensure that communities in both states are served. A new organization convened by the governors of both states and managed by a board of stakeholders from both sides of state-lines is more likely to serve the economic development interests of communities throughout this two-state economic region.

The establishment of a bi-state regional marketing organization is not a new trend. Organizations such as the Kansas City Area Development Council and the St. Louis Regional Chamber and Growth Association have been marketing their respective regions for over thirty years. Yet, a number of bi-state organizations have recently been established as economic development stakeholders look to pursue initiatives not restricted by political boundaries in response to the current globally competitive climate. The following is a list of bi-state regional marketing organization throughout the U.S.:

- Brownsville-Matamoros United (Greater Brownsville region in Texas and Matamoros, Mexico)
- Cincinnati USA Partnership for Economic Development (Southwest Ohio, Northern Kentucky, and Southeastern Indiana)
- Charlotte Regional Partnership (Greater Charlotte region in North Carolina and South Carolina)
- Erie Regional Chamber and Growth Partnership (Northwest Pennsylvania and Eastern New York)
- Greenlight Greater Portland (Portland - Vancouver MSA in Oregon and Washington)
- Hartford Springfield Economic Partnership (North and South of the Connecticut-Massachusetts border along Interstate-91)
- Kansas City Area Development Council (Greater Kansas City region in Kansas and Missouri)
- One Southern Indiana (Greater Louisville area in Kentucky and Indiana)
- Regional Alliance for Economic Development (Northwest Tennessee and Southwest Virginia)
- Select Greater Philadelphia (Southeastern Pennsylvania, Southern New Jersey, and Northern Delaware)
- St. Louis Regional Chamber and Growth Association (Greater St. Louis in Missouri and Illinois)
- Tech Belt Initiative (Cleveland to Pittsburgh region)

IEDC has developed detailed cases studies on two strong, well-established multi-state regional marketing organizations to highlight best practices in organizational structure and activities: St. Louis Regional Chamber and Growth Association (St. Louis RCGA) and the Kansas City Area Development Council (KCADC) (see case study section).

The following recommendations provide details on how this new organization can be setup, its functions and responsibilities, organizational and governance structure, and other pertinent details. They also reference these bi-state marketing organizations to further illustrate effective practices.

1) Establish a New Economic Development Organization

A new not-for-profit organization should be established with the explicit mission of marketing the Stennis-Michoud technology corridor and the surrounding economic super-region. The purpose of this organization is to raise awareness on a national level of the region's unique technological assets, and effectively building a strong regional brand. This new organization should be set up as a public-private partnership (PPP) to bring a wide array of expertise, leadership and resources to the table. The PPP status will allow flexibility in seeking and leveraging both public and private sector resources while balancing both sectors' needs and interests in terms of economic development. The PPP's status as being external to the public sector will also provide some physical separation from what many perceive as government bureaucracy. This will enable the organization to build a reputation as being

responsive to prospect's need for quick, accurate information and high quality customer service for decision-making purposes.

Central Mission

The core mission of this new organization should be to market the super-region and to serve in a business attraction role. Sticking to this central mission will enable the organization to focus on a core area of competency while avoiding political disputes and redundancy in economic development functions within the region. While the organization can grow into something larger than just a marketing organization, taking on more economic development functions within this region, it is important that it starts out small and builds on its success. Expanding beyond the core mission too quickly poses a risk to the organization in taking on more than it can handle, particularly during the early development stages when it is gathering legitimacy among regional stakeholders.

Functions

The organization should be responsible for the following business attraction functions:

- *Marketing & Branding:*
 - Market the region to a national and international audience to attract new businesses and industries
 - Work on a branding campaign to promote the region's strengths and improve the perception of its business climate. This needs to go beyond the current efforts that are focused around the tourism industry (particularly in New Orleans) to include high technology sectors.
 - Develop marketing materials for different target audience with relevant marketing messages
 - Manage communication channels to reach a national and international audience with those messages
- *Business Attraction Services:*
 - Develop and manage regional information such as community profiles, site location data, available properties, etc. This needs to be accurate, up-to-date and credible information to potential business prospects
 - Serve as the point of contact for business prospects interested in investing, locating or expanding in the region
 - Facilitate site location process in a specific local community once a prospect has expressed interest in the region
 - Assist in development of appropriate incentive policy and package
 - Liaison with state organizations and political leaders to facilitate a deal with prospects

The St. Louis Regional Chamber and Growth Association and the Kansas City Area Development Council are good examples of a bi-state regional organization that focuses their activities on effective brand marketing and business attraction services for a region that crosses into multiple states (see case studies in next section for more details).

Governance

A diverse Board of Directors representing both the private and public sector stakeholders in the region should govern the organization.

Board Structure

Strong leadership and clear vision are the cornerstones of any successful organization – demonstrated first and foremost in the makeup of the organization’s board of directors. Electing the right leaders to the governing body of the PPP will bring balance to the organization’s mission, activities and resources as well as relations with its external environment. An effective board provides the following key responsibilities in the organization¹¹:

- Financial oversight
- Strategic planning
- Raising funds
- Developing policy
- Engaging the private sector
- Community relations
- Monitoring and evaluation
- Hiring/firing Executive Director
- Development of the board of directors
- Providing counsel

Board members from the private sector are likely to bring expertise in economic development, advanced business and management techniques from the corporate world and provide critical strategic direction. In addition, they provide access to financial capital through local, regional, national and international networks, as well as clout and status in the business community. The public sector representatives on the board can provide political legitimacy, ensures the pursuit of the public good, and provides economic development knowledge and financial resources from public sector sources.

Therefore, the IEDC team recommends a board composition with a majority of private sector representatives and has a minimum of the following representatives as follows:

- Governors of Louisiana and Mississippi – 1 seat each
- Executive Director for each Parish/County EDO – 1 seat each
- Private sector representative from each parish/county with experience in the types of industries represented in the region (e.g. aerospace) – 1 seat each
- Heads of State Economic Development Agencies (LED and MDA) – 1 seat each
- Executive Leadership from Stennis Space Center and Michoud Assembly Facility - 1 seat each

While this is a large Board of Directors, it is important to have diversity and adequate representation from both public and private actors in industry, government and academia to

¹¹ Hummel, Joan M. Starting and Running a Nonprofit Organization, Second Edition, (Minneapolis, University of Minnesota Press, 1996)

represent a cross section of local and regional interests. A smaller sized board is likely to have difficulty in representing the broad and varied interests of the region’s businesses as well as the political interests of both states.

Board Qualifications

Per the recommended structure, board members from the public sector will be appointed to the board by virtue of their position in a public sector organization. Private sector board members will be nominated to the board based on their qualifications and expertise in a variety of industries, occupations and walks of life. Board members should possess a strong public interest as well as the ability to plan, oversee, evaluate, prioritize, and monitor the economic development activities of this new organization.

Board Nominations Process

The nominations process for the private sector board members will be decided by the public sector appointees during their first meeting, further discussed below. It is the responsibility of the nominating entity to provide qualified candidates for each board seat, particularly in the areas of marketing, finance, business attraction, real estate development, and government relations as well as industry specific knowledge for target areas.

In the case of another regional marketing organization, Kansas City Area Development Council (KCADC), board nominations are determined by the following: 1) involvement in KCADC’s activities, financial contribution, geographic balance, balance of private sector industries, and gender/racial balance.

Preliminary Meeting of Board Members

The public sector board members should organize a preliminary meeting in order to discuss and establish the process for nominating private sector representatives to the board. Private sector representation such as CEOs of key technology companies within the region who are likely to serve on the board should be identified and invited to participate. It is recommended that nominations are reviewed and finalized by an impartial third party in order to ensure balanced and diverse representation.

Convening the Board

The governor’s of both states should convene the first meeting of the Board of Directors of the new organization. This can be organized as a day-long retreat to brainstorm on up-front questions such as the organization’s operative values, vision, mission, goals and objectives, and strategic plan (discussed later), among others. It is equally important that the board comes together as a cohesive entity with a shared organizational culture. Other agenda items for the board retreat include:

- Electing officers (Chair, Vice Chair, Secretary/Treasurer, etc.)
- Discussing the frequency and process of calling/running board meetings
- Establishing a process to hire an executive director
- Identifying fundraising opportunities
- Setting priorities for the first year of operations and associated benchmarks
- Understanding the trends and conditions of economic development in the region

- Brainstorming ways to build consensus among various stakeholders in meeting the strategic objectives of the organization

Staggered Board Terms

The private sector board seats should be set for a period of three (3) years and terms should be staggered such that one-third of those seats are renewed every year. This will provide a constant flow of new ideas into the leadership of the organization while ensuring continuity over the years.

Incorporation and Bylaws

The organization should be incorporated and apply to the IRS to gain a 501(C)(3) status. The new organization should control its own incorporation status and not share with an existing organization. When seeking the 501(C)(3) status, the organization should consult with an attorney experienced with the 501(C)(3) application process as EDOs have experienced difficulty in obtaining this coveted status in the past.

The bylaws define how the organization will be managed and operated. The Board of Directors will be responsible for overseeing the bylaws of the new organization. The bylaws should:

- Define the basic organizational structure;
- Determine which staff and board members have authority and decision-making responsibilities and how those responsibilities are carried out;
- Define the requirements and responsibilities of membership of the board;
- Create a framework for the organization and aid in resolving internal disputes; and
- Describe the rules for calling board meetings and specify board member election procedures

Organizational Management / Staffing

According to IEDC's Managing Economic Development Organizations training manual, "The success of a new economic development organization (EDO) will be determined by the cohesiveness and planning ability of the Board and the hiring of a good executive leader." The Board of Directors should conduct a national search for recruiting an experienced executive director who is an expert in governance and possesses extensive knowledge of regional marketing and business attraction.

Executive Director

Day-to-day activities of the organization will need to be managed by an executive director experienced in establishing and running a regional marketing organization. The executive director acts as the link between the board and staff of the organization. S/he is primarily responsible for the following activities:

- Coordinating strategic planning for the organization
- Reviewing the organizational policies and programs with the Board of Directors
- Providing information and advice to the board and its committees
- Acting as an intermediary between committee chairs and the board

- Hire and manage additional professional and support staff for program implementation
- Identifying prospective sources of funding

A successful executive director should have the following qualities:

- Proven organizational leadership and management as well as board savvy
- A proven track record of proactively seeking and successfully acquiring development opportunities and managing their implementation
- An understanding of economic development principles, programs and practices
- Strong communication skills and the ability to champion and inspire regional stakeholders towards common goals and objectives
- Diplomacy and the ability to negotiate political nuances and strike balances between the public and private sector.

It is recommended that the executive director be placed under a minimum of a three-year contract as this position requires longevity for the successful establishment of the new organization.

Staff

The executive director will need to hire additional staff to work full-time on the marketing initiatives. However, it may be wise to consider hiring consultants for the first 6-12 months for critical functions such as communications and outreach, fundraising, development of marketing messages, etc. Full-time staff should be hired once an organizational strategic plan has been created (discussed above), and the need for staff and levels of expertise has been assessed. Attracting staff with the required skills will require offering attractive salaries and benefits, though perhaps still somewhat below private sector amounts. Desirable skills for staff members include: i) experience with federal government procurement, especially with DOD and other similar agencies, ii) experience with heavy manufacturing, and/or iii) experience with marketing for targeted clusters/sectors.

Funding Sources

It is the recommendation of the IEDC team that the public sector provide the initial seed investment to launch this organization, establish its role and legitimacy, and begin to show results in terms of program development and implementation. The first year of any new organization is crucial, as it sets the path for success in the years and decades to come. Best practices point to the need for a new public-private partnership to receive a majority of public funding for the first few years so that the organization can launch from a strong position.

Overview

It has been noted by several stakeholders that many of the existing EDOs in the region are having a difficult time raising private sector capital for their marketing efforts due to the challenging economic times. Private sector dollars are limited too. Public sector support, particularly at the federal level, is essential to establishing such an organization.

A delegation should be organized to educate on the economic need and advocate for the securing of federal funds to be devoted for marketing these two NASA facilities, particularly as they transition away from their reliance on NASA activities. One possible funding source could be NASA with funds set aside specifically for economic development purposes at Stennis and Michoud. DOE and DOD have appropriated such funds as well as established processes to enable a local organization to revitalize and create quality jobs at an underutilized federal facility (see case study section for several DOE and DOD cases). Other sources of federal funds are mentioned below.

In time, private sector financing can be gathered to play a strong and influential role in driving the mission of the organization. Other possible sources of funds could include foundations with missions that align with the interests of the new organization.

All nominating agencies should help supplement efforts of the leadership of the new regional organization in fundraising, especially during the first year. Maximum effort should be made to get commitments for multiple years (at least three years) to ensure availability of funds for the organization during its formative years. The responsibility for on-going fund raising will be shared between the board of directors and staff.

Public Sector Support

The portion of funds from public sources is likely to come from a combination of federal as well as state sources. Federal sources to pursue include grants from the U.S. Economic Development Administration (EDA), U.S. Housing and Urban Development (HUD) (including CDBG Disaster Recovery program), U.S. Department of Agriculture (USDA), and U.S. Department of Defense's Office of Economic Adjustment (OEA). Regional stakeholders as a team from both states should hold discussions with appropriate federal agencies about the economic development and marketing need to secure these funds to support the creation of such an organization. The Hartford Springfield Economic Partnership, an informal collaboration of regional economic development stakeholders in both Massachusetts and Connecticut, has successfully won millions of dollars in federal grants for economic development, transportation and workforce training purposes due in part to the joint application from economic development stakeholders from both states.

Congressional support for the growth of these facilities has been strong in the past on both sides of the state line as indicated with the growth of Stennis as well as the recent development of the Stennis - Michoud Aerospace Corridor Alliance. It is critical that regional stakeholders pursue opportunities with their congressmen in a joint effort to pull additional and significant financial resources together to implement an effective two-state regional marketing and branding campaign.

State sources are likely to include the two economic development agencies, Louisiana Economic Development (LED) and Mississippi Development Agency (MDA), which have supported the growth of the two NASA facilities and associated growth in the region. The State of Louisiana has recently been apprehensive towards investing in the Michoud facility due to the wavering federal commitment at Michoud. The recent passing of the NASA Authorization Act of 2010 should provide some comfort of strong support for space exploration and encouraging job stability at both NASA facilities. It is an appropriate time for both states to re-evaluate their financial support to these facilities even in a climate of

state budget cutbacks. There may be additional discretionary funds that the governor's have control over to provide support for such an effort.

Private Sources of Support

In order to be a true public-private partnership, the organization should be funded by a combination of public and private resources. While there is support for the establishment of a new marketing organization to manage the branding and marketing of the Stennis-Michoud technology corridor, it has been noted of the limited funds from the private sector. The private sector is shouldering more and more of the local economic development activities throughout the region. Other businesses in the two-state region currently not contributing to economic development activities should be identified and actively engaged.

It is important to engage the private sector, particularly companies in the aerospace industry and defense contracting, in the economic revitalization of this region. The banking community, developers, and local utility companies are also a likely and important source of private sector funds to pursue.

Board positions should be offered to major investors, as people need a seat at the table to monitor and guide how their money is spent. This is the practice for both St. Louis Regional Chamber and Growth Association (STLRCGA) and Kansas City Area Development Council (KCADC) – see case studies in the next section. Highlighting the benefits of a revitalized region for their workforce, the business costs, and their bottom line can be an effective strategy in soliciting these investors' engagement.

Budget

Regional marketing organizations have some of the largest budgets among EDOs due to the costly nature of marketing and branding a region. Typical budgets average from \$1 to \$6 million. For example, the Kansas City Area Development Council (KCADC) operates on an annual budget of \$4 to \$4.5 million to market an 18 county region, of which roughly a quarter is spent on the marketing program (\$1.6 million), half is spent on salaries (\$2.2 million) and about \$400,000 is spent on overhead. Greenlight Greater Portland, a regional marketing organization established three years ago to market a seven county region in Washington and Oregon, operates on a budget of \$1 million¹².

The IEDC team suggests the new marketing organization be established with an annual budget of approximately \$1 to \$1.5 million during its formative years¹³. This will include both operational as well as programmatic/marketing expenses. Marketing budget needs to be significant and should include typical marketing expenses such as marketing material generation, website development, PR campaign and media placement, lead generation,

¹² Greenlight Greater Portland's budget does not allow for any advertising expenses as well as trade show participation.

¹³ While this funding level is the ideal level for establishing the recommended marketing organization, the IEDC team understands the present realities of extremely limited financial sources due to local and state budget cuts as well as private sector resources being tapped by existing economic development organizations (EDOs). Regional stakeholders should further investigate creative financing mechanisms from outside the region (such as the federal government or foundations) to fund such an organization and/or consider alternative models for a scaled back version of this marketing organization. The Hartford Springfield Economic Partnership is an example of an organization with a limited budget that relies on the existing utility to provide a dedicated staff member for administration purposes as well as local EDOs combining and leveraging marketing dollars to jointly fund marketing activities.

hosting site selectors and delegations, travel, and other programmatic activities. The budget will be expanded as the organization grows, hires full-time staff and starts implementing more marketing efforts in the region.

Strategic Planning

The new organization needs to develop an organizational plan followed by a five-year strategic plan to help guide its organizational development and regional marketing efforts. This strategic plan should be a results-oriented, living document that is adaptable to emerging situations. It must incorporate strategies and action steps that follow best practices as well as identify responsible agencies, timelines and performance benchmarks to facilitate its implementation.

Organizational Strategic Plan

An organizational strategic plan should be developed first to guide their efforts over the next two to three years by establishing goals, objectives, strategies and performance measures. Developed in the first year of operation, this fundamental business plan should serve as a critical guiding document for the entire organization as it finds its niche in the regional economic development landscape. The time to develop such a plan will be around six months.

Five-Year Strategic Plan

The purpose of the five-year strategic plan is to help organize responsibilities, tasks and the timing of those tasks for the professional staff and board in the coming months and years. It should serve the purpose of motivating them to reach target goals and go beyond. It also serves the purpose of communicating to the board members and regional stakeholders what the organization is planning to do in the coming months and years ahead. Finally, it serves as a basis for monitoring what the organization has achieved each year; therefore, legitimizing the organization's accomplishments and marketing role.

The strategic plan should allocate resources based on its mission and the opportunities that it has identified. It should build on the existing studies and analyses that may have been conducted over the past few years pertaining to the region. It should be aligned with the overall goals and objectives of the local stakeholders as well as seek to complement and enhance their economic development capabilities. A strategic plan should include the following:

- Mission Statement
- Achievable goals and objectives
- Economic data analysis and assessment to identify target industry sectors and subsectors
- A realistic appraisal of available resources, constraints, and opportunities (SWOT analysis)
- Inventory of key technology assets and capabilities in local universities and industry
- Marketing and business attraction strategies and tactics
- Action plans to reach goals, including the identification of responsibility, timelines, and project or program prioritization

- Indicators and benchmarks for measuring performance and impact of the organization

Targeted Industry Analysis

A major component of the strategic plan, the economic data analysis, leads to the identification of target industry sectors through intense qualitative and quantitative analysis of employment and industry data. The analysis' findings will drive marketing strategies in these targeted industry clusters. Once target industry sectors and subsectors are identified, research can begin in targeting specific businesses within those clusters. The PPP should review previous cluster analysis, such as the GNO, Inc's 2007 marketing study performed by AngelouEconomics. The need to identify target industry clusters is further discussed in the marketing recommendations.

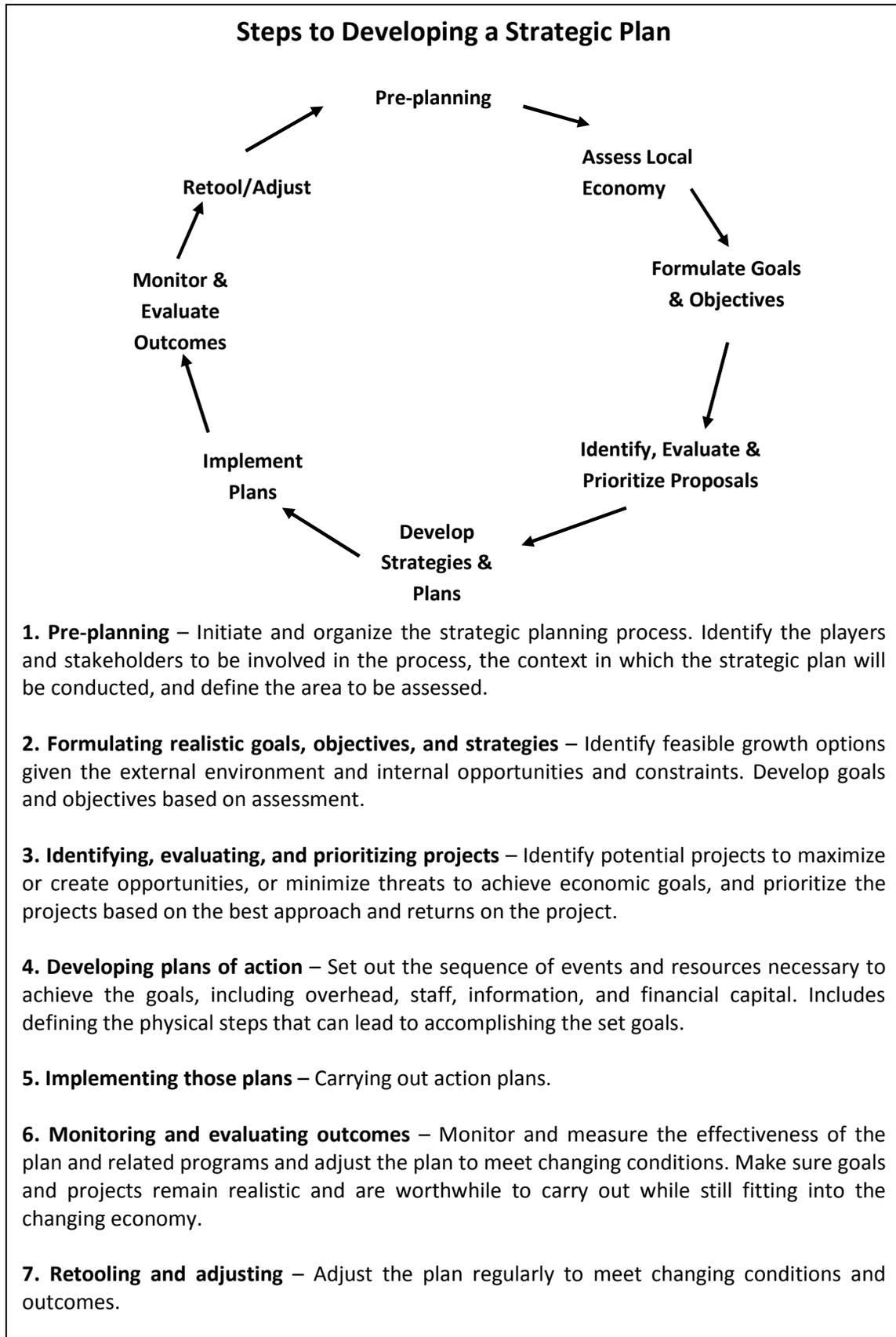
Financing

The strategic planning effort could be financed through a grant from the U.S. Economic Development Administration (EDA) through its Economic Adjustment program, the states of Louisiana and Mississippi, and/or a combination of both. EDA has made it a priority to invest in strategic planning efforts that focus on identifying and strengthening regional assets and pursuing comprehensive strategies to promote regional prosperity. These and other federal sources of planning and technical assistance grant money should be considered as an important funding source.

Implementation

Once financing is obtained, the IEDC team recommends the group bring in outside professionals to develop or assist with the development of the strategic plan. This will lend objectivity to the plan and the overall process. Board members and other staff taking a lead in the design and implementation of the strategic plan would benefit from training if such expertise in strategic planning doesn't already exist.

There should be a fairly broad consensus on what actions should be taken in the strategic plan, the resources required for those actions, and the expected outcome and timeline. While every situation cannot possibly be anticipated, formulating the strategic plan should help the board and organizational staff to establish procedural guidelines and benchmarks. Flexibility with time, budget, and resources should be built into the plan, as implementation seldom proceeds as expected.



MARKETING RECOMMENDATIONS

The IEDC team was asked to help bring key economic development stakeholders from the Stennis-Michoud region together to review their marketing strategies and suggest ways to both leverage resources and facilitate the successful implementation of those strategies. The following section provides recommendations on specific marketing strategies and tactics that can be implemented to:

- Boost the visibility of the Stennis-Michoud technology corridor
- Develop a widely recognized national brand, and
- Lead to successful business attraction.

Although these marketing suggestions will be best carried out in an effective manner if a new marketing organization is established (as suggested above), they can be pursued in the absence of this organization, especially since the establishment of a new regional marketing organization may take some time.

The question remains: what can be done immediately in terms of marketing the region. The team recommends that the critical focus should be on supporting the growth and development of the region's two largest assets – Stennis and Michoud. Therefore, the recommendations below focus substantially on how to facilitate the growth of these two economic drivers.

The IEDC team identified five central questions that need to be answered before starting on a major marketing effort. These are:

1. How do you define the region?
2. What are the technology assets in the region?
3. Who is the target audience?
4. What businesses/industries clusters would benefit? Where are their synergies?
5. How do you implement a regional marketing strategy?

It is recommended that the existing group of regional stakeholders should work cooperatively to answer these questions. The IEDC team has provided some insights for these stakeholders to consider in their decision making process.

2) Define the Technology Corridor

Before attempting to pursue marketing strategies to attract businesses to the region, it is critical for local stakeholders to clearly define what area they are marketing. IEDC team members asked local stakeholders during their site visit how they define this technology corridor and received a number of different responses. As a starting point for marketing, economic development stakeholders need to develop a clear and well-defined answer in terms of how they define the region.

To assist in developing a definition, it is important to recognize that Stennis Space Center and Michoud Assembly Facility serve as anchors for the core of this region. These economic

engines may be physically located in Hancock County in Mississippi (Stennis) and Orleans Parish in Louisiana (Michoud), but they have economic ties with the neighboring counties and parishes. Therefore, it is advisable that the technology corridor be defined by the geographic boundary of Hancock and Pearl River counties in Mississippi and St. Tammany, Orleans and Jefferson parishes in Louisiana¹⁴. This serves as a starting point for marketing the region, but the vision of this region is likely to grow beyond this boundary, particularly as the new organizations more fully understands the economic ties with the neighboring counties and engages additional regional stakeholders. It is also important that the marketing is aimed at branding the region, not the individual counties/parishes or states that make up the region.

There is a note of caution for regional stakeholders to avoid marketing too large a region as it will be more difficult to get things accomplished and provide services to so many different stakeholders. It is important to focus on marketing the region's most important assets first and then expanding the marketing mission over time.

3) Define and document core capabilities in the region

Review Existing Studies to Document Region's Core Capabilities

A starting point for this effort can be a review of existing studies and reports, particularly IEDC's *Background Report for the Stennis-Michoud Technology Corridor* (see appendices) and Geocent's *Master Plan for the Stennis-Michoud Economic Corridor*. IEDC's background report researched and synthesized information on the major technology assets located within the corridor in preparation for the IEDC team's site visit. The Master Plan describes in great detail the region's core capabilities, strengths, challenges and opportunities as well as performs a target market analysis and provides short and long-term action steps for addressing needed infrastructure and further developing the super-region. These reports must be reviewed to identify key pieces of information on core capabilities that should be included in marketing materials and a website on the technology corridor.

Summarize Information on Workforce's Specialized Skill-sets within Region

Marketing materials should highlight the strong workforce assets of the corridor as well. The Michoud facility is still in the process of experiencing some significant downsizing. Further research needs to be conducted to summarize workforce data on skill-sets for recent and soon-to-be redundant workers at Michoud. It is likely that a significant portion of this worker pool possess skills that are in demand globally, not just nationally or regionally. This type of workforce information not only helps to identify business prospects, but also to garner their attention as this workforce information serves as a major selling point.

Retaining this workforce with specialized skills should be a priority for local, regional and state economic developers. While local economic development stakeholders have implemented a workforce loan program as an attempt to retain some employees, it would

¹⁴ Some regional stakeholders commented that they would like to see the technology corridor be expanded to include Harrison County as the county serves as an important economic driver for several of the corridor's target industries. This regional group should consider engaging Harrison County on this initiative.

also be beneficial to seek to attract additional businesses permanently to the Michoud facility.

To build on recent efforts by regional workforce development groups and GNO, Inc., the region would benefit from having a skillshed¹⁵ analysis conducted to gather up-to-date workforce information, identify the region’s competitive strengths in terms of workforce skills, and to suggest areas for improvement regarding skillset upgrading. In several cases, this skillshed analysis has been used in the state of Iowa to successfully attract a firm to locate in the state for access to a specific skillset within the region (e.g. attracting wind turbine manufacturing in Newton, IA and manufacturing electric car engines in Webster City, IA).

Under a grant by the U.S. Department of Labor’s Employment and Training Administration, the Skillshed Macro and “How to” guide was developed as an innovative tool to enable local, regional, and state organizations to analyze labor markets and the changing skillsets needed by industry at a minimal cost. This workforce analysis can be performed with publically available labor information. The excel model has an embedded macro with Occupational Information Network (O*NET) data so that as labor market information is entered into the excel worksheet, the macro analyzes the information to identify the skills, knowledge and work activities associated with select occupations that are strong and growing in the region. To obtain more information and/or receive a free copy of this skillshed macro and guidebook, visit the following websites:

- <http://www.workandeconomy.org/currentprojects/mwinnovationinitiative.html>
- http://www.workandeconomy.org/images/Multistate_Skillshed_Report_Final_2010.pdf

Prioritize Collecting Additional Information to Address Site Selectors’ Needs

Other types of intelligence regarding the region’s core capabilities needs to be collected and summarized in a format that appeals to business executives and site selectors. This includes summaries of the specific high technology companies (and their activities) within the region; specific university research that ties into the area’s target high-tech sectors; labor participation rates; graduation rates for key programs (such as engineering) at local universities and technical colleges; details on specialized, large-scale equipment; shared services and workforce programs; and any other unique services and attractions within the region.

Develop Website to Facilitate Immediate Delivery of Information

A website should be developed to feature this specific information. The increased speed in which site selection decisions are made today demands that information be provided in a web format where information can be immediately updated. Developing a website is further discussed below.

¹⁵ According to Iowa Workforce Commission, a skillshed is “the geographic area from which a region pulls its workforce and the skills, education, and experiences that the workforce possesses”.

4) Identify the Target Sectors/Clusters for this Region

Based on IEDC’s initial research and the team’s discussion with local stakeholders, it is recommended that the following industries be considered for the region’s target sectors/clusters:

- Aerospace
- Defense
- Geospatial/Imaging
- Intelligence
- IT/Data Management
- Marine Sciences & Transportation
- Federal Government Agencies
- Energy (including Oil & Gas)¹⁶ /Clean Tech¹⁷

These suggested sectors can serve as the starting point for the development of target sectors for the region, though detailed industry and workforce analyses should be conducted before the targets are finalized.

Local quantitative and qualitative data on each of these (as well as additional) sectors should be analyzed to provide economic developers with critical intelligence on each sector. Quantitative analysis such as shift-share and cluster analysis should be conducted to better understand the growth and decline of industrial sectors and subsectors within the region. This should be supplemented through qualitative analyses such as tapping into the collective knowledge of the local and regional stakeholders. This analysis could be a part of a strategic planning process, but can also be performed separately.

A task force or working group can be established to gather employment and industry data from publicly available sources such as the federal and state governments. More detailed and polished data can also be obtained from private sector sources. Focus groups interviews should be organized with key executives to gather and profile qualitative information in each target sector. The information and intelligence collected through these research activities (e.g. focus groups) can be developed into effective marketing messages to be inserted in the region’s promotional material.

GNO, Inc. through its 2007 study has already collected some intelligence on several of the above mentioned sectors but much of the information is relevant for only the parishes on the Louisiana side and needs to be updated. This analysis should be performed for the entire recommended region.

¹⁶ This could include oil-gas rig design, construction and safety engineering (including advanced materials for deepwater oil exploration) as safety is a larger concern due to the Deepwater Horizon Oil Spill in the summer of 2010.

¹⁷ The Clean Tech Industry is defined as the businesses which are “developing, supplying, generating, or storing energy, in areas such as: renewable energy sources, nonrenewable energy technologies (e.g. carbon capture and sequestration), efficiency technologies, and advanced energy storage technologies (e.g. batteries)” from International Economic Development Council, “Getting Prepared: Economic Development in a Transforming Energy Economy”, June 2010.

This analysis can serve a marketing purpose as well as help to identify strategies for further developing the cluster within the region. Federal agencies such as SBA and EDA are investing in the further growth of identified regional clusters. The Regional Innovation Clusters (RIC) is a strategic investment initiative at EDA, which supports the growth and development of regional clusters to create jobs and grow local economies. cSee the case study on SBA’s Innovative Economies program for more information on how federal agencies are supporting regional cluster development.

5) Identify appropriate communication channels and marketing messages

Currently, there is lack of awareness of the region’s technology assets both within the state, nationally and internationally. The region is further hurt by negative perceptions, as discussed earlier in this report. It will take a major marketing and media campaign to correct misperceptions and effectively market the region. This marketing campaign should include thoughtful marketing messages that help to build the region’s brand and is targeted at the desired audience through the appropriate media channels.

Thought should be given both to internal and external marketing and communication channels. For example, existing businesses within the region have a network of business relationships (throughout the state, nationally as well as internationally) that would be beneficial to access for communicating the region’s core strengths and opportunities. These should be balanced with developing communication channels aimed at other untapped audience.

Separate marketing messages should be developed and tailored for each target audience. Quality of life themes should appear consistently in marketing messages and graphics. New Orleans has done an effective job in branding its quality of life through its tourism efforts, which should be further explored in terms of promoting the technology corridor.

Marketing materials should be prepared to showcase and highlight important aspects of the region’s core attractions. Priority should be given to marketing materials that can be quickly updated (ie. online resources over printed materials). Resources should be devoted to maintaining the site with up-to-date information.

Attractive Website with Relevant, Timely Information

As discussed above, the development of a website should be given priority in terms of marketing the region. The website should serve as a one-stop-shop for business site selection assistance, including information on available properties, socio-economic and demographic information, incentives, and other support services for existing and incoming businesses. Relevant and timely information that is less than three clicks-away is more important than fancy graphics.

At the very least, the website should feature:

- Regional profile
- County/parish profiles

- Demographic/socio-economic information including:
 - Business/industry
 - Cost of living
 - Education
 - Labor force data and wages
 - Local government
 - Transportation and infrastructure
 - Utilities
 - International presence
 - Recreation, environment and quality of life.
- Database of buildings and property sites available for lease or purchase
- Industry information for target sectors
- Tax and incentive information
- Attractive maps and photos
- Media center with news, announcements, videos and other resources
- Business assistance programs
- Links to regional and state information

Examples of regional marketing websites include:

- Charlotte Regional Partnership - www.charlotteusa.com
- Kansas City Area Development Council - www.thinkkc.com
- St. Louis Regional Chamber and Growth Association - www.stlrcga.org

E-newsletter

E-newsletters can be effective in updating site selectors and business executives (inside and outside the region) with recent accomplishments and developments. A database of contact emails can take some time to develop. It is important to not overwhelm your contact list with too many emails with frivolous information. Make each newsletter count in terms of meaty and relevant information.

Media placement in industry/trade publications

Key trade publications for target sectors should be identified for the placement of relevant and effective advertisement and news articles. Articles highlighting success stories within the region are likely to be more memorable to an executive than an advertisement, but it takes skill and strategy to place these types of 'free' advertisement. A reputable PR firm should be identified to help with media placement.

Marketing and branding efforts can be costly but effective in attracting the attention of business executives and site selectors. In the absence of a significant marketing budget, a marketing program emphasizing face-to-face interaction and an easy-to-navigate website with useful information should be given priority over other marketing efforts.

6) Establish a Database of Industries (Existing businesses & prospects)

Each marketing organization should devote resources in maintaining their list of contacts in an organized fashion. This includes not only existing businesses within the region but also a prospect list. Executives from existing businesses can share with the new organization what's working in the region and what's not - assisting in efforts to improve the current situation. They can also serve as an important resource in selling the community to a prospect.

Prospect List

The region should prioritize the businesses it needs to attract to the community by sector/cluster. Priority should be given to establishing a prospect list of 100 to 200 targeted businesses that have been identified through research on the region's strongest clusters, growing industrial sectors, and businesses with regional headquarters that may be expanding. Extensive market research using resources like the local business journal, domestic and international papers, discussion with industry experts, and/or industry reports might reveal insight on future business expansion plans. Existing businesses can recommend suppliers, buyers, and other businesses in the supply chain that may consider relocating or expanding in the region.

Staff of the new organization as well as board members should be engaged in working on the prospect list. The prospect list could be divided up among staff of the new organization for follow-up by priority, with the top segment of firms receiving a higher level of attention. This allows staff to develop in-depth sector/cluster knowledge including industry drivers.

In the absence of a new organization, actionable tasks should be divided among economic developers in the various parishes and counties that make up the region. Priority should be given to businesses within target industry sectors/clusters that may be interested in relocating or expanding in the region. This will allow development of in-depth sector/cluster knowledge within the organization/region including industry drivers.

7) Develop Brand for Region – Consider “Gulf Coast Technology Crescent (GCTC)”

In terms of branding the region, thought should be given to identifying a simple brand name and theme for the technology corridor, which should repeatedly appear in all collateral material. Brand names such as “Silicon Valley”, “Research Triangle”, and the “I-28 Corridor” are global brands for other tech corridors that developed over time. These brands help to define the area in question and establish a memorable product message in the minds of the readers. The name of the corridor should blur local and state political boundaries by not referencing the name of a particular geographic area.

The IEDC team came up with one suggestion for consideration – “Gulf Coast Technology Crescent” (GCTC) as it defines the location and indicates that it is a technology corridor. The use of the crescent logo will help associate the place with New Orleans, a brand with an international reputation. Still, careful thought should be given to establish a brand for this region with advise from appropriate marketing and communication consultants.

The branded name should consistently appear in all marketing materials as well as leveraged among regional partners. As an example, KCADC developed marketing materials around the “KC” brand name, which not only appears in KCADC’s materials but also in the marketing materials of its 200 partners (see case study for more information).

Over time, other important elements that go into establishing a brand such as logo, design elements, etc. should also be developed. Some of these will need to be developed as part of creating a new marketing organization. However, in the event that the organization is not established immediately, engaged stakeholders should consider development of other branding elements as well. Specialized consultants can be engaged to help with this process.

MICHOD ASSEMBLY FACILITY IMPROVEMENTS

As discussed previously, MAF is a unique facility in terms of the following attractions: its ability to manufacture large structures, the presence of both NASA and state-funded manufacturing equipment, excellent port capability to transport large structures, history of critical flood mitigation (only land area to stay dry during Hurricane Katrina), and presence of highly skilled workforce.

The IEDC team sees much more potential in this facility and has provided the following recommendation to improve the marketability of Michoud, especially in terms of leasing commercial space. To date, NASA has not established a process or program to handle the workforce transition at the facility as the Space Shuttle program ramps down. Local and regional stakeholders need to provide leadership and act expeditiously in terms of prioritizing these recommendations to improve MAF in a similar way that local leadership has sought to improve Stennis Space Center since the 1970s. There is remaining anxiety over the job losses that have already occurred at Michoud, as well as concern that the facility's economic value may diminish with passing time, both for NASA as well as potential private sector tenants.

There is need for a local champion to advocate for these improvements at Michoud with NASA management at Marshall Space Center and their federal contractor for facility management. This local champion typically comes in the form of the local political leadership (senator, congressman, mayor, council member, etc.). The developments that have occurred at Stennis Space Center, Marshall Space Flight Center, and Kennedy Space Center are often attributed to a local leader advocating for critical changes to maintain and improve the competitiveness of the NASA center with a vision in mind of what it could become.

8) Suggest that Michoud Facility Reports to Stennis

The IEDC team recommends that NASA consider transferring Michoud's reporting requirement from Marshall Space Flight Center in Huntsville, AL to the Stennis Space Center. There is a complementary mission that exists between Stennis Space Center and Michoud Assembly Facility in addition to the physical proximity (one hour driving distance). The NASA mission at Stennis functions as a testing and applied research center while Michoud functions as a manufacturing center for large-scale equipment.

The establishment of an administrative relationship between the two facilities would facilitate a smoother relationship as well as greater synergy and more growth between the two facilities if they were more closely connected. Through this relationship, public and private sector leadership are more likely to leverage each other's resources to pursue strategies/efforts of growing emerging industrial sectors and clusters within the region. This would align with the current Administration's policy to pursue regional innovation cluster efforts. This recommendation should be further explored by a NASA committee (or task force) with input from private sector tenants and local community representatives to further examine the costs and benefits of pursuing such a course of action for Michoud and Stennis.

9) Develop Entrepreneurship Support Services Onsite at Michoud

Entrepreneurship /small business formation and growth are essential building blocks for economic development. Small businesses account for a majority of the job creation in a local economy. Typically, entrepreneurship support services are provided to small businesses and entrepreneurs through a combination of resources at local universities, community colleges, chambers of commerce and local/regional EDOs.

Some critical components of a support system to grow technology-based companies include a technical review committee to provide technology validation and proof of concept, discounted space to lease (including wet lab space), shared support services, entrepreneurial management programs, capital access (including gap financing), networking and business mentor programs, and assistance with business plan development, marketing and financial management. These support services should seek to establish a robust technology development process that builds on the technology pipeline model of R&D and focuses on moving ideas and inventions into innovations that can be pulled in to market applications and full-on commercialization. These services are essential in order to provide entrepreneurs with the critical assistance they need to establish and grow their business as they may not have the skill sets to undertake all these activities, essential for establishing and running a business, or the resources to retain outside help.

It is believed that a certain percentage of employees at Michoud, which are soon-to-be made redundant, are likely to have some interest in starting their own technology and/or service business. There is a ripe opportunity to provide entrepreneurship support services onsite at MAF to connect these prospective entrepreneurs with the essential resources to promote job and wealth creation in the community. Facilitation of technology commercialization, the process of bringing ideas from the lab to the market place, is necessary to translate basic R&D to scale. Entrepreneurs require expertise, financial and networking assistance in proving feasibility of innovations, developing and manufacturing in small scale, demonstrating functionality, and locating functional markets. Support services that can assist in matching entrepreneurs with innovations with others that see practical applications and capacity to expand can be an important component of this effort and help transform new and emerging ideas at Michoud into commercial realities.

Follow the Example of Other Federal Agencies

NASA should consider providing similar supportive services and financial resources following the example of other federal agencies such as the U.S. Department of Defense (DOD) and the U.S. Department of Energy (DOE) when they downsize one of their facilities. DOD and DOE have established programs, a transition assistance process, and funds for communities greatly impacted by the downsizing and closure of a military base or federal facility.

After DOD has determined a base closure through the Base Realignment and Closure Commission (BRAC) process, a Local Redevelopment Authority (LRA) is established to work in close cooperation with the DOD's Office of Economic Adjustment (OEA) and the

community to assist in the transition and redevelopment of the base. DOD's OEA provides both technical assistance and financial resources to the LRA for community organizing, planning and redevelopment of the base, including funds to initiate and support local entrepreneurship programs for the workforce being transitioned.

DOE has established a similar program and process when the agency started to downsize many of its nuclear facilities. Congress authorized DOE's Community Reuse Organization program in 1993 to enable community leaders to begin to coordinate efforts to mitigate the economic impacts of a facility closings and layoffs and to foster private industry relocation to the former federal facility. DOE understood its responsibility to assist as the closure of these facilities as they were often located in remote areas with vast amounts of land and a residential base dependent on the facility for their livelihood. Much of the nuclear weapons manufacturing generated vast amounts of waste, which would require billions of dollars for cleanup. Each community was instructed to establish a Community Reuse Organization (CRO), similar to the DOD's LRA, to facilitate the transition. DOE established a process to not only deal with the site's remediation issues but also address the community's economic and social needs.

After the closing of a DOE nuclear plant in Pinellas County, DOE awarded the CRO a \$1.5 million grant for infrastructure upgrades and to fund a new business accelerator program to assist in the growth of nascent manufacturing and technology-based businesses within the facility. See case studies section for more details.

The IEDC team recommends that NASA provide funds as well as work with local economic developers in establishing similar support services for entrepreneurs at Michoud. Investment in this type of economic development program will serve as a workforce retention strategy, enabling Michoud employees to find alternative employment (in creating their own business), and establish a business that is likely to bring wealth and prosperity to the region.

Apply for Federal Grants for Entrepreneurship Programs

Jacobs should apply for various federal government grant programs that support entrepreneurship development and training. The U.S. Small Business Administration (SBA) and the U.S. Economic Development Administration (EDA) have designated funds for entrepreneurship support and development, especially efforts at targeted cluster development throughout the country. See the St Louis County Economic Council case study for a community example that has benefited from these programs.

Type of Supportive Services to Consider

Entrepreneurs need a wide variety of services in establishing and growing an enterprise ranging from support for developing a business plan, to marketing and financing, to market intelligence for reaching maximum market potential and target audience. The process involves moving intellectual property from beyond the proof of concept phase to determining the commercial viability of the product/service to the production and distribution phases. Market intelligence further aids the entrepreneur in refining their product or service, while business financing is essential to fund every phase of the technology commercialization process.

Michoud should consider introducing one or several of the following support services to facilitate and expedite business creation among potential entrepreneurs:

- *Business & Entrepreneurship Training* - Provide business management and entrepreneurship classes on specific business topics such as lean and competitive positioning manufacturing, product development, sales/marketing, organizational management, finance/accounting, etc. Entrepreneurs need to develop the skills to credibly pitch potential funders with an emphasis on addressing market(s), selling proposition, pricing, distribution channels, etc.

It is important that the courses not only include subjects that provide technical knowledge about certain business aspects, but also provide training on marketing, selling proposition ideas to investors, determining target audience and markets for products/services, pricing, distribution channels, among others. Courses can be offered through chambers of commerce, trade associations, universities, and small business development centers. Business executives and industry experts can be used as instructors as they can provide practical business advice.

- *Business Specialists Services* - Establish a network of technology and business specialists that can assist entrepreneurs in the proof of concept phase, business plan development, business operations, marketing, legal issues (such as intellectual property rights (IPR)), etc. A critical service for entrepreneurs is assistance with the refinement of their business plan, including new market development or procurement opportunities. Business plans for technology companies often focus too much on the technology without the appropriate attention on other critical elements (business operations, marketing and financial management) to secure investors and grow the enterprise. Services, including business plan assistance and proof of concept review, could be delivered on competition basis to encourage and award those most likely to succeed with further training and assistance. Fees collected for services could then be used to seed micro-lending to assist with entry-related equity capital.
- *Business Mentoring* - Introduce business mentorship programs to provide the opportunity for entrepreneurs to connect with other seasoned owners of technology companies to better understand the challenges and roadblocks they might face at different stages of business growth. Mentors provide business coaching and act as a sounding board to explore strategies and provide practical advice based on both their business success and failure(s). They function similar to a corporate board of directors in providing feedback and advice.
- *Network of R&D and Workforce Development* – Local educational institutions can be not only sources of R&D partners and technology licensing opportunities but also of providers of progressive educational content delivery and a future expertise-specialized labor force. Entrepreneurial support services should connect with the university and community colleges to utilize undermined resources.
- *Network of Business Financing Sources* – One of the critical ingredients of a successful entrepreneurial effort is access to capital. Startups need to be connected to financing sources such as venture capital firms, angel funds, and other types of investors to help fund their business venture. Regions that figure out how to have a robust angel

and venture funds network will have a competitive advantage. Michoud should engage existing financial players in the region and connect them to budding entrepreneurs.

- *Incubator or Business Accelerator* - Establish a physical incubator or accelerator managed by a local business support organization, which provides tenants with affordable rent, specialized business services and startup technical assistance, shared lab space (including wet labs) or product testing facilities, business mentoring and access to a network of investors.

These types of support service programs should be lead by an individual or individuals with experience in business/technology startups, financial management and market assessment.

10) Improve Marketability of Michoud Facilities

In order to attract private sector tenants, it is imperative that the facilities and offerings at Michoud be made competitive with business and industrial parks throughout the Gulf Coast and other parts of the country. This ranges from improved facilities and landscaping to the packages and services offered at MAF that can be used to attract new tenants.

Offer More Attractive and Competitive Lease Rates

As mentioned earlier, high lease rates can pose one of the most significant barriers in leasing space at Michoud Assembly Facility (MAF) to private sector tenants. In order for MAF to attract new private sector tenants, it is important to offer competitive, market-oriented lease rates to put Michoud in the competition. It is recommended that an entity (the State of Louisiana, City of New Orleans, or Jacobs) conduct a study to analyze competitive, market lease rates of comparable properties along the corridor to inform their decision on lease rates. This knowledge is key to establishing the appropriate pricing structure for different land uses at the MAF.

As mentioned above, NASA has a legal obligation to not compete with private industry in terms of leasing its space. One alternative solution to this legal issue is to establish a government to government transaction vehicle for facility leasing whereby NASA would lease Michoud space to the State of Louisiana so they could sublease to the private sector.

In the absence of improved lease rates from NASA, the state of Louisiana might also consider a rent subsidy program as an added incentive to attract private enterprises to Michoud, particularly since there is a renewed federal commitment with the NASA Authorization Act of 2010. The state's incentive package to successfully attract Blade Technologies to Michoud is a case in point. The rental subsidy should be attached to performance metrics such as job creation, average salaries offered, total investment, etc. While this mechanism can work for large companies that are looking to expand or relocate to MAF, more flexible terms might be needed to attract start-ups and entrepreneurial firms.

Improve Visitor Facilities

Michoud visitor facilities should be improved both physically as well as programmatically to help promote the site as an advanced production facility. Taking a lesson from Stennis, the

visitor facilities and services should be impressive to meet the needs of all types of guests – from business executives to local residents and kids. The security at Stennis’ front gate leaves a positive, professional impression on visitors in terms of the interior décor and the speedy, efficient service of the staff. The main building at Stennis also has an attractive conference room with advanced AV equipment to host executives. The equipment enables them to advertise the site’s main attractions through an impressive promotional video.

Stennis’ award winning StenniSphere Visitor Center frequently introduces interactive exhibits/attractions for kids as well as hosts educational activities such as AstroCamp to encourage young adults to learn more about the fields of science, computers and space exploration. Stennis also has plans to establish the Infinity Visitor Center, a new, state-of-the-art science and visitor attraction for guests to explore the earth, oceans and space through gallery tours, hands-on experiments, exhibits, and ‘activity based missions’.

At a minimum, Michoud should consider creating a special area/facility for visitors with appealing décor, state-of-the-art audio/visual equipment and impressive, up-to-date displays of the facility’s activities. This area should be located near the front entrance of Michoud. Funds should be identified from local, state, and federal sources to support this needed site amenity.

Promotional Efforts for Michoud Assembly Facility

Jacobs should work on producing an attractive promotional video and update the MAF website with important site selection information. Jacobs should also consider running promotional articles that offer detailed information about the programs and offerings at Michoud in several economic development magazines, including those that have nationwide and/or international circulation. Magazines and journals that are devoted to aerospace and heavy manufacturing industries should also be targeted.

Jacobs should also consider writing articles about the transition of Michoud facility for private-use to be placed in appropriate economic development magazines (e.g. *Business Expansion Journal* or *Site Selection*) and trade publications. Research should be conducted by Jacobs to identify publications that have special issues focused on particularly themes or topics (i.e. Aerospace). Copies of the placed articles can be included in marketing materials on Michoud.

Prioritize Landscaping and Attractive Way-finding Elements

Landscaping serves as one of the most economical and effective ways of promoting a higher-quality image of an industrial park. It enhances curb appeal, serving to impress business executives and attract high technology tenants to the facility. According to the Urban Land Institute (ULI), the entry landscape of an industrial park should include monumental signage to clearly mark and identify the park, landscaping to highlight the main entrance, plant materials screening unattractive service areas, site circulation and way-finding devices such as signage, tree planting, site furniture and artwork. Long ago, Stennis made important landscaping investments to the park and regularly maintains the center’s grounds, leaving a favorable impression on many of its visitors. Similar improvements must be made at Michoud as well.

Local and state officials in Louisiana are responsible for overseeing the \$6.2 million *Front Door* initiative to improve the appearance and functionality of the Michoud entrance way. The project includes landscaping, signage, improving curb appeal, resurfacing and flood mitigation components, which are funded through CDBG disaster recovery funds.

The project was formally funded in January 2011 and is now moving forward into the design stage. Officials should prioritize the implementation of this important project without delay.

Identify Other Needed Infrastructure Improvements

Lack of rail spurs onsite at the Michoud facility is an important infrastructure need. Rail access plays an important function in manufacturing operations for receiving and shipping heavy freight. Seamless loading and unloading of raw materials can be a critical factor for manufacturing firms when making location decision as there can be substantial cost savings to deliver the materials close to the production facilities. For some processing plants, rail access directly to the loading docks can provide millions in savings in transportation costs per year. Better rail access can also give an industrial park a competitive edge for domestic trade, differentiating the industrial park from others.

Anchor occupants typically plays the key role in influencing the decision of running a trunk line and rail spurs from an established regional rail route to the site. Expenses to cover the cost of the switch and spur track up to the property line are borne fully by the industrial park. The city and state should consider discretionary CDBG disaster recovery funds to help fund these spurs - a decision which would need local support from the New Orleans government leadership to move forward.

Other critical infrastructure improvements for Michoud should also be evaluated as part of a master planning process, which is further discussed below.

11) Seek Other Federal Agency Support such as MEP and DOD

Michoud leadership should seek to attract other federal agency support such as the National Institute of Standards and Technology (NIST)'s Manufacturing Extension Partnership (MEP), to locate at the facility and provide important complementary services onsite. MEP helps small and medium-sized manufacturers to increase their profit-lines through the introduction of technology and processes that will increase productivity, reduce costs, and increase the company's economic competitiveness. The presence of an MEP center at Michoud would serve as a value-added feature to prospective private sector tenants – particularly small businesses.

12) Raise Awareness and Coordinate Ongoing Economic Development Studies / Master Plans

Multiple economic development studies including the development of a master plan are currently underway for the MAF and the larger region. Local and regional stakeholders

connected to Michoud are encouraged to increase their communication and coordination of these planning efforts so that planning efforts are not conducted in isolation. For example, NASA's development of a master plan for Michoud was only recently discovered by local stakeholders and planners. Similar efforts were also underway at the Regional Planning Commission -New Orleans (RPC), though the scope of that study/plan has now been revised to reduce redundancies. In addition, a private firm, Geocent, received a grant from the state of Louisiana to deliver a *Master Plan for the Stennis-Michoud Economic Corridor*, which was recently released in January 2011. This master plan was developed with extensive input from both public and private stakeholders in the states of Louisiana and Mississippi and provides critical guidance for the development of this technology corridor.

NASA's master planning effort for Michoud will serve as a guide to highlight development priorities and direct growth for the entire site. It is likely to discuss the plans for transportation, infrastructure, land management, real estate development, landscaping, environmental remediation, etc. NASA officials should prioritize completing this master plan in an expeditious manner, but with a critical eye as to the relevancy of this plan in addressing prospect tenant needs as well as coordinating with other planning efforts such as the RPC and Geocent studies.

It is also important that Michoud's master plan has a private-sector orientation so that critical site selection factors are addressed. The plan can serve as an important tool for the recruitment of other tenants if it includes relevant information. The master planning process should be transparent and open, attempting to incorporate input from all key stakeholders. Michoud should follow some of the lessons learned at Stennis Space Center, which also developed several master plans guide future growth for the facility.

13) Pursue Strong Retention Efforts for USDA Finance Center

Local, regional and state officials should prioritize the retention of the USDA Finance Center at Michoud and not consider its relocation to another facility, even one within New Orleans. During the site visit, there was some discussion of the interest of Federal City to attract this tenant to relocate. This move would seriously hurt the Michoud facility as well as serve as a zero sum game in terms of job growth within the city and region.

14) Protect NASA Tooling & Manufacturing Equipment for Space Shuttle program at Michoud

NASA has invested millions of dollars in tooling preservation to ensure that the Space Shuttle program's tooling and manufacturing equipment is protected for the next NASA program at MAF. Local, regional and state officials should seek to ensure that the equipment permanently remains at Michoud for years to come. It is not uncommon to see congressmen in other districts learn about the value of such equipment during the closure or downsizing of a federal facility and make concerted efforts for the ownership of the equipment to be transferred to their area. For example, Congressman Young was effective at securing

resources at a DOE plant in Pinellas, FL, to ensure equipment, which was valued at \$8 million, to remain at the plant even when the plant was sold to the local community reuse organization (see case study: *Reuse of Pinellas DOE Facilities* in the next section).

The equipment at Michoud is an important site amenity that should be protected and remain at the facility even if it is not currently being used. Economic development stakeholders should research what type of businesses would find this equipment valuable for their manufacturing operations to entice them to consider Michoud as a possible site location.

Case Studies

CASE STUDIES: ORGANIZATIONAL DEVELOPMENT

Case Study 1: St. Louis Regional Chamber and Growth Association

Overview

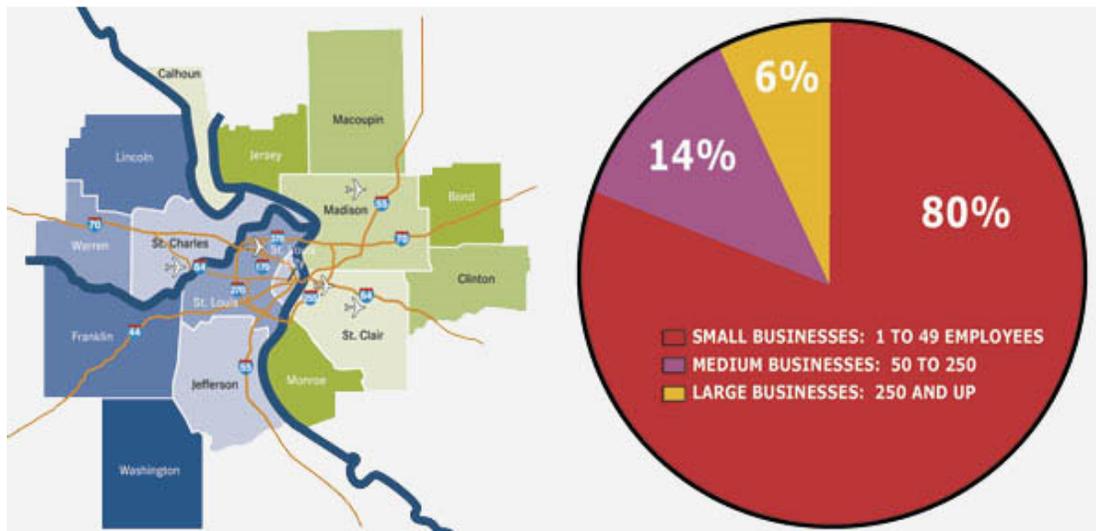
The St. Louis Regional Chamber and Growth Association (RCGA) is a regional chamber of commerce servicing the Greater St. Louis region - a bi-state metropolitan area of 2.8 million people that covers 16 counties in Missouri and Illinois. While the St. Louis RCGA performs traditional chamber duties, the Chamber also houses a self-funding economic development organization committed to growing and attracting jobs to this 16 county region. This economic development arm within the Chamber is the focus of this case study.

The St. Louis RCGA's economic development arm performs the following: markets the region externally, develops attraction leads, assists in site location, conducts business research, negotiates final location deals, and is increasingly active in entrepreneurship and workforce development.

History

Although the Chamber can trace its roots back to 1836, the St. Louis RCGA was born in its current form in 1973 out of the merger of three organizations: The Chamber of Commerce of Metropolitan St. Louis, the St. Louis Regional Industrial Development Corporation, and the St. Louis Research Council. Membership includes large and small businesses, non-profits, governmental agencies, educational institutions, health care and labor organizations.

The graphic below shows the region served and the makeup of member businesses.



The St. Louis RCGA’s economic development arm raises its own contributions from the business community and has its own board of trustees, while still reporting to the St. Louis RCGA’s President/CEO and Board of Directors.

Incorporation and Bylaws

The St. Louis RCGA is incorporated as a 501(c)(6) non-profit, like most chambers of commerce. The St. Louis RCGA also has formalized bylaws for operation. The bylaws are simple and rarely amended.

Governance and Leadership Structure

Board Structure

The St. Louis RCGA’s Board of Directors oversees the entire St. Louis RCGA with 134 members that are drawn from the local business community, educational institutions, elected officials, and community organizations. Corporate leaders occupy the majority of the seats on the board.

The Economic Development (ED) Board of Trustees with its 26 members directly oversees the St. Louis RCGA’s economic development operations, reporting to the St. Louis RCGA Board, but also operating with a substantial amount of autonomy. The current ED Board of Trustees is made of major contributors including CEOs of several investor companies, chief elected officials and the leadership of regional business organizations.

Nomination Process

Because the St. Louis RCGA’s economic development arm generates its own contributions, its Board of Trustees is selected to represent their own investors. Nominations are identified yearly by a select nominating committee comprised of the current ED Board of Trustees’ chairman from the ED Board of Trustees and some St. Louis RCGA Board of Directors.

Terms

Formally, ED Board of Trustees terms run for one year. However, as the board is meant to reflect the major economic development investors, membership is generally stable from year to year. Changes will generally be made when businesses or communities change their level of involvement. For example, if a particular business becomes a major donor, a representative of that company is likely to be nominated for the ED Board of Trustees.

Mission and Functions

The over-arching mission that drives the St. Louis RCGA and its economic development efforts is: “to unite the region’s business community and to engage dynamic businesses and civic leadership to develop and sustain a world-class economy and community”.¹⁸

Core Economic Development Activities

The economic development arm of the St. Louis RCGA focuses on four core areas:

¹⁸ St. Louis Regional Chamber and Growth Association. About the RCGA. Retrieved from <http://www.stlrcga.org/x606.xml>

1. *Marketing and External Recruitment:* They serve as the primary external marketing and attraction body for the region. This task involves marketing the region externally, developing attraction leads, and assisting companies that are interested in the region to find a suitable location. External recruitment has been the central focus of the organization since its inception.
2. *Entrepreneurial Development:* Over the past decade, they have taken an increased role in supporting entrepreneurs within its region. They function primarily as a champion of policy designed to enhance entrepreneurship, not as a direct facilitator. They do not operate an investment fund, but does seek to attract venture capital to the region. Similarly, they champion public policy initiatives that help start-ups to survive, but it does not operate an entrepreneurial incubator.
3. *Business Retention and Expansion:* In addition to attracting new firms to the area, they play a role in ensuring that existing firms are supported and retained.
4. *Workforce Development:* They have recently become more active in the area of workforce development. Largely through grant-based funding, they have taken a lead role in aligning education and workforce delivery systems with the talent needs of existing industry sectors. In addition to ensuring that industry needs are met, they are engaged in a program designed to increase high school and post-secondary graduation rates.

As the organization has evolved, the balance of emphasis across these four areas has shifted. While external recruitment remains a central focus, the organization has moved toward more equal treatment of the four areas outlined above.

Marketing Initiative

In 2005, the St. Louis RCGA embarked on a comprehensive marketing and branding campaign, called *Greater St. Louis Inc.*, which seeks to raise awareness of the attractions of Greater St. Louis and to provide services in a way that encourages businesses to locate and expand in the region. By communicating why the St. Louis region is a desirable place in which to live and invest, the campaign also seeks to assist area companies in their efforts to generate capital and to attract and retain talent.

Key goals and aspects of this economic development initiative are:

- Strong emphasis on branding, marketing, deal flow, and deal-making
- Rigorous performance measures and communication of results
- Streamlined governance structure for regional economic development
- Revitalized regional economic development network
- Funding at a level competitive with other regions

1) *Collect Intel from Market Research*

The effort started with sustained community engagement and market research. The St. Louis RCGA hit the bricks to engage the community in creating a regional brand to spur economic development by conducting 700 interviews, 19 one-on-one focus groups, and dozens of meetings with the region's economic development, government, and business leaders. In addition, extensive research was conducted among target audiences across the United States.

St. Louis RCGA also reached out to marketing experts and economic development agencies in thriving regions.

The key takeaway for St. Louis RCGA was that branding works from the inside out. A message conveyed to external markets must reflect what attraction candidates find when they speak to local businesses and civic leaders. “In the case of economic development, and specifically regions, a brand plays a more intense role, because it needs to inspire and resonate first and foremost with the people that make that brand what it is. And while assets such as architecture, location, workforce, museums, and iconic attractions all play a role, it is the citizens who will collectively serve as ambassadors of and represent the brand experience”¹⁹.

2) *Incorporate Your Core Advantages into Your Brand Image*

The brand that emerged from this effort focuses on three core advantages that St. Louis has to offer:

- *Quality of Life*: St. Louis residents enjoy the benefits of living in a major metropolitan area that retains the feel of a smaller community. Marketing materials emphasize how these attributes help to attract and retain talented workers.
- *Skilled and Diligent Workforce*: Marketing materials also emphasize the diversity of skills and the work ethic within the St. Louis region.
- *Centrality*: Finally, the *Greater St. Louis Inc.* effort highlights advantages of place. Marketing materials emphasize the value of locating at the geographic and demographic center of North America.

The tagline for the marketing campaign is “St. Louis: Perfectly Centered, Remarkably Connected”, a slogan that is meant to incorporate these three core assets. As discussed in the previous section, the brand image was designed to both pique the interest of external investors and to resonate with why local residents are proud of their community.

3) *Designate Appropriate Funds Towards Branding Efforts*

The St. Louis RCGA’s economic development arm spends a substantial portion of its budget on external marketing. To reach external audiences, they advertise in television, print, radio, web-based, and social media. In 2009, they had a budget of \$1.6 million for these marketing and media expenses. As one would expect, the brand name and logo also appear on any communication the St. Louis RCGA conducts.

4) *Leveraging the St. Louis Brand*

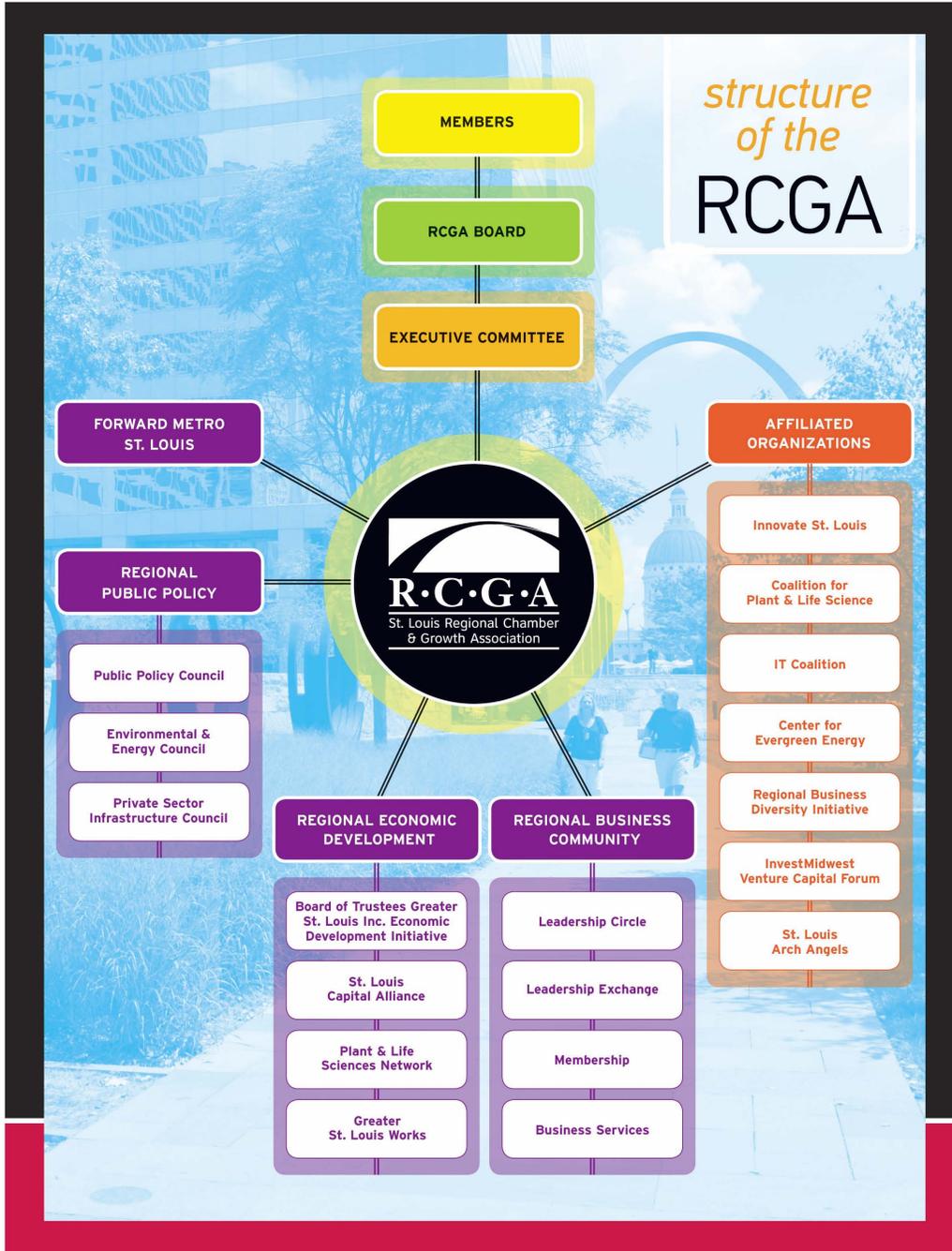
In addition to these traditional marketing efforts, they have also sought to leverage community buy-in to increase the salience of the St. Louis brand. Area businesses, civic organizations, and governments are encouraged to feature the Greater St. Louis logo in their web and print communications. The St. Louis RCGA website provides digital copies of the logo for download free of charge. In addition, the website also provides sample HTML code to help external web-developers to include the brand logo in their websites.

¹⁹ St. Louis RCGA website, <http://www.stlrcga.org>, October 2010

Organizational Management and Staffing

Organizational Structure

The organizational chart for the St. Louis RCGA is provided below.



Staffing

The economic development arm of the St. Louis RCGA currently has 14 full-time staff positions focused on activities that include business recruitment, capital formation, regional workforce development, research, and marketing communications.

Budget

In 2009, the St. Louis RCGA's economic development arm had an annual budget of \$4.2 million, almost half of the Chamber's \$9 million budget. The budget was allocated in the following ways:

- Marketing and Media = \$1,600,000
- Business Attraction = \$977,500
- Business Retention and Expansion = \$288,450
- Entrepreneurial and Cluster Development = \$730,000
- Research and Analysis = \$309,000
- In-Kind = \$225,000

Funding Sources

As noted already, funding for economic development activities is provided separately from the St. Louis RCGA. Every five years when the St. Louis RCGA revises its strategic plan, private sector contributors commit to a yearly level of funding for economic development activities. While funding commitments are non-binding, and must be renewed on a yearly basis, most contributors honor their five-year pledges.

Roughly 90 percent of the funding for economic development is provided by private sector investors (approximately 120 companies) in amounts ranging from \$5,000 to \$250,000 annually. While the budget's remaining 10 percent is provided by local governments within the region.

Strategic Plan for the Organization

Every five years, the St. Louis RCGA develops a new strategic plan. While the specific contents of the plan change depending on current needs, the purpose is to codify goals for the organization, identify action items to meet those goals, and outline how the St. Louis RCGA will allocate its resources between different initiatives.

Targeting Growth Industries

From analysis of the region's economic composition, the St. Louis RCGA has identified five major industry clusters that already have a strong presence in the region and that have the potential to grow in the future. While the attraction activities are not limited to these clusters, particular emphasis is placed on cultivating existing strength in the following areas:

- Advanced manufacturing and technology
 - Aviation and aerospace
 - Process engineering and management
- Financial information services
- Health science and services

- Multimodal supply chain management
- Sustainable technology
 - Plant science and agricultural technology
 - Advanced energy technology
 - Sustainable building design and materials

These target clusters were identified based on a rigorous quantitative analysis of the region’s competitive advantages within specific growth sectors, as well as the specific workforce and logistical advantages. The economic development team prioritizes marketing efforts directed at these industry clusters. Industry leadership councils have been created for each of these five sectors to help direct the organization’s marketing efforts as well as identify specific opportunities for regional growth.

Measuring Performance

The St. Louis RCGA is committed to rigorously assessing the performance of the economic development arm and to provide progress reports to the St. Louis RCGA’s investors. Campaign-specific measures and internal benchmarks include:

- Net new jobs
- Net new payroll
- Net new capital investment
- Prospect pipeline activity
- Deal conversion rate
- Network activity
- Stakeholder satisfaction

In addition, the St. Louis RCGA tracks macroeconomic data on the St. Louis region and reports how the region is performing compared to national averages and peer cities. Macroeconomic factors include:

- Total job creation
- Employment and population growth
- Job creation rate
- Educational levels
- New business starts
- Household and per capita income
- Start-up capital
- Research Activity

A More Balanced Approach to Economic Development

The St. Louis RCGA has been dramatically expanding its approach to economic development. While the organization had historically focused on traditional methods of external marketing, attraction lead generation, and site selection assistance, the plan is to devote more attention to fostering start-ups, strategically targeting economic clusters, and increasing workforce capacity. As a consequence of this expanded mission, the RCGA will allocate its resources more evenly across a variety of initiatives. To put this in context, the

2005-2010 plan allocated 66percent of the economic development budget to marketing and recruitment, while the 2011-2015 plan reduces that share to less than 30percent. This move toward new areas of emphasis partially reflects a mature economic development organization that has already developed an attraction system, but it also reflects broader trends within the economic development profession toward more involvement in entrepreneurship, cluster identification, and workforce development.

Facilitating Cooperation and Partnership Among Local EDO's

Effective regional economic development leadership requires negotiating difficult territory in dealing with business prospects and local EDOs who often compete for jobs and investment. This is particularly true for communities operating in neighboring states that are in competition with one another. A win for the region can be seen as a loss to the local EDO's that did not land the project. In such a context, regional EDO's must consciously, and consistently, work in a way that fosters regional collaboration and trust so that local EDOs and stakeholders see that 'a rising tide lifts all boats' – that a win for the region is a win for all communities in terms of strengthening the regional economy.

This section addresses some of the critical steps that St. Louis RCGA has taken to operate successfully in a bi-state region that is home to numerous local EDO's. As every region is unique, this section cannot discuss all of the steps to fostering collaboration. Rather, the purpose is to highlight a few approaches that have proved effective for the St. Louis RCGA.

Pursuing a Guiding Principles Agreement

The St. Louis RCGA's economic development arm formally adopted a "Guiding Principles" document, to ensure ethical business practices among the local economic development organizations (EDOs) operating within the region. The document not only outlines the standard business practices that will govern how the St. Louis RCGA does its work but also provides the standards on how local partners should engage with each other. The purpose of the document is to foster regional collaboration by clearly laying out the ground rules for working together.

The document is broken into the following sections:

- *Marketing and Message:* The St. Louis RCGA commits to always marketing the region as a whole without focusing specifically on any one community.
 - All of the data that is collected and publicized is aggregated at the regional level, with the exception of economic development incentives information, which must be broken down by state.
 - In addition, the RCGA always approaches any attraction candidate with the assumption that the company is interested in the region, not a specific community.
- *Prospect and Project Management:* The processes for managing attraction candidates is:
 - St. Louis RCGA alerts a community when a specific real estate site within that community is referred to an attraction client.
 - Local EDO's are invited to participate in all formal site visits within their community.

- St. Louis RCGA alerts local EDO's when it schedules a meeting with an existing employer.
- The St. Louis RCGA treats all community-specific information provided to attraction candidates as highly confidential and does not share that information with other communities.
- The St. Louis RCGA does not become involved in intra-regional relocation projects. As a general rule, the RCGA does not encourage or facilitate relocation from one community to another within its region. The RCGA only becomes involved if it appears that a company is considering leaving the region.
- *Network Members Commitment to the RCGA:* By becoming part of the Regional Economic Development Network, local organizations agree to the following commitments to the RCGA
 - Maintain all possible confidentiality with regard to attraction candidates.
 - Respect the RCGA's lead on leads generated by the RCGA.
 - Prepare for recruitment visits.
- *Network Members Commitment to Other Network Members:* Finally, by signing the agreement, Network members make the following commitments to each other.
 - Avoid proactively recruiting companies from other communities within the region.
 - Refrain from disparaging other regional communities in any written or marketing material.
 - If contacted by a company from another community within the network, the organization will alert the local EDO in that company's host community.

Codifying a standard practices document helps to avert confusion and resentment between the RCGA and member communities. Part of what is striking about this agreement is the commitments that member communities make to each other. This document lays some of the groundwork for genuine regional efforts on the part of member communities, a step beyond simply articulating how a regional EDO will conduct itself.

Business Retention and Expansion can be Challenging

While tending to the needs of existing businesses is a core role that many EDO's discharge, doing so within a regional context can be difficult. Local EDO's can view firms within their jurisdiction as belonging to the specific locality, not to the region in general. As such, local EDO's do not always appreciate the RCGA taking a lead role in retention and expansion. To address this concern, the RCGA has a policy of responding to, but not initiating, contact with existing firms. Instead of reaching out to individual businesses, the RCGA waits for existing businesses to reach out to them. In addition to responding to specific requests from businesses, they formed councils to assess the needs of existing industry clusters. By focusing on the needs of economic sectors, and not pro-actively contacting individual businesses, the RCGA can play a role in business retention and expansion without creating conflicts with local EDO's.

Leadership Institute

In the interest of fostering collaboration between different EDOs in the region, and improving the capacity of individual EDOs, the RCGA offers the “Best Practices in

Regional Economic Development” series. Each year, they host several presentations and attend discussions on key topics in regional economic development. Events address national economic trends, federal economic development initiatives, regional strategic plans, issues specific to important regional industries, and important topics in the economic development profession. Sessions are open to all members of the Greater St. Louis Economic Development Network.

Case Study 2: Kansas City Area Development Council (KCADC)

Overview

Kansas City Area Development Council (KCADC) is a private, non-profit organization that provides marketing and business attraction services for the 18 county Greater Kansas City region. Greater Kansas City has a population of 2.5 million in a bi-state area that includes the Kansas City, MO-KS, Lawrence, KS, St. Joseph, MO, and Topeka, KS metropolitan areas.

The organization evolved out of a marketing campaign and branding initiative undertaken by the region in the early 1970s to improve the region's visibility on the national market. Since being founded in 1976, KCADC has become a one-stop shop for business attraction, marketing, brand development, and site location assistance within the broader Kansas City region.

Governance and Leadership Structure

Board Structure

KCADC has a 46-member board, which represents the business community and local EDO partners. The majority of the board members are drawn from the private sector, a reflection of the fact that most of KCADC's funding is provided by private sector investors.

The structure of the board is as follows:

- Private Sector Board Members – 40 seats
- Community Partners – 6 seats

The board is headed by two Co-Chairs. Immediate past chairs continue to serve on the board for the remainder of their term. The board has an executive committee, which includes:

- Two current co-chairs
- One immediate past co-chair
- Three to four self-nominated board members

The six community partner seats are filled with representatives of the many communities that make up KCADC's region. As the largest city, Kansas City, Missouri has a permanent seat on the board. The other seats rotate each year to ensure that each community has the opportunity to sit on KCADC's board.

While not formally stipulated, representatives of the largest private sector investors in KCADC fill the three to four self-nominated seats.

Board Nomination

The executive committee handles nominations for the private sector board seats. There is no formal rubric for eligibility, but a variety of factors figure into board nomination, including:

- Involvement in KCADC
- Financial contribution to KCADC
- Geographic balance

- Balance of private sector industries
- Desire for gender and racial equality

Terms

Private sector board members serve four-year terms and community partner representatives serve one-year terms.

Mission and Functions

Core Economic Development Efforts

KCADC engages in a variety of economic development efforts, including:

- *Branding and Marketing:* From its inception, KCADC has been tasked with marketing the region to the world. Much of the organization’s time and resources are devoted to improving the perception of Kansas City within the business community and beyond. KCADC promotes the region’s major economic strengths with a regional profile, and information on demographics, regional economy and employers, maps, utility and infrastructure, tax and incentives, GIS-enhanced site selection data and other real estate property listings.
- *Attraction Outreach:* KDADC also serves as the first point of contact for business attraction candidates that are considering the Kansas City area.
- *Facilitate Site Location:* Once a prospect has expressed interest in the Kansas City region, KCADC helps to match that company with a specific local community. KCADC helps the prospect sort through the relative advantages and disadvantages of site proposals from member communities.
- *Seal the Deal:* Finally, once a specific site location has been identified, KCADC facilitates the negotiations between an attraction candidate and their new host community.

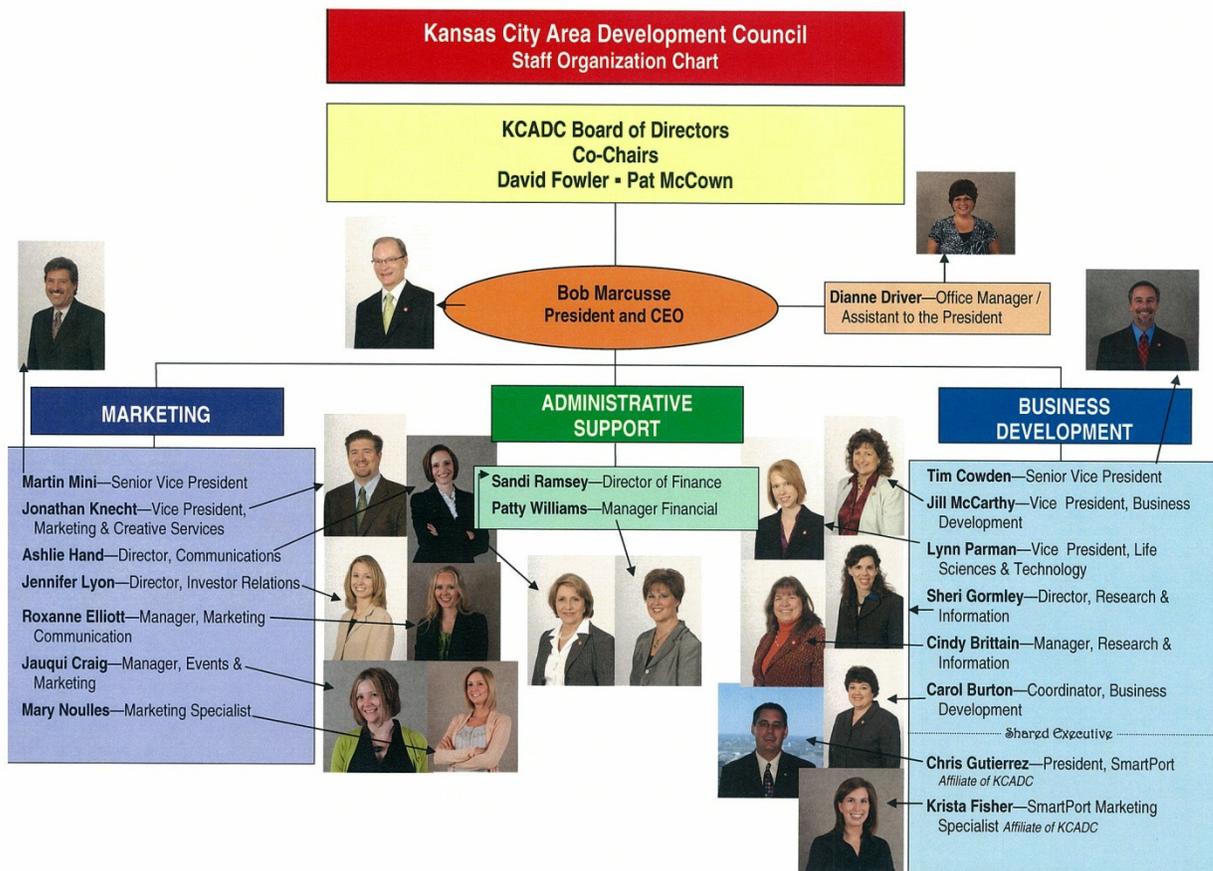
Key Marketing Initiative – Developing the KC Brand

The central marketing initiative managed by the KCADC is the *OneKC/ThinkKC* campaign. Launched in 2004, this program is designed to engage private sector companies in the branding of Kansas City. KCADC developed marketing materials around the “KC” brand name in the effort to create a single encompassing identity for the region. One of the most innovative features of the OneKC and ThinkKC programs is that local businesses are actively engaged to help brand the region. At the beginning of the campaign, KCADC gave presentations to over 150 community groups and organizations to communicate the core message that Kansas City needs a cohesive brand identity. They also provide a toolbox of marketing materials featuring the “KC” logo. The marketing materials primarily take the form of logos that can be used in print or digital communications. Local businesses and organizations can download the materials for free and are encouraged to co-brand the “KC” logo in their own marketing material. KCADC provides very limited guidelines on how local businesses and organizations use the “KC” materials. To date over 200 area corporations and organizations have co-branded with the “KC” icon.

Organizational Management and Staffing

Organizational Structure

KCADC has a simple organizational structure with two main divisions: marketing and business development. The Marketing division markets to business prospects outside the region as well as builds relationship within the Kansas City area, while the Business Development division is responsible for managing prospects. KCADC also serves as a clearinghouse for information on the business climate of the region – primarily through their website. See below for KCADC’s organizational structure.



Staffing

As indicated in the chart above, KCADC has 19 staff positions divided between the two main divisions. The Business Development division has six staff while Marketing has approximately seven with the remaining staff consisting of the CEO, office manager and administrative staff. Two staff positions operate Smart Port, a non-profit organization housed within KCADC that focuses on transportation and logistics development.

Strong Executive Leadership

Much of the success of KCADC in achieving its goals can be attributed to the strong leadership from both the CEO/ Executive Director working in concert with the Board of Directors. The following three leadership qualities are essential for guiding an effective regional marketing organization in a bi-state area:

- *Ability to Build a Strong Team:* The CEO must be able to gather and empower strong team players. In addition to providing staff with the resources to do their jobs effectively, the CEO must be willing to share the spotlight of success. Because achievement is a group-effort, it is essential that every member of the team is recognized for their roles.
- *Have a Clear Vision of What Success Means:* The mantra at KCADC is “activity is not achievement.” The CEO must be able to identify tangible, measureable, goals and focus on meeting them.
- *Sensitivity to Regional Partners:* The executive leadership needs to understand that his/her actions and words will be constantly examined by local partners concerned about any evidence of favoritism or bias. As such, s/he must be able to operate in the glare of scrutiny and immediately acknowledge mistakes, when they do happen.

Creative Performance Incentives

One interesting feature of KCADC’s staffing system is that an employee’s salary is tied to the organization’s success. Performance pay applies to everyone in the organization, from the CEO on down, and the metrics used to determine performance are the metrics of success defined for the entire organization. Because everyone is considered to be a key part of the team, and as performance is evaluated collectively, the salaries in the organization fluctuate together – encouraging teamwork and cooperation within the organization.

Budget

The KCADC currently operates on an annual budget of approximately \$4.5 million. That budget is allocated in the following ways:

- Overhead - \$400,000 (9 percent)
- Personnel Salaries - \$2.2 million (50 percent)
- Programs - \$1.6 million (35 percent)
 - Program costs include: marketing expenses, travel, lead generation, hosting attraction visits, and the rest of the programmatic activities not covered by standing overhead.

Funding Sources

KCADC derives funding from the following sources:

- 85% – 90% private sector investors
- 10% – 15% local governments

They have more than 250 corporate investors that contribute the lion’s share of the organizations funding, while more than 50 city and county partners provide the remainder in funding. A list of all private and public investors is maintained on their website, along with brief descriptions of each member organization.

Incorporation and Bylaws

While KCADC’s original bylaws were very simple, they have evolved as the organization has grown and circumstances in the business landscape have changed. The organization has avoided burdening itself with an overly complex structure. However, the bylaws are updated every few years as it becomes clear that emerging practices and goals require that structures are adapted in tandem.

Strategic Plan for the Organization

KCADC works on a five-year strategic planning schedule. The plan reviews performance from the last five years in comparison to the goals laid out at the time, updates the goals for the next five years, and identifies metrics for measuring success. The five-year plan serves both as a strategy and fundraising document, and generally includes the following components:

- Description of goals for the next five years
- Specific actions that will be taken to meet the core goals
- Benchmarks for measuring success
- Budget estimates to realize goals
- Report of results for the last five years

Coordination with Local EDO’s

A central challenge for a regional economic development organization, particularly one that serves a multi-state region, is to ensure that everyone views the organization as credible and fair. In a setting where political and community boundaries can create animosity between member organizations, and where local organizations are competing for the same prospects, the regional EDO must be seen as a neutral champion. The following practices have helped KCADC walk through tough and potentially disruptive situations.

1) Stick to the Central Mission

KCADC remains intently focused on its core mission of attracting new jobs and investment to region because it doesn’t want to dilute its efforts. They understand that this is where they have a core area of competency and where they can add value in the region. Marketing and business attraction are complex enough on their own to take on additional responsibilities such a retention or a workforce development program. “Less is more” serves the organization well in avoiding a community feeling neglected in terms of marketing support and possible other turf fights / disagreements that might arise from expanding the organization’s mission.

2) Ensure Transparency in Process to Attract Business Prospect

Another key to building and maintaining trust among member communities is to ensure that organizational procedures are as transparent as possible. Particularly in the high-stakes game of business attraction, it is essential that each local community understand the process that the regional body uses to develop a prospect.

Ironically, the greatest danger often arises out of a successful attraction bid. A new business moving to the region may be a win for the regional body and the specific community where the business locates, but it can also be viewed as a loss for all of the other communities in the region. In this context, it is important to have transparent and fair procedures that lead from the identification of the prospect to the ultimate location decision. By having formalized procedures, the regional body can explain to any community that lost out, precisely how the decision was made.

KCADC's Formalized Process for Handling Prospect Leads

While KCADC does manage some attraction leads developed by state or local players, the majority of leads are identified and cultivated by their own organization. The following procedure is used to match an attraction candidate with a specific site in the region:

- *Initial Conversation:* When a prospect comes through the door, KCADC staff conduct an initial interview to assess the prospect's needs (facility space, workforce, tax incentives, logistics, etc).
- *Solicit Community Proposals:* Next, KCADC compiles a brief on the prospect's needs, which is provided to local community EDO's.
- *Initial Telephone Conference:* Once each community has been given the opportunity to make a proposal, KCADC hosts a teleconference with the prospect and all the local EDOs who wish to be involved. This conversation allows the prospect to expand on their needs in a common forum where everyone is exposed to the same information.
- *Proposal Revision:* Based on the teleconference, local communities can refine their proposals to make their best case to the attraction prospect. Based on the company's specific needs, each community is allowed to make the best case it can, including specific site possibilities, evidence of workforce suitability, logistics, and other relevant considerations. The KCADC continues to act as facilitator during this process by collecting and organizing the community proposals and providing them to the attraction candidate. Additional economic information at the regional level may also be provided to compliment the proposals drafted by each individual community.
- *Host Site Visits:* Once the prospect has identified their preferred sites within the region, KCADC helps to arrange and conduct site visits with each of the short-listed communities.
- *Facilitate Final Deal Negotiation:* Unlike some regional attraction organizations, the KCADC stays involved until the deal is done. As the primary body responsible for cultivating attraction candidates, the KCADC views sealing the deal as part of its core mission. Instead of passing the prospect off to a local EDO, they continue to be involved in the discussions leading up to a final location announcement. Part of the purpose is to help attraction clients negotiate the local landscape, so the KCADC stays involved until the deal is signed to ensure that they have done everything possible to bring the candidate company to the region.

This process holds for all attraction leads generated by the KCADC. The Prospect Management Policy provides a different process when leads are generated by the state governments or by a local EDO within the KCADC's region. In both cases, these leads will be handled by the entity that developed them, unless the body decides to hand the lead over to the KCADC. Even when it is not the primary agent managing a particular lead, the

KCADC responds to requests for information or assistance. In addition, all parties agree to maintain open communication while location negotiations are underway.

By creating a formalized process for engaging local EDO's the KCADC has built the trust in the region over the years. Communities that lose out on one attraction prospect remain engaged in the process, knowing that they will receive an opportunity to make their best case to future candidates.

3) Create Shared Communication Channels

Another strategy that KCADC employs is creating the opportunity for open dialog between local community representatives. Instead of communicating with each community independently, all member communities are involved in the same teleconference or email stream. so that every community receives the same information and each community can have its questions answered publically. In addition, any emails that are relevant to all of the member communities are sent as a single mass email.

4) Spread the Credit Around

According to KCADC management, “everything we do is about making someone else look good.” In practical terms, this often boils down to giving member EDO's much of the credit for successful attraction campaigns. While KCADC takes the lead in identifying attraction candidates and matching those companies with a specific community, the local EDO is in the center of the spotlight when the deal is announced. KCADC is primarily concerned with ensuring that its private and public investors understand the value it adds to the region, and communicating that message does not require them to receive top media billing.

CASE STUDIES: ECONOMIC DIVERSIFICATION STRATEGIES

Case Study 3: St Louis County Economic Council: Economic Diversification in the Wake of Major Employment Losses

Overview

St. Louis County has contended with serious periods of displacement and transition as defense contractors started to close their doors with the end of the Cold War in the 1980s. In response, a group of agencies consolidated to form the St. Louis County Economic Council (SLCEC), a public-private partnership, in 1984 mandated to drive growth and prosperity within St. Louis County. SLCEC's mission is to facilitate the development of long-term, diversified business and employment opportunities for increased wealth and well being for the citizens, businesses, and institutions of St. Louis County.

The region faced major economic challenges in the 1990s with the closure of McDonnell Douglas – resulting in the loss of 60,000 jobs in the defense industry. This case highlights the major efforts and new methods deployed by SLCEC and other regional leaders to re-employ residents and diversify the local economy. By the 2000s, approximately 100,000 new jobs were added to the regional economy through these creative diversification strategies.

Today, St Louis County, Missouri is home to over 1 million residents within its 524 square miles. With over 600,000 jobs, the county serves as the major economic engine for both the region and the entire state of Missouri with its diversified economic base and skilled workforce²⁰.

Recovering from Defense Industry Layoffs

In 1990, the 720 prime defense contractors employed approximately one in seven jobs in St. Louis' defense industry²¹. McDonnell Douglas, a major American aerospace and defense contractor, was the largest employer in both the St. Louis region and the state of Missouri. The company served as the anchor for a cluster of defense contractors that drove the local economy. As the cold war ended, defense spending was cut with the downsizing or discontinuation of some weapons platforms. The St. Louis economy was hit with several large waves of layoffs. By the end of the 1990's, McDonnell Douglas had cut 25,000 positions with the residual effect of 60,000 defense industry jobs lost region-wide.

Developing a Diversification Program

SLCEC played an essential role in developing and implementing a variety of programs that helped the region to recover and diversify. The *St. Louis Defense Adjustment Program* was a regional job and industry diversification effort developed by SLCEC in the 1990s in response to defense downsizing. This program had major impacts on the local economy in

²⁰ St. Louis County's "Ready to Go" Action Plan for Sustainable Economic Recovery (March 2009).

²¹ St Louis County Economic Council. *St. Louis Defense Adjustment Program*.

terms of job creation as well as spawning several critical technology partnerships which led to the development of medical and plant science technology commercialization centers.

Even though no military base was involved, much of the funding for this recovery program was provided through the U.S. Department of Defense's Office of Economic Adjustment (OEA) as well as the U.S. Department of Labor (DOL), the U.S. Economic Development Administration and private donors. The diversification plan had a regional focus and relied on the broad support and input of both public and private sector players. Subcommittees focused on the development of programs to assist the following community stakeholders:

- *Companies* – assistance to existing companies for finding non-defense markets and the establishment of new companies through entrepreneurship support services
- *Workers* – programs to help displace workers find new jobs
- *Communities* - assistance to communities to help diversify the local and regional economy.

Critical Assistance for Business Retention and Expansion

The following services were established by SLCEC to assist existing companies within the St. Louis region:

- *Export Assistance:* Expanded St. Louis's World Trade Center (WTC) to help local companies to cultivate international markets, including small businesses. EDA provided an \$800,000 grant to help with this expansion. In the past 12 years, WTC client companies have produced more than \$100 million in international trade revenues and economic growth
- *Business Finance:* Established a Metropolitan Revolving Loan Fund and a Business Development Fund.
- *Procurement Assistance:* Established the Procurement Assistance Center to help defense contractors in finding new markets.
- *Technical Assistance:* Department of Labor program funded assistance for defense contractors seeking to enter commercial markets and to avoid future layoffs due to defense downsizing.

Entrepreneurship Programs

The St. Louis Enterprise Centers (STEC) received almost \$6 million in EDA grant funding to construct two new business incubators to assist in the establishment of new businesses:

- *Entrepreneurship* - Established two new technology commercialization centers to provide affordable business space, specialized facilities, knowledge support services, entrepreneur training programs, and access to capital needed to establish and develop next generation bio-technology companies. In 2007, companies at these centers employed 716 full-time employees with gross revenues totaling nearly \$160 million. Also, formed the organization Innovate St. Louis to continue offering training, mentoring, and networking to build an entrepreneurship eco-system in St. Louis.
- *Critical Technologies Partnership* - Identified and developed industrial cluster strengths. Partnership lead to the creation of the National Center for Environmental

Information and Technology, which helps the technology community to participate in remediating the region’s radioactive sites, and the Mid-America Manufacturing Technology Center, which assists regional small- and medium-sized manufacturers.

Workforce Development Programs

SLCEC and other regional workforce development partners implemented several workforce initiatives to monitor and assist displaced workers in skill upgrading for re-employment purposes:

- *Track displaced workers* - SLCEC maintained contact with workers who had been laid off by conducting focus groups, administering surveys, and tracking workers’ searches for new opportunities. By carefully keeping track of displaced workers, and regularly touching base with them, SLCEC was able to identify what issues needed to be addressed and to evaluate the success of their workforce efforts. This level of attention to displaced workers was unprecedented at the time, but the success has encouraged other communities to track displaced workforces as standard practice when confronting major layoffs. In addition, occupational data on specialized skill-sets of soon to be redundant employees at McDonnell Douglass was collected by SLCEC and used to successfully attract an accounting firm to the area.
- *Worker Training* - The Metropolitan Education and Training (MET) Center was established with an EDA grant of \$6 million to provide a comprehensive set of technical job training, placement and career development services to disadvantaged populations. In addition, SLCEC organized for management and entrepreneurship courses to be delivered at various locations throughout the region.

Results

St. Louis serves a model for rapid deployment of effective strategies and resources to transform and diversify the local economy, and build in economic sustainability. During the mid-1990’s, the region boasted a re-employment rate that was fifty percent higher than the national average. Approximately 65 percent of the displaced workers found employment with equal or higher income while 10 percent found new work by starting their own companies. A 1991 New York Times articles praised the recovery effort, saying St Louis was “one of the first regions to confront weapons cutbacks and develop plans for dealing with them, the St. Louis area is emerging as a national laboratory for the post cold-war economy. St. Louis responded quickly with government and private sector efforts to help laid-off workers and further the diversification of the region’s economy.”²²

²² New York Times. (1991). *So Far, St. Louis Handles Arms Cuts*.

CASE STUDIES: TRANSITION OF DOE & DOD FACILITIES

As mentioned earlier, the U.S. Department of Defense (DOD) and the U.S. Department of Energy (DOE) have established programs, a transition assistance process, and funds for communities greatly impacted by the downsizing and closure of one of their facilities/bases. The transition process for these DOE and DOD facilities has involved the establishment of a local community redevelopment organization, called a Local Redevelopment Authority (LRA) for a military base or a Community Reuse Organization (CRO) for a DOE facility/reservation. The LRA or CRO helps to guide redevelopment efforts and workforce restructuring efforts to reduce community dependence on DOE.

The following cases are examples of the supportive services and financial resources provided by DOE and DOD to assist these local redevelopment organizations and the respective community in redevelopment and economic diversification of a former federal facility.

Case Study 4: Reuse of DOE Facilities (Oak Ridge Reservation) in Oak Ridge, Tennessee

Overview

The Oak Ridge, TN, reservation was bought by the U.S. Army in 1942 as one of three sites for a World War II initiative to develop atomic weapons, known as the Manhattan Project. What were 59,000 acres of rural farmland were transformed into a city and three sprawling manufacturing plants. The new “Manhattan District” became Tennessee’s fifth largest city in two and a half years. Approximately two years after the end of World War II, Oak Ridge was transferred to civilian control, under the authority of the Atomic Energy Commission (AEC). Oak Ridge opened to the public in 1949 and sold the facilities to city residents six years later.²³

Today, Oak Ridge is a city of 28,000, with extensive federal offices, industrial facilities, medical center and 800 private firms.²⁴ Approximately 13,000 employees work at the Oak Ridge facilities, thus providing a major source of economic impact to the state with an average monthly payroll of over \$80 million. Through Oak Ridge, DOE supports 44,889 direct and indirect jobs in the state, pays \$76.9 million in state and local taxes, and is the fourth largest employer in Tennessee.²⁵

Background on Oak Ridge’s Transition

During the time between Oak Ridge’s transition from federal lands to an incorporated municipality, the AEC assigned a government contractor to serve as a “city manager” to help citizens transition from federal dependence to self-government. This manager was the

²³ Oak Ridge Convention & Visitor’s Bureau. The Oak Ridge Story. Retrieved from <http://www.oakridgevisitor.com/history/story1.html>

²⁴ According to the 2000 U.S. Census, the city’s population was 27,387

²⁵ Center for Business and Economic Research, College of Business Administration at The University of Tennessee. Knoxville. (2006). The Economic Benefits of the U.S. Department of Energy for the State of Tennessee, 2006. Retrieved from <http://cbaweb2a.bus.utk.edu/cber/pubs/mnm108.pdf>

primary point of contact between AEC and Oak Ridge residents, who were coping with newly increased rents and a decrease in public services such as free bus service.²⁶ The community negotiated to incorporate all of the land, which included residential areas, schools and commercial facilities, as well as the entire Oak Ridge Reservation.

The Oak Ridge Reservation included the former three federal plant operations: the Oak Ridge National Laboratory²⁷, the Y-12 National Security Complex²⁸, and the Oak Ridge Gaseous Diffusion Plant (currently known as the East Tennessee Technology Park (ETTP))²⁹. ORNL is the U.S.'s largest science and energy laboratory, conducting leading research in energy, high-performance computing, national security, neutron science, advanced materials and biological systems.³⁰ The East Tennessee Technology Park (ETTP) has two separate business parks: one located on a greenfield site and another on the former Oak Ridge Gaseous Diffusion Plant brownfield site. The community has worked with the federal government to further develop these facilities.

Obtained DOE Funds to Establish Technology Parks

In 1995, the Community Reuse Organization of Eastern Tennessee (CROET)³¹ was formed to pursue economic diversification of the Oak Ridge Complex. DOE's Office of Worker and Community Transition made an initial commitment of \$25 million to fund the organization's efforts.³² CROET's largest project has been working to redevelop the ETTP from one of the largest brownfields sites in the country to a high-tech business park.

Established in 1943, the East Tennessee Technology Park (ETTP) served as the original Oak Ridge Gaseous Diffusion Plant, which later became known as the K-25 site after World War II and was permanently shut down in 1987. In 1996, the facility started the process of redevelopment, which included extensive cleanup of approximately \$11.2 billion (for all three facilities).³³ In 2008, DOE designated another \$9.4 to 14.5 billion for further cleanup. A portion of the lands have limited commercial re-use and therefore, have been isolated by DOE for long-term remediation.³⁴

Under the Community Reuse Organization program authorized by Congress in 1993, community leaders began to coordinate efforts to mitigate the economic impacts of a facility

²⁶ Smyser, Dick. (2004, June 8). He coached Oak Ridge to self government. The Oak Ridger. Retrieved from <http://www.oakridger.com/columnists/x1693153011/The-history-of-city-managers-in-Oak-Ridge>

²⁷ The X-10 site, which was the site of a test [graphite](#) reactor. The X-10 site, now the location of [Oak Ridge National Laboratory](#), was established as a pilot plant for production of [plutonium](#).

²⁸ The Y-12 National Security Complex is a defense manufacturing facility with a mission to serve the needs of the Department of Energy, National Nuclear Security Administration, other government agencies as well as private industry. The facility was used for electromagnetic separation of uranium and is still in use for nuclear weapons processing and materials storage. (<http://www.y12.doe.gov/about/factsheet.php>)

²⁹ The K-25 site is a former uranium enrichment facility located on the Oak Ridge Reservation, constructed by the Manhattan Project, and later was used for commercial nuclear power.

³⁰ Oak Ridge National Laboratory. Solving the Big Problems. Retrieved from http://www.ornl.gov/ornlhome/docs/ornl_brochure.pdf

³¹ A community reuse organization serves as the primary contact with the Department of Energy for economic development after a DOE closure, overseeing issues such as leasing arrangements, facility transfers and private sector development.

³² Coley, Derrick. (2002, April 29). The Community Reuse Organization of East Tennessee (CROET): Combating Old World War II Brownfield Relics with Internet Technology. U.S. Mayor Newspaper. Retrieved from http://www.usmayors.org/usmayornewspaper/documents/04_29_02/croet.asp

³³ U.S. Department of Energy. Environmental Management: Tennessee. Retrieved from <http://www.em.doe.gov/bemr/BEMRmapSites/ten.aspx>

³⁴ Ibid.

closings and layoffs and to foster private industry relocation to the area. CROET had an initial commitment of \$28 million, funded through grants from DOE's Office of Worker and Community Transition; most of this went to local communities for economic diversification projects. CROET has been working to turn the Oak Ridge facility, one of the largest brownfields sites in the country, from a potential multi-billion dollar taxpayer liability into a valuable, revenue- and employment-generating asset for the thousands of highly skilled workers in the region. CROET's current revenue is derived from leased space at the East Tennessee Technology Park (ETTP).

CROET has held a 40-year contract with DOE under the Hall Amendment³⁵ to own, develop, and manage over 300 acres of the reservation through its three subsidiaries: the Heritage Center, Halcyon, LLC, and the Horizon Center.³⁶ The Heritage Center Industrial Park is located on the site of the former gaseous diffusion plant and is still undergoing cleanup. The center occupies 1,200 acres and offers both new and renovated buildings equipped with industrial strength infrastructure left from former DOE use.³⁷ Facilities at the Heritage Center offer industrial space, railroad access as well as office property and telecommunications access. Tenants range from startups to Fortune 500 companies, many of who enjoy close partnerships with the nearby ORNL.

The Halcyon branch manages the Oak Ridge Science & Technology Park, which is located within the ORNL campus.³⁸ Currently, the facility spans 155,000 feet, with an additional 200,000 square feet of space planned in Phase 2 of development.³⁹ General Atomics, Roane State Community College, and Palmer Labs are among the 15 tenants currently occupying the Science & Technology Park (S&T Park)⁴⁰

Lastly, the Horizon Center is a 1,000-acre greenfield site which was developed through a \$12 million grant from CROET.⁴¹ The site is located along the East Fork Poplar Creek next to the Oak Ridge residential area and aims to preserve the natural beauty of the surroundings while integrating telecommunications and infrastructure.⁴² CROET's current revenue is derived from leased space at these three sites.⁴³

Utilized DOE Funds for Workforce Development & Training

DOE has not only provided CROET grants for redevelopment purposes, but has also designated significant funds totaling \$58 million to focus on workforce restructuring.⁴⁴ These monies primarily went to funding two initiatives, both of which are housed at the Y-12 campus: the Manufacturing Skills Campus and the Oak Ridge Centers for Manufacturing

³⁵ It allows DOE to lease its closed facilities for up to ten years with an option to renew the contract.

³⁶ Community Reuse Organization of East Tennessee. Retrieved from <http://www.croet.com/>

³⁷ Heritage Center. Retrieved from <http://www.heritagectr.com/>

³⁸ Halcyon LLC. Retrieved from <http://www.halcyoncc.com/>

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Community Reuse Organization of East Tennessee. Retrieved from <http://www.croet.com/>

⁴² Community Reuse Organization of East Tennessee. Horizon Center. Retrieved from <http://www.croet.com/properties/horizon/>

⁴³ Coley, Derrick. (2002, April 29). The Community Reuse Organization of East Tennessee (CROET): Combating Old World War II Brownfield Relics with Internet Technology. U.S. Mayor Newspaper. Retrieved from http://www.usmayors.org/usmayornewspaper/documents/04_29_02/croet.asp

⁴⁴ Dowell, Paula and Matthew Murray. (2001). The Economic Benefits of the U.S. Department of Energy for the State of Tennessee, Fiscal Year 2000. Center for Business and Economic Research, College of Business Administration at The University of Tennessee, Knoxville. Retrieved from <http://www.oro.doe.gov/economic/DOEFY2000.pdf>

Technology. The Manufacturing Skills Campus operates as the training arm of the Centers for Manufacturing Technology and provides hands-on and performance-based manufacturing training courses for government, industry, and academia.⁴⁵ Its programs include the *Mobile Manufacturing Learning Center* for high school students, *Manufacturing Awareness Academies* for teachers and students, and the *Train-the-Trainer* program for instructors. To date, over 4,500 students have graduated from the Manufacturing Skills Campus, which delivers remote broadcasts on industry-relevant topics and offers virtual training.⁴⁶ The Oak Ridge Centers for Manufacturing Technology (ORCMT) works on a contractual basis to assist industry, educational institutions, state and local governments, and other federal agencies with scientific research and technology development.⁴⁷

In addition, the nearby Roane State Community College has received a \$2.86 million grant from the U.S. Department of Labor to support workforce training in advanced materials.⁴⁸ Partners on the grant include ORNL and CROET. The grant covers tuition and other costs for more than 600 unemployed individuals to complete the training.

DOE Funds for Technology Promotion and Entrepreneurship

CROET was able to obtain \$1.5 million from DOE as start-up funding for the purposes of establishing high growth technology firms out of activities at the former DOE facilities. In addition, another \$2 million DOE grant was awarded to fund the expansion of regional development through an initiative called *Technology 2020*. Technology 2020 promotes knowledge-based enterprise in the region from Chattanooga to the Tri-Cities area of Tennessee, an area collectively referred to as the East Tennessee Technology Corridor. Tech 2020 is a collaboration of many partners in the private and public sector that are pursuing venture capital investment to promotion of Oak Ridge as the center for nanotechnology R&D and other technology development⁴⁹.

Support Systems for the Growth of Small Businesses and Entrepreneurship

In 2005, an memorandum of understanding (MOU) was signed between CROET and Tech 2020 to establish The Center for Entrepreneurial Growth (CEG) Accelerator Program. The CEG Accelerator Program offers \$700,000 of revolving financing in \$150,000 increments to small and early-stage businesses in the CROET service area. Thus far, CROET has provided \$275,000 in such funds, and Tech 2020 has obtained an additional \$425,000 for the CEG Accelerator through other outside investments. The total financing provided through the CEG Accelerator has reached over \$1 million. By supporting the CEG Accelerator, CROET is leveraging its own resources to fill a regional gap in capital financing for small businesses and technology company growth⁵⁰.

⁴⁵ Best Manufacturing Practices. Manufacturing Skills Campus. Retrieved from http://www.bmpcoe.org/bestpractices/internal/oakri/oakri_25.html

⁴⁶ Ibid.

⁴⁷ Oak Ridge National Laboratory. How to Work with Us. Retrieved from <http://www.ornl.gov/sci/fed/rfweb/mechanism.html>

⁴⁸ Roane State Community College. (2010, June 30). Roane State receives \$2.86 million grant to train workers for high-tech jobs [Press Release]. Retrieved from <http://www.roanestate.edu/pr/?pressId=228>

⁴⁹ Center for Business and Economic Research, College of Business Administration at The University of Tennessee. Knoxville. (2008). The Economic Benefits of the U.S. Department of Energy for the State of Tennessee, 2008. Retrieved from <http://www.oakridge.doe.gov/External/LinkClick.aspx?fileticket=zYoUusuupgvs%3D&tabid=1>

⁵⁰ Ibid.

Mentoring Program for Disadvantaged Groups

Another program to support small business development is the Department of Energy/National Nuclear Security Administration Mentor Protégé Initiative. This program is designed to encourage DOE prime contractors to assist small disadvantaged firms such as women-owned small businesses, Historically Black Colleges and Universities, other minority institutions of higher learning and small business owned by service disabled veterans.⁵¹ Y-12 has entered into Mentor Protégé Agreements with 15 businesses and 5 historically black colleges and universities.⁵²

Outsourcing Facility Management & Research

UT-Battelle, LLC, was established in 2000 as a private not-for-profit company for the sole purpose of managing and operating the ORNL for DOE.⁵³ It is a 50-50 limited liability partnership between the University of Tennessee and Battelle Memorial Institute⁵⁴. UT-Battelle both delivers DOE's research mission at ORNL and oversees its facilities. Under UT-Battelle's management, ORNL has experienced remarkable success:

- Grown from 3,700 to 4,700 employees
- Research funding has increased from \$640 million to \$1.6 billion
- Become a national leader in bio-energy research
- Transformed its outdated physical facilities into a state-of-the-art research center
- Built the \$1.4 billion Spallation Neutron Source⁵⁵
- Established the Oak Ridge Science and Technology Park, the first of its kind
- Reached the \$90 million milestone in joint research endeavors⁵⁶

ORNL's budget exceeds \$1.2 billion, 75 percent of which comes from DOE, with the other 25 percent from contract work.⁵⁷ In 2010, DOE renewed UT-Battelle's contract for five more years, valued at over \$1.4 billion per year.⁵⁸

Conclusion

The Oak Ridge complex has evolved from top-secret nuclear weapon development facility to a sprawling campus with an extensive research and development network across multiple scientific fields. DOE's investments into the facility have grown as Oak Ridge continues to turn out crucial research.

⁵¹ U.S. Department of Energy. DOE's Mentor-Protégé Program. Retrieved from <http://diversity.doe.gov/business/mentor-protege.htm>

⁵² Center for Business and Economic Research, College of Business Administration at The University of Tennessee. Knoxville. (2008). The Economic Benefits of the U.S. Department of Energy for the State of Tennessee, 2008. Retrieved from <http://www.oakridge.doe.gov/External/LinkClick.aspx?fileticket=zYoUssupgvs%3D&tabid=1>

⁵³ UT-Battelle. About UT-Battelle. Retrieved from <http://www.ut-battelle.org/about.shtml>

⁵⁴ The world's largest, independent scientific research and technology development organization

⁵⁵ The world's most powerful pulsed neutron accelerator

⁵⁶ Clark Miller Communications. (2010, March 25). UT-Battelle Contract Extension at Oak Ridge National Lab Accelerates Knoxville-Oak Ridge Innovation Valley Momentum [Press Release]. Retrieved from <http://www.prnewswire.com/news-releases/ut-battelle-contract-extension-at-oak-ridge-national-lab-accelerates-knoxville-oak-ridge-innovation-valley-momentum-89226592.html>

⁵⁷ Global Security.org. Oak Ridge National Laboratory. Retrieved from http://www.globalsecurity.org/wmd/facility/oak_ridge.htm

⁵⁸ U.S. Department of Energy. (2010, March 23). Energy Secretary Steven Chu Visits Oak Ridge [Press Release]. Retrieved from <http://www.energy.gov/news/8947.htm>

Case Study 5: Reuse of Former DOE Facilities (Pinellas Plant) in Pinellas County, Florida

Overview

Pinellas County with a total population of almost one million is located in the Tampa Bay MSA, across the bay from Tampa, Florida. The county is home to several major DOE facilities, established in the 1950s when General Electric (G.E.) sold their 161,000 square foot facility to the Atomic Energy Commission (today known as the Department of Energy (DOE)). After the announcement in 1992 of plans to close the DOE facility, local officials began a multi-faceted approach to redevelopment and have since capitalized on the facilities technology assets and entrepreneurial resources for both job and wealth creation. Today, Pinellas County boasts a high percentage of high-technology and manufacturing jobs, as well as strong tourism, real estate, and retail sectors as staple industries in the local economy.

Background

Covering 96 acres and 737,000 square feet of building space, the DOE plant was previously used for the fabrication of nuclear product components. Its mission was expanded to support components for other programs after the transfer to DOE.⁵⁹ The site primarily housed analytical laboratory facilities and thus had a relatively low level of contamination.⁶⁰ At its peak, the Pinellas plant employed over 2,000 people, making it a significant component of the local economy.⁶¹

In 1992, DOE announced that the plant would be closed in 1997 and redeveloped for commercial use.⁶² The Pinellas Plant Community Reuse Organization (CRO) was created to facilitate this transition. While the CRO was chartered and directly funded by DOE, administrative support was provided by both DOE and the Pinellas County Industry Council (PCIC), the economic development organization for Pinellas County.⁶³

Environmental Remediation and Redevelopment Planning of DOE Site

DOE sold the facility in 1995 to PCIC for \$2.6 million, a figure based on a professional appraisal.⁶⁴ The sale allowed DOE to lease back the site to continue its clean-up efforts without incurring maintenance and other costs associated with owning the building, while also permitting PCIC to recruit commercial tenants for the space. DOE awarded PCIC a \$6.2 million grant to renovate the facility to accommodate multiple tenants as well as bring it up to par with state and local safety codes.⁶⁵ DOE also contributed \$500,000 for community stakeholder planning, including development of a Future Use Plan and Community

⁵⁹ National Council for Urban Economic Development. (1997). Department of Energy Community Reuse Organizations Case Studies. Washington, D.C.

⁶⁰ Ibid.

⁶¹ Global Security.org. Pinellas Plant. Retrieved from <http://www.globalsecurity.org/wmd/facility/pinellas.htm>

⁶² Young-Rainey STAR Center. About Us: History of the STAR Center. Retrieved from <http://www.young-raineystarcenter.org/about/>

⁶³ Ibid.

⁶⁴ U.S. Department of Energy Office of Scientific and Technical Information. Young-Rainey STAR Center: The successful transition of the former US DOE Pinellas plant. Retrieved from <http://www.osti.gov/bridge/servlets/purl/935744-COu8rN/935744.pdf>

⁶⁵ Ibid.

Transition Plan.⁶⁶ During this time, the Pinellas plant underwent significant cleanup, which was completed in December 1997, three years ahead of schedule.⁶⁷

In 1999, PCIC took full ownership of the facility and renamed it the Pinellas Science, Technology and Research (STAR) Center.⁶⁸ The Future Use Plan had determined the facility would primarily serve as an industrial complex housing private and public sector tenants.⁶⁹ Several factors helped in PCIC's reuse efforts: 1) The site was relatively clean compared to other nuclear facilities, making it more suitable for commercial use; 2) CRO and local leadership were highly proactive in reuse efforts; and 3) Pinellas County's proximity to Tampa Bay boosted demand for industrial and commercial technology space.

In the same year, Pinellas County replaced PCIC with the Pinellas County Industrial Development Authority (Pinellas County IDA) and the county Economic Development Department (Pinellas ED Department).⁷⁰ The Center officially operates under the banner of the Pinellas County IDA, but the Pinellas ED Department is closely involved with the Center's administrative duties. In December 2001, the facility was renamed the Young-Rainey STAR Center, in honor of U.S. Congressman Bill Young and former Pinellas County Chairman Charles Rainey, who were both instrumental in the purchase and renovation of the facility.⁷¹

Pinellas County capitalized on what could have been a serious economic setback and turned it into an opportunity for existing and potential employers in the area. The redevelopment effort demonstrates the importance of various stakeholders coming together around a central cause and the need for strong, engaged leadership. Below are some strategies that the local CRO implemented at the former DOE plant.

Negotiated Transfer of Plant Equipment to Remain at Pinellas Plant

When DOE sold the Pinellas plant to PCIC, much of the sophisticated laboratory equipment owned by DOE remained onsite – only a small amount was transferred to other DOE missions. What remained were over 50,000 pieces of property, which included analytical laboratory, machine shop, office, and various manufacturing equipment.⁷² Congressman Young played a key role in securing these resources. He helped negotiate a 1994 Department of Defense (DOD) appropriation and a 1995 Department of Energy (DOE) appropriation to ensure that this equipment, valued at \$8 million, would remain at the plant for economic development purposes.⁷³

⁶⁶National Council for Urban Economic Development. (1997). Department of Energy Community Reuse Organizations Case Studies. Washington, D.C.

⁶⁷ U.S. Department of Energy Office of Scientific and Technical Information. Young-Rainey STAR Center: The successful transition of the former US DOE Pinellas plant. Retrieved from <http://www.osti.gov/bridge/servlets/purl/935744-COu8rN/935744.pdf>

⁶⁸ Young-Rainey STAR Center. About Us: History of the STAR Center. Retrieved from <http://www.young-raineystarcenter.org/about/>

⁶⁹U.S. Department of Energy Environmental Management. Pinellas Plant. Retrieved from

<http://www.em.doe.gov/bemr/BEMRSites/pipl.aspx>

⁷⁰ Young-Rainey STAR Center. About Us: History of the STAR Center. Retrieved from <http://www.young-raineystarcenter.org/about/>

⁷¹ U.S. Department of Energy Office of Scientific and Technical Information. Young-Rainey STAR Center: The successful transition of the former US DOE Pinellas plant. Retrieved from <http://www.osti.gov/bridge/servlets/purl/935744-COu8rN/935744.pdf>

⁷² Young-Rainey STAR Center. About Us: History of the STAR Center. Retrieved from <http://www.young-raineystarcenter.org/about/>

⁷³National Council for Urban Economic Development. (1997). Department of Energy Community Reuse Organizations Case Studies. Washington, D.C.

The equipment proved essential for marketing the facility to potential tenants. The building itself was custom designed for a DOE mission and required expansion to meet the needs of new clients. The equipment allowed companies to do work even as DOE was still downsizing, allowing for maximum utilization of the space and equipment for greater efficiencies.

For example, Lockheed Martin Specialty Components, which obtained the maintenance and operation contract at the Center after the plant closure, negotiated a “right to use” clause with DOE that permitted its engineers to use the laboratory equipment and high-tech facilities for contract commercial work as the DOE work began to scale down.⁷⁴ In addition, a Cooperative Research and Development Agreement (CRADA)⁷⁵ was negotiated to provide some of this contract work at no cost. With this agreement, Lockheed was able to use the facility to assist 120 businesses with commercialization of products.⁷⁶

Leveraged Equipment in Building and Land Reuse Efforts

The STAR Center was marketed to greater Tampa Bay region as a technology mall. Because of the highly customized facility setup, the PCIC/DOE contract permitted PCIC to tear down the facility if it was unable to find tenants by January 1997. The first new tenants included: Constellation Technology Corporation, which had a lease for laboratory space; Accurate Machinery Company, which made use of the former machine shop; and TRAK Microwave Corporation, which leased out the ceramics section. Several of these initial tenants obtained contracts with DOE and DOD, while others had commercial clients. These tenants leased the original equipment with an understanding to purchase at the end of two years.⁷⁷

In 1998, Raytheon Company became the STAR Center’s anchor tenant when it consolidated manufacturing from its larger site in St. Petersburg, FL, and from around the country. Raytheon’s STAR facility is a manufacturing center for assembly, integration and testing, occupying 41 percent of the Center’s leasable space and employing 750 people. The Center’s current tenants also include First Advantage Corporation, CVS/Pharmacy, Concurrent Technologies Corporation, Constellation Technology Corporation, Forensic Technology, Inc and the National Forensic Science Technology Center.⁷⁸

Federal Agencies Funded a Technology Deployment Center

In 1995, DOE and DOD contributed \$13 million to establish the Technology Deployment Center (TDC) at the University of South Florida in order to support the commercialization of STAR Center technologies⁷⁹ to promote industry and job creation at the center. TDC encourages local businesses to take advantage of technologies at the STAR Center as well as provides financial assistance through technology development grants so that STAR Center

⁷⁴ Ibid.

⁷⁵ A CRADA is a written agreement between a federal agency and a private company to share resources on a project, with the federal agency contributing personnel, facilities or equipment at no cost.

⁷⁶ National Council for Urban Economic Development. (1997). Department of Energy Community Reuse Organizations Case Studies. Washington, D.C.

⁷⁷ Ibid.

⁷⁸ Young-Rainey STAR Center. Tenants. Retrieved from <http://www.young-raineystarcenter.org/tenants/>

⁷⁹ Hagen, G., Killinger, D. & Streeter, R. (1997). An Analysis of Communication Networks Among Tampa Bay Economic Development Organizations. Tampa, FL: University of South Florida Technology Deployment Center. Retrieved from <http://www.analytictech.com/connections/v20%282%29/tampabay.htm>

technologies are commercialized more rapidly. TDC also conducts local research to encourage the growth and development of the local economy. For example, TDC undertook in 1991 a social network analysis of 37 regional economic development organizations and stakeholders within the Tampa Bay region and recommended increased cooperation on technology issues to improve the effectiveness of stakeholders in their economic development efforts.⁸⁰

Established Incubation Center to Support Entrepreneurship

STAR Technology Enterprise Center (STAR TEC) was established in 2003 as a non-profit corporation with the goal of fostering jobs and promoting economic development through entrepreneurship support programs and technical assistance. STAR TEC serves primarily as a business accelerator program to assist nascent manufacturing and technology-based businesses within the facility.⁸¹ In October 2004, a \$1.5 million DOE grant for infrastructure improvements and economic development efforts was awarded to Pinellas and the majority of funds were directed at funding STAR TEC⁸².

STAR TEC offers startup assistance that includes affordable office space, grant assistance, networking opportunities, and market research. One valuable resource is STAR TEC's network: startups are connected with the expertise of individuals from major research universities, funding and venture capital organizations, industry associations, defense program offices, law offices, accounting firms, and community support organizations.

STAR TEC also operates four programs tailored to the specific needs of entrepreneurs:

- **TEC Launch** assists individuals and businesses with the preliminary steps of technology evaluation and market assessment. Services include trademark and patent search, demographic and industry analysis, a competitive analysis and comprehensive market study. This step of the process requires no formal application.
- **TEC Venture** provides qualified clients with an assigned mentor, educational opportunities, networking, on-site amenities and a virtual office. In order to be eligible, companies must be located in the Tampa Bay area, have a viable technology and undergo a review by the STAR TEC team.
- **TEC Accelerator** offers similar services for more advanced startups. Eligible companies must have a full-time CEO, six months of operation history and previous monetary investment. Once companies “graduate” from this step, they move out of the incubator facility. Thus far, STAR TEC has successfully graduated two companies from its tiered incubation process.
- **Special programs** assist developers of defense technologies with technology transition and commercialization assistance. STAR TEC offers mentoring, grant assistance, research and other services catered specifically to innovators of defense technology.⁸³

⁸⁰Ibid.

⁸¹STAR TEC. Retrieved from <http://www.startecflorida.com/>

⁸²Global Security.org. Pinellas Plant. Retrieved from <http://www.globalsecurity.org/wmd/facility/pinellas.htm>

⁸³STAR TEC. Programs. Retrieved from <http://www.startecflorida.com/programs.aspx>

The organization functions as a separate entity to the STAR Center with a steering committee, advisory board as well as several working committees.⁸⁴ It runs on an annual operating budget of \$500,000 and is funded primarily by private sector investments and sponsorships, although it has also received Pinellas County funds, congressional funding (DOE Funds) and grant funds.

Since its inception, STAR TEC has worked with hundreds of technology companies and has graduated four from its accelerator program. STAR TEC's in-house clients collectively employ 100 workers with an average wage of over \$60,000. These clients have launched over 70 new products, raised millions in seed capital and grants, and hold more than 100 patents.

Conclusion

DOE's plant closing forced local stakeholders to reposition their technology assets and pursue a multi-faceted economic development program to attract and grow quality jobs in their community. Today, the former DOE facility (i.e. the STAR Center) operates in a self-sufficient manner on revenues generated from rent. The total workforce at the STAR Center of 1,600 exceeds the workforce employed before DOE's plant closing announcement and the facility's current occupancy rate is over 95 percent⁸⁵.

Case Study 6: Reuse of DOD Facilities (Fort Pickett) in Blackstone, Virginia

Overview

Blackstone, VA, is located in Nottoway County in a rural area in south central Virginia and has a total population of approximately 4,000 with 15,000 people in the county. Two miles east of Blackstone, Fort Pickett was established in 1941 as an Army training ground for World War II.⁸⁶ The site, encompassing 45,160 acres, was recommended for BRAC closure in 1995, and the installation was closed two years later.⁸⁷ The site was subsequently divided into three components: Fort Pickett, Pickett Park, and the Virginia Tech site.

Local stakeholders in Blackstone have successfully redeveloped the former military installation despite its remote location and limited resources. Today, Pickett Park has a 90 percent occupancy rate, and employs...

Background

The greater part of the site, 41,000 acres, was taken over by the Virginia National Guard (Guard) under a license agreement.⁸⁸ The Guard uses the facilities as a training ground and also relocated 200 employees from its administrative offices in Richmond.⁸⁹ Pickett Park was transferred to Nottoway County at no cost under a rural economic development

⁸⁴ Young-Rainey STAR Center. About Us: History of the STAR Center. Retrieved from <http://www.young-raineystarcenter.org/about/>

⁸⁵ This includes occupancy of the expanded space of approximately 1.3 million square feet constructed in 1998.

⁸⁶ Army National Guard Training Center: Fort Pickett. History of Fort Pickett. Retrieved from http://www.fortpickett.net/about_fort_pickett/index.html

⁸⁷ U.S. Department of Defense. (2003). Defense Environmental Programs Annual Report to Congress. Retrieved from http://deparc.xservices.com/pdfs/archives/FY03/IS_VA321402070500.pdf

⁸⁸ Department of Defense Office of Economic Adjustment. (2005). Economic Transition of BRAC Sites.

⁸⁹ Ibid.

conveyance. The Virginia Tech site was an expansion of existing research facilities through a DOE Public Benefit Transfer, also at no cost.

Obtained Property for Industrial and Commercial Park Under Conveyance

Pickett Park, spanning 1,675 acres, was deemed as surplus by the Army and was conveyed to Nottoway County for industrial and commercial development.⁹⁰ The county utilized lease revenue to redevelop and maintain the property, creating a self-sustaining complex with minimal help from federal or state funds after the initial conveyance. Pickett Park currently has a total of 227 employees across 27 tenants.⁹¹

The tenant base is diverse and includes offices, day cares, high-tech firms, lumber processors, and others. The largest firm is ArborTech Forest Products, which located to the Park in 2000, and brought over \$26 million in investment and hired 75 employees.⁹² ArborTech is one of the largest, most technologically advanced plants in the southeastern United States and is the single largest private industrial investment in the history of Nottoway County.⁹³

Established a Business Incubator

Pickett Park is home to the Nottoway County Small Business Incubator, a small business incubator, which was established by the Nottoway County Local Redevelopment Authority with OEA funds.⁹⁴ The facility has already seen several successes: Structural Concepts and Components was incubated in Pickett Park and moved into its own facility with 15 employees in 1999.⁹⁵ UAV Pro, maker of unmanned aerial vehicles, was launched in the incubator and expects to grow to 25 employees over the next year.⁹⁶ The incubator facility currently has 13 tenants.

Southside Virginia Community College (SVCC) was an early partner in establishing the incubator facility. SVCC also operates an Occupational and Technical Center at Pickett Park that offers truck driving, heavy equipment operation and diesel mechanic training.⁹⁷

Expanded Acreage for Research Facilities under Public Benefit Conveyance

Virginia Polytechnic Institute and State University (Virginia Tech) has operated a research facility on Fort Pickett grounds since the 1970's. After the closure under BRAC, Virginia Tech was granted use of 1,184 acres via a U.S. Department of Education Public Benefit Transfer and will eventually acquire the site outright.⁹⁸ The university operates the Southern Piedmont Agricultural Research and Extension on site for the purpose of researching sustainable production of tobacco, forages and small fruit crops.⁹⁹

⁹⁰Nottoway County. Pickett Park. Retrieved from http://www.nottoway.org/park_pickett.shtml

⁹¹Department of Defense Office of Economic Adjustment. (2005). Economic Transition of BRAC Sites.

⁹² Nottoway County. Successful Industries Served. Retrieved from http://www.nottoway.org/industries_served.shtml

⁹³Department of Defense Office of Economic Adjustment. (2005). Economic Transition of BRAC Sites.

⁹⁴Ibid.

⁹⁵ Nottoway County. Successful Industries Served. Retrieved from http://www.nottoway.org/industries_served.shtml

⁹⁶ (2010, September 23). Recession not hurting local firm at Pickett. Courier Record. Retrieved from http://www.courier-record.com/front_page_pdfs/fp_09_23_10.pdf

⁹⁷Department of Defense Office of Economic Adjustment. (2005). Economic Transition of BRAC Sites.

⁹⁸ Ibid.

⁹⁹ Virginia Tech. Southern Piedmont Agricultural Research and Extension. Retrieved from <http://www.ares.vaes.vt.edu/southern-piedmont/>

Conclusion

The success of Pickett Park and the Virginia Tech site despite limited federal aid is a testament to Nottoway County's ingenuity. Pickett Park currently has a 90 percent occupancy rate in its non-barrack buildings, which are suitable for a variety of tenants. The division of Fort Pickett into military, commercial/industrial and research components illustrates the creative reuse of former Army facilities while employing the community's resources and creating new opportunities.

Case Study 7: Reuse of DOD Facilities (Fort Devens) in Ayers, Massachusetts

Overview

The town of Devens is located in central Massachusetts, 35 miles northwest of Boston, and has a total population of 1,000.¹⁰⁰ Devens served as a former Army mobilization center (Fort Devens), but today it serves as a self-contained community encompassing 4,400 acres bordering the Nashua River.¹⁰¹ The town includes a business district, residential community and recreation area, and has been carefully engineered by a semi-private development authority with guidance from local stakeholders. Today, Devens houses over 80 companies, together employing over 4,200¹⁰² with an average wage of \$51,279 – well above both state and national averages.¹⁰³

Background

The original Fort Devens was established in 1917 to serve as an Army demobilization center during World War I.¹⁰⁴ Over the years, Fort Devens evolved into a variety of uses—from summer training camp to prisoner of war camp to university extension for veterans.¹⁰⁵ In 1940, a massive \$25 million building program funded the construction of 1,200 buildings and two 1,200-bed hospitals.¹⁰⁶ The Moore Army Airfield was constructed a year later, as well as the Whittemore Service Command Base Shop, which at its peak was the largest repair facility in the world.¹⁰⁷ Over the course of its 79 years of active service, Fort Devens housed more than 400 Army and Navy units and employed over 7,000 people at its peak, including 2,900 civilians.¹⁰⁸

In 1991, the Department of Defense (DOD) discontinued Fort Devens' active duty mission as part of the BRAC process and converted the base to a small reserve enclave and training ground for the Reserve and National Guard.¹⁰⁹ The transition was finalized in 1996, when

¹⁰⁰Town of Ayer, MA. Retrieved from www.ayer.ma.us

¹⁰¹Devens. Introducing Devens. Retrieved from http://www.devenscommunity.com/about_us/index.html

¹⁰²MassDevelopment. MassDevelopment [PowerPoint slides]. Retrieved from http://www.devenscommunity.com/about_us/devens_phenomenon.html

¹⁰³Ibid.

¹⁰⁴Global Security.org. Fort Devens. Retrieved from <http://www.globalsecurity.org/military/facility/fort-devens.htm>

¹⁰⁵Ibid.

¹⁰⁶Ibid.

¹⁰⁷U.S. Army. History—US Army Base Fort Devens. Retrieved from https://www.devens.army.mil/History_of_Devens.htm

¹⁰⁸MassDevelopment. MassDevelopment [PowerPoint slides]. Retrieved from http://www.devenscommunity.com/about_us/devens_phenomenon.html

¹⁰⁹Ibid.

the State of Massachusetts purchased 4,400 acres at a cost of \$17.9 million.¹¹⁰ The state committed \$200 million to redevelopment, and the U.S. Economic Development Administration (EDA) also contributed \$5 million for infrastructure.¹¹¹ An additional \$480 million in private investment came from companies like Gillette, American Superconductor and Xinetics.¹¹²

Fort Devens' Redevelopment Efforts

Voters in the towns of Ayers, Harvard and Shirley handed the property over to MassDevelopment, a semi-private finance and development authority formed in 1996 from the merger of the Government Land Bank and Massachusetts Industrial Finance Authority.¹¹³ MassDevelopment assumed responsibility for developing the Devens site as well as coordinating with the BRAC office on ongoing cleanup efforts.

MassDevelopment was then responsible for a plot of land that outsized many towns in the state. With the cooperation of the surrounding three towns, MassDevelopment prepared the Devens Reuse Plan, which focused on developing intertwining components on the land:

- **Recreational Space:** Devens offers 2,100 protected acres of open space, golf course, recreational amenities, and a new downtown. Close to half of the 4,400 acres is used for active or passive recreation.
- **Residential Community:** MassDevelopment follows smart growth principles in housing development as it seeks to meet the needs of the workforce in Devens' blossoming business district, as well as those of underserved groups like students, seniors and the homeless.
- **Commercial Center:** Business tenants at Devens range from small technology companies in incubation phase to larger companies like Bristol-Myers Squibb, which is in the process of completing construction on a 400,000 square foot biologics manufacturing and research and development facility. This \$750 million investment is the single largest real estate development project in the company's history, and the facility will employ 350 people once complete.

In 2009, Evergreen Solar also completed construction of a 450,000 square foot solar panel manufacturing facility. This represents a \$450 million investment and will create 700 clean-tech manufacturing jobs. Devens saw a total of almost 4 million square feet of new construction or building reuse in 2009. The state legislature also created incentives to encourage private sector interest in the area, including designating the site as a State Economic Target and Opportunity Area, establishing wholesale utility rates, eliminating personal property tax, and providing reduced rates for water and wastewater treatment.¹¹⁴

¹¹⁰ U.S. Army. History—US Army Base Fort Devens. Retrieved from https://www.devens.army.mil/History_of_Devens.htm

¹¹¹ Vanasse Hangen Brustlin, Inc. (1994). Devens Reuse Plan. Retrieved from http://www.defensecommunities.org/Downloads/Devens_Reuse.pdf

¹¹² Ciottono, Kim. (2005, March 7). Fort Devens evolving into an economic powerhouse. Worcester Business Journal. Retrieved from http://www.devenscommunity.com/PDFs/Devens_WBJ_03072005.pdf

¹¹³ MassDevelopment. MassDevelopment [PowerPoint slides]. Retrieved from http://www.devenscommunity.com/about_us/devens_phenomenon.html

¹¹⁴ Ibid.

Transforming a Military Intelligence Center into a High-Tech Business Incubator

In 2006, MassDevelopment sold a 90,000 square foot facility at One Jackson Place to a local real estate investor, who transformed the former military intelligence training center into a high-tech business incubator. The property was purchased for nearly \$2.7 million and saw an additional \$5 million in renovations. The facility offers wet and dry lab and Class A office space to startup companies and is a perfect fit to attract service providers and vendors for the 80 firms already located in Devens.¹¹⁵ Current tenants include a satellite campus of Mount Wachusett Community College (MWCC), which provides workforce training for Devens technology companies. The incubation facility has already seen successes. Xinetics, a laser optics company, incubated at Devens starting in 1993 and was acquired by Northrop Grumman in 2007.¹¹⁶

Pursuing Job Training by Establishing an Onsite Community College Satellite Campus

As Devens recruited a critical mass of technology companies, the next step was to establish appropriate workforce training programs. Mount Wachusett Community College (MWCC), which operates its main campus out of Gardner, MA, opened a satellite campus on-site at Devens to meet local workforce needs. MWCC-Devens offers a certificate in biotech training and even trains students using equipment from Bristol-Myers Squibb. The satellite campus also has programs in nursing, physical therapy, energy management, and medical billing and coding.¹¹⁷ Workers in the area who lost their manufacturing jobs in the recession have used this program to retool for employment in high-tech industries.

In addition, Shriver Job Corps Center operates out of Devens. Job Corps is a U.S. Department of Labor (DOL) job program that trains at-risk youth in technical skills that lead to jobs upon graduation.¹¹⁸ A unique aspect of the program, Shriver students can board at the Devens center during the week. Shriver offers a GED program as well as training programs in food preparation, intermodal logistics, automotive services, construction, computer software and others. Shriver has partnered with corporations like Sun Microsystems to give students internship opportunities.

Prioritizing Quality of Life Projects for Business Attraction Purposes

MassDevelopment officials cite the business services district, Devens Common, as a critical component of their success in recruiting high-tech companies, which includes a 120-room hotel, conference center, bank, restaurants, dry cleaner, health spa and retail space in the heart of downtown Devens.¹¹⁹ The district, developed by a third party master developer, occupies 27 acres and represents a \$40 million investment.¹²⁰ Proximity to business services is crucial to the recruitment of higher wage companies such as the high-tech ones Devens was targeting. The development of Devens Common helped transform the business district from warehouse and distribution to a technology hub inhabited by the likes of American Superconductor and Bristol-Myers Squibb. A second hotel is currently being developed on the site.

¹¹⁵ Devens, Massachusetts. (2006, August 1). MassDevelopment Announces Sales of Devens' One Jackson Place For Business Incubator [Press Release]. Retrieved from <http://www.devenscommunity.com/PDFs/08012006-01.pdf>

¹¹⁶ Northrop Grumman. Xinetics. Retrieved from <http://www.as.northropgrumman.com/businessventures/xinetics/index.html>

¹¹⁷ Mount Wachusett Community College. MWCC Devens Campus. Retrieved from <http://www.mwcc.edu/devens/default.html>

¹¹⁸ Shriver Job Corps Center. About Us. Retrieved from <http://shriver.jobcorps.gov/about.aspx>

¹¹⁹ Devens Common Center. Retrieved from <http://www.devenscommoncenter.com/>

¹²⁰ MassDevelopment. (2006). Annual Report. Retrieved from www.myplick.com/view/.../Devens-Annual-Report-2006

Conclusion

The key components for successful redevelopment at Devens have been local involvement, frequent communication and effective collaboration. MassDevelopment officials have and continue to engage Devens' businesses and residents as well as neighboring community stakeholders in their planning efforts. Community stakeholders sit on the Devens Advisory Board and the Devens Enterprise Commission and work together in a collaborative spirit to guide the growth of Devens. The success of attracting a combined capital investment of \$1.6 billion is a testament to the effective economic development efforts employed by local stakeholders.¹²¹

¹²¹ Ibid.

CASE STUDIES: SMALL BUSINESS / ENTREPRENEURSHIP

Case Study 8: Innovative Economies - U.S. Small Business Administration Pilot Program

Overview

On September 20th, the U.S. Small Business Administration announced grants to support ten regional economic clusters.¹²² The pilot program is designed to connect small businesses to existing technology-based clusters in the selected regions, with a particular focus on leading research and technology commercialization. Recipients are the organizing entities for the chosen industry clusters. The funds can be used to provide services to small businesses including mentoring, counseling, networking, business plan development, and market identification. While all of the recipients represent regional innovation clusters, the final three target clusters fulfill critical defense industry needs.

List of Funded Initiatives

The ten clusters, selected from 173 applicants include:

- *Agriculture Innovation Cluster (Monterey-Santa Cruz-Benito, CA)*: Supports agricultural innovation, increasing production, developing human and physical capital, and driving agriculture research.
- *Carolinas' Nuclear Cluster (NC, SC)*: Supports businesses that serve the nuclear power industry in the region and around the world.
- *Connecticut Hydrogen-Fuel Cell Coalition (CT, NY, MA, ME, VT, NH, RI)*: Supports development, manufacturing, and deployment of fuel cell and hydrogen technologies.
- *Enterprise for Innovative Geospatial Solutions (MS, LA)*: Supports workforce training, commercializing technology developed by public institutions, and starting new businesses in the area geospatial technology.
- *Illinois Smart Grid Regional Innovation Cluster (IL)*: Supports accelerated development and deployment of smart grid technology in the Chicago region. Recipient is a network of more than 100 entities, 70 of which are private businesses.
- *NorTech (OH)*: Supports technology-based economic development in Ohio's 21 northeastern counties. Particularly focused on advanced energy and flexible electronics.
- *Upper Michigan Green Aviation Coalition (MI)*: Public-private partnership with 41 active members that focuses on expanding the green aviation industry.
- *Defense Alliance of Minnesota (MN)*: Helps high-technology innovators to identify opportunities in defense procurement. Also accelerates the transfer of defense R&D into commercial markets

¹²² U.S. Small Business Administration. "SBA Announces Support for 10 Regional 'Innovation Economies' Clusters, Local Job Creation." Accessed at: http://www.sba.gov/idc/groups/public/documents/sba_homepage/news_release_10-50.pdf

- *San Diego Advanced Defense Cluster (San Diego, CA)*: Supports growth in autonomous systems and cyber security.
- *Von Braun Center for Science and Innovation (Huntsville, AL)*: Supports growth of aerospace technology with applications for NASA, DoD, and NOAA.

The Innovative Economies program is part of two broad trends in economic development:

- **Targeting Industry Clusters**: The SBA and EDA are investing in identified clusters. As SBA administrator Karen Mills said when the Innovative Economies grants were awarded, “maximizing a region’s economic assets is one of the best ways to create long-term job growth”.
- **Supporting Small Businesses and Entrepreneurship**: In many regions, small businesses account for a large percentage of the overall job growth. This fact is moving economic development policy, and a great deal of practice, toward support for entrepreneurship and small business.

The Innovative Economies program is new and may be extended, but it also represents where economic development policy and practice are heading. For both reasons, this program would be a good place to start as the region evaluates how to best leverage the assets represented at the Michoud and Stennis facilities.

Case Study 9: EDA Support for Entrepreneurship & Business Incubation – WestGate Academy Conference Centre

In July 2010, EDA announced a \$6.6 million grant to be awarded to the WestGate@Crane Authority and the Southern Indiana Development Commission.¹²³ The grant will help fund the construction of the WestGate Academy Conference Centre, a 60,000 sq. ft. two-story conference center and business incubator at the WestGate Technology Park that will include training facilities, office space and room for academic partnerships. The EDA grant came from funds appropriated for disaster relief and economic diversification following the Midwest flooding in 2008 that impacted many area manufacturers.¹²⁴

The WestGate investment is expected to create 255 jobs and attract almost \$11 million in private investment. The Indiana Economic Development Corporation, WestGate Authority, and the Daviess County Economic Development Foundation are expected to contribute another \$8 million. A strong partnership between these state and local organizations helped the community successfully secure the grant.

The WestGate Technology Park is a state certified technology park, which currently houses defense contractors that support the Naval Surface Warfare Center (NSWC). NSWC was nearly closed in 1995 in the BRAC process but was kept open for restoration and cleanup. Today, NSWC is a national defense laboratory representing a \$2 billion investment and

¹²³ WestGate@Crane. (2010, July 27). WestGate secure federal funding [Press Release]. Retrieved from <http://westgatecrane.com/westgate-secures-funding.html>

¹²⁴ The U.S. Economic Development Administration. (2010, July 27). Federal Funding Sparks WestGate Development [Press Release]. Retrieved from <http://www.insideindianabusiness.com/newsitem.asp?ID=42819>

occupying a 100 sq. mile facility in southwest Indiana.¹²⁵ A new conference center at WestGate will strengthen ties between NSWC and the Park. For instance, NSWC conducts technology and research symposia around the country, as well as training sessions for its vendors and partners. A new conference center will likely bring some of these conferences to WestGate. The conference center and incubator facility will also open up increased partnerships with academic institutions, which already have a strong base in the Park.

WestGate stakeholders hope that the WestGate Academy Conference Centre will attract even further development, such as a hotel developer and operator, new retail space and other amenities. As evidenced by WestGate, federal grants can be crucial not only in providing direct funding, but in leveraging other sources of funding for major development projects supporting entrepreneurship and economic development. Key to the process is intense cooperation between local and state agencies. Likewise, Michoud and Stennis can use strong partnerships in seeking federal funds for entrepreneurship and in building an economic base that will be a long-term community asset.

¹²⁵ WestGate@Crane Technology Park. About WestGate. Retrieved from <http://westgatecrane.com/aboutwestgate.html>

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Appendix 1: Site Visit Agenda

AGENDA

Day 1 – May 4th

2:30pm **Leave hotel for Michoud Assembly Facility**

3:00 – 6:00 pm **Tour & Meetings at Michoud Assembly Facility**

3:00 Arrival

3:00-3:30PM Brief Intro of MAF & MAF Business Model Overview

3:30-4:00PM IEDC Panel Questions & Responses – MAF Specific

4:00-5:00PM Discussion around Orleans and Jefferson Parishes

5:00-6:00PM MAF Tour (optional for non-IEDC team attendees)

Attendees:

Mike Dawson and Ray Vogel, Jacob Engineering

Malcolm Wood, COO, Michoud Assembly Facility (MAF)

Bruce Brailsford and/or John Vickers, NCAM at Michoud Assembly Facility (MAF)

Pat Campbell, Deputy General Manager, Jacob Engineering

John Filostrat, Jacob Engineering

Belinda Littlewood, Executive Director, NSA (Naval Support Activity)

Advisory Task Force, City of New Orleans

Gary Silbert, Entergy – New Orleans

General David Mize, Federal City, New Orleans Federal Alliance

Aimee Quirk, Manages the Mayor-Elect Landrieu’s economic development task force

Caitlin Cain, New Orleans Regional Planning Commission

Matt Rookard, GNO, Inc.

Location: Michoud Assembly Facility, New Orleans, LA

Purpose: Obtain an understanding of the specific opportunities and challenges at the Michoud Assembly Facility and Orleans Parish

6:30 – 8:30 pm **Dinner - IEDC Expert Panel**

Attendees: IEDC Expert Panel only

Location: Restaurant in French Quarter

Purpose: Discuss feedback on background report; site visit agenda/work schedule for week; expectations for the preliminary findings

Day 2 – May 5th

7:30am **Leave for Slidell City Hall**

8:30 am – 11:00 am **Overview Meeting for Stakeholders**

Attendees: Stennis Michoud Stakeholders (31 people)

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: Discuss the goals, objectives, key issues for the development of a marketing action plan as well as the site visit agenda; provide results from the business survey; discuss stakeholders' expectations

11:00 pm – 12:00 pm **Regional Perspective Meeting**

Attendees:

Pat Witty, LED

Chandler Russ, Mississippi Development Authority

Michael Hecht & Mike Rookard, GNO, Inc

Sue Wright, Mississippi Gulf Coast Alliance for Economic Development

Ned Peak, Partners for Stennis

Clay Wagner, Hancock Bank

Caitlin Cain, Regional Planning Commission

Arnie Williams, Mississippi Power

Michael Sibley, Cleco

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: Meet with regional and state organizations to discuss their marketing priorities & projects for region, particularly as it relates to the tech corridor.

12:15 pm – 1:30 pm **Lunch Meeting**

Attendees:

David Doss, COS, Senator Vitter

Myrtis Franke, Senator Cochran's coast representative

Jennifer Schmidt, Senator Wicker's staff

T. Bradley Keith, Senator Landrieu

Marcie Baria from MS State Senator David Baria

Wanye Labit, Legislative Assistant from LA State Senator A.G. Crowe

Location: Palmettos Bayou Bar & Grill, 1901 Bayou Lane, Slidell, LA 70458, (985) 643-0050

Purpose: Update on the current state of the Constellation program, Obama's proposal to cut the program and its impact on the tech corridor, as well as initiatives to bring other federal opportunities to the

region and advance aerospace/defense in Louisiana/Mississippi. In addition, receive an update on state initiatives around the tech corridor from state legislative representatives.

1:45 – 3:00

Major Employers (Aerospace, Defense, & Advanced Mfg)

Attendees: Business representatives such as:

Howard Daigle (Advanced manufacturing)

Dr. Larry Crane, Senior Director Training, Northrop Grumman Shipbuilding

Sherrie Mullins and Bob Dempsey, Government Counselor, Louisiana Procurement Technical Assistance Center (PTAC)

Donald “Boysie” Bollinger, CEO of Bollinger Shipyards

Clay Moise, formerly the President of Textron

Bobby Savoie, Geocent

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: To obtain a better understanding of the opportunities & challenges from major local employers in aerospace, defense and advanced manufacturing.

3:30 – 4:45pm

R&D at Universities/Colleges

Attendees:

George Harker, Sr. Associate Vice Chancellor – Research and Economic Development, UNO

Pat Gibbs, President, UNO Research & Technology Foundation

Scott Whittenburg, Vice Chancellor for Research & Dean of Graduate School, UNO

Jim Logan, Dean of the College of Business Administration, UNO

Russ Trahan, Dean of Engineering, UNO

Rachel Kincaid, Vice Chancellor for External Affairs, UNO

Roy Keller, Louisiana Business & Technology Center

Pat Joachim, University of Mississippi

Ivan Miestchovich, Director, Center for Economic Development, UNO

Doug Meffert, Tulane University, Riversphere

Location: Center for Energy Resources Management (CERM) Building, Suite # 438, UNO Research and Technology Park, 2045 Lakeshore Drive, New Orleans, LA 70122

Purpose: Obtain an understanding of the engineering, research and commercialization efforts as well as other tech-related capabilities in the region, particularly as it relates to the tech corridor.

5:00 – 6:00 pm

Workforce Development

Attendees:

Ava Dejoie or Dawn Saucer, Business Liaisons, LA Department of Education

Dr. Scott Alsobrook, Workforce Education, Pearl River Community College

Kathleen Mix, Associate Dean of Community and *Workforce Development*, and Dr. Leroy Kendrick, Delgado Community College

Lauren King, Director of Workforce,, Louisiana Technical Colleges – Region 1 (focuses on Orleans, St. Tammany’s, Jefferson, St. Bernard’s)

Melissa Kirsch, WIB Director of St. Tammany/St. Bernard/ St. Plaquemines, 985-875-9275

Brian Moore, WIB Director for New Orleans

Mike Garvey, WIB Director for Jefferson Parish

Juan Chevalier, Career to College Transitions Coordinator, Region 1

Ernest Frazier, Workforce Development, and Don Hoffman, Dean of Business & Technology, Nunez Community College

Barbara Johnson, Johnson & Consulting

Susie Veglia, Workforce Development Director, Hancock County Development Commission

Dr. Shawn Mackey, Associate Executive Director for Workforce, Career and Technical Education, Mr. Dexter Holloway, Director of Workforce Education, Mississippi State Board for Community and Junior Colleges

Location: Center for Energy Resources Management (CERM) Building, Suite # 438, UNO Research and Technology Park (across from UNO’s main campus), 2045 Lakeshore Drive, New Orleans, LA 70122

Purpose: Obtain an understanding of the workforce development initiatives, challenges and opportunities.

6:30 – 8:00 pm

Dinner

Attendees: IEDC Expert Panel only

Location: Restaurant in French Quarter

Day 3 – May 6th

7:15am

Leave for Stennis Space Center

8:15 am– 1:30 pm **Tour and Meetings of Stennis Space Center; Meeting w/ Economic Development in Hancock & Lunch**

8:15 am Arrive at Stennis Space Center’s South Gate

8:30 am Meeting with SSC Director Patrick Scheuermann

9:15 am Meeting with various site personnel:

Attendees:

Dorsie Jones, Manager, Office of Human Capital
John Bailey, Deputy Manager, Office of External Affairs
Ramona Travis, Chief, Integrated Partnership Program
Keith Brock, Director, Project Directorate
Rob Harris, Deputy Procurement Officer
Ron Magee, Center Operations
Sue Wright, Hancock County Development Commission

10:15 am Tour of propulsion test complex, briefing on Stennis
-11:25 and Tour of Nat’l Center for Critical Info Processing
& Storage (NCCIPS) with Ken Griffey

11:30 am Working lunch in Tower

-12:30pm Sponsored by Hancock County Development Commission

Attendees:

Ron Magee, NASA - Center Operations (conf)
Anne Peek, Chief of Applied Science & Technology Project
Sue Wright, Hancock County Development Commission
Ned Peak, Partners for Stennis
Tish Williams, Hancock Chamber of Commerce
Arnie Williams, Mississippi Power Company
Glade Woods, Applied Geo Technologies, Inc.
Tom Koger, Mississippi Enterprise for Technology
Roy Keller, Louisiana Business & Technology Center

12:45pm–
1:30pm

12:45pm Meeting with SSC Incubators & Start-up Companies

Attendees:

Tom Koger, Strategic Planning Consultant (4TCorp),
Mississippi Enterprise for Technology (MsET)
Craig Harvey, NVision Solutions (MsET incubator graduate)
Victor Johnson, Tech Transfer Specialist, Louisiana Business
& Technology Center (LBTC)

1:30 pm Depart from Stennis Space Center

Location: Stennis Space Center, Hancock County, MS

Purpose: Obtain an understanding of the specific opportunities and challenges at the Stennis Space Center

2:15– 3:30 pm

Meeting with Commercial Banks/Financial Institutions

Attendees:

Clay Wagner, Hancock Bank
Keith Williams, Hancock Bank
Ford Favre, Hancock Bank in Louisiana
John Ammerman, Omni Bank, Sr. Vice President
David Holman, The People's Bank, MS,
Jimmy Baum, Capital One, N.A.

Location: St. Tammany Economic Development Foundation's
Conference Room, 21489 Koop Drive, Ste 7, Mandeville, LA

Purpose: Discuss opportunities and trends for financing commercial real estate development in the region and the role of your financial institution in economic development efforts.

3:30 – 4:45 pm **Real Estate Development Meeting**

Attendees:

Stan Middleton, Corporate Realty/Bayer Properties
Sue Wright, Hancock County Development Commission
Scott Rojas, Churchhill Park, JEDCO
Mike Saucier, President of Gulf States Real Estate Services
Brenda Reine Bertus, Executive Director, St. Tammany Economic Development Foundation
Rebecca Martin, Executive Director, St. Bernard Economic Development Commission

Location: St. Tammany Economic Development Foundation (STEDF)'s Conference Room, 21489 Koop Drive, Suite 7, Mandeville, LA 70471

Purpose: Discuss real estate development opportunities and marketing prospects for the region; discuss marketing efforts in St. Tammany's, St. Bernard's, and Jefferson Parishes

5 – 6:00 pm **Meeting with Local Small and Medium-sized Technology Firms**

Attendees:

Roy Keller, Louisiana Business & Technology Center
Tom Koger, Strategic Planning Consultant, MsET
Corinne Dupui, Director, MEPOL (manufacturing extension partnership)
Ethan Jolly, Vice President, NM Designs
Nancy McGee, 3001 International, Inc.
George Rey, Consultant to Marine Technologies
Craig Harvey, NVision Solutions, Inc

Location: St. Tammany Economic Development Foundation (STEDF), 21489 Koop Road, Mandeville, LA 70471

Purpose: To better understand the entrepreneurial climate and support for tech-oriented and advanced manufacturing start-up companies in region; discuss specific core strengths and potential niches for area

6:30 – 8:30 pm **Dinner**

Attendees: IEDC Expert Panel only

Location: Restaurant in French Quarter

Purpose: Start discussing action steps/preliminary recommendations

Day 4 – May 7th - Presentation

8:00am – 12:30 **Panel and Staff Preparation (with lunch)**

pm

Attendees: IEDC Expert Team only

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

1:00 – 2:30 pm **Presentation on Preliminary Findings & Recommendations**

Attendees: Stennis-Michoud Stakeholders plus additional attendees (approximately 40)

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: IEDC team shares impressions and insights gathered during site visit and preliminary recommendations for action plan

3:00 pm

Leave Straight for Airport

Appendix 2: IEDC Team Biographies

Charles Hayes

President and CEO, Research Triangle Regional Partnership

Charles A. Hayes has served as President & CEO of the Research Triangle Regional Partnership (RTRP) since 1996. Mr. Hayes is active in numerous professional organizations, including the North Carolina Partnership for Economic Development, North Carolina Economic Developers Association (past president) and International Economic Development Council.

Mr. Hayes is a speaker on economic development issues and has addressed such organizations as the National Governor's Association, the United States Economic Development Administration's Annual Conference and others. He is frequently quoted in news and business publications.

Under Mr. Hayes' tenure, RTRP has received:

- Economic Development Administration's (EDA) National Award for Excellence in Economic Development Regional Competitiveness Strategic Planning
- CED's Outstanding Service to Entrepreneurs Award
- Goodmon Award for Exemplary Regional Leadership by an Organization
- Goodmon Award for Exemplary Regional Partnership
- Accreditation as an economic development organization by the International Economic Development Council

Mr. Hayes is involved in the following professional activities:

- UNC Board of Governors
- International Affairs Council
- North Carolina Economic Developer Association (Past President)
- North Carolina Citizens for Business & Industry
- International Economic Development Council (IEDC)
- The 50 Group

Mr. Hayes' professional experience includes both public and private sector positions, including:

- N.C. Community College System instructor
- Local economic development director
- North Carolina county manager
- Business principal/owner

Mr. Hayes' education/certification and licenses include:

- International Economic Development Council, Certified Economic Development Certification (CEcD), 1988
 - Certification (CEcD), 1988
- North Carolina Real Estate Brokers License, 1979

- University of North Carolina at Chapel Hill, Basic Economic Development Certification, 1975
- University of North Carolina at Chapel Hill, Institute of Government County Administration
 - Certification, 1975
- East Carolina University, Greenville, NC, MA Ed. 1974
- East Carolina University, Greenville, NC, BSBA 1972

He and his wife Jan live in Sanford, NC. They have three children and two grandchildren.

Bernie McShae

Vice President, Business Development, Space Florida

Bernie McShea leads Space Florida’s business development efforts, focusing on opportunities to help new and expanding companies in Space Florida’s defined market segments grow their Florida operations.

Bernie has a strong background in economic development; he is one of a handful who have been recognized three times by Site Selection magazine with its prestigious “Top Ten Economic Development Groups” award, winning in 2001, 2007, and 2008, while leading economic development efforts for the Pittsburgh Regional Alliance. During this time, the PRA amassed totals for located corporate location/expansion projects, and new jobs and investment that the Pittsburgh region last saw in the mid-1970s. Additionally, Bernie and his team reinvigorated the region’s economic development marketing, instituting a comprehensive program themed “The New Pittsburgh Region,” which highlighted investments made in technology development and transfer at local universities, and the successful growing companies that resulted.

Prior to the PRA, Bernie’s role as a senior advisor on corporate location strategy in Deloitte’s Fantus Consulting practice enabled him to work with numerous senior executives of Fortune 1000 companies in crafting strategies for new and expanded facilities. Cumulatively, he managed location projects that resulted in more than \$500 million in new investment, and 10,000 new jobs created, for clients including QVC, CSX, various Blue Cross/Blue Shield plans, Dow Chemical, and Carrier Corporation. He also developed economic development strategic plans for a number of communities, including a strategy for Elmira/Chemung County, NY that resulted in the attraction of Nucor’s first new plant in the northeast United States.

Bernie also has senior level experience in government affairs, having served as Legislative Director of the Commonwealth of Pennsylvania’s Washington, D.C. office under Governor Robert P. Casey. In that role he led development of Pennsylvania’s annual priorities for federal appropriations, which resulted in \$250 million in new funding to support economic development and community revitalization efforts. He began his career as a Legislative Assistant to U.S. Representative James H. Bilbray (Nevada - 1st District), and directed Field Operations for Congressman Bilbray’s successful 1988 reelection campaign.

Bernie holds a B.A. in Economics from Northwestern University, and a M.B.A. from the University of Michigan. He and his wife Jane co-lead a support group for parents waiting to adopt children from China.

Charles “Sid” Saunders

Partner, Pendulum Group

Charles “Sid” Saunders is responsible for strategic planning and marketing activities. Pendulum was formed in 1999 as an asset management company dedicated to maximizing value from client assets in a minimum period of time. Pendulum has assisted several clients in government and industry for asset recognition, reuse capability, technology transfer and value creation. As Manager of Pendulum, Sid has managed Pendulum contracts for National Marketing for the U. S. Army Government Owned, Contractor Operated Plants, establishment of business accelerators including the Picatinny Technology Acceleration Initiative.

Sid also initiated action for the creation of the Leonard Wood Institute, a not-for-profit established for the purpose of developing, promoting and managing world-class government, academic and private business collaborations that have an inherent synergy with the Department of Defense missions at Ft Leonard Wood. He also initiated action to create the Defense Transformation Institute, a not-for-profit that serves as the primary intermediary for leveraging assets at and around active military installations in San Antonio, TX, to create value for the community and the military.

From 1992 until 1998, Mr. Saunders was Vice President of Government Operations for ICI Americas Inc. In this position he was responsible for the management of Army Ammunition Plants in Charlestown, Indiana and Chattanooga, Tennessee. The Indiana site has served as a model for the U. S. Army ARMS (Armament Retooling and Manufacturing Support) Program. This program has been hailed as a successful model for privatization of Government facilities. In 1998, the Indiana site was awarded a Phoenix Award for excellence in development of a brownfield site. Between 1995 – 1998, Mr. Saunders directed the National Marketing campaign for the U. S. Army, Industrial Operations Command (IOC) ARMS program.

Mr. Saunders was Vice President of Business Development for ICI’s Advanced Materials Division from 1986 to 1992 and was responsible for product development and Government systems as well as market research and marketing to include advertising and promotion for high temperature superconductors, orthopedic implants and high performance ceramic polymer materials.

Mr. Saunders was Vice President of the Texas Research and Technology Foundation in San Antonio Texas from 1985 – 1986. He was responsible for land planning and acquisition of the original 250-acre tract for the Texas Research Park and options for an additional 1000 acres. During this planning of the project Mr. Saunders worked with land planners and architects as well as attorneys, financial analysts and community leaders on a development plan from the acquisition of the land to its use as an endowment for research. In the

planning process visited research park facilities throughout the U. S. and participated in reviews and assessments of other projects.

Prior to joining ICI, Mr. Saunders was Director of Commercial Development for GAF Corporation in Wayne, New Jersey, and was responsible for new business development, market research department, economic evaluation, and for management of the advanced technology and materials group.

Mr. Saunders holds a B. S. Degree in Chemistry from Texas A&M University, and a M. S. Degree in Chemistry from the University of Utah. He has had articles published in a number of different periodicals as well as a section in the AMA Management Handbook, Third Edition on Industry Government Collaboration. He served as an officer in the U. S. Air Force and is retired from the U. S. Air Force Reserve.

Mark Sweeney

Senior Principal, McCallum Sweeney Consulting

Mark Sweeney is a senior principal in McCallum Sweeney Consulting (MSC), providing site selection services and economic development consulting to companies and organizations worldwide. Recent MSC clients include Sallie Mae, Nordex, PACCAR, Berg Pipe, Cytec Materials, Boeing, Oreck, Nissan, and Michelin.

With more than 20 years of experience in site selection and economic development, Mr. Sweeney assists companies in identifying, evaluating, and selecting the optimal location for their capital investments. Such projects cover a wide array of related factors, including sites, infrastructure, transportation, labor and demographics, state and local taxes, utility services, incentives, etc.

Mr. Sweeney also provides consulting services to leading economic development organizations across the United States in such areas as strategic planning and organizational design, site certification, adaptive reuse, target industry programs, incentive strategies, and sustainable development.

Mr. Sweeney has assisted clients in a wide variety of industries, from automotive manufacturing to software development and internet services. Recent clients include Sallie Mae (credit operations center), Nissan (headquarters; auto assembly; engine; distribution), Michelin (tire and rubber manufacturing distribution), Dollar General (distribution); and Oreck (headquarters; appliance manufacturing). Of particular note are the Nissan headquarters relocation from Los Angeles to Nashville, Tennessee (November 2005) and the Nissan auto assembly project that announced in Canton, Mississippi (November 2000). Mr. Sweeney has conducted siting projects in Europe and Asia as well as most regions of the United States. Economic development clients include the Tennessee Valley Authority (TVA); Southern California Edison; and Duke Energy; the States of Oklahoma and Tennessee; and Alexandria, Louisiana; Topeka, Kansas; and Macon, Georgia.

Mr. Sweeney spent more than five years at the South Carolina Department of Commerce, serving as Director of Research and Communication. There, he directed departments providing project management support, information management (including world's leading economic development application of Geographic Information Systems), and communications. Mr. Sweeney was also one of the authors of *Approaching 2000 – An Economic Development Vision for South Carolina*, a state strategic plan for economic development.

Mr. Sweeney has a Masters in Business Administration from Clemson University and a Bachelor of Science from Appalachian State University. In addition, Mr. Sweeney was a recipient of a Murphy Fellowship for graduate work in economics at Tulane University. He lives in Greenville, South Carolina.

IEDC Staff

Jeff Finkle

CEO & President, International Economic Development Council

Whether on a neighborhood or national scale, economic development is a complex, demanding endeavor. It requires financial skills, political acumen and the ability to gauge the social benefit that will result from a given undertaking. Since the late 1970s, Jeffrey A. Finkle has demonstrated mastery of all those skills, applying them worldwide—from his native Ohio to the Far East and most points in between.

This experience has made Jeff Finkle a recognized leader and international authority on economic development. As President and CEO of the International Economic Development Council (IEDC), the world's largest economic development membership organization, he contributes his expertise on community revitalization, business development and job creation to projects nationwide. Jeff has established multi-lateral partnerships with regional and national economic development organizations around the world and currently sits on the Consultative Committee of World Association of Investment Promotion Agencies (WAIPA). He has advised on economic development in China, Europe, Latin America, and Oceania. He now serves on the Board of Directors for Climate Prosperity, Inc., a company based on creating important regional economic outcomes -- green savings, green opportunity, and green talent -- while reducing greenhouse gas emissions.

He is also a leader in community service and philanthropy. In 2005, Jeff organized 250 economic development volunteers to work in Gulf Coast communities endeavoring to recover from Hurricane Katrina. He also founded the Bollinger Foundation, a non-profit organization that provides financial assistance to educate and support children who have lost one or more parent who worked in the field of economic development. The foundation to date has awarded approximately \$500,000 in grants.

A former Deputy Assistant Secretary in the U.S. Department of Housing and Urban Development, where he oversaw programs such as Community Development Block Grants

and Urban Development Action Grants, Jeff writes and lectures frequently about economic development issues and advises Congressional Committees. His vigorous support of the use of eminent domain to promote economic development, upheld by the U.S. Supreme Court, garnered him national media attention, including appearances on CBS Sunday Morning, Fox television and the Journal Report on PBS.

With the formation of IEDC in 2001, Jeff set the course for a more effective and influential economic development organization. IEDC resulted from the merger of the Council for Urban Economic Development (CUED), where Jeff was president for 15 years, and the American Economic Development Council (AEDC). Addressing significant financial and organizational challenges, Jeff has grown IEDC to a \$5 million annual operation with 30 employees. IEDC is recognized for its leadership in making sustainable economic development a priority in communities of all sizes and for professionalizing and diversifying the field of economic development.

A past member of the Arlington Virginia Economic Development Commission, he served on its BRAC Task Force in 2005, dealing with issues that directly impacted 4 million square feet of Arlington office space and 17,000 jobs. He sits on the Executive Committee of the Commission.

Jeff maintains a long-standing relationship with Ohio University's Voinovich School for Leadership and Public Affairs and serves on the School's Institute for Local Government Administration and Rural Development Advising Committee, where he regularly participates in programs of direct benefit to Appalachia Ohio. In this capacity, he worked closely with Ohio governors as well as other political and community leaders throughout the state. He received a Bachelor of Science degree in communications in 1976 from Ohio University in Athens and pursued graduate studies in business administration at Ohio State University.

Carrie Mulcaire

Senior Associate, International Economic Development Council (IEDC)

Carrie Mulcaire is a Senior Economic Development Associate in the Advisory Services and Research department at the International Economic Development Council (IEDC) in Washington, DC. She comes to IEDC with 13 years of broad experience in local and regional economic development in the United States, China, and Western Europe.

She currently serves as the program manager of a disaster recovery grant from the Economic Development Administration (EDA) for New Orleans & Gulf Coast Economic Recovery Program (2008-2010). This program seeks to rebuild economic development capacity and lay a foundation to generate new investment and job growth for communities impacted by Hurricanes Katrina along the Louisiana / Mississippi Gulf Coast. She has helped with technical assistance projects in post-disaster communities such as Cedar Rapids, Iowa and Galveston, TX (2008). She recently served as the main author for a report, An Improved Federal Response to Post-Disaster Economic Recovery, which received input from numerous economic recovery experts across the country.

Previously at IEDC, she managed two large strategic assessment projects for the United Nations Industrial Development Organization (UNIDO) -ITPO-China office for two communities in Shandong Province, P.R. China. She has also served as project manager for technical assistance in the U.S. such as Columbus, OH; Rock Hill, SC; Pleasantville, NJ, Birmingham, AL, and Keweenaw Bay Indian Community in Michigan. Her work has covered a variety of economic development issues including strategic planning, industrial development, workforce development, technology-led economic development, entrepreneurship, downtown revitalization, and more.

Prior to joining IEDC, she worked as an Associate at Economics Research Associates (ERA) in Washington, D.C. as well as served as a consultant on an Asian Development Bank (ADB) technical assistance project in mainland China. She has also held positions that include: business attraction for the government of Northern Ireland; directing marketing efforts for a downtown Business Improvement District (BID) in Berkeley, CA; assisting in redevelopment projects for the Emeryville, CA Redevelopment Agency; and research on an NSF study on workforce issues in the IT industry.

She obtained a Master's degree in City and Regional Planning from UC Berkeley where she specialized in regional economics and international development. She has a Bachelor of Sciences in Business Administration from the Haas School of Business at UC Berkeley.

Appendix 3: Background Report

***Note: This *Background Report for the Stennis Michoud Technology Corridor* was created for the purpose of preparing the IEDC panel expert team for a site visit in May 2010 as well as building a knowledge base of the major technology assets and players in the Southeast Louisiana and Southwest Mississippi region.

IEDC reviewed existing studies/reports and information made available by key stakeholders in 2009/2010 (instead of conducting primary research) to develop this report. The background report includes results from a business survey conducted by IEDC in early 2010 to better understand perceptions of doing business in the New Orleans metro area by business executives (both within the region and outside). The background report has not been updated since the information was collected in late 2009 and early 2010.

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

Stennis-Michoud
Technology Corridor
Background Report

2010

734 15TH ST NW, SUITE 900, WASHINGTON, D.C. 20005

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Introduction

The International Economic Development Council (IEDC) has been retained to develop an action plan to guide local, regional and state economic developers in implementing marketing efforts for the Stennis-Michoud technology corridor. IEDC is committed to supporting long-term economic recovery efforts along the Louisiana-Mississippi Gulf Coast. This process of creating this action plan will help build cooperation and consensus among stakeholders in a course of action for marketing, develop a deeper understanding of the region's technology assets for marketing purposes, and facilitate the alignment and leveraging of marketing messages and resources.

IEDC's process for developing this action plan will center around the development of a background report, a business survey and a four-day site visit of IEDC staff and member experts. The site visit to Southeast Louisiana and Southwest Mississippi on May 4-7, 2010 will include panel experts with experience in the successful operation of regional marketing efforts and knowledge of marketing technology and other federal assets effectively to a target audience. The expert panel includes:

- Charles Hayes, Research Triangle Regional Partnership
- Bernie McShea, Space Florida
- Charles "Sid" Saunders, Pendulum Group
- Mark Sweeney, McCallum Sweeney, Inc.

IEDC staff accompanying the panel includes Jeff Finkle, President & CEO and Carrie Mulcaire, Senior Associate.

Following the site visit, IEDC staff will prepare a final report that includes this action plan based on input from IEDC member experts and feedback from regional stakeholders. Regional stakeholders will be able to provide further input to the report's recommendations before the report is finalized so that there is general agreement of the course of action.

Background

From October 2008 to June 2009, IEDC met with over 20 regional stakeholders in the greater New Orleans region to discuss their economic development and marketing needs. A clear need was identified that local and regional organizations needed some assistance in helping to identify specific tactics they can pursue to implement some of their marketing strategies, as well as suggestions on how to better align marketing messages and leverage efforts among regional stakeholders in a coordinated fashion.

From their feedback, it was decided to focus these efforts on the region's strongest technology assets, which exist along a technology corridor that is anchored by two NASA facilities, John C. Stennis Space Center in Hancock County, MS and Michoud

Assembly Facilities in New Orleans, LA. There is increasing consensus that this region needs a clear and articulate implementation plan with specific action-oriented marketing tactics to raise awareness of these ‘hidden’ technology assets.

IEDC is tasked with the scope of helping to bring key players together around the creation of an Action Plan to build off of the existing marketing campaigns, plans and studies focused on the Stennis-Michoud Technology Corridor as well as connect to the broad regional marketing efforts already underway by local stakeholders. Funding for this project comes from a disaster recovery grant provided by the U.S. Department of Commerce’s Economic Development Administration.

Goals and Objectives

The goals and objectives of this action plan are to:

1. Validate and fine-tune marketing strategies and efforts through an independent, third-party peer review process
2. Identify specific marketing tactics that build off of existing marketing strategies developed in the region
3. Facilitate the alignment of marketing messages and resources by local and regional stakeholders
4. Specify responsibilities and timelines for marketing-oriented actions steps over a period of one to two years

This action plan is not a marketing plan or another planning study for the region. This action plan will include finer details to the existing marketing strategies/initiatives as well as outline cross marketing opportunities, responsible implementing agencies for tasks, timelines and performance measures. IEDC’s services will help build capacity and strengthen coalition efforts so that resources are leveraged and a strong and succinct marketing message on the Stennis-Michoud Technology Corridor is developed for both a regional and national audience.

To address the project needs, the IEDC team is tasked with the following:

- Identify specific and practical marketing tactics that are based on best practice
- Identify creative and effective ways to leverage limited funds
- Identify the governance structure to ensure implementation and monitor progress of the action plan

Geographic Area of Focus

For this project and background report, the Stennis-Michoud Technology Corridor region is being defined geographically to include the four Louisiana parishes of Greater New Orleans, which includes Orleans, Jefferson, St. Tammany and St. Bernard Parishes and one county in Mississippi, Hancock County where Stennis

Space Center is located. Approximately 30 economic development stakeholders from these counties/parishes, regional organizations and the states of Louisiana and Mississippi have signed up to participate in this initiative. A representative from Pearl River County, Mississippi is also participating. These parishes/counties represent the location where both Stennis Space Center and Michoud Assembly Center are located as well as the surrounding parishes that serve as a major source of the workforce, educational/research centers, economic and technical assets, and industry connected to the NASA centers.

IEDC Process & Progress to Date

This project is based on five inter-related initiatives:

1. *Background Research & Report* - IEDC will conduct research on major technology assets, players and marketing efforts in the Stennis-Michoud Technology Corridor and synthesize information in an in-depth background report.
2. *Business Survey* – IEDC will conduct a business survey to gather information from regional and national businesses and site selectors about their perceptions of doing business in the Stennis-Michoud Technology Corridor. The results will be summarized in the background report.
3. *Site Visit by IEDC Peer Review Team* - IEDC will organize a panel team of marketing and industry experts, who will review the background report, conduct a site visit to interview local stakeholders, and present preliminary recommendations on the marketing opportunities, challenges & tactics for the corridor.
4. *Final Report with Action Plan* - The final report will include an Action Plan with specific implementation strategies & projects, responsible implementing agencies, tasks and timelines, performance measures, funding sources for specific initiatives, and a discussion of additional strategies & policy recommendations.
5. *Strategic Planning Retreat* - The IEDC team will return to the area to hold a one-day strategic planning retreat to review implementation of the recommendations in the Action Plan as well as to discuss next steps.

To date, IEDC has synthesized all critical and background information on the tech corridor's technology assets and economic/demographic conditions in this background report. IEDC did not conduct primary research but has instead summarized information from existing and available reports and studies, marketing materials, and internet sources. This background report will not only serve to brief the IEDC team on major issues and conditions in the region, but will serve to share information among key stakeholders on regional assets to market.

To identify perceptions and raise awareness on the Stennis-Michoud Technology Corridor, IEDC has conducted a survey of business executives within the corridor's target industries and site selectors. The business executives surveyed include existing

businesses within the region as well as businesses outside the region. IEDC has analyzed the results and will present this information to key stakeholders at the kickoff meeting.

IEDC has assembled a panel team of nationally recognized marketing and business recruitment experts to participate in this site visit in order to provide guidance in the development of this action plan. In preparation, IEDC has worked with key stakeholder to prepare a site visit agenda, which includes a much larger audience of stakeholders to interview. All key stakeholders are participating in a kickoff meeting on May 5th to clarify questions on the project, present business survey results, and discuss project expectations. On the fourth day, Friday, May 7th, the IEDC team will present preliminary recommendations to receive feedback from the group of regional stakeholders and to help garner consensus among stakeholders in moving forward.

Overview of Background Report

This background report begins with a brief overview of the project and key stakeholders (including a roster list of organizational representatives) and includes the following contents:

1. Overview of Marketing Plans and Efforts
2. Results of Business Surveys
3. Summary of Target Major Assets in Tech Corridor
4. Economic/Demographic Overview
5. Higher Education Resources
6. Site Visit Agenda
7. Bios of IEDC Team of Panelists and Staff
8. Appendix

Descriptions of Major Stakeholders

State Agencies

Louisiana Economic Development (LED)

LED is the state-wide economic development organization “responsible for strengthening the state’s business environment and creating a more vibrant Louisiana economy”. The organization was created by the Legislature, and is under the Office of the Governor. LED is overseen by a board that includes representatives from business, economic development and education. They target about 10 key industries in their economic development efforts: Advanced Manufacturing, Agriculture, Digital Media, Energy, Entertainment, Headquarters, Life Sciences, Logistics, Nuclear and Technology.

Mississippi Development Authority (MDA)

The Mississippi Development Authority is the state’s lead economic and community development agency with over 250 employees divided into the following three groups: Economic Development, Asset Development, and Administration and Financial Services. Their economic development arm engages in business retention and recruitment, community development, tourism and export development. The Authority administers a variety of incentive programs designed to assist business with their expansion needs and to attract new businesses to the state, and provides professional staff to work with local and regional economic development organizations on these types of projects.

Regional and Local Organizations

Cleco

Since 1934, Cleco has served as an energy services company throughout central Louisiana, including St. Tammany’s Parish. They have two primary businesses, Cleco Power LLC, a regulated electric utility business serving approximately 276,000 customers in Louisiana, and Cleco Midstream Resources LLC, a wholesale energy business. Their economic development team works with local, regional, and state economic development organizations to promote economic growth in Louisiana.

Entergy New Orleans

Entergy New Orleans, a subsidiary of Entergy Corporation, is an electric and gas utility serving Orleans Parish. Customers on the east bank of the parish are served by Entergy New Orleans, while customers on the west bank, or Algiers portion of the parish, are served by Entergy Louisiana. Entergy corporation is committed to being an active partner in the city’s revitalization, growth and development. Their economic development team works with local and state organizations to assist with the retention and growth of existing businesses as well as market New Orleans, and meet business development objectives. Developed from input from site consultants,

Entergy created a site selection tool, LouisianaSiteSelection.com, to serve as a building and sites database with interactive GIS mapping capabilities for parish and community economic development organizations to upload timely information on potential commercial and industrial sites.

Geocent

Incorporated in 1992, Geocent provides innovative information technology, engineering & technical support, and decision support to clients such as the US Navy, NASA, local, state and federal governments, and many commercial clients, including publicly traded and Fortune 500 companies. Geocent employees across the country subscribe to the company's culture of focusing on results when serving our large, diverse group of clients nationwide. Geocent is currently working on a master plan for the Stennis-Michoud Aerospace Corridor for the Louisiana Economic Development agency. The purpose of the master plan is to define the elements of the road map to grow jobs and coordinate business growth in the region. The plan will include: a definition of the unique core capabilities, a detailed market analysis, gap analysis in terms of capabilities to address key market opportunities, funding sources and state incentives, a strategic plan and tactical implementation plan.

Greater New Orleans (GNO), Inc.

GNO, Inc. is the regional economic development organization for the parishes of Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Tammany, Tangipahoa, and Washington. Their membership is comprised of public and private sector leaders from business, local government and education. Organization activities are focused on the following six areas: 1) building strong relationships with key stakeholders 2) executing their economic development roadmap, 3) pursuing business development opportunities 4) pursuing key public policy initiatives 5) supporting regional workforce efforts and 6) developing meaningful data and research tools.

Hancock County Chamber of Commerce

The Hancock County Chamber of Commerce serves as the major chamber of commerce for Hancock County with nearly 1,500 members, forming a powerful partnership that enhances economic opportunities and the quality of life in Hancock County. The chamber also established the Hancock County Community Development Foundation to assist communities within the county with disaster recovery and to stimulate community development and growth. With the help of local and state officials, the foundation oversees a Job Generation Fund to offer 40 businesses with \$2.4 million in low interest/forgivable loans for economic recovery. The chamber also serves as the administrative arm for Partners for Stennis (see description below).

Hancock County Development Commission (HCDC)

Formerly known as Hancock County Port and Harbor Commission, HCDC was established in 1962 when construction began on a NASA rocket-testing center in the

area, and was very active throughout the development of adjoining facilities. Currently, the Port and Harbor Commission operates the Port Bienville Industrial Park, Stennis International Airport, Stennis Space Center, and the Port Bienville Short Line Railroad. The Commission is a leader in the community, encouraging the location of business and industry in the parish. Members include five Commissioners appointed by the County Board of Supervisors as well as two additional members appointed by the Governor of Mississippi based upon the recommendations of the Mayors of the county's two largest cities.

Jacobs Technology at Michoud Assembly Facility

Jacobs Technology Inc, a subsidiary of Jacobs Technology was recently awarded a Manufacturing Support and Facility Operations Contract (MSFOC) by NASA's Michoud Assembly Facility (MAF). With more than 70 years of experience supporting government and commercial clients, Jacobs provides technical and managerial achievements in quality, performance and safety for contracts similar to MSFOC. Jacobs provides mission-focused integrated production and facility operations support for NASA projects at MAF such as the Space Shuttle's external tank, Ares I, and Orion. Approximately 20 percent of their contract is focused on business development activities to help MAF transform from a single-project, single-prime contractor facility to a multi-project, multi-prime contractor facility.

Jefferson Parish Economic Development Commission (JEDCO)

JEDCO is the economic development organization for Jefferson Parish, serving as an independent arm of the Jefferson Parish government with a separate board of business and local government leaders. JEDCO seeks to attract, grow, and create new businesses in Jefferson parish through efforts such as business financing, a business incubator program, business outreach, economic development services, and marketing.

Mississippi Gulf Coast Alliance for Economic Development

The Mississippi Gulf Coast Alliance for Economic Development is an independent partnership of economic development agencies from George, Hancock, Harrison, Jackson, Pearl River, and Stone counties in Mississippi. The economic development organizations in these six counties work together on marketing their region and helping businesses interested in locating or expanding in the area. They provide information on the region's five key industrial sectors through a website: aerospace, advanced materials, geospatial, marine science, and shipbuilding.

Mississippi Enterprise for Technology (MSET)

Located within Stennis Space Center, MsET is a private, non-profit organization, which taps into the scientific and technical assets of the State of Mississippi to promote industrial growth, stimulate new business start-ups and attract companies to Mississippi. MsET assists with the growth of young, technology-based companies by providing an environment in its business incubator for resident companies to get access to business and technology-related services, opportunities for joint ventures,

entrepreneur training, and access to state and federal technology portfolios. MsET is a joint effort of the Mississippi Development Authority, NASA and Mississippi's universities.

Mississippi Power

Mississippi Power, a Southern Company subsidiary, is an investor-owned electric utility serving 23 southeast Mississippi counties. Their economic development staff in partnership with local and state organizations can help find the site or building within Mississippi for your business expansion or relocation. The economic development department has launched Project Ready, an industrial sites program, to identify sites in each county that are appropriate for development. The process of certifying a site as 'project ready' improves the readiness of those sites already in the economic opportunity inventory, ensuring that all related due diligence has been performed.

Partners for Stennis

Partners for Stennis is an informal group of representatives from chambers of commerce, economic development organizations, businesses, educational institutions, local governments, and community groups in both Mississippi and Louisiana. Their group advocates for space and earth exploration as well as serves as a regional catalyst to promote the growth of Stennis and the surrounding region. Their organization offers promotional and logistical information for businesses and people interested in the area around Stennis. They also annually send a delegation of elected officials, and business and community representatives on an annual basis to Washington, DC. Recently, they've started to expand their mission to help provide some support for Michoud Assembly Facility.

Regional Planning Commission New Orleans

The Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard and St. Tammany Parishes, is a 26-member board of local elected officials and citizen members, appointed to represent you on regional issues. This board is supported by a staff of 22 professionals with broad experience, and doctorates or masters degrees, in a variety of areas including urban and regional planning, economic development, community development, government, law, landscape architecture, transportation, geography and other disciplines.

St. Bernard Economic Development Commission (EDC)

The St. Bernard EDC is the economic development organization for St. Bernard Parish, LA, led by a board of local business, government, and education leaders. The EDC focused on attracting new businesses, stimulating private investment, promoting job creation, encourage the expansion and retention of existing companies and provide businesses in St. Bernard Parish with workforce training and financial assistance.

St. Tammany Economic Development Foundation (STEDF)

The St. Tammany Economic Development Foundation is a non-profit economic development organization for St. Tammany's Parish, with a board of local business and government. STEDF focuses on promoting existing businesses and attracting new businesses as well as employment opportunities. They provide site selection services, demographic statistics, facilitate incentives, and operate a business retention program.

Southern Mississippi Planning and Development District (SMPDD)

The Southern Mississippi Planning and Development District (SMPDD), assists 15 counties and 37 municipal governments, with a service area encompassing Covington, Forrest, George, Greene, Hancock, Harrison, Jackson, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Stone and Wayne Counties. Established in 1967, SMPDD continually evolved to meet the needs, discover opportunities and anticipate the trends challenging the economic vitality, environmental integrity, and overall quality of life enjoyed in South Mississippi. The basic mission of SMPDD's Community Development and Planning Division is to identify and capitalize on the development potentials of the fifteen counties. The Division operates from SMPDD headquarters on the Gulf Coast in Gulfport.

Stennis-Michoud Aerospace Corridor Alliance (Senator Vitter)

Established by Senator David Vitter (R-LA), the Stennis-Michoud Aerospace Corridor Alliance is an informal working group of private and public sector leaders from Louisiana and Mississippi focused on two things: 1) address issues related to infrastructure, workforce, and other needs of the technology corridor to make it more attractive for aerospace and other related businesses and 2) help market the corridor as a national center of excellence in aerospace and related industries on par with Florida, Huntsville, and Greater Houston. The current chair is Bobby Savoie, CEO & President of Geocent.

Transition New Orleans – for Mayor-Elect Mitch Landrieu

Transition New Orleans was launched by Mayor-Elect Mitch Landrieu in March 2010 to bring together experts and community leaders to advise the mayor-elect as his administration prepares to take office. Transition New Orleans includes different task forces that will make recommendations on the major issues facing the city from blight to housing to economic development as he takes office on May 3, 2010. One of the task forces includes the Economic Development Task Force, which has recently made recommendations on economic development opportunities to foster business growth and retention, workforce development solutions, and best practices to assist small businesses and entrepreneurs. A representative from this group will be involved in this project until the Mayor establishes his economic development team for the city.

Roster of Key Stakeholder Representatives

Ms/Mr	Contact	Title	Organization
Mr.	Glade Woods	Government Affairs Consultant	Applied Geo Technologies, Inc.
Mr.	Stan Middleton	Director, Real Estate Development	Bayer Properties
Ms.	Belinda Littlewood	Executive Director, NSA New Orleans Advisory Task Force	City of New Orleans
Mr.	Gary Silbert	Director, Economic Development	Entergy - New Orleans
Mr.	Bobby Savoie	President; Chair of Stennis-Michoud Marketing Committee	Geocent
Ms.	MaryAnne Schmidt	Senior Manager	Geocent
Mr.	Michael Hecht	President /CEO	Greater New Orleans (GNO), Inc.
Mr.	Austin Marks	Chief of Staff	Greater New Orleans (GNO), Inc.
Mr.	Matt Rookard	Advanced Manufacturing Sector	Greater New Orleans (GNO), Inc.
Mr.	Clay Wagner	Chair	Hancock Bank
Mr.	John Hairston	CEO & Chief Operating Officer	Hancock Bank
Ms.	Tish Williams	Executive Director of Chamber & Partners for Stennis	Hancock County Chamber of Commerce
Mr.	Jack Zink	Executive Director	Hancock County Development Commission
Ms.	Sue Wright	Director of Economic Development	Hancock County Development Commission
Mr.	Mike Dawson	General Manager	Jacobs Engineering
Mr.	Ray Vogel	Business Development Manager	Jacobs Engineering
Mr.	Scott Rojas	Marketing Director	Jefferson Parish Economic Development Corporation (JEDCO)
Mr.	Roy Keller	Associate Director	Louisiana Business & Technology Center
Mr.	Bob Fudickar	Director, Lifes Sciences & Technology	Louisiana Economic Development (LED)
Mr.	Malcolm Wood	Chief Operating Officer	Michoud (NASA)
Mr.	Chandler Russ	Project Manager	Mississippi Development Authority
Mr.	Charlie Beasley	President and CEO, Mississippi Enterprise for Technology @ Stennis	Mississippi Enterprise for Technology
Mr.	Arnie Williams	Director, Economic Development	Mississippi Power Company
Mr.	Ned Peak	Chair	Partners for Stennis
Dr.	Scott Alsobrook	Workforce Education	Pearl River Community College
Ms.	Caitlin Cain	Economic Development Program Manager	Regional Planning Commission
Ms.	Allison Beasley	Planning Director	Southern Mississippi Planning Development District
Ms.	Brenda Reine-Bertus	Executive Director	St. Tammany Economic Development Foundation
Mr.	Patrick Scheuermann	Deputy Director	Stennis Space Center
Ms.	Aimee Quirk	Transition Team for Mayor Elect Mith Landrieu	Transition New Orleans
Mr.	George Harker	Senior Associate Vice Chancellor for Research and Economic Development	University of New Orleans

Marketing Plans and Current Marketing Efforts

Overview of Major Marketing Plans

GNO, Inc.'s Roadmap Initiative

Greater New Orleans, Inc.'s Regional Economic Development Roadmap (Roadmap) is a three year strategic business development and marketing plan developed by the region's public and private leadership to generate wealth in the four key high-growth industries: 1) Advanced Manufacturing 2) Creative Media and Design 3) Energy, Petrochemicals and Plastics and 4) International Trade, Logistics and Distribution. AngelouEconomics helped develop the plans and strategies after a careful and detailed analysis of the region's opportunities and challenges.

Highlights of 2010 plans include:

- *Focus on international trade with the Americas* – advocating for build-out of incremental cargo capacity, and developing trade mission with Brazil
- *Launch of GreenN.O. to develop sustainable industries* – Focus is on industries in water management, sustainable building, energy efficiency, renewable energy, and disaster mitigation
- *Continued focus on completion of “REEL” agenda for natural gas and enhanced oil recovery*
- *Opening of “IP North” building in Covington* – GNO, Inc. with IdeaVillage will facilitate opening a new hub of creative and digital media, the “Intellectual Property” building. “IP North” in St. Tammany now in development.
- *Launch of “Business Retention and Expansion Program”* -
- *Continued work to evaluate and fund intercity rail between New Orleans and Baton Rouge*
- *Formation of state-wide coalition to advocate for reform for higher education system* – ensuring strategic, outcome-focused reform of higher education
- *Support for implementation of results of BCG airport study*
- *Launch of LeapFrog Venture fund* – launch of early-stage risk equity fund to assist high growth businesses
- *Expanded support for regional partners, including new marketing and business development materials*
- *Support for Michoud Assembly Facility*– Collaborating with LA delegation to push for preservation and growth of jobs and space manufacturing at MAF

More specifics on the organization's marketing tactics and projected performance measures for marketing and business development are not available.

I-12 Corridor Alliance

The I-12 Corridor Alliance is a regional game plan to spur economic development in the five parishes along the Interstate 12 corridor between Slidell and Baton Rouge. Initially, AngelouEconomics was hired to study the region and develop marketing strategies for this group. The plan targets four major industries for St. Tammany, Washington, Livingston, Tangipahoa and St. Helena parishes to pursue: 1) international trade, logistics and distribution 2) energy 3) aerospace and defense manufacturing and 4) material supplies. The group has launched a website, www.i12alliance.com, which provides current and detailed demographic and economic information, community profiles, workforce data, sites and building database, and latest news. Other marketing strategies included in the plan include:

- 1) Develop a formalized regional approach to marketing the I-12 corridor by signing and implementing a collective marketing compact
- 2) Continue public policy efforts to improve the state's business climate
- 3) Continue public policy efforts to improve Louisiana's education system

Economic Development Organization Goals and Actions for Marketing

Organization Name	Goals	Actions
<p>Greater New Orleans (GNO), Inc.</p>	<ul style="list-style-type: none"> • Build relationships with key stakeholders 	<ul style="list-style-type: none"> • Created 3-year business development and marketing plan (road map)
	<ul style="list-style-type: none"> • Execute the road map 	<ul style="list-style-type: none"> • Developed extensive website. Resources include demographics:
	<ul style="list-style-type: none"> • Pursue business development opportunities 	<ul style="list-style-type: none"> • Reports on key topics
	<ul style="list-style-type: none"> • Pursue key public policy initiatives 	<ul style="list-style-type: none"> • Link to Site Intelligence (Location) Tool
	<ul style="list-style-type: none"> • Support regional workforce efforts • Develop data and research tools 	<ul style="list-style-type: none"> • Parish Profiles • Sponsor, attend, and publicize key events
<p>Hancock County Port and Harbor Commission</p>	<p>“to promote, develop, construct, maintain and operate harbors, seaports and industrial parks and develop environmentally responsible commercial, industrial and</p>	<ul style="list-style-type: none"> • Website features information about: <ul style="list-style-type: none"> • Business incentives • Target industries • Available properties (search tool) • Infrastructure capabilities
<p>Jefferson Parish Economic Development Corporation (JEDCO)</p>	<ul style="list-style-type: none"> • Create and retain quality jobs through private investment 	<ul style="list-style-type: none"> • Published an economic roadmap for the Parish called EDGE2010, which is periodically reviewed to ensure economic development initiatives remain relevant. A follow-up document, Jefferson EDGE 2020: Economic Development Strategy, has been published.
	<ul style="list-style-type: none"> • Develop Churchill Technology Business Park 	<ul style="list-style-type: none"> • Website with information about:
	<ul style="list-style-type: none"> • Develop and maintain a strategically targeted economic development marketing program 	<ul style="list-style-type: none"> • Business financing, incubator, and outreach
	<ul style="list-style-type: none"> • Manage economic development strategic plan for Jefferson Parish, The Jefferson EDGE 	<ul style="list-style-type: none"> • Economic development services
	<ul style="list-style-type: none"> • Continuing and ongoing assessment of funding sources, administrative operations, and training 	<ul style="list-style-type: none"> • Marketing • Reports and data • Available properties • Releases Annual Reports profiling the parish

Organization Name	Goals	Actions
<p>Louisiana Economic Development (LED)</p>	<ul style="list-style-type: none"> • Increase state’s economic competitiveness 	<ul style="list-style-type: none"> • Invested over \$5 million during 2007 in international, national, and ins-state communications and marketing programs
	<ul style="list-style-type: none"> • Cultivate top regional economic development assets 	<ul style="list-style-type: none"> • Publish LED Business Wire, an e-news tool with nearly 7,000 subscribers (2x amount in previous year)
	<ul style="list-style-type: none"> • Enhance competitiveness of local communities 	<ul style="list-style-type: none"> • Partnerships with local allies to promote Louisiana at 50 trade shows for industries from construction to biosciences to energy
	<ul style="list-style-type: none"> • Help retain and expand existing businesses 	<ul style="list-style-type: none"> • Development of mega-sites database to promote 100 “shovel-ready” sites of 500 acres or more for major durable goods manufacturing projects
	<ul style="list-style-type: none"> • Develop national-caliber business recruitment capabilities 	<ul style="list-style-type: none"> • Extensive website with information about:
		<ul style="list-style-type: none"> • Business incentives
		<ul style="list-style-type: none"> • Site and building opportunities
		<ul style="list-style-type: none"> • Key industries • Site selection tool • Searchable database of Louisiana economic development organizations
<p>Mississippi Development Authority</p>	<p>Economic Development</p>	<ul style="list-style-type: none"> • Extensive website with information about:
	<ul style="list-style-type: none"> • Business recruitment and retention, community development, tourism development, and export development 	<ul style="list-style-type: none"> • Business resources
	<p>Asset Development</p>	<ul style="list-style-type: none"> • Available site
	<ul style="list-style-type: none"> • Develop unique Mississippi assets such as cultural heritage, natural resources, and small town lifestyles 	<ul style="list-style-type: none"> • Manufacturer match search tool
<p>Partners for Stennis</p>	<p>Administration and Financial Services</p> <ul style="list-style-type: none"> • Oversee community development grant program 	<ul style="list-style-type: none"> • Topical maps
	<p>“Support various projects which insure that government decision makers, business interest, and interested citizens know of the value and importance of the Center.” Areas of interest include: Education, Quality of Life, Raising Awareness, Advocacy</p>	<ul style="list-style-type: none"> • Website with information on Stennis assets, relocation, and employment • Annual trip to political leaders in both Washington, D.C. and Jackson, M.S.

Organization Name	Goals	Actions
Stennis-Michoud Tech Corridor Initiative (Senator Vitter)	<ul style="list-style-type: none"> • Help address infrastructure, workforce, and other needs of the area to make it more attractive for aerospace related industries • Help market the corridor as a national center of excellence in aerospace and related industries 	
St. Tammany Economic Development Foundation	<ul style="list-style-type: none"> • Infrastructure meets the needs of residents, business, and industry into the future without congestion or delaying projects • Adequate housing is available near work centers for all levels of employees • Land use is governed by an up-to-date comprehensive plan and zoning maps with flexible and transparent development regulations and an expedited review process • The amount of land available for new industrial and office development is adequate into the future • Secondary and higher education programs prepare students for careers needed in the region, and transition from one institution to another is smooth 	<ul style="list-style-type: none"> • Led regional effort among Northshore parishes to create a Marketing Strategy around I-12 Corridor • Published “Future Directions” document following March 2006 development charrette • Produces annual economic development report • Website offers information on: <ul style="list-style-type: none"> • Parish demographics • Business incentives • Available sites • Quality of Life • External links
St. Bernard Economic Development Foundation	<ul style="list-style-type: none"> • Fostering projects and activities which will spur economic development in St. Bernard Parish by: <ul style="list-style-type: none"> • Attracting new businesses • Simulate private investment • Assist with business expansion • Provide businesses w/ workforce training and financial assistance 	<ul style="list-style-type: none"> • Website with information about: <ul style="list-style-type: none"> • Community Profile • Quality of Life • Business Resources • Demographics • Industry & Labor Programs • Links to outside resources

Marketing Activities and Messages

Organization	Marketing Goals, if applicable	Current Marketing Efforts
<p>Greater New Orleans (GNO), Inc.</p>	<ul style="list-style-type: none"> · Execute the business plans for target sectors 	<ul style="list-style-type: none"> · Extensive website with parish, employment, industry, and available site information
	<ul style="list-style-type: none"> · Engage regional stakeholders on inbound and outbound recruitment missions, attend trade shows, and collaborate on retention and expansion efforts 	<ul style="list-style-type: none"> · Specific strategies for initiatives that address workforce, business development, and public policy
	<ul style="list-style-type: none"> · Create a high-quality marketing campaign 	<ul style="list-style-type: none"> · Regular meetings with and hosting trade delegations, business prospects, and site selectors
	<ul style="list-style-type: none"> · Conduct a comprehensive public relations campaign 	<ul style="list-style-type: none"> · Participation in area workforce initiatives and partnerships, engages with local business leaders
<p>Hancock County Port and Harbor Commission</p>		<ul style="list-style-type: none"> · Website with demographic, industry, and available site information
<p>Jefferson Parish Economic Development Corporation (JEDCO)</p>	<ul style="list-style-type: none"> · Continue to market the first 40 acres of the Churchill Technology and Business Park 	<ul style="list-style-type: none"> · Extensive website with parish, employment, industry, and available site information as well as manufacturing resource guide
	<ul style="list-style-type: none"> · Identify major national growth industries as well as the potential for local companies to take advantage of opportunities 	<ul style="list-style-type: none"> · Business Retention/Expansion Program engages present and potential businesses
	<ul style="list-style-type: none"> · Market Jefferson Parish as a headquarters for energy companies 	<ul style="list-style-type: none"> · Print and radio ads as well as mailers to announce parish opportunities and successes
	<ul style="list-style-type: none"> · Reach out to businesses in the parish, support their retention, expansion, and access to capital 	<ul style="list-style-type: none"> · Partnership with Jefferson Parish Government, Sheriff's Office, School System, and JEDCO's Jefferson EDGE developed a marketing campaign to counter quality of life perceptions externally as well as internally
	<ul style="list-style-type: none"> · Seek permanent financing to support an on-going marketing effort 	



Marketing Activities and Messages cont.

Organization	Marketing Goals, if applicable	Current Marketing Efforts
Louisiana Economic Development (LED)		· Publishes <i>EQ</i> , <i>Louisiana Economic Quarterly</i> , which highlights state economic opportunities and accomplishments
		· Publishes <i>LED BusinessWire</i> , an electronic news tool
		· Print campaign in <i>Fortune</i> , <i>Inc.</i> , <i>Money</i> , <i>Fast Company</i> , <i>The Wall Street Journal</i> , and <i>The New York Times</i>
		· Extensive website with business, industry, and state information as well as available sites
Mississippi Development Authority		· Extensive website with county, business, and industry information as well as available sites
		· Global Business Division is responsible for location, relocation, or expansion of domestic firms to Mississippi
		· Marketing and Communications Division is responsible for media and public relations, research, marketing, and advertising
Partners for Stennis	· Promote business opportunities relevant to Stennis	· Website designed to promote Stennis and the region
	· Enhance the image of the region	· Advocate for the region by meeting with political leaders in Baton Rouge, LA; Jackson, MS; and Washington, D.C.
	· Develop and operate an informative website to promote the region	· Announce successful Stennis events and initiatives through the media
Stennis-Michoud Corridor Initiative: Senator Vitter		
St. Tammany Economic Development Foundation		· Extensive website with demographic, business, and available site information
		· Publish reports and summaries about parish opportunities and successes
		· Led Louisiana I-12 Alliance effort, which markets the area along with four other parishes



GNO, Inc.'s Recent Marketing Activities

March Northshore Familiarization Tour

GNO, Inc. and parish partners hosted a regional familiarization tour for seven influential site selectors, with a focus on the three parishes in the Northshore. Planning and execution of the tour was done in consultation and involvement with all ten parish ED partners. While each tour highlights the entire region, due to time constraints, each tour features a defined subset of parishes with those parishes having a more direct role in planning and execution, as well as in sharing costs related to the tours' events. The primary purpose of these tours are to a) correct misperceptions that the region has still not recovered from the hurricanes, b) demonstrate the opportunities for growth and new investment and c) set forth the assets and capacity to compete nationally and internationally in attracting prospects. Out of this site selector tour, GNO, Inc. is currently working a major project lead. Additionally an amazing article about the GNO region, entitled "A wave of optimism floods New Orleans" was featured in IndustryWeek magazine, a major site selector publication, written Josh Cable, a fam tour participant.

Business Development Pipeline

The efforts continue to create a robust GNO, Inc. generated pipeline of prospect opportunities for the 10 parishes primarily focused on the roadmap's four target industry sectors. The GNO, Inc. Business Development pipeline has grown to over 60 legitimate business prospects representing 4000 potential new jobs in the region. Of this, GNO, Inc. expects to be able to up 1,500 jobs this year. GNO, Inc.'s Business Development Team has met and communicated on an ongoing basis with LED counterparts and parish partners to set up a coordinated and linked effort supporting each other with lead role depending on source and scope of a prospect, and the prospect's needs and interests. Key LED personnel and parish partners are on the GNO, Inc. prospect alert email list.

Business Retention and Expansion Program

In recognition of the importance of nurturing our existing business base, GNO, Inc. is executing its Business Retention and Expansion Program (BREP). The BREP is an aggressive program of working with executives in our ten parish region to assist with expansion projects, incentives, and any issues of concern. Jenny Hunter on staff is the BREP lead and is working with parish partners and Tommy Kurtz and staff on these retention initiatives. GNO, Inc. and partners are also utilizing the Synchronist system to update all BREP led initiatives

GIS System

In the first quarter of 2010 and completing in the second quarter, the GIS System has been upgraded to a more visually robust Google-based platform by MSF Global. The new contracts with ESRI and LACDS have been executed to feed regional demographic, economic and other data, and commercial real estate listings into the new GIS System. Data feeds have been refined and translated to allow weekly



automatic updates to maintain the GIS System. System is now fully deployed and in use. Parish partner training is currently taking place.

Bond PR Business Development Site Attraction Services

Bond PR has continued to provide services in key market and outreach efforts including identifying and reaching out to site selectors and related professionals to expand the quality and quantity of consultants, supporting recruitment efforts for the region, and securing site selectors to participate in GNO, Inc.'s familiarization tours. GNO, Inc. hosted its quarterly fam tour in March 2010, and Bond PR played a crucial role in site selector outreach. Bond PR continually is refining and enhancing messaging both for the roadmap target sectors and supporting parish specific marketing, retention and existing business growth strategies.

Website Enhancements

The GNO, Inc. website has undergone a full implementation of its Search Engine Optimization (SEO) strategy. Mudbug Media has also been engaged to enhance the sites capabilities and user friendliness.



Results Business Surveys

IEDC Business Survey for Stennis-Michoud Technology Corridor



Results of IEDC Business Survey

Carrie Mulcaire
Senior Associate, IEDC



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Purpose of Survey

- Third party independent review of perceptions of business climate in the region
 - evaluate the tech corridor's image, strengths and attributes, impediments and barriers, and future opportunities
- Target three groups:
 - Local perspective of existing technology businesses
 - National Perspective of site selection consultant
 - National Perspective of corporate executives in target sectors:
 - aerospace and defense
 - advanced materials
 - renewable energy & energy efficiency

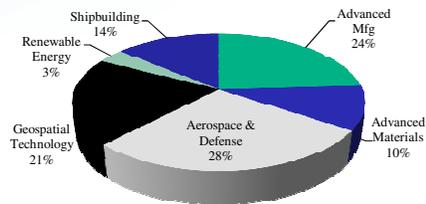


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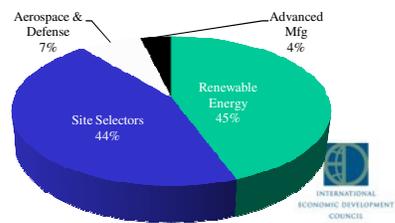
Responses

- Sent to a total of 1516 company executives:
 - 396 local companies executives
 - 371 site selectors
 - 749 company executives from
- 56 responses (4% response rate)

Local Businesses within region (29)



National Businesses & Site Selectors (27)



INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL
THE POWER OF KNOWLEDGE AND LEADERSHIP

Survey Results



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Most Important Business Factors

- **Question #1:** On a scale of 1 to 10 (1=least; 10=most), how would you rate the following factors for what's important to your business?

Most important determining factors (8 or higher):

- Trained & Skilled workforce (98%)
- Quality of Life (89%)
- Tax Climate (85%)
- Low Occupancy Costs (83%)
- Low Insurance Costs (78%)
- Site Suitability & Space Availability (74%)



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Most Important Business Factors: Differences Between Groups

- **Question #1:** On a scale of 1 to 10 (1=least; 10=most), how would you rate the following factors for what's important to your business?

Most important determining factors (8 or higher)

Local Businesses Within Region

- Trained & skilled workforce (97%)
- Quality of Life (82%)
- Tax climate (79%)
- Low occupancy costs (76%)
- Low insurance costs (75%)

National Businesses & Site Selectors

- Trained & skilled workforce (100%)
- Quality of Life (96%)
- Tax climate (93%)
- Good transport & infrastructure (92%)
- Low energy costs (89%)
- Low occupancy costs (89%)



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Perceptions of Region

- **Question #2:** On a scale of 1 to 10 (1=least; 10=most), how would you rate the Southeast Louisiana/Southwest Mississippi according to the same site selection factors?

Quality rating of these factors in the region (8 or higher):

- Trained & skilled workforce (50%)
- Quality of life (57%)
- Tax climate (50%)
- Low occupancy costs (65%)
- Low insurance costs (48%)
- Site suitability & space availability (67%)



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Perceptions of Region: Differences Between Groups

- **Question #2:** On a scale of 1 to 10 (1=least; 10=most), how would you rate the Southeast Louisiana/Southwest Mississippi according to the same site selection factors?

Quality rating of these factors in the region (8 or higher):

Local Businesses Within Region

- Trained & skilled workforce (52%)
- Quality of Life (61%)
- Tax climate (41%)
- Low occupancy costs (43%)
- Low insurance costs (43%)

National Businesses & Site Selectors

- Trained & skilled workforce (48%)
- Quality of Life (54%)
- Tax climate (83%)
- Good transport & infrastructure (76%)
- Low energy costs (76%)
- Low occupancy costs (91%)

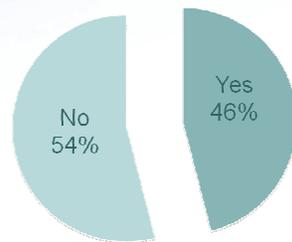


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Site Location Search

- **Question #3 [For national businesses]:** Included a community in the region in a site location search?

Site Location Search



Major factors that influenced your consideration of the area?

- Taxes & Other Incentives
- Labor Costs & Availability
- Location to Customers & Suppliers
- Energy & Utility Costs



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Business Concerns for Local Businesses

- **Question #3 [For local businesses]:** Please indicate if your business is experiencing the following concerns:

Business Problems/Concerns?

- Industry in recession (52%)
- Decreasing sales (38%)
- Increased utility costs (38%)
- Layoffs in past or coming years (35%)
- High or increased tax burden (35%)
- Lack of skilled workers (31%)



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Three Greatest Strengths in Region

- **Question #4:** Three greatest strengths in region?
 - Low labor costs (22%)
 - Quality of Life (15%)
 - Climate (8%)

Other strengths mentioned:

- State's Pro-Business Attitude (7%)
- Water Access (7%)
- Transportation Access (7%)



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Three Greatest Weaknesses in Region

- **Question #5:** Three greatest weaknesses in region?
 - Lack of skilled labor (16%)
 - High disaster risk (14%)
 - Poor image (13%)

Other weaknesses mentioned:

- Poor quality of education (9%)
- Government bureaucracy /politics (8%)
- Infrastructure issues (8%)



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Awareness of Technology Assets

- **Question #6:** Indicate the following technology assets that you are aware of?
 - NASA Stennis Space Center (77%)
 - Northrup Grumman Ship Systems (71%)
 - Lockheed Martin (55%)
 - NASA Michoud Assembly Facility (60%)
 - Textron Marine (56%)

Least Known Technology Assets:

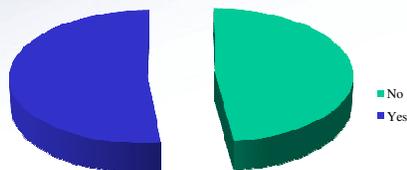
- USM's Business & Innovation Assistance Center at Stennis
- MS Enterprise for Technology at Stennis
- UNO's Advanced Materials Research Institute
- Churchill Business & Technology Park
- Federal City in New Orleans



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Plans for Business Expansion

Question #7 [For local businesses] : Are you considering expanding your business in area?



- What local resources/ services are you most interested in:
 - Workforce Development/ Training Resources (31%)
 - State Tax Credits & Incentives (38%)



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Preferences for Receiving Updates on Region

- **Question #8 [For national businesses]:** How would you prefer to receive updates in the future on the region?
 - E-Newsletter (30%)
 - Website (22%)
 - Press Releases (19%)
 - Company Expansion Announcement (15%)



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Business Opportunities for Region

- **Question #9:** What type of business opportunities do you see for the future in the region?
 - Aerospace Technology (8)
 - Government & Defense (6)
 - Manufacturing (6)
 - Technology (5)



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AngelouEconomics Business Survey for Greater New Orleans

AngelouEconomics conducted a study of site selectors to gain insight on their perceptions of the Greater New Orleans region. A summary of their findings is included below.¹

General Economic Development Challenges

- Profound differences in North Shore v. South Shore conditions is limiting the ten parishes' ability to identify themselves as one region
- National perception of a slow recovery from Hurricane Katrina in Louisiana and New Orleans
- Image of the City of New Orleans dominates the image of the Greater New Orleans region
- Business leadership distrusts government
- Lack of self-confidence among leadership

Business Climate

Assets

- Strong state-level incentives programs, especially for film and theater
- Relatively large asset around federal government and NASA employment
- Leverageable assets through the region's universities and federal contractors
- Loyal companies that would prefer to remain in the region, even if they have to relocate to another parish

Challenges

- Louisiana has a relatively unfriendly business tax climate
- Rising business costs hamper economic development efforts
- Louisiana, and the Greater New Orleans region specifically, have a reputation for political ineffectiveness
- The region has suffered a significant loss of major employers, signaling an unstable business climate to other prospects and site selectors
- Current business leaders perceive that here is a lack of focus on business retention efforts
- The region has limited entrepreneurial capacity
- The region has a disjointed economic development delivery system

Workforce Development and Education

Assets

- University resource depth
- Strong focus on educational reform
- Strong growth of civic and business volunteers and entrepreneurs attracted to the region to participate in rebuilding efforts

¹ AngelouEconomics. *Greater New Orleans Regional Marketing Assessment*, August 2007.



- Relatively high percentage of college-educated young professionals
- Private sector training facilities such as those at Northrop Grumman and Shell
- Development of a regional workforce development strategy

Challenges

- Poor perception of Louisiana public school system
- Limited availability of skilled trades workers
- Education and training facilities severely damaged by Katrina
- Regional workforce development system is not adequately linked to the business community
- The region suffers from brain drain as highly educated workers leave the region
- Lack of financial resources and capacity of regional workforce delivery system to nimbly respond to business needs

Sites and Infrastructure

Assets

- Extensive port system with access to the Mississippi River and Gulf of Mexico
- Rail infrastructure, with six rail lines
- Significant development potential and acreage available in the River and North Shore parishes
- New Federal City initiative will provide sites for high-tech contractors
- Commitment for two new NASA research centers at the Michoud Assembly Facility
- Large industrial and business parks, including a certified mega-site in Tangipahoa

Challenges

- Rebuilding needs of levees not yet met
- Limited availability of flights in and out of New Orleans
- Damaged water and wastewater infrastructure, particularly in the South Shore parishes
- Underutilization of the lower Mississippi River port system

Quality of Life

Assets

- Cultural heritage focusing on jazz music, historic architecture, and culinary preeminence
- Growing reputation for film and creative industries
- Outdoor recreation options on lakes and rivers
- Two major medical schools and a major source of pre-medical talent
- Sense of community pride and loyalty that is palpable to outsiders
- Growing neighborhood and civic engagement in rebuilding and reform

Challenges

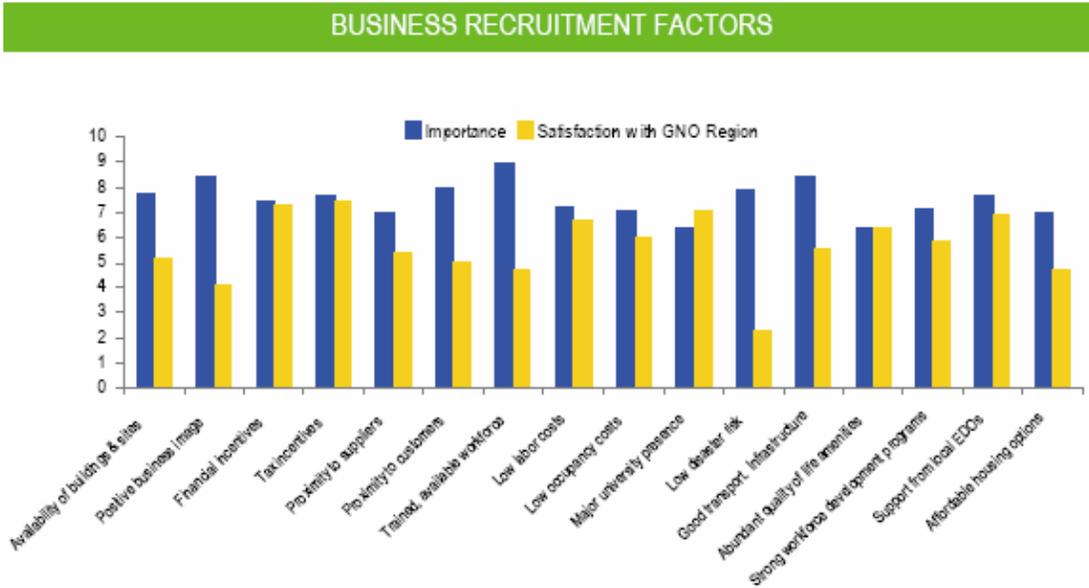
- Perception of public safety concerns
- Rising cost of living



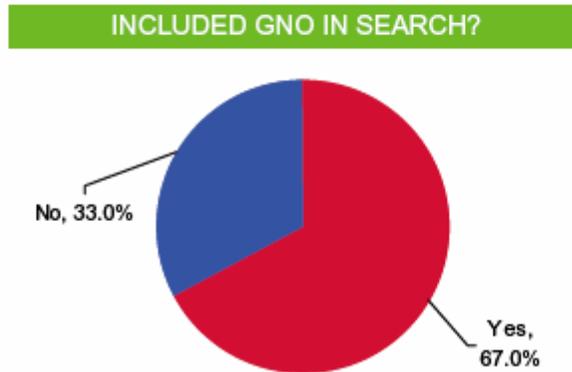
- Health care challenges

The following questions and responses were gained through an online survey conducted by AngelouEconomics. The survey was sent to a database of site selectors, of which 18 submitted anonymous responses.

Question 1 & 2: On a scale of 1 to 10, with 10 being most important, how would you rate the following factors when it comes to a community's business recruitment effort (#1) and based on your knowledge of the New Orleans region, how would you rate the region considering the same factors (#2)

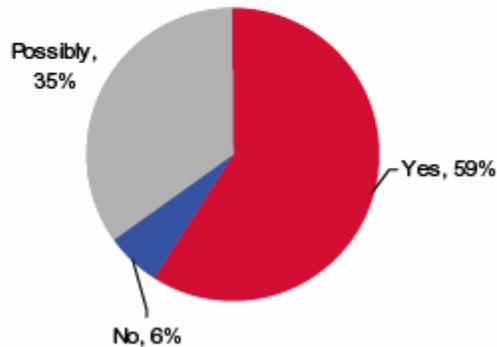


Question 6: Have you ever included the greater New Orleans region in a site search?



Question 17: Would you attend a future site tour in New Orleans?

WOULD ATTEND GNO SITE TOUR?



When asked what dominant image come to mind when asked about the Greater New Orleans region pre-Katrina, popular responses included a bustling city with high poverty and crime rates, a fun tourist area that is good to visit (especially the French Quarter), and busy port facilities.

When asked the same question about Post-Katrina images, responses included comments about the area as a risky place to invest with extensive losses in housing, businesses, and labor as well as poor political leadership. Positive comments acknowledged extensive re-development effort and available incentives.

The question “How would you describe the New Orleans region to a corporate client” was met with responses including: choose your location carefully, New Orleans is an area with opportunity but is not yet back on its feet, there is a major port presence, and the labor market is favorable.

Respondents also listed the following types of companies/industries/business functions for the region: petrochemicals operations with seaport or river needs, distribution, call centers and other back office operations, shipping, energy, banking, refineries, energy, and bio-technical. A majority of answers, no matter what industry was named, recommended investments that would need the port.

Summary of Major Assets in Stennis-Michoud Technology Corridor

Michoud Assembly Facility

Introduction

A part of the Marshall Space Flight Center, the Michoud Assembly Facility (MAF) in New Orleans is a world class advanced manufacturing center providing critical support to NASA's exploration and discovery missions for more than 40 years. The Michoud site covers 832 acres and houses one of largest production buildings in the nation with 2.2 million feet of manufacturing space, 900,000 square feet of office facilities, 400,000 square feet of warehouse space, 200,000 square feet dedicated to site operations, and 354 acres of available green space. In addition, the site has direct access to deep-water port & harbor facilities, interstate access and close proximity to nearby major railway facilities. MAF serves as one of the largest employers in New Orleans with more than 3,500 federal, state, academic, and technology-based industry employees.

History

The site around MAF has been used as a source of timber for building and repairing ships, a hunting ground for local trappers and fur traders, and later acquired by Antoine Michoud to operate a sugar cane plantation and refinery on the site. During World War II, the U.S. government transferred 1,000 acres of the area to a site for war-related construction. A 43 acre building (the country's largest at that time) was completed and used to build cargo planes and other aircraft. The site was utilized again during the Korean War, as 12-cylinder air-cooled engines for Sherman and Patton tanks were manufactured there.

In 1961, ownership of the property was transferred to the National Aeronautics and Space Administration (NASA), and served as a final assembly facility for the design, development, and manufacture of large space launch vehicles requiring water transportation to launch sites. After 1960 when humans landed on the moon, the crew of the Apollo 11 was launched into history by a Michoud-built Saturn 1C booster that thrust them there. In 1973, a contract to design, develop, and manufacture nine external propellant tanks for the Space Shuttle System began Michoud's Shuttle legacy. The External Tank, which provides some 1.6 pounds of propellants for the Shuttle's three main engines, is the only component of the Space Shuttle that is not re-used. As the Shuttle program phases out, NASA selected Michoud to play a supportive function in NASA's Constellation Program to manufacture and assemble the Crew Launch Vehicle upper stage.

On May 1, 2009, Jacobs Technology became the Manufacturing Support and Facility Operations Contract (MSFOC) at MAF. Jacobs is currently responsible for all facility maintenance and operations functions in addition to site development. As a

part of this contract, Jacobs has taken on the challenge of turning the NASA facility into a commercially friendly and cost effective environment for new commercial and government tenants.

Facilities and Tenants

The Michoud Assembly Facility is responsible for the manufacture and assembly of critical hardware components for the Space Shuttle program as well as for the Constellation Program, which includes the manufacture and assembly of the Orion Crew Exploration Vehicle structure for the Crew Module, Service Module, and Launch Abort System as well as for the Ares I Upper Stage.

In addition, the site is home to a variety of tenants including:

- U.S. Department of Agriculture National Finance Center
- Department of Defense Contract Audit Agency
- Department of Defense Contract Management Agency
- U.S. Coast Guard Integrated Support Command
- Lockheed Martin Space Systems
- Boeing
- Geocent
- University of New Orleans National Center for Advanced Manufacturing (NCAM)

Access to Water Transportation

- MAF has direct access to a deep water port (36 ft deep, 250 ft wide)
- Burge Turning basin (800 x 800 ft area)
- Access to gulf intra-coastal waterway

Manufacturing & Warehousing Capabilities

- 2,200,000 sq ft of environmentally controlled manufacturing space (43 acres of which are in a single building)
- 400,000 sq ft of warehouse space is maintained by computerized Warehouse Management System (WMS), interfacing with MAXIMO
- More than 40,000 sq ft of machining equipment for aluminum and steel structures of all sizes
- Advanced composite processing equipment/systems
- NDE/Inspection Equipment/ Systems
- Vertical assembly buildings for stacking large components
- Laboratories and equipment/ processes
- Large scale welding technologies (discussed further below)

Examples of Shared Services

- NCAM Equipment:
 - Fiber Placement Machines
 - Friction Stir Welding Machines

- CNC Machining Center
- Non-Destructive Evaluation
- Autoclave and Oven Curing
- Laboratories
- Machine Shops
- Construction
- Supply Chain Management
- Project Management and Engineering
- Clean Line
- Spray Booths
- Training
- Deep Water Port
- Mission Assurance
- Modeling and Simulation
- Human Resources
- Media Services

Site Amenities

- Food services (2 dining facilities)
- Mail services
- Custodial services
- Credit Union
- Recycling and shredding services
- Multimedia and graphic development services
- Document reproduction
- Roads and grounds services
- Pest control service
- Special event planning and coordination
- Asset transport

Hurricane Preparedness

The Michoud Assembly Facility has performed significant hurricane preparedness with an independent fire department and security, U.S Coast Guard disaster relief based on site, \$178 million in hardening projects after Hurricane Katrina which include a redundant pumping system and raised levees, and a success history of withstanding the worst disaster in New Orleans history.

National Center for Advanced Manufacturing (NCAM)

Established in partnership with the State of Louisiana, NASA and the University of New Orleans (UNO), NCAM seeks to combine education, research, and manufacturing to provide leadership in advanced manufacturing. Two of its key purposes are to address NASA's needs in research and technology development and

to build the technology base for manufacturing next generation launch vehicle systems.

NCAM conducts research and investigates applications of technology in:

- *Friction stir welding* - a novel welding technique that produces high-strength, defective-free joints and a uniform weld in metallic materials that are difficult to fusion
- *Advanced fiber placement* - an automated composites manufacturing process of heating and compacting resin pre-impregnated non-metallic fibers on typically complex tooling mandrels. The fibers are placed in layers at different angles for strength. NCAM has two fiber placement machines.
- *Non-destructive evaluation* - a system that applies non-destructive evaluation techniques in the testing of composite materials.
- *High-speed 5-axis machining* – a 5-axis machining system that is able to machine complex components using multi-axis capability.

Other activities include studying the applicability of composite and metallic materials to advanced manufacturing processes while also engaging in education and training for regional aerospace workforce as well as for senior and graduate level students. Technical areas include: nondestructive testing, bond quality, large structures evaluation, joints and bonding, imbedded sensors, damage tolerance, and the repair of advanced materials.

The Center's education efforts include: on-site classrooms, advanced courses, conferencing abilities, and research. Available equipment includes: a friction stir welding machine, two advanced fiber placement machines, a non-destructive evaluation system, the gantry machining center, and an autoclave. The 10 x 20 foot autoclave applies heat and pressure in a controlled environment to provide the conditions needed to manufacture many of today's space-age composite materials. Other equipment and facilities include: a composite development facility, weld development laboratory, rapid prototyping lab, thermal spray facility, and thermal protection system development facility.

Future of MAF

MAF has begun production of components for the Orion Crew Exploration Vehicle, Ares I Crew Launch Vehicle, and Ares V Cargo Launch Vehicle. The Obama's budget proposal for NASA in FY2011 plans to eliminate the Constellation program, which would minimally impact the Michoud Assembly Facility as only 250 employees work in this area. The more pressing need is to seek to retain the highly skilled employees who are being phased-out of the Space Shuttle production work (approximately 2,000 employees).

Michoud is now uniquely poised as a multi-tenant facility to enable growth in the New Orleans area through offering advanced manufacturing infrastructure, services, and support to commercial tenants. This growth is further enabled by commercially

friendly pricing and contractual mechanisms, the implementation of facility improvement initiatives, and a collaborative team of dedicated and motivated stakeholders. The Michoud team is pursuing an aggressive marketing and recruitment effort to transform the facility into a diverse, multi-tenant advanced manufacturing space.

Other future plans at MAF include the work of the Front Door task force (representatives from the City of New Orleans, Regional Planning Commission, and the Louisiana Recovery Authority) to address infrastructure conditions and design improvements to the entryways to the facility. Other plans include the development of an Advanced Technology Research Park with space for both academic and private sector pursuits, and a new Administrative Headquarters for NASA with room for offices, a training center, and display space.

Stennis Space Center (SSC)

Introduction

The 13,800 acre John C. Stennis Space Center, surrounded by a 125,000 acre buffer zone, is located in Hancock County, MS in the southwest corner of the state of Mississippi near the Louisiana border. Stennis sits near the mouth of the East Pearl River, approximately 37 miles northeast of New Orleans, LA. Over 5,000 people are employed at Stennis, and over 1,700 of those are on-site scientists and engineers. For more than four decades, Stennis has served as NASA's rocket propulsion testing ground. Today, the propulsion test services serve NASA, Department of Defense, as well as the private sector. Companies at Stennis have been involved in the rocket propulsion testing and some manufacturing for NASA's Constellation Program such as the Ares I, Ares V, and Orion.

History

NASA's John C. Stennis Space Center was established in 1965, first as the Mississippi Test Operations for testing the engines of the U.S.'s Apollo Program's spacecraft. This Hancock County site provided five critical attractions: 1) a site isolated from a large population center 2) water and road access 3) public utility availability 4) nearby supporting communities and 5) a climate conducive to year-round testing. A seven-and-one-half-mile canal system connects the test stands at Stennis with the Pearl River to transport large Apollo stages from Michoud and on to Kennedy Space Center in Florida. While Stennis was originally established to test all first and second stages of the Apollo Program's Saturn V rocket, Stennis has converted its test stands in 1975 to accommodate testing the main engines that propel the space shuttle, the first reusable spacecraft.

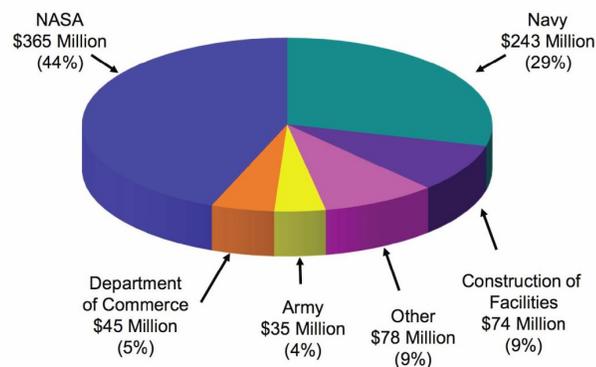
In 2004, President Bush announced America's goal to return humans to the moon with eventual journeys to Mars, referred to as the Constellation Program. Pratt & Whitney Rocketdyne at Stennis is providing their RS-68 engine to power the Ares V

core stage, which has been tested at Stennis since 1999. In 2007, NASA began construction of a new test stand at Stennis, called the A-3 Test Stand.

2008 Economic Impact

Stennis Space Center has been a significant source of employment and income in the local area, with an economic impact (direct and indirect effects) of almost 31,778 jobs² in 2008. If Stennis had not been in operation in 2008, then personal income would have been reduced by more than \$1.2 billion, retail sales by \$491 million, and local government tax revenue by \$132 million.

2008 Direct Global Economic Impact of Stennis Space Center - \$840 Million



Facilities and Tenants

The Stennis Space Center has been referred to as a “unique Federal City,” as it is home to over 30 federal, state, academic, and private organizations as well as a number of technology-based companies. The decision to expand Stennis into a multi-disciplinary, multi-tenant facility began in the 1970s, when they decided to attract other federal agencies and private entities compatible with the adjoining land use. The purpose was to fill in underutilized buildings, provide a means to share the cost of maintaining Stennis with other government agencies, and still provide the capability to perform rocket engine testing for NASA.

This agglomeration of organizations includes:

National Aeronautics and Space Administration

- John C. Stennis Space Center
- NASA Shared Services Center

Department of Defense

- Naval Meteorology and Oceanography Command - the largest concentration of oceanographers in the world

² Study contacted by Dr. Charles A. Campbell, professor of economics, Mississippi State University, February 2009.

- Naval Oceanographic Office
- Naval Research Laboratory Detachment
- Naval Small Craft Instruction and Technical Training School
- Special Boat Team 22, U.S. Navy - Department of Defense's training ground for riverine warfare
- Navy Human Resources Service Center Southeast
- Mississippi Army Ammunition Plant Industrial Complex (which houses Pratt & Whitney Rocketdyne's rocket engine assembly facility)
- Defense Contract Management Agency

Department of Energy

- Strategic Petroleum Reserve

Department of Commerce

- National Data Buoy Center
- NOAA National Marine Fisheries Service
- National Coastal Data Development Center

Department of Interior

- U.S. Geological Survey, Hydrologic Instrumentation Facility

Environment Protection Agency

- Environmental Chemistry Laboratory, Gulf of Mexico Program

State of Mississippi

- Mississippi Enterprise for Technology
- Enterprise for innovative Geospatial Solutions

State of Louisiana

- Louisiana Technology Transfer Office, Louisiana Business & Technology Center

Institute for Technology Development

Center for Higher Learning

- Mississippi State University
- Pearl River Community College
- University of New Orleans
- University of Southern Mississippi
- University of Mississippi

Major Contractors

- Applied Geo Technologies, Inc.
- Computer Sciences Corporation (CSC)
- Jacobs Technology – Test & Facilities Operations
- Lockheed Martin Information Technology
- Lockheed Martin Space Operations
- Lockheed Martin Mississippi Space and Technology Center
- Paragon Systems, Inc.
- Pratt & Whitney Rocketdyne, Inc.
- Rolls-Royce North America Outdoor Jet Testing Facility

- Science Applications International Corporation
- Science Systems and Applications, Inc.

Stennis has an effective cost-sharing philosophy as well as a reputation for state-of-the-art test facilities as well as a highly-trained and professional workforce.

Infrastructure, Transportation Access, and Other Features of SSC

- Served by Interstate 10, Interstate 59 and over 100 miles of roads within the space center
- Adjacent to Stennis International Airport with a 8,500 foot runway; 40 miles from Gulfport/Biloxi International Airport, 60 miles from New Orleans Int'l Airport
- 60 miles from Mississippi State Port in Gulfport; 50 miles away from Port of New Orleans, and 15 miles from Port Bienville
- Waterway system includes 7 miles of constructed canal inside the Fee Area boundaries with a 150 ft bottom width and normal depth of 15 ft; East Pearl River was dredged to 150 ft and depth of 12 ft below mean low-water elevation
- Buffer zone – 125,000 acres buffer zone (approx. 6 miles in every direction) provides surrounding communities protection from effects of rocket engine testing and to prevent scheduled restrictions. Other agencies and companies have located at SSC due to the ability to perform outdoor testing, training and other sensitive operations.
- Potable Water Distribution System for drinking, sanitation, and fire protection
- Sewage treatment system consists of two active sewage lagoons, one package treatment plant, over 50 lift stations, four ultraviolet disinfection systems, and numerous Energy Management Control Systems (EMCS) monitoring and control points
- Electrical power for SSC is supplied by two 115-KV overhead transmission lines owned and operated by the Mississippi Power Company; an alternate power service is available from the Entergy power company; back-up electrical power system for propulsion test operations at a self-contained generating plant which is capable of providing three-phase 60-Hz power up to a maximum of 6000 KVA; natural gas system provided by Koch Pipeline Company
- Liquid Hydrogen (LH) System, Oxygen System, and Nitrogen System
- Communication Systems consists of telephone, voice mail, a network operating center (NOC), wide area networks (WANs), local area networks (LANs), radio and video (cable TV system)
- SSC has Landscape Plan and Land Management Plan to address national objectives for beautification, conservation and optimum utilization of natural resources

NASA Shared Services Center (NSSC)

NASA Shared Services Center opened in 2006 and projects employment of 500 when fully staffed. NSSC centralizes NASA's administrative processing services as well as provide customer contact center operations for support of human resources, procurement, financial management and information technology, supporting nearly 20,000 NASA employees and partners across the U.S. This state-of-the-art administrative services processing center provides for increased efficiency at NASA and has allowed NASA to recoup their initial investment ahead of schedule. NSSC serves as a successful public-private partnership between NASA, prime contractor CSC and its team members, and the states of Mississippi and Louisiana.

Applied Science & Technology Program (ASTP)

The Applied Science and Technology Project Office uses NASA's science research results, remote sensing and other technical capabilities to bridge the gap between research results and the use of data to help its partners, such as FEMA and USDA, to make informed decisions. ASTP focuses on coastal management, one of the applications of national priority established by NASA's Science Mission Directorate.

Innovative Partnerships Program

The Innovative Partnerships Program carries out research and development in new technologies as well as assessment, certification, and acquisition of technologies from commercial, government, and academic sectors. The Program focuses on technology infusion, houses an innovation incubator, and supports partnership development through Small Business Innovative Research (SBIR), Small Business Technology Transfer Programs (STTR), the Dual Use Technology Development Program (a cost and risk sharing initiative between NASA and an industry partner to develop a mutually beneficial product), and a Seed Fund.

Enterprise for Innovative Geospatial Solutions Program

The Enterprise for Innovative Geospatial Solutions Program is a cluster of private companies, university research programs, state agencies, and complementary partner programs working together to research, develop, and market new geospatial technology products from Mississippi. The Program offers business support (access to media support and outreach, EIGS presence at conferences, meetings, and trade shows, networking opportunities, assistance with procurement opportunities, administrative business support, marketing studies, monthly newsletter) and workforce development (provides software learning packages at no cost to institutions of higher learning as well as community and junior colleges, sponsors MARS- Mississippi Area Remapping Strategies, a geospatial high school outreach program).

Mississippi Enterprise for Technology (MsET)

The Mississippi Enterprise for Technology is headquartered in the 56,000 sq ft Mississippi Technology Transfer Center and also has another 25,000 sq ft of space in

an adjacent building. MsET serves as a business incubator and tech transfer office for startups, fostering an environment for young, tech-based companies to transform technologies into products and services. MsET does not limit itself to a particularly type of technology focus, there is a significant representation in space technologies, remote sensing, and propulsion systems as well as software development and computer security systems. MsET is a joint effort of the Mississippi Development Authority, NASA, and a number of Mississippi universities. MsET offers the following services to its resident clients: technology forecasts, business plan assistance, market research, sources of financing/marketing strategies, patent searches and vendor sources.

Louisiana Technology Transfer Office (LTTO)

LSU's Louisiana Business & Technology Center (LBTC) operates the Louisiana Technology Transfer Office (LTTO) at SSC to support the mission of the NASA Technology Development and Transfer Office as well as assist in the transfer of NASA-developed technology to small business, industry, academic institutions, research facilities and entrepreneurs in Louisiana. The LBTC helps match Louisiana businesses with resources and expertise of the federal laboratory system and promotes SBIR and STTR to Louisiana companies. The center also develops business plans, marketing plans and business strategies, including assistance in raising seed and venture capital and debt financing.

USM's Business and Innovation Assistance Center (USM/BIAC)

The University of Southern Mississippi (USM)'s Business and Innovation Assistance Center at Stennis represents a set of programs, services and expertise to support technology development and tech transfer, commercialization, and launching early stage technology by businesses, state/federal governments, universities and individuals. The Mississippi Federal and State Technology (MS-FAST) partnership program supports Mississippi's small high-tech businesses to better compete in the federally funded Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. They also work with MsET to assist in the transition space technologies into the commercial sector. USM/BIAC also partners with four universities to provide technical assistance to federal agencies and contractors located at Stennis.

Project Ready Certification Program

Established in 2008 with the assistance of the Mississippi Power Economic Development Trust, the Project Ready program is designed to help potential development sites complete the long preparatory work in advance for development so the site is perceived as 'shovel ready' when suitors call. Stennis Space Center has been awarded the Project Ready certification along with four other sites in Mississippi. Basic horizontal infrastructure that is needed to support a broad spectrum of development has been identified as part of the project ready certification program for industrial parks throughout the state of Mississippi as follows: 1) Potable Water Distribution System 2) Sewage Collection System 3) Electrical Power

Distribution System 4) Telecommunications System and 5) Natural Gas Distribution System.

SSC Workforce

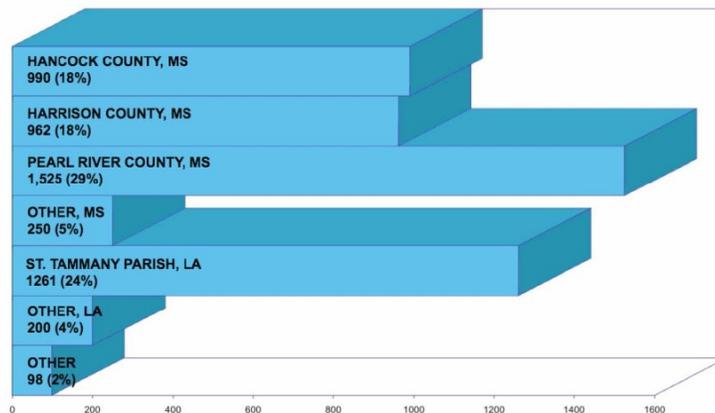
As of 2008, the Stennis’ workforce is divided by the following categories:

- NASA– 2,290 (SSC federal civil servants, 396; contractors and other, 1,894)
- Department of Defense and contractors – 2,311 (Department of Navy, 2,022; Department of Army, 289)
- Department of Commerce and contractors – 225
- Other Resident Agencies – 460

Total – 5,286

The U.S. Navy is the largest agency located at Stennis. More oceanographers work at Stennis than any other location in the world. The Commander, Naval Meteorology and Oceanography Command, heads a worldwide organization providing oceanographic, meteorological and mapping services. Its largest element is the Naval Oceanographic Office, which supports the Department of Defense and operates one of the world’s most capable supercomputing centers.

Residential Distribution of SSC Personnel



Mississippi Army Ammunition Plant

“Mississippi Army Ammunition Plant (MSAAP) is an undeveloped portion of SSC. NASA issued a Use Permit to the US Army to construct and operate MSAAP and it was operational for a short period of time. On September 15, 2005, MSAAP’s function was shutdown as part of a Base Realignment and Closure (BRAC) process and the buildings at MSAAP are expected to revert to NASA no later than September 15, 2011. The US Army has worked to clean-out these buildings and to find other occupants for their buildings with a mixture of commercial companies and Federal agencies, however, approximately 500,000 square feet of space remains available for occupancy. In addition, space set up for facility operations functions needed for a stand-alone MSAAP will be consolidated with current facility

operations functions, allowing these buildings in the MSAAP area to be closed and either occupied by new tenants or demolished”³.

Emergency Support & Preparation Plans

SSC has established plans for the continued operation of the center including: Fire and Explosion Plan, Power Failure, Disaster Recovery, Severe Weather, Hurricane Season, Fallout Shelter, Civil Defense, etc.

Infinity Science Center

Plans for the Infinity Science Center will be a 72,000 square foot conference and education center that will allow visitor services to be relocated from inside SSC to an area more accessible to the public.

SSC Master Plan

The Center Master Plan (CMP) for Stennis Space Center (SSC) covers a twenty – year period, FY2009 to FY2028, and serves to provide comprehensive information about the installation’s facilities, current capabilities, and potential for future growth. Over half of the land in the Fee Area is undeveloped so there is no need to use any parcels of land in buffer zone. Besides rocket engine testing, the work that has evolved over time at Stennis is more of an office, clean room, and data center environment. Precision cleaning is one of the basic facility needs in support of test operations. Data management operations and the need for data back-ups and disaster recovery contingencies are ever increasing. Planning goals include the following:

- Plan for future rocket engine test programs
- Increase cost savings and operational efficiencies to reduce facility occupancy costs
- Plan for growth of non-NASA tenants to reduce facility costs
- Develop a plan that is achievable and feasible

Major Industrial, Technology, Research Parks and Centers

Northrop Grumman (Jefferson Parish)

Northrop Grumman Ship Systems’ Avondale Operations is home to Louisiana’s largest manufacturing employer with over 6,000 workers. Avondale is a 265 acre shipyard located 12 miles upriver from New Orleans with direct access to the Gulf of Mexico via the Mississippi River. The site has diverse shipbuilding capabilities, with past projects including the design and building of multiple ship varieties for the Navy, U.S. Coast Guard icebreakers and research vessels, commercial boats, and oil tankers. Physical assets at Avondale include two floating dry docks, an 80,000 ton dry dock, and a 20,000 ton dry-dock.

³ According to the 2009 John C. Stennis Space Center Master Plan

Maritime Technology Center of Excellence at Northrop Grumman (Jefferson Parish)

The Northrop Grumman Maritime Technology Center of Excellence was created through a partnership with the University of New Orleans as well as the State of Louisiana but is currently operated by the Gulf Coast Region Maritime Technology Center as well as Northrop Grumman Ship Systems. This Center is an offsite branch of the University of New Orleans Research and Development Park, located on 4.5 acres adjacent to the Northrop Grumman Ship Systems headquarters and is home to 400 of Northrop Grumman's engineering and design employees. The 200,000 square foot Center specializes in ship design and construction, manufacturing simulation and visualization, structural engineering, robotic welding, offline programming, and features a 20,000 square foot teaching laboratory. A variety of groups utilize the Center of Excellence, including Northrop Grumman employees, students from the University of New Orleans' School of Naval Architecture and Marine Engineering, the LPD 17 Alliance, the Avondale Integrated Product Development Technology Division, and the Avondale Engineering Department.

The ***Simulation Based Design Center***, located in and operated by the Maritime Technology Center of Excellence, works to develop and deploy emerging technologies in support of modeling, automation, simulation, visualization, and real time information systems. Particular areas of expertise include virtual prototyping; design and operation testing; physics-based simulation; process improvement; discrete event process flow modeling; automation and robotics; ergonomics studies; collision detection; virtual reality and immersive systems; custom programming; and LIDAR laser acquisition systems. The facility features a conference room with video conferencing technology, two classrooms, a video editing site, a 30-seat visualization theater, visualization and computing hardware, a library of software for simulation, and LIDAR as well as robotic welding. A sister office is located in Houston, TX.

See article in section below that refers to concerns about closure of Northrop Grumman's Avondale operations.

Textron Marine & Land (St. Tammany Parish)

Textron Marine & Land supports the design, production, and support of advanced marine craft, light armored combat vehicles, turrets and related subsystems. Their marine products include conventional hulled rescue and patrol boats, surface effect ships, and air cushion vehicles serving military, commercial, domestic, and international clients.

Current core products at Textron include the Landing Craft, Air Cushion (LCAC) manufactured for the U.S. Navy; the United States Coast Guard's 47' Motor Lifeboat (MLB); and the Armored Security Vehicle (ASV), manufactured for the United States Army Military Police.

Bollinger Shipyards (Multiple Parishes)

Bollinger operates 13 shipyards throughout Louisiana, providing construction, repair, and conversion products and services to clients in the military and commercial marine industries. Two Bollinger shipyards are located in the study area. The Algiers Facility, located in New Orleans, features an on-site machine shop, dry dock and wharf areas, and has the capacity to lift vessels of up to 4,200 tons. The Gretna location is in Jefferson Parish 5 miles west of the Mississippi River along the Harvey Canal. The site covers 22.8 acres with 1,515 feet of wet dock area and three graving docks, the largest of which is rated for a 6,000 ton lifting capacity. Employees at this location repair inland and offshore barges.

University of New Orleans Research and Technology Park (Orleans Parish)

The 56 acre University of New Orleans Research and Technology Park, located in Slidell, Louisiana, houses a variety of research and business development centers including the Advanced Technology Center, Center for Energy Resources Management, Space and Naval Warfare Systems Center, the Technology Enterprise Center.

Advanced Technology Center

Opened in 2001, the Advanced Technology Center features an 80,000 sq ft commercial multi-tenant facility focused on the areas of technology, information systems and engineering. Tenants must establish cooperative relationship with the University of New Orleans; the site is currently home to 12 technology, information systems, and engineering firms employing approximately 300 workers.

Center for Energy Resources Management (CERM)

CERM is a 104,000 square foot university research center, which focuses on engineering, energy, environment studies, and information technologies. Facility capabilities include a 15,000 square foot biotechnology incubator, 22,000 square foot Lindy Boggs International Conference Center, interim space for companies interested in joining the park, and a proposed Hilton Garden Inn. Companies utilizing CERM facilities have access to office space, dry and wet laboratories, computer facilities, a business center, multi-tenant space, and the conference center. Tenants include the Canizaro Livingston Computer Center and Research Laboratory; Center for Hazardous Assessment, Research, and Technology; Information and Systems Lab; Energy Conversion and Conservation Center; Freeport McMoran Geophysical Research Laboratory; and Gulf Coast Region Maritime Technology Center.

Space and Naval Warfare Information Technology Center (SPAWARITC)

The Center is a 400,000 square foot facility employing over 1,500 computer professionals in 35 firms. The Center provides cost-efficient technical solutions that support the business needs of the U.S. Navy as well as Department of Defense. SPAWARITC is a partnership between government, academia, and industry, and has established a center for Information Technology and Information Management

Excellence. The center uses enterprise management practices and processes to produce products and services that reduce costs, promote system interoperability, and decrease the time of deployment.

University of New Orleans Technology Enterprise Center

The University of New Orleans Technology Enterprise Center is an 111,000 square foot facility that assists medical and technology start-ups by offering business and technical assistance through the University of New Orleans Small Business Development Center, which is located on 6th floor. Other facility amenities include conference rooms, vending areas, space for emerging businesses, and The Innovation Center, a business incubator. Successful incubator companies eventually graduate to Advanced Technology Center at the University of New Orleans Research and Technology Park.

Advanced Materials Research Institute at UNO (Orleans Parish)

The Advanced Materials Research Institute at UNO supports research in government, private, and academic sectors; interactions with corporate labs promote technology transfer and private sector involvement in the operation of the Institute. The Institute is located in the University of New Orleans Science Building, and features over 8,000 SF of wet and dry lab as well as office space, and over \$5 million of specialized materials research instrumentation. Areas of specialization include the synthesis, fabrication, testing, characterization, development, and nanotechnology of nanomaterials as well as nanocomposites, and the study of functional materials for the development of advanced materials for use in industry and defense applications. Most of the personnel at the Institute are scientists, post-doc researchers, and graduate students, who work alongside various research groups such as AMRI-Engineering Group, Nanosensors Group, Quantum Computing Group, PKSFI Group, Outreach Summer Research Programs Group and Nanodevices/NIRT Group.

UNO's Energy Conversion and Conservation Center (ECCC)

The Energy Conversion and Conservation Center was established in 1999 at the University of New Orleans, promoting interaction between academia, industry, and government in energy research and development as well as education. The ECCC's mission is to promote clean energy research and education, enhance regional economic growth, and develop national as well as international energy programs featuring improved conservation and energy efficiency that are environmentally friendly and sustainable. Personnel at the Center conduct research in key areas and carry out services such as workshops, short courses, energy audits, and infrared thermography that advocate clean energy as well as energy conservation. There are three categories of labs at the ECCC: Aerothermal Laboratory, Energy Conversion Laboratory, and Energy Conservation Laboratory which are able to provide measurements and tests in thermal-fluid and power systems including air/steam pressure, flow rates, temperatures, two-phase flow characteristics, flow structures, energy component efficiency, combustion, emissions, HVAC, wind tunnel testing,

Particle Image Velocimetry (PIV), inverse liquid crystal thermography, and infrared thermal imaging.

Port Bienville Industrial Park (Hancock County)

Port Bienville, operated by the Hancock Port and Harbor Commission, features water, rail, and vehicle transportation options, has 800 acres of available land, and houses 18 industrial tenants. Over 1,200 people are employed at the Park, which includes companies such as Calgon Carbon Corporation, South Coast Electric, Manufab, Inc., GulfConcrete, Hancock Industries, Solvay, Wellman of Mississippi, Inc., PolyChemie, and A&R Trucking.

Center for Lean Excellence (Orleans Parish)

A partnership between the Manufacturing Extension Partnership of Louisiana (MEPOL) and Louisiana Economic Development (LED), the Center for Lean Excellence provides assistance to the manufacturing sector in Louisiana, teaching them to apply LEAN principles to their business. The Center was initially founded in response to the destruction of Hurricanes Katrina and Rita, the organization hopes to expand and introduce their processes to private industry sectors as well as public entities.

Proposed and Under-Construction Developments

Hancock County

Stennis Technology Park

The park is on 1,000 acres of land south of Stennis International Airport, and is located near the Space Center to encourage the co-location of related companies. The first phase of development is currently underway, and the Park is currently searching for advanced technology companies who would like to locate there.

Jefferson Parish

Churchill Business and Technology Park (Jefferson Parish)

Located in Jefferson Parish, the Churchill Business and Technology Park is a 500 acre development that will feature office, commercial, research and development, distribution, warehouse/flex space, and light manufacturing. The Parks' first tenants, the Enterprise Center West business incubator and the new campus of the Patrick F. Taylor Science and Technology Academy, will arrive in 2010. Target industries for this park include international trade, logistics, and distribution; defense and transportation manufacturing; energy, petroleum, and plastics; higher education; creative media and design; and health services. For more information, contact JEDCO.

Orleans Parish

Naval Support Activity New Orleans (NSA) East Bank

The City of New Orleans (City), through the New Orleans Area Task Force (NOATF), has prepared a comprehensive reuse plan (Reuse Plan) for the redevelopment of the Naval Support Activity New Orleans “East Bank” property (NSA East Bank). The City is the sole political jurisdiction comprising the local redevelopment authority (LRA) for NSA East Bank and is federally recognized as the LRA by the Department of Defense, Office of Economic Adjustment. The land and the three buildings were originally developed for use by the U.S. Army Quartermaster Corps as a general depot during World War I and then conveyed to the U.S. Navy in 1966 to develop the Naval Support Activity New Orleans. According to the U.S. Navy, there are 51 structures at Naval Support Activity (NSA) East Bank. The U.S. Department of Transportation Maritime Administration (MARAD) owns and operates the Poland Street Wharf on the east bank of the river adjacent to the station.

During the development of the Reuse Plan, a target sector analysis was conducted, which indicated a research/technology park would help to anchor the existing site. The Reuse Plan includes suggested land uses such as an emergency operations center, a temporary hurricane shelter, research and training technology center, commercial office space, market-rate residential units, and supportive retail.

Federal City

Federal City is a planned development on the site of the Naval Support Activity (NSA) in New Orleans West Bank. Plans include the transformation of the property into a re-organized military base and a new town center for Algiers. This initiative began in response to 2005 BRAC legislation that requires the Marine Corps units presently at the NSA New Orleans (East Bank) and Marine Corps Support Activity in Kansas City, Missouri, to relocate to the site by September 15, 2011. Federal City will help the area retain an estimated 1,660 jobs. When all three planned phases are completed in 15 years, Federal City is expected to provide 10,000 civil and military jobs, create a mixed-use commercial center for Algiers, and re-connect the surrounding neighborhoods to the river. This development will host representatives from the Department of Defense, Federal agencies and spin-off organizations, as well as other related uses such as housing, a child care center, charter school, food services, and athletic and recreational facilities.

The New Orleans Federal Alliance (NOFA) was established in 2004 to manage the development and serve as the local redevelopment authority (LRA). NOFA is comprised of retired senior military leaders, representatives from the State Economic Development Office, and other private sector professionals dedicated to the project. In addition to NOFA, HRC/ECC, L.L.C., a new joint venture organization between Historic Properties, Inc (HRI) and the Environmental Chemical Corporation (ECC)

was created to act as master developer, ensuring that the Federal City development is sustainable, creates jobs, and promotes local economic development.

St. Tammany Parish

University Square

University Square is a proposed development in St. Tammany Parish on property donated by Weyerauser Real Estate Development Company. The 800-acre site will be developed by St. Tammany Parish, with 30 of the planned acres dedicated to a consortium of universities: the University of New Orleans, Southeastern Louisiana University, Delgado Community College, and Louisiana Technical College. In addition to these universities, other partners in the effort to bring this proposal to fruition include St. Tammany Parish as well as the St. Tammany Parish School System. When completed, the development will house research and teaching space for the colleges as well as an advanced study center for high school students. Currently, University Square will be funded by a parish-backed bond issue with future rent from resident universities and colleges used to pay off debt. The bond issue has not yet been approved by the Louisiana Legislature, however.

Summit Fremaux by Bayer Properties

This mixed-use planned community is being planned on a site in Slidell, Louisiana, near the I-10 interstate, halfway between Michoud and Stennis. An architecturally distinctive, pedestrian-friendly setting with a thoughtful use of landscaping and hardscaping sets the stage for the Summit Fremaux. The total site includes 400 acres and is expected to begin construction in 2011. The development is expected to elevate the quality of life with its selective mix of retailers, walkable design, and responsible land utilization. In addition to the retail lifestyle center, this mixed-use development hopes to include a University of New Orleans Research and Technology Campus, offices, medical facilities, research and development / flex tech, residential, and outparcel space. It is positioned to be the premier place to live, work, shop and play in the Northshore area. Three hundred acres are currently allotted for retail and office space, a hotel, a conference center, and housing while the remaining 100 acres are dedicated to academic and research institutes as well as local and national companies who desire a relationship with the university.

The University of New Orleans/Slidell Advanced Technology and Research Park
The UNO Advanced Technology and Research Park is still in a conceptual phase, but would be located on a 25-acre parcel of land, which would be donated by Bayer Properties. This development would act as Phase II of the existing research and technology park currently operated by the UNO at their main campus, with a research focus on emerging technology industries, including aerospace and environmental science.

Entrepreneurial Support, Business Incubators, and Tech Transfer Resources

[Business and Innovation Assistance Center \(Stennis\)](#)

This center supports launching early stage technology as well as research and development, innovation, commercialization, and technology transfer efforts by business, government, education, and individuals. More information provided in the section on Stennis Space Center.

[Good Work Network \(Orleans Parish\)](#)

This business incubator helps low-income and disadvantaged micro entrepreneurs by offering training, consultation, group networking and collaboration, back office support services, market access assistance, access to microloans, and clerical as well as accounting services. Good Work Network also offers their clerical and accounting services to small area non-profits.

[Idea Village \(Orleans Parish\)](#)

The Idea Village is a “pre-incubator” that provides guidance to developing companies through an entrepreneurship program. Companies, chosen through a competitive process, enter a twelve week boot camp hosted by Idea Village. During the boot camp, Idea village offers support by identifying growth challenges, setting goals, providing business strategy and marketing support, and giving financial direction. Participant companies also have access to development grants, talent, and innovative work spaces. Upon graduation, companies are introduced to the Idea Village’s network of angel and venture capital investors.

[Incubator at Center for Energy Resources Management \(Orleans Parish\)](#)

The Center for Energy Resources Management houses an incubator to provide interim space for companies interested in a more permanent presence in the park. Benefits include an on-site business center, co-location with related organizations as well as a conference center which hosts academic conferences, industry and trade shows, research presentations, and business gatherings.

[Louisiana Fast Start](#)

Offered through Louisiana Economic Development (LED) offers free consulting to any manufacturing company, corporate headquarters, warehouse and distribution center, research and development firm, or other strategic facility that commits to either creating at least 15 new jobs or to any service-related company that promises 50 new jobs.

[Louisiana Greater New Orleans Region Small Business Development Center \(Jefferson Parish\)](#)

The main office of the New Orleans Region Small Business Development Center is located in Metairie, but satellite offices are located throughout the region offering

benefits to developing businesses such as low or no cost training for small business owners and potential owners as well as one-on-one counseling and training seminars.

Manufacturing Extension Partnership of Louisiana (MEPOL)

As part of the nationwide Manufacturing Extension Partnership of the National Institute of Standards and Technology, MEPOL provides Louisiana manufacturing companies with support in a variety of areas including continuous improvement, new product development, green initiatives, quality, marketing, and exporting.

Mississippi Enterprise for Technology (Stennis)

The Mississippi Enterprise for Technology (MsET) serves as a business incubator on the Stennis Space Center campus. More information is provided in the section on Michoud Assembly Facility.

Small Business Administration (SBA) Louisiana Office (Orleans Parish)

The SBA office in New Orleans offers small businesses free counseling, access to funding that is available from local banks, free consulting, and access to special loan programs.

Technology Incubator at Churchill Technology & Business Park (Jefferson Parish)

In March 2010, JEDCO broke ground on Jefferson Parish's new technology incubator in the Churchill Technology Business Park. This new, start-of-the-art facility is being financed through Disaster Recovery CDBG funds with hopes that it will achieve LEED certification. The incubator will include flexible workspaces, technology enhancements including video conferencing and a backup generator for fail-safe power. The incubator will work with early stage technology-based companies providing opportunities for entrepreneurs to commercialize their ideas and produce successful, financially viable businesses. Incubator tenants will have access to an array of business development services and resources to help accelerate growth including education and networking events, marketing and communications assistance, consulting services and professional administrative support.

University of New Orleans Research and Technology Park (Orleans Parish)

The mission of the University of New Orleans Research and Technology Park seeks to link businesses to one another as well as to the university community. Two business incubators are located within the Research Park. More information provided in the section above.

More details on the following tech transfer programs are provided in the sections above:

Advanced Materials Research Institute (University of New Orleans)

Applied Science and Technology Project Office (Stennis)

NASA Technology Transfer Office (Stennis)

Business and Innovation Assistance Center (Stennis)

Innovative Partnerships Program (Stennis)

Demographic Overview

Population

The following table is a broad overview of demographic characteristics of the Greater New Orleans area. The chart begins with 2007 estimates and projects both population and labor force growth until 2012 and 2011, respectively. Jefferson Parish is currently home to the largest number of people, but St. Tammany has the highest growth rate, with an estimated 20% population increase between 2007 and 2012. St. Tammany's labor force is also expected to increase by 14% by 2011, while Jefferson and Orleans are expected to experience a decline in the number of workers.

GNO PARISHES AT-A-GLANCE

Parish	Pop 2007	Pop % Growth 2000-2007	Proj. Pop % Growth 2007-2012	Labor Force % Growth 2000-2006	Proj. Labor Force Growth 2006-2011	Avg Weekly Wage 2006	Wage % Growth 2005-2006	Median HH Income 2007	% with Bach.Degree + 2007
Jefferson	437,195	-4.0%	-3.0%	-20.0%	-0.4%	\$767	13.3%	\$42,816	26.7%
Orleans	264,969	-45.3%	7.8%	-61.0%	-5.8%	\$907	21.3%	\$32,959	41.3%
Plaquemines	28,966	8.3%	5.7%	-27.2%	10.9%	\$1,012	12.8%	\$42,734	16.3%
St. Bernard	23,420	-65.2%	9.5%	-82.7%	-1.9%	\$980	57.8%	\$33,087	9.0%
St. Charles	53,008	10.3%	7.2%	11.7%	6.9%	\$1,005	5.1%	\$51,086	19.7%
St. James	21,622	1.9%	1.4%	2.7%	-0.1%	\$1,001	9.0%	\$39,273	12.0%
St. John	46,973	9.1%	6.3%	13.2%	8.1%	\$776	8.5%	\$43,627	14.8%
St. Tammany	229,541	20.0%	13.8%	12.0%	14.0%	\$661	13.2%	\$55,764	31.1%
Tangipahoa	117,017	16.3%	11.4%	8.6%	5.2%	\$511	12.1%	\$32,052	19.0%
Washington	45,009	2.5%	1.9%	2.2%	0.6%	\$535	6.6%	\$26,581	13.3%

Sources: ESRI, Bureau of Labor Statistics

SOURCE: Greater New Orleans Regional Marketing Assessment. AngelouEconomics, August 2007

Population trends from 2000-2013 for the four parishes featured in this background report can be found below. Jefferson is expected to continue hosting the greatest number of people, while Orleans Parish is expected to experience a population decline.

Greater New Orleans Population Trends

Parish/County	2000	2005 (July)	2008	2013
Hancock	42,967	46,088	40,140	N/A
Jefferson	455,466	452,824	446,686	471,866
Orleans	484,674	454,863	321,466	335,003
St. Bernard	67,229	65,364	25,956	37,786
St. Tammany	191,270	220,295	239,132	275,201
10 Parish Region	1,482,242	1,491,642	1,351,335	1,461,279

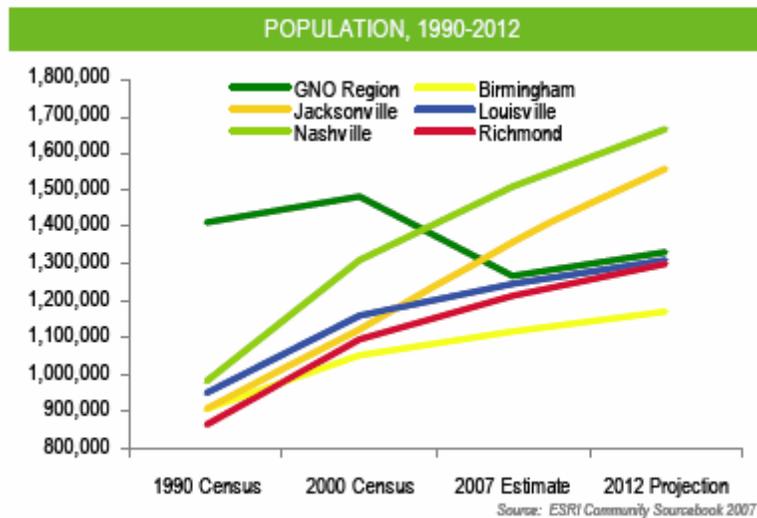
SOURCE: <http://gnoinc.org/data-center/population-by-parish>, from U.S. Census Bureau, 2000 and 2005. ESRI 2008 and 2013; 2000 U.S. Census Bureau; 2000-'08 Mississippi County Population Estimates from CMPDD.

Study Area: Density, 2000

Parish/County	Area in Square Miles	People per Square Mile
Hancock County	477	90.1
Jefferson Parish	307	1,486
Orleans Parish	180	2,684
St. Bernard	465	145
St. Tammany Parish	854	224

SOURCE: 2000 U.S. Census Bureau

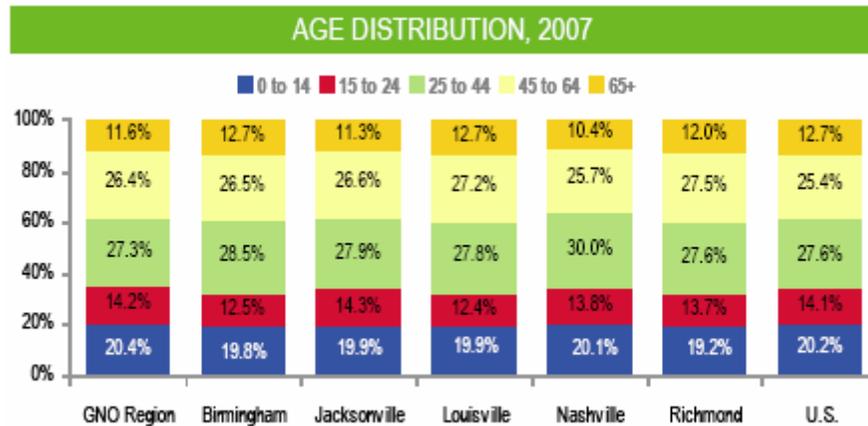
The current population of the Greater New Orleans region is 1,268,000, which is a decrease of more than 14% since Hurricane Katrina. Despite this, the area’s population is expected to increase over the next five years, as illustrated in the following graph.



SOURCE: Greater New Orleans Regional Marketing Assessment. AngelouEconomics, August 2007.

Age Distribution and Median Age

In Greater New Orleans, the percentage of the population between 25 and 44 is slightly lower than the national average as well as all benchmark regions, but the proportion of the population between 25 and 64 is consistent between the Greater New Orleans area, national average, and benchmark areas. The slightly lower rate of people ages 25-44 is especially important because it is the primary age for hiring, and an indicator of a community’s future economic capacity.



Source: ESRI Community Sourcebook 2007

SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economics

TABLE 6: Projected Change by Age Groups by Parish, Region, MSA, State, and U.S., 2008- 2013

Source: Claritas

Area	Median Age (2008)	Median Age (2013)	Projected % Change in Age Distribution, 2008-2013					
			0-17	18-34	35-54	55-64	65-74	75 and over
Jefferson Parish	39.5	40.2	1.0%	3.6%	-7.4%	11.9%	20.9%	8.0%
Orleans Parish	41.3	41.3	37.2%	44.6%	13.4%	50.5%	62.7%	35.8%
Plaquemines Parish	36.3	36.2	11.7%	22.9%	2.7%	30.1%	28.5%	28.7%
St. Bernard Parish	44.3	44.9	100.9%	125.2%	55.4%	118.0%	154.1%	103.8%
St. Charles Parish	36.4	37.2	-2.2%	10.4%	-8.8%	28.2%	29.4%	11.0%
St. James Parish	35.9	36.1	-4.2%	4.4%	-10.1%	18.4%	5.7%	9.7%
St. John the Baptist Parish	33.4	34.2	1.4%	9.1%	-1.9%	25.4%	33.7%	15.6%
St. Tammany Parish	37.1	37.8	5.1%	10.8%	-0.3%	27.1%	28.8%	18.6%
Tangipahoa Parish	33.0	34.1	2.6%	1.7%	0.9%	17.1%	17.6%	13.0%
Washington Parish	35.9	36.1	1.8%	1.6%	-3.7%	10.0%	12.0%	5.1%
10-Parish Region	38.4	38.9	11.3%	16.1%	0.9%	28.6%	34.7%	19.2%
New Orleans-Metairie-Kenner, LA MSA	39.1	39.6	12.9%	18.9%	1.2%	30.3%	37.6%	20.4%
Louisiana	35.9	36.5	2.4%	5.0%	-3.0%	18.4%	20.3%	10.1%
U.S.	36.7	37.7	2.6%	2.6%	-0.4%	17.5%	22.0%	7.3%

SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates.

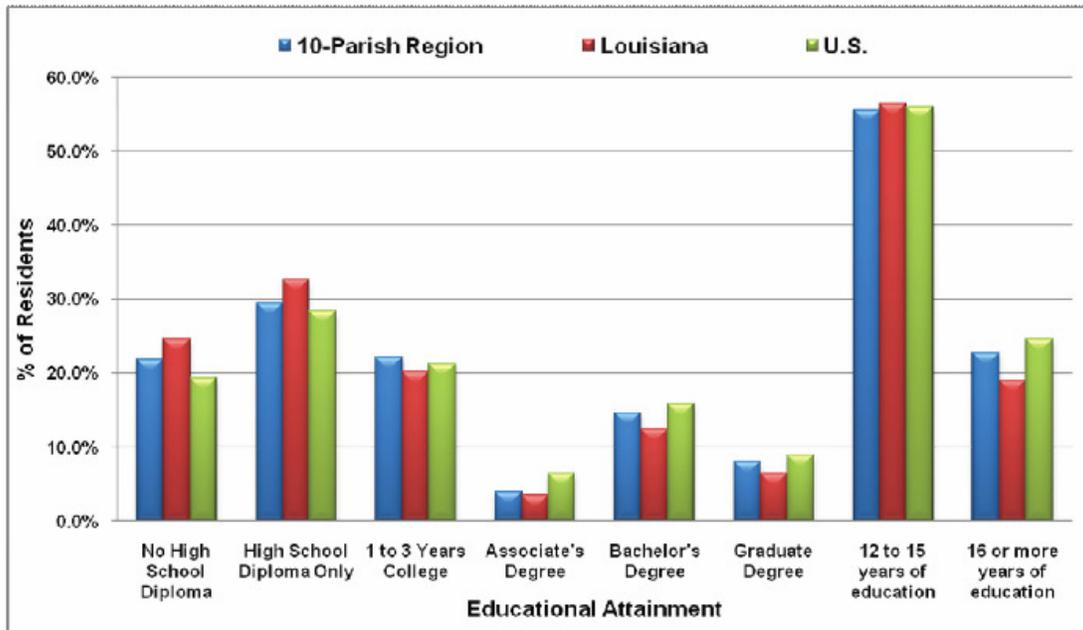
Education

Educational Attainment

The percentage of people in Greater New Orleans with a high school diploma was similar to the U.S. average. However, the percentage of people with a bachelor degree in Greater New Orleans is slightly less than in the nation.

FIGURE 4: Educational Attainment by Region, Louisiana, and U.S., 2008

Source: Claritas



SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates.

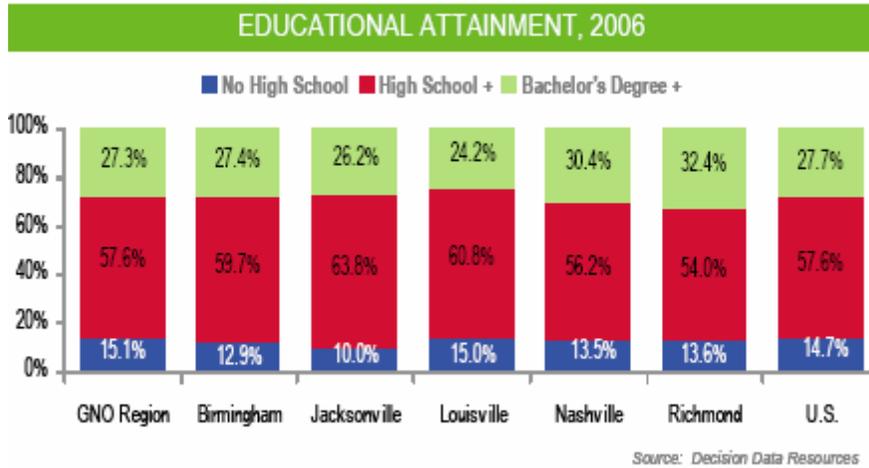
The following table gives information about education levels by parish, comparing those rates with regional, state, and national percentages. Of the parishes in Greater New Orleans, St. Tammany has the highest percentage of people with a bachelor's degree while Orleans Parish boasts the highest percentage of people with a graduate degree; St. Bernard Parish, however, has much lower advanced education rates.

TABLE 7: Education Levels by Parish, Region, MSA, State, and U.S., 2008

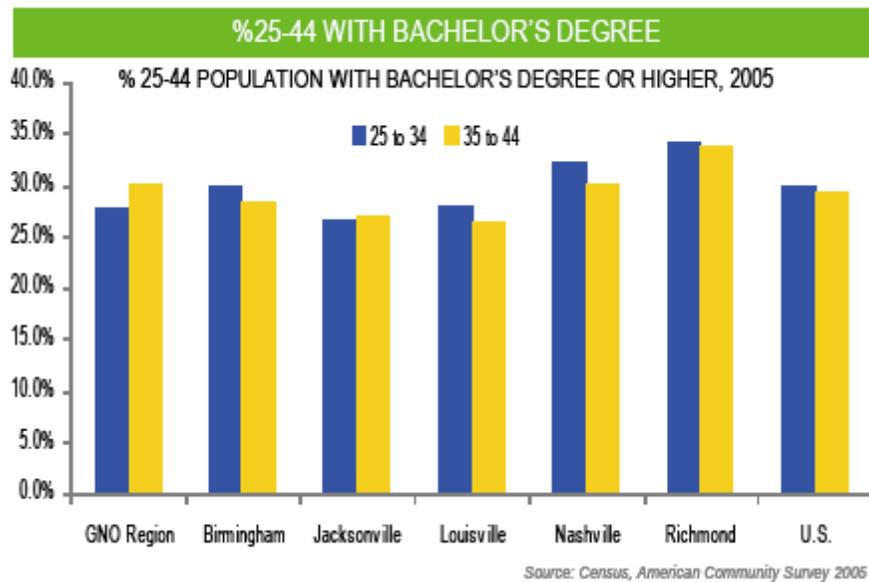
Source: Claritas

Area	No High School Diploma	High School Diploma Only	1 to 3 Years College	Associate Degree	Bachelor's Degree	Graduate Degree
Jefferson Parish	20.6%	29.9%	23.4%	4.5%	14.6%	7.0%
Orleans Parish	23.5%	22.3%	21.3%	3.7%	16.8%	12.5%
Plaquemines Parish	27.2%	34.4%	21.3%	4.5%	10.0%	2.7%
St. Bernard Parish	28.4%	38.3%	20.8%	4.2%	5.7%	2.6%
St. Charles Parish	20.0%	35.9%	21.7%	4.7%	12.5%	5.1%
St. James Parish	25.4%	45.6%	16.0%	2.9%	6.6%	3.6%
St. John the Baptist Parish	22.8%	38.7%	21.5%	4.0%	9.5%	3.6%
St. Tammany Parish	16.2%	26.7%	24.3%	4.7%	18.8%	9.3%
Tangipahoa Parish	28.1%	34.4%	18.7%	2.3%	11.1%	5.4%
Washington Parish	31.7%	40.2%	14.9%	2.1%	6.8%	4.4%
10-Parish Region	21.8%	29.4%	22.1%	4.0%	14.6%	8.0%
New Orleans-Metairie-Kenner, LA MSA	20.8%	28.2%	22.6%	4.3%	15.4%	8.5%
Louisiana	24.6%	32.7%	20.2%	3.5%	12.5%	6.5%
U.S.	19.4%	28.4%	21.3%	6.4%	15.8%	8.9%

SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates.

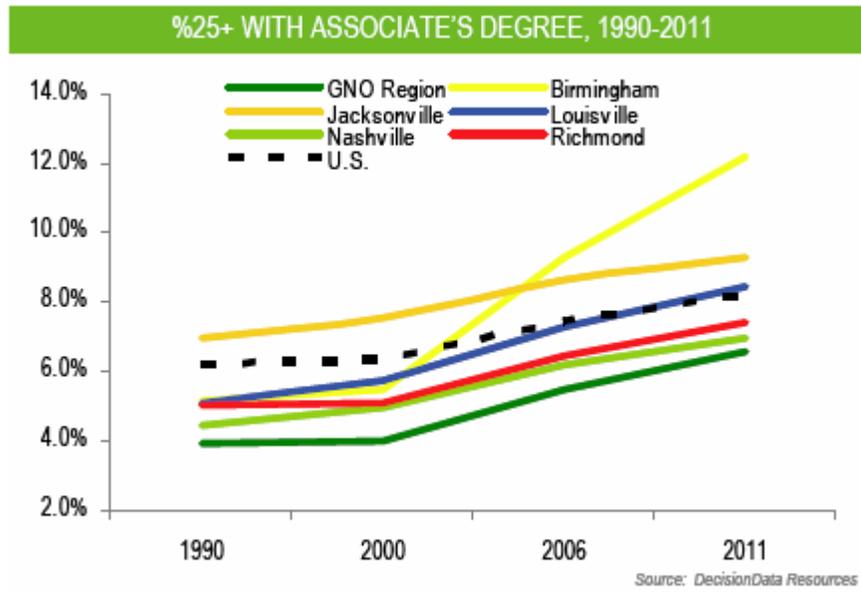


SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economics



SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economics

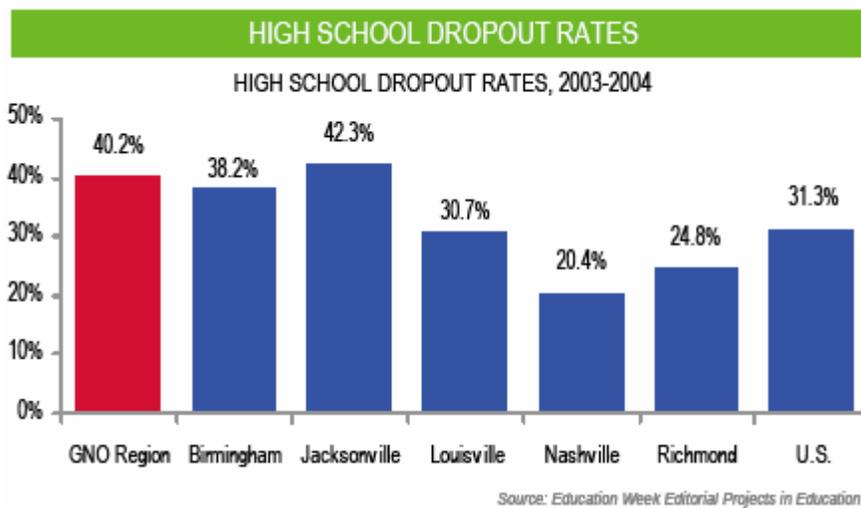
The percentage of people with an associate's degree in Greater New Orleans was lower than the national average as well as all benchmark regions.



SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economics

High School Drop-out Rates

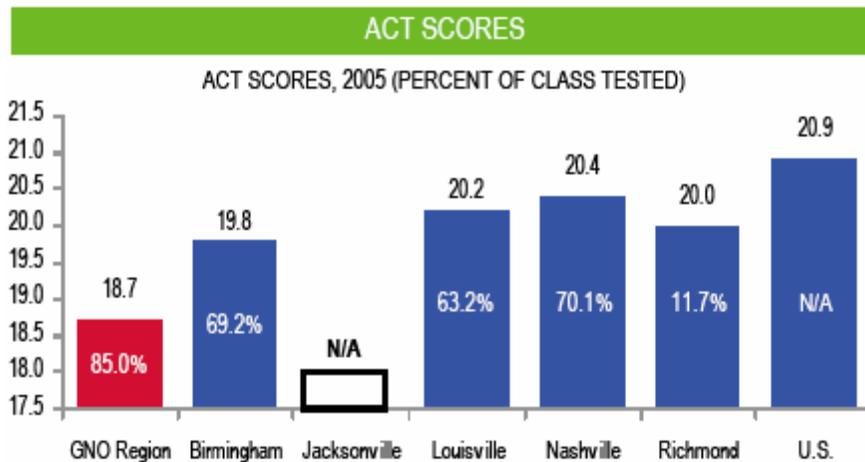
The high school drop-out rate (using data for public school students) was higher in the Greater New Orleans area (40 percent) than the U.S. average (31 percent). In Hancock County, the drop-out rate was 23 percent



SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economics

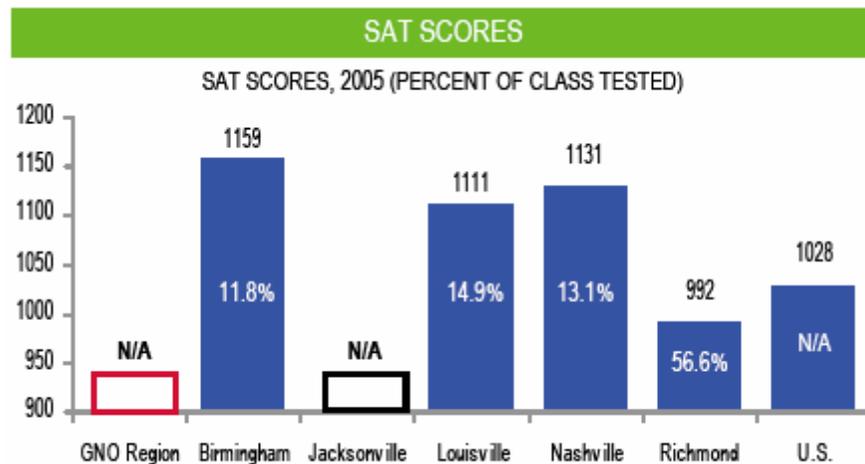
ACT/SAT Scores

ACT scores in the Greater New Orleans region were lower than average scores in all benchmark regions as well as the nation. Since most students take the ACT as opposed to the SAT, score statistics were not available.



Source: Standard & Poor's SchoolMatters, Louisiana Department of Education

SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economics



Source: Standard & Poor's SchoolMatters, Louisiana Department of Education

SOURCE: Greater New Orleans Regional Market Assessment, Angelou Economic

Economic Overview

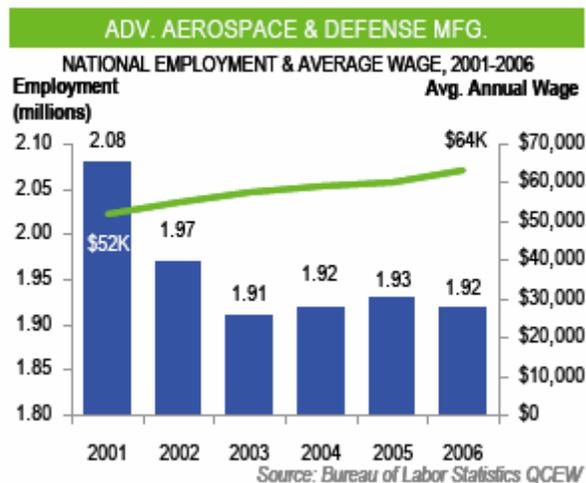
Target Industrial Sectors/Clusters

Six industrial sectors/clusters have been chosen as areas of focus, based on current corridor assets as well as existing reports and studies. The six sectors are:

- Advanced Manufacturing
- Advanced Materials
- Aerospace and Defense
- Geospatial Technology
- Renewable Energy
- Shipbuilding & Marine

Advanced Aerospace and Defense Manufacturing

This sector includes the design, manufacturing, and assembly of transportation vehicles, with a focus on space and defense-oriented shipbuilding. This category also includes automotive and heavy duty truck manufacturing, aerospace parts manufacturing, and other related industries⁴. National employment and wage rates for this sector are visible in the graph below.

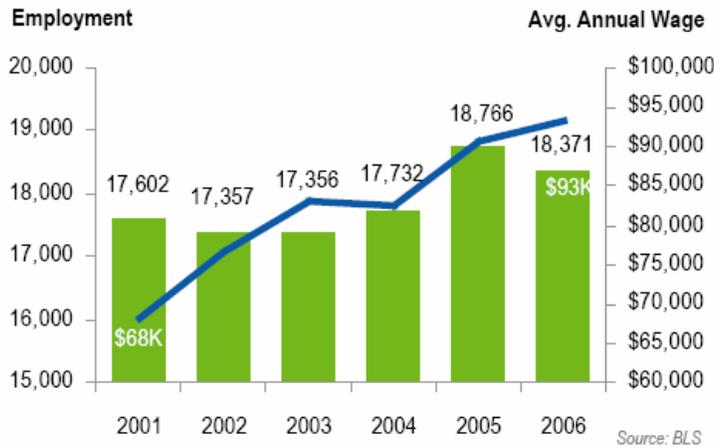


SOURCE: Greater New Orleans Target Industry Analysis. AngelouEconomics, October 2007

⁴ Greater New Orleans Target Industry Analysis, AngelouEconomics, October 2007.

FEDERAL SPACE RESEARCH & TECHNOLOGY

TOTAL FEDERAL EMPLOYMENT & AVERAGE WAGE, 2001-2006



SOURCE: Technology Corridor Economic Development Marketing Plan. AngelouEconomics, March 2009

A detailed break-down of employment, establishments, payroll, and sales volumes for this sector is included below. The first chart is an analysis of aerospace and advanced manufacturing categorized by Louisiana Parish; the following two graphics are an analysis of employment and economic impact of the Stennis Space Center.

AEROSPACE & ADVANCED MANUFACTURING			
Number of People Employed			
	2001	2006	2008
Jefferson	6,114 - 6,133	6,342	632
Orleans	2,000 - 4,998	1,250 - 2,998	2,303
Plaquemines	209	20 - 99	284
St. Bernard	47	20 - 99	-
St. Tammany	250 - 499	250 - 499	42
Region	8,260 - 11,886	7,882 - 10,037	3,261
Number of Establishments			
	2001	2006	2008
Jefferson	16	17	26
Orleans	14	8	7
Plaquemines	4	1	5
St. Bernard	6	6	0
St. Tammany	2	16	4
Region	42	48	42
Annual Payroll & Sales Volumes			
	2001 Annual Payroll	2006 Annual Payroll	2008 Sales Volumes
Jefferson	\$21,521,881,000	\$206,876,000	\$154,619,000
Orleans	\$0	\$0	\$61,687,000
Plaquemines	\$1,534,000	\$0	\$56,920,000
St. Bernard	\$382,000	\$0	\$0
St. Tammany	\$0	\$0	\$20,776,000
Region	\$217,134,000	\$206,876,000	\$294,002,000

Source: Data for 2001 and 2006 are from the U.S. Census Business County Patterns, 2008 data are from Info USA

SOURCE: Comprehensive Economic Development Strategy. Regional Planning Commission, 2009

The following two graphics show the economic impact of the Stennis Space Center. The first graph shows Stennis employment by place of residence; the second illustrated the direct economic impact of the Center within a 50 mile radius.

Key Occupations in the Advanced Aerospace & Defense Manufacturing Industry							
Occupation	Employment		Average Wage			Occupational Information	
	New Orleans MSA*	10-year U.S. Growth Projection	US	New Orleans MSA*	Wage Differential	% with Bachelor's Degree+	Education
Painters, transportation equipment	140	14.1%	\$38,630	\$39,200	1.5%	3%	Long-term on-the-job training
Avionics technicians	**	9.1%	\$47,380	\$45,250	-4.7%	14%	Postsecondary vocational award
Machine tool setters, operators, and tenders	80	0.3%	\$32,140	\$32,320	0.6%	6%	Moderate-term on-the-job training
Team assemblers	860	7.3%	\$26,180	\$26,260	0.3%	6%	Moderate-term on-the-job training
Industrial engineering technicians	100	10.5%	\$50,920	\$56,300	9.6%	18%	Associate degree
Aircraft mechanics and service technicians	540	13.4%	\$49,300	\$43,530	-13.3%	11%	Postsecondary vocational award
Industrial engineers	450	16.0%	\$70,630	\$66,430	-6.3%	70%	Bachelor's degree
Structural metal fabricators and fitters	540	2.9%	\$31,440	\$32,280	2.6%	1%	Moderate-term on-the-job training
Riggers	320	13.9%	\$39,670	\$28,740	-38.0%	1%	Short-term on-the-job training
Welders, cutters, solderers, and brazers	3,690	5.0%	\$32,880	\$34,380	4.4%	2%	Long-term on-the-job training
Machinists	980	4.3%	\$35,810	\$36,740	2.5%	4%	Long-term on-the-job training
Electronics installers and repairers, transportation equipment	**	6.6%	\$43,650	\$37,610	-16.1%	8%	Postsecondary vocational award
Mechanical engineers	620	11.1%	\$72,580	\$68,410	-6.1%	80%	Bachelor's degree
Engineering managers	510	13.0%	\$110,030	\$99,940	-10.1%	84%	Bachelor's or higher degree, plus experience
Logisticians	80	13.2%	\$65,640	\$69,260	5.2%	52%	Bachelor's degree
Industrial production managers	430	0.8%	\$83,970	\$75,980	-10.5%	45%	Work experience in a related occupation
First-line supervisors of production and operating workers	2,120	2.7%	\$50,480	\$45,940	-9.9%	13%	Work experience in a related occupation
Production, planning, and expediting clerks	840	7.7%	\$40,000	\$40,370	0.9%	29%	Short-term on-the-job training
Engineering technicians, except drafters, all other	370	12.3%	\$53,850	\$52,940	-1.7%	18%	Associate degree
Mechanical drafters	190	5.5%	\$45,960	\$44,310	-3.7%	22%	Postsecondary vocational award
Purchasing agents, except wholesale	880	8.1%	\$54,160	\$47,130	-14.9%	45%	Work experience in a related occupation
Engineers, all other	720	15.4%	\$81,750	\$66,820	-22.3%	81%	Bachelor's degree
Purchasing managers	240	7.0%	\$86,020	\$60,620	-41.9%	58%	Bachelor's or higher degree, plus experience
Maintenance workers, machinery	400	2.8%	\$36,390	\$33,420	-8.9%	8%	Short-term on-the-job training
Mechanical engineering technicians	**	12.3%	\$47,710	\$39,120	-22.0%	18%	Associate degree
Budget analysts	140	13.5%	\$63,920	\$60,940	-4.9%	75%	Bachelor's degree
Sheet metal workers	690	12.2%	\$40,780	\$31,230	-30.6%	2%	Long-term on-the-job training
Industrial truck and tractor operators	1,690	7.9%	\$29,090	\$25,910	-12.3%	3%	Short-term on-the-job training
Motorboat mechanics	**	15.1%	\$34,430	\$32,490	-6.0%	7%	Long-term on-the-job training
Helpers—production workers	1,740	7.9%	\$22,120	\$22,210	0.4%	5%	Short-term on-the-job training
Installation, maintenance, and repair workers, all other	830	11.0%	\$35,560	\$28,230	-26.0%	10%	Moderate-term on-the-job training
Health and safety engineers	170	13.4%	\$68,400	\$73,340	6.7%	70%	Bachelor's degree
Transportation inspectors	70	11.4%	\$55,370	\$34,870	-58.8%	20%	Work experience in a related occupation
Crane and tower operators	570	8.2%	\$41,450	\$35,340	-17.3%	1%	Long-term on-the-job training
Occupational health and safety specialists	150	12.4%	\$59,270	\$54,020	-9.7%	78%	Bachelor's degree

Source: BLS Occupational & Employment Statistics; *New Orleans-Metairie-Kenner MSA only

SOURCE: Greater New Orleans Target Industry Analysis. AngelouEconomics, October 2007

Aerospace and Space

This sector of the advanced aerospace and defense manufacturing cluster is highly dependent on the U.S. government as well as NASA budgetary processes. Since 2001, the government has added 4% to its space research and technology workforce. In addition, although NASA is currently expecting a reduction in their labor requirements as the organization transitions out of the Space Shuttle program, wages have increased 29 percent, from \$62,500 to \$80,500 between years 2001 and 2006. The importance of this sector to manufacturing is clear, as the Aerospace Industries

Association estimates that since 2004 three of every four manufacturing jobs created in the United States were in the aerospace industry. (Greater New Orleans Target Industry Analysis. AngelouEconomics, October 2007)

A distinct synergy between Michoud and Stennis exists in this industry. While Michoud is responsible for the construction of external fuel tanks for the space shuttle, they are tested at Stennis. Other areas of expertise in the corridor include aerial vehicles, rocket and jet engines, composites, remote sensors, satellites, and geospatial applications of technology. Major area employers in this industry include NASA, Lockheed Martin, Northrop Grumman, Pratt & Whitney, Rolls-Royce, Jacobs, and BAE Systems⁵.

Ship and Boat Building

The Gulf Coast area accounts for nearly 40 percent of the shipbuilding companies and workforce; many of those companies and employees are located along the corridor's coastal regions. Products and services from this region include the construction and repair of military vessels, research vessels, ocean going barges/tanks, tug boats, tow boats, offshore service vehicles, and logistic support vehicles⁶. As with aerospace, growth in this industry is highly dependent on the U.S. government as orders from the U.S. Navy and Marines have a major impact on manufacturing demand. While the industry as a whole has experienced decline since the 1980s, the ship and boat building workforce has grown by 7 percent in the last 6 years, adding 11,000 jobs. See article in the appendix about Northrop Grumman's Avondale facility in Metairie, LA.

Wages have also grown at a rate of 2.8%, or from \$41,000 to \$48,500⁷. Major companies in this sector include Northrop Grumman, Lockheed Martin, Boeing, and Bollinger.

Advanced Materials

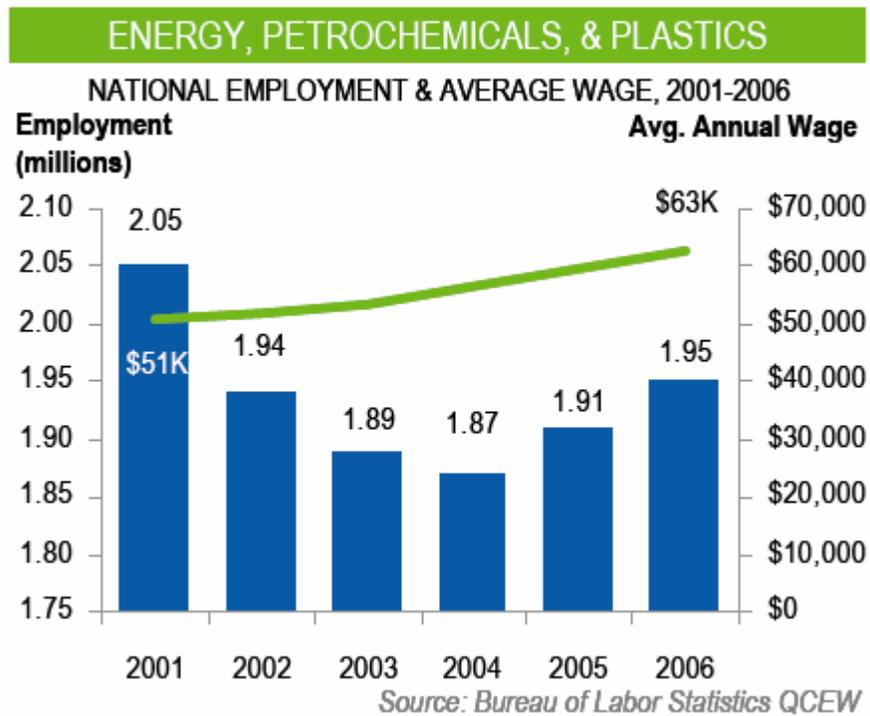
The advanced materials sector is broadly defined, and includes chemical/plastics production, fabrication with composites, plastics/composites research, and nanotechnologies research. Companies involved with this sector such as DuPont, JKS International L.L.C., NASA, Polychemie, Inc., and Solvay are located in both Louisiana and Mississippi. (Mississippi Gulf Coast Alliance for Economic Development, www.mscoastadvancedmaterials.com)

⁵ According to Mississippi Gulf Coast Alliance for Economic Development, www.mscoastshipbuilding.com.

⁶ According to Mississippi Gulf Coast Alliance for Economic Development, www.mscoastshipbuilding.com.

⁷ Greater New Orleans Target Industry Analysis. AngelouEconomics, October 2007.

A graph illustrating national employment and average wage trends for this sector is included below.



SOURCE: Technology Corridor Economic Development Marketing Plan. AngelouEconomics, March 2009

Geospatial Technology

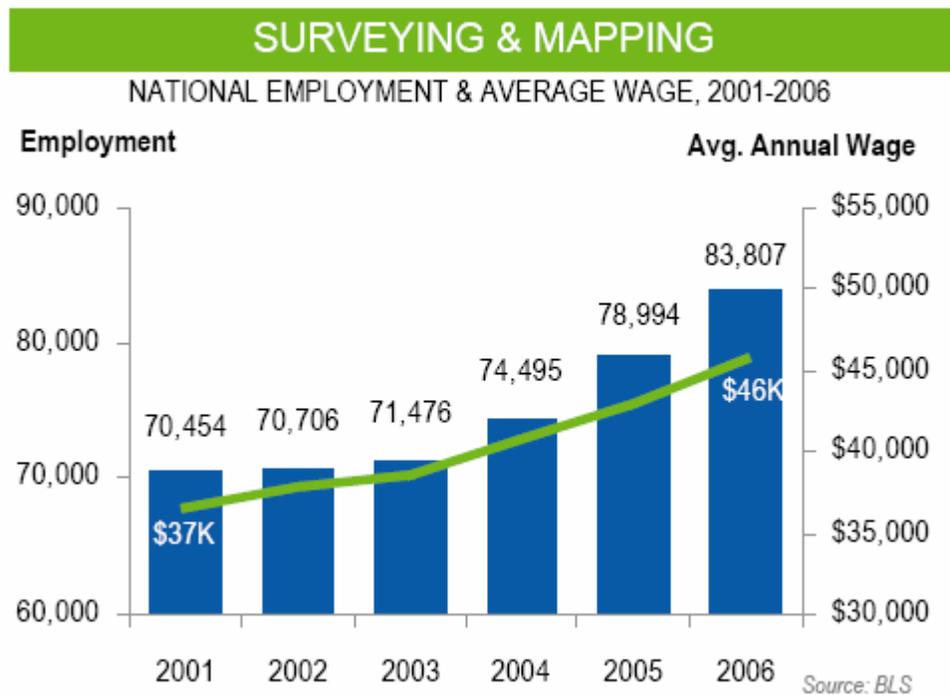
This is a very quickly expanding sector, which the Stennis-Michoud Technology Corridor is well-suited to take advantage. Stennis is home to the Center for Innovative Geospatial Solutions, which is involved in business support, workforce development, and research support in geospatial technologies. In addition companies in this sector are located in both Louisiana and Mississippi⁸.

The geospatial technology market was worth an estimated \$5 billion in 2002, and is projected to have grown 600 percent by 2005. The U.S. market is expected to increase to over \$21 billion in revenue over the next several years. Possible applications of geospatial technology can be found in the oil and gas, water/wastewater, public works, telecommunications, and defense sectors⁹.

⁸ According to Mississippi Gulf Coast Alliance for Economic Development, www.mscoastshipbuilding.com.

⁹ Technology Corridor Economic Development Marketing Plan. AngelouEconomics, March 2009.

Estimated national employment and wage growth for this sector are illustrated in the graph below.



SOURCE: Technology Corridor Economic Development Marketing Plan. AngelouEconomics, March 2009

Renewable Energy

According to the Regional Planning Commission’s 2009 Comprehensive Economic Strategy Update, in 2007 the City of New Orleans was named a Solar America City by the U.S. Department of Energy, a designation intended to accelerate the development of the solar energy industry in the area. City goals include reducing or eliminating obstacles to the adoption of solar technology, stimulating the supply side of the solar marketplace, and continuing the process of recruiting private sector businesses to operate in the area. Specific initiatives in the clean energy sector include the establishment of Louisiana Green Corps, a green jobs skills training program for youth, and the development of an EcoPark through a partnership of the Louisiana CleanTech network and the Idea Village.

Employment information for this industry is illustrated in the following graphics.

Figure 22 – EDD 1 Employment in Green & Environmental Technology

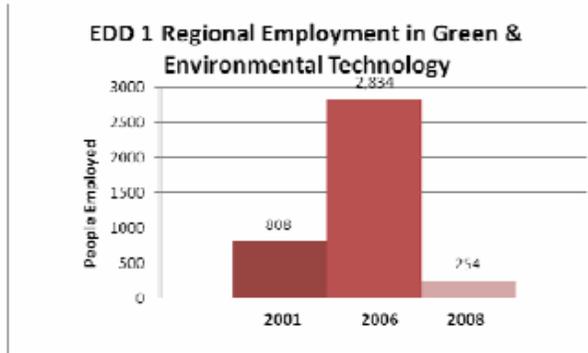
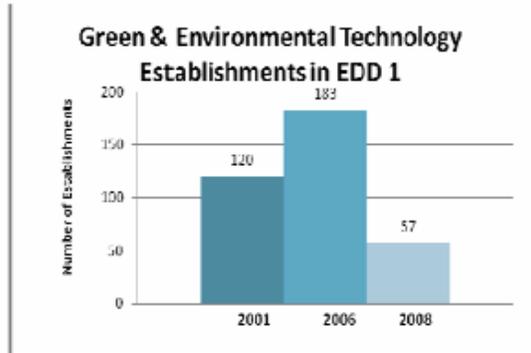


Figure 23 –Green & Environmental Technology Establishments in EDD 1



SOURCE: Comprehensive Economic Development Strategy. Regional Planning Commission, 2009

Table 16 – Employment, Establishments, Payroll and Sales Volumes for Green & Environmental Technology in EDD 1

GREEN & ENVIRONMENTAL TECHNOLOGY			
Number of People Employed			
	2001	2006	2008
Jefferson	160	1,100 - 2,748	85
Orleans	20 - 118	45 - 64	-
Plaquemines	20 - 118	250 - 518	-
St. Bernard	40	144	53
St. Tammany	372 - 568	1,604 - 3,539	250
Region	612 - 1,004	3,143 - 7,013	388
Number of Establishments			
	2001	2006	2008
Jefferson	52	27	15
Orleans	40	4	0
Plaquemines	3	4	0
St. Bernard	3	39	16
St. Tammany	22	109	54
Region	120	183	85
Annual Payroll & Sales Volumes			
	2001 Annual Payroll	2006 Annual Payroll	2008 Sales Volumes
Jefferson	\$4,720,000	\$0	\$8,372,000
Orleans	\$0	\$1,818,000	\$0
Plaquemines	\$0	\$0	\$0
St. Bernard	\$3,784,000	\$12,291,000	\$10,478,000
St. Tammany	\$14,265,000	\$18,395,000	\$42,448,000
Region	\$22,769,000	\$32,504,000	\$61,298,000

Source: Data for 2001 and 2006 are from the U.S. Census Business County Patterns, 2008 data are from Info USA
 SOURCE: Comprehensive Economic Development Strategy. Regional Planning Commission, 2009

Industrial Analysis of Target Sectors

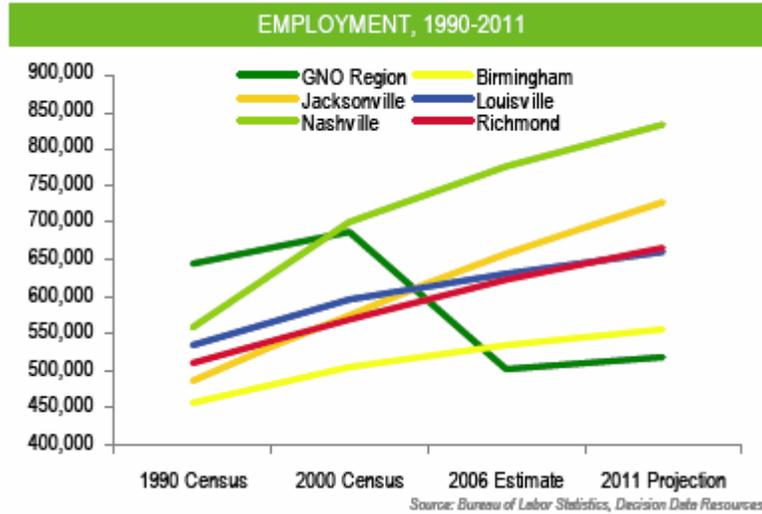
Employment Statistics: Greater New Orleans

The following graphic displays location quotient factors for various sectors of the Greater New Orleans economy, which informed the AngelouEconomics industry analysis. Factors greater than two indicate strong sector agglomeration, while factors of less than .5 indicate extremely weak sectors. As the graphic illustrates, the Greater New Orleans region has a very strong agglomeration in the energy and natural resources sector, and is also strong in the chemicals and plastics as well as transportation equipment clusters.

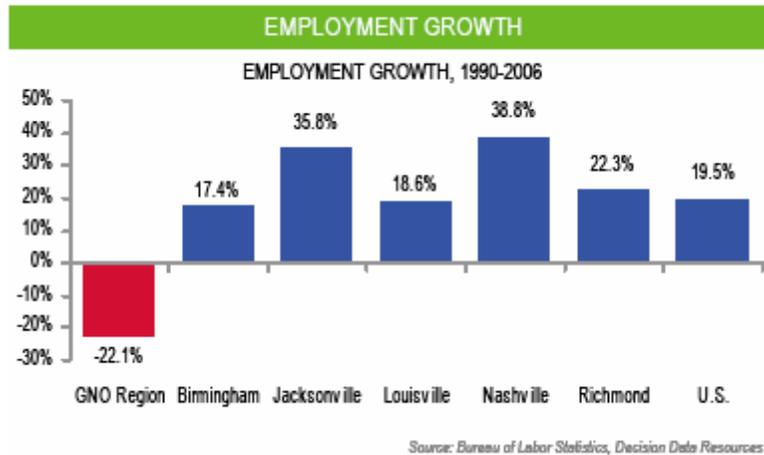


SOURCE: Greater New Orleans Target Industry Analysis. AngelouEconomics, October 2007

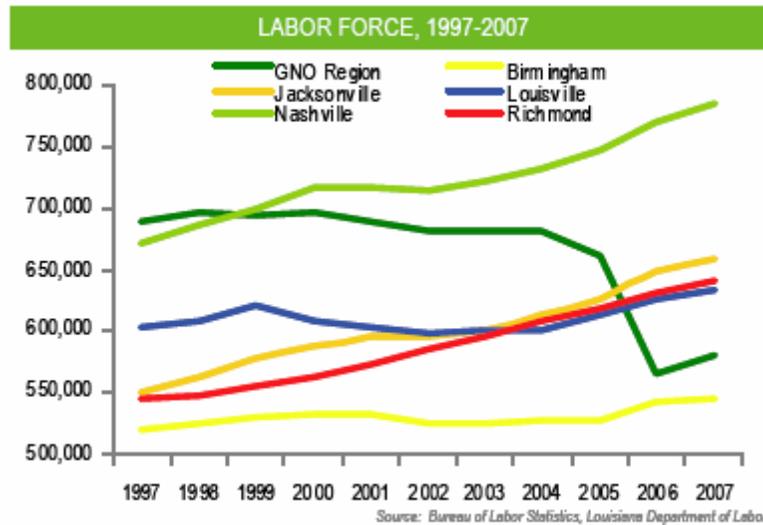
Employment in Greater New Orleans fell by 142,860 between 1990 and 2006; however, the region is projected to employ 519,000 people (a 3.1% increase) by 2011. A graph showing regional New Orleans employment as it compares to other areas is below:



SOURCE: Greater New Orleans Regional Marketing Assessment. AngelouEconomics, August 2007.



SOURCE: Greater New Orleans Regional Marketing Assessment. AngelouEconomics, August 2007.



SOURCE: Greater New Orleans Regional Marketing Assessment. AngelouEconomics, August 2007.

Employment in Greater New Orleans

Among the individual parishes, the lowest unemployment rate is in St. Tammany while the highest unemployment rate is in Tangipahoa Parish.

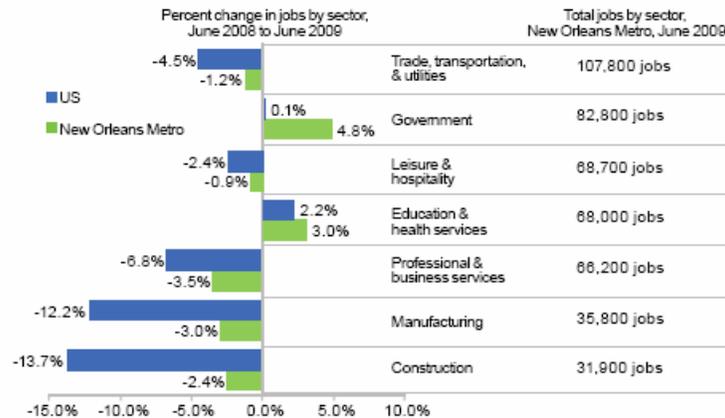
2007 Employment and Unemployment Rates

Parish/County	Total	Employed	Unemployed	Unemployment Rate
Hancock	18,212	17,242	970	5.3
Jefferson	186,044	179,249	6,795	3.7
Orleans	158,963	152,691	6,272	3.9
St. Bernard	24,950	24,175	775	3.1
St. Tammany	89,140	86,047	3,093	3.5
10 Parish Region	582,845	560,366	22,479	4.26

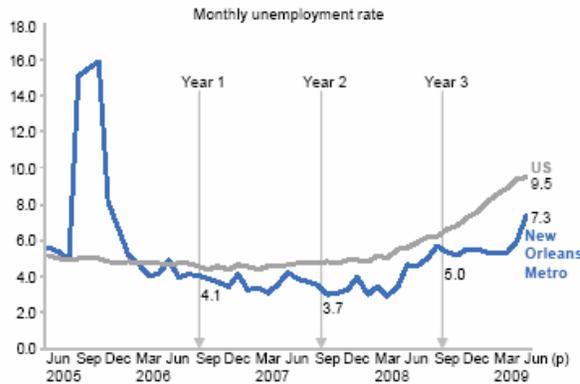
SOURCE: GNO, Inc, from Louisiana Dept. of Labor; Workforce at a Glance—LMI Report, December 2007; U.S. Bureau of Labor Statistics

Recent data in released by the Greater New Orleans Community Data Center in their August 2009 **New Orleans Index shows some economic improvement, as seen in the following graphics.**

The New Orleans metro economy is weathering the recession with job gains or relatively few job losses in most key sectors.



Although unemployment in the New Orleans metro has risen in the fourth year after Katrina, it remains lower than the national level.



Top graph source: U.S. Bureau of Labor Statistics, Current Employment Statistics.

Bottom graph source: U.S. Bureau of Labor Statistics.

Based on its relatively low unemployment rate, of the largest 100 metros, New Orleans ranks among the strongest.



Bottom graph source: Brookings, "MetroMonitor." Available at http://www.brookings.edu/metro/MetroMonitor/unemployment_rate.aspx

Employment Statistics: Mississippi

According to statistics available on the Mississippi Development Authority’s website, The county’s labor force consists of 18,118 people; 16,545 are employed and 1,523 are unemployed, resulting in an 8.40% unemployment rate. Just over 10% of the workforce have bachelor’s degrees, 5.95% have a graduate or professional degree, and almost 30% have a high school diploma.

Major Employers

Hancock County Major Employers

<i>Employer Name</i>	<i>Product/Service</i>	<i>Number of Employees (within region)</i>
NASA- Stennis Space Center	Federal Government/Contractors	5,000
Hollywood Casino	Gaming/Entertainment	1,237
Lockheed Martin Space Systems Co.	Transportation Equipment Manufacturing	688
Silver Slipper Casino	Gaming/Entertainment	577
Hancock County School District	Education	570
Bay St. Louis-Waveland School District	Education	512
PSL North America	Industrial Pipe Manufacturer	300
Coast Electric Power Association	Electric Distribution Utility	250
SABIC Plastics	Chemical Manufacturing	250
Pratt-Whitney	Propulsion Technology	220
Wellman of Mississippi, Inc.	Chemical Manufacturing	217

SOURCE: Mississippi Development Authority

Jefferson Parish Top Companies

<i>Employer Name</i>	<i>Product/Service</i>	<i>Number of Employees (within region)</i>
Ochsner Health System	Medical	11,000
Northrop Grumman Ship Systems, Avondale Operations	Shipbuilding, Engineering, Repair, and Research and Development	5,400
Superior Energy Services	Oil Field Services	4,400
Acme Truck Line, Inc.	Transportation and Logistics	2,500
Planet Beach Franchising	Medical	2,000
Wal-Mart Stores East	Retail Department Stores	1,750
American Nursing Services, Inc.	Medical Staffing Service	1,500
Sodexo Services, Inc.	Offshore Food Caterer/ Training Facility	1,200
Laitram Corporation	Shrimp Processing Equipment Manufacturing, Plastic Conveyer Belting, and Alternating Tread Stair Manufacturing	1,067

URS Corporation	Multidiscipline Engineering, Project and Construction Management Firm	936
Pinnacle Entertainment, Inc	Developer, Owner and Operator of Casinos and Related Hotel and Entertainment Facilities	900

SOURCE: *Top 250 Companies*, www.jedco.org, JEDCO.

Jefferson Parish Top Manufacturers in Target Industries

<i>Employer Name</i>	<i>Product/Service</i>	<i>Number of Employees</i>
Northrop Grumman Ship Systems Avondale Operations	Shipbuilding, Engineering, Repair, and Research and Development	5,400
Dynamic Industries, Inc.	Manufacturers oil field equipment, oil and gas dehydrators, production skids, offshore platforms, and structured steel fabricating services	180
PHS Industries, Inc.	Pipe hangers and supports manufacturer	141
C & C Marine and Repair L.L.C.	Building and repairing barges and boats	132
Bollinger Quick Repair L.L.C.	Motor vessel parts and repairing	127
Mid-South Controls	Pneumatic, hydraulic, and electrical control systems	100
Reagan Equipment Company	Repair and overhaul of engine components and accessories	92
Midship Marine, Inc.	Aluminum boats manufacturer	80
Gulf Engineering Company, Inc.	Machine shop manufacturing electronic rotating machinery components, turbo machine parts and repairing and plate steel fabricating	75

SOURCE: JEDCO, www.jedco.org

Orleans Parish Major Employers

<i>Employer Name</i>	<i>Product/Service</i>	<i>Number of Employees</i>
Air Force Reserve	Airport Operations	1,100
Audubon Aquarium of Americas	Amusement & Recreation Industries	600
Boh Brothers Construction Co., L.L.C.	Industrial Building Construction	1,500
Canal Barge Company	Inland Water Transportation	500
Catholic Charities Archdiocese of New Orleans	Social Assistance	795
Chevron Exploration & Production Co	Oil & Gas extraction	1,500
City of New Orleans, Louisiana	Public Finance Activities	7,554
Cox Communications	Data Processing, Hosting & Related Services	500
Crescent Crown Distributing, L.L.C.	Beer & Ale Merchant Wholesalers	440
Harrah's New Orleans Casino	Casino Hotels	2,700

SOURCE: One Source North American Business Browser, 2008

St. Tammany Major Employers

<i>Employer Name</i>	<i>Product/Service</i>	<i>Number of Employees</i>
St. Tammany Parish School Board	Education	7,334
St. Tammany Parish Hospital	Acute Care Hospital	1,688
Slidell Memorial Hospital	Acute Care Hospital	1,158
Wal-Mart	Retail Trade	1,125
Lakeview Regional Medical Center	Acute Care Hospital	721
St. Tammany Parish Sheriff's Office	Protection and Safety	664
Southeast Louisiana Hospital	Psychiatric Hospital	517
Home Depot	Retail Trade	500
St. Tammany Parish Government	Government	470
Northshore Regional Medical Center	Acute Care Hospital	427
City of Slidell	Government	390
Louisiana Heart Hospital	Specialty Hospital	385
Trinity Marine	Ship Building/Repair	350
Gilsbar, Inc.	Insurance Consultant	309

Ochsner Clinic Foundation Northshore	Outpatient/inpatient Services	302
Tulane Regional Primate Research Center	Biomedical Research	275
Cross Gates Athletic Club	Health & Fitness Center	265
Pontchartrain Foods	Fast Food Franchise	250
Pool Corporation	Pool Supply Distribution	250
Blossman Banc Shares & Subsidiaries	Financial Services Holding Co.	240
Express Personnel Services	Staffing	225
Protocol	Telemarketing Services	225
BellSouth Telecommunications	Telecommunications Services	218
Diversified Foods & Seasonings	Food Preparations	211
Trinity Neurologic Rehabilitation Center	Rehabilitation Center	204
Central Progressive Bank	Banking Services	200
First Guaranty Bank	Banking Services	180
Hibernia National Bank	Banking Services	167
Parish National Bank	Banking Services	163
Greenbriar Skilled Subacute & Rehab Center	Nursing & Rehab Center	135
F.A. Richard & Associates	Insurance Services Management	134
St. Tammany Parish Clerk of Court	Recording & Filing of Records	122
Cleco Power	Electric Distribution, Energy Services	119

SOURCE: City Business Book of Lists, 2007-08

Tangipahoa Major Employers (Update with St. Bernard)

<i>Employer Name</i>	<i>Product/Service</i>	<i>Number of Employees</i>
North Oaks Health System	General Medical & Surgical Hospital	2,000
Southeastern Louisiana University	Education	100
Sanderson Farms, Inc.	Animal Processing	901
Neill Corporation	Cosmetics, Beauty Supplies	700
Elmer Candy Production	Food Processing	300
Winn-Dixie Stores	Supermarket & Grocery Store	260

SOURCE: GNO, Inc. Regional Profile



Largest Target Industry Companies

From the Greater New Orleans Area Top 10 Publicly Traded Companies

Company	Assets	Revenue	Type of Business	Parish
Superior Energy Services	\$722.9 million	\$1.1 billion	Service provider to energy industry	Jefferson
GS Financial Corp.	\$168.4 million	\$11.1 million	Thrift holding company	Jefferson
Entergy Corporation	\$31.1 billion	\$10.9 billion	Public utility	Orleans
Tidewater, Inc.	\$2.6 billion	\$1.1 billion	Offshore supply vessels for energy industry	Orleans
Whitney Holding Corp.	\$10.2 billion	\$701.0 million	Bank holding company	Orleans
Mc Moran Exploration	\$408.7 million	\$209.7 million	Production of oil and gas sulfur	Orleans
Energy Partners, Ltd.	\$140.6 million	\$449.2 million	Oil and gas exploration	Orleans
Pool Corp.	\$519.4 million	\$1.9 billion	Distributor of swimming pool supplies	St. Tammany
Hornbeck Offshore Services	\$1.1 billion	\$274.5 million	Marine transportation	St. Tammany

Source: CityBusiness Book of Lists 2007-08, edited by GNO, Inc.

Top Private Companies, Greater New Orleans Region

Company Name	Type of Business	Employees	Revenue (millions)
Ochsner Health System	Health Care	9,107	\$ 923.40
Touro Infirmary	Health Care	1,835	\$ 669.80
Tulane University	Education	4,410	\$ 618.50
Boh Bros. Construction Co. L.L.C.	General Contractor	1,500	\$ 450.00



Ray Brandt Automotive & Collision Centers	Automotive Sales, Service & Collision Repair	464	\$ 350.60
Imperial Trading	Food Distributor	260	\$ 350.00
Pan-American Life Insurance	Life Insurance	796	\$ 262.40
Acme Truck Line Inc.	Transportation	2,091	\$ 234.30
Laitram L.L.C.	Manufacturing	1,050	\$ 234.00
Randa Accessories	Men's Accessories	290	\$ 218.10
Woodward Design+ Build	Design-Build General Contractor	190	\$ 215.00
Intermarine L.L.C.	Ocean Transportation	100	\$ 194.40
Premier Automotive Group	Automotive Dealership	228	\$ 187.20
Canal Barge Co.	Marine Transportation	390	\$ 184.00
Broadmoor L.L.C.	General Contractor	115	\$ 170.00
Barriere Construction Co. L.L.C.	Civil, Site, Paving, Road and Industrial Construction	360	\$ 155.00
Al Copeland Investments Inc.	Restaurants & Food Manufacturing	2,000	\$ 146.90
Corporate Capital L.L.C. & Affiliates	Real Estate Development, Management, Banking	504	\$ 135.20
Banner Chevrolet	Automotive Dealership	198	\$ 123.30
Blessey Marine Services Inc.	Towing Company	475	\$ 118.00
Smoothie King Franchises	Nutritious Smoothies, Supplements & Health Snacks	50	\$ 115.50
Gibbs Construction L.L.C.	Commercial Construction	115	\$ 114.00
USES Corp./U.S. Environmental Services L.L.C.	Environmental & Industrial Cleaning Services	750	\$ 108.00
Bryan Chevrolet, Mitsubishi & Suzuki Inc.	Automobile Dealership	125	\$ 96.30
M R Pittman Group L.L.C.	General Contractor	125	\$ 94.60

Source: CityBusiness Book of Lists 2007-08, edited by GNO, Inc.

Largest Employers, Greater New Orleans Region

Company Name	Type of Business	Employment
Ochsner Health System	Health Care	9,107
St. Tammany Parish Public School Board	Elementary & Secondary Schools	7,651
Jefferson Parish School Board	Elementary & Secondary Schools	7,000
Northrop Grumman	Ship Building & Repairing	5,400
LSU Health Sciences Center New Orleans	Colleges & Universities	5,000
Tulane University	Colleges & Universities	4,410
Jefferson Parish Government	Government	3,671
City of New Orleans	Government	3,500
East Jefferson Hospital	Health Care	3,150
United States Postal Service	Government	2,887
Lockheed Martin Corp/ NASA Michoud	Space Research and Technology	2,832
Harrah's New Orleans Casino	Casinos	2,200
Capital One	Commercial Banking	2,150
Al Copeland Investments	Restaurants & Food Manufacturing	2,000
Dow Chemical Company	Chemical Manufacturing	2,000
North Oaks Medical Center	Health Care	1,835
Touro Infirmary	Health Care	1,835
Naval Support Activity	Government	1,800
Jefferson Parish Sheriff's Office	Government	1,655
West Jefferson Medical Center	Health Care	1,654
Southeastern Louisiana University	Colleges & Universities	1,601
Saint Tammany Parish Hospital	General Medical & Surgical Hospitals	1,519
Boh Bros. Construction Co.	General Contractor	1,500
Children's Hospital	Health Care	1,417
Hilton-New Orleans Riverside	Hotels & Motels	1,400
Whitney Holding Corp.	Commercial Banking	1,399
Tulane Medical Center	Health Care	1,343

New Orleans Sewerage and Water Board	Government	1,300
US Army Corps of Engineers	Government	1,300
USDA, National Finance Center	Government	1,300
St. Tammany Parish Hospital	Health Care	1,266
Universal Sodexo (USA) Inc.	Catering	1,233
New Orleans Recovery School District	Elementary & Secondary Schools	1,180
Textron Marine & Land Systems	Manufacturing	1,165
University of New Orleans	Colleges & Universities	1,150
Boomtown Casino	Casinos	1,100
Laitram LLC	Manufacturing	1,050
Bollinger Gulf Repair	Ship Building & Repairing	1,000
Entergy Corp.	Electric Power Distribution	1,000
Loyola University	Colleges & Universities	1,000
Sanderson Farms	Food manufacturing	1,000
Shell Exploration & Production	Oil and gas exploration	1,000
Times-Picayune	Newspaper Publishers	1,000
Xavier University of Louisiana	Colleges & Universities	1,000

SOURCE: CityBusiness Book of Lists 2007-08, Info USA Business List, D&B Selector Business List, Parish Economic Development Websites, & Area Newspapers

Job Estimates and Projected Growth in Target Industries: Louisiana Parishes

Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, & St. Tammany Parishes

Occupational Title	2006 Estimate	2016 Projected	10 Year Growth	Annual New Growth	Annual Replacement	Annual Total Openings	2008 Regional Annual Avg. Wage	2008 State Annual Avg. Wage	Educational Requirements	Occupational License Required
Aerospace Engineering and Operations Technicians	*	*	*	*	*	*	NA	NA	Associate degree	
Aerospace Engineers	70	80	0	0	0	0	\$80,647	\$80,249	Bachelor's degree	
Aircraft Mechanics and Service Technicians	30	20	0	0	0	0	\$46,474	\$48,990	Postsecondary vocational training	
Atmospheric and Space Scientists	30	30	0	0	0	0	\$87,934	\$79,637	Bachelor's degree	
Avionics Technicians	40	50	10	0	0	0	\$45,209	\$42,408	Postsecondary vocational training	
Cartographers and Photogrammetrists	20	30	10	0	0	0	\$47,655	\$50,837	Bachelor's degree	
Chemical Engineers	370	420	50	10	10	10	\$84,652	\$88,271	Bachelor's degree	Lic. Req.
Chemical Equipment Operators and Tenders	200	170	0	0	10	10	\$50,796	\$49,581	Moderate-term on-the-job training	Cert. Avail.
Chemical Plant and System Operators	1,950	1,520	0	0	50	50	\$59,802	\$58,960	Long-term on-the-job training	Cert. Avail.
Chemical Technicians	490	520	40	0	20	20	\$45,030	\$50,665	Associate degree	
Chemists	370	380	10	0	10	10	\$66,638	\$64,310	Bachelor's degree	

Occupational Title	2006 Estimate	2016 Projected	10 Year Growth	Annual New Growth	Annual Replacement	Annual Total Openings	2008 Regional Annual Avg. Wage	2008 State Annual Avg. Wage	Educational Requirements	Occupational License Required
Computer-Controlled Machine Tool Operators, Metal and Plastic	90	100	10	0	0	0	\$28,034	\$33,835	Moderate-term on-the-job training	
Control and Valve Installers and Repairers, Except Mechanical Door	140	140	10	0	0	0	\$44,188	\$45,858	Moderate-term on-the-job training	
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	40	30	0	0	0	0	\$31,201	\$28,839	Moderate-term on-the-job training	
Electrical and Electronic Engineering Technicians	770	800	40	0	20	20	\$51,465	\$51,589	Associate degree	Lic. Req.
Electrical and Electronic Equipment Assemblers	360	250	0	0	10	10	\$32,613	\$27,171	Short-term on-the-job training	
Electrical and Electronics Drafters	220	240	20	0	10	10	\$51,153	\$49,257	Postsecondary vocational training	Cert. Avail.
Electrical and Electronics Installers and Repairers, Transportation Equipment	190	220	20	0	0	10	\$39,053	\$40,920	Postsecondary vocational training	
Electrical and Electronics Repairers, Commercial and Industrial Equipment	450	450	0	0	20	20	\$57,794	\$51,632	Postsecondary vocational training	
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	30	30	0	0	0	0	\$50,763	\$56,343	Postsecondary vocational training	
Electrical Engineers	720	780	60	10	20	20	\$88,496	\$78,402	Bachelor's degree	Lic. Req.
Engine and Other Machine Assemblers	*	*	*	*	*	*	NA	\$31,941	Short-term on-the-job training	

Occupational Title	2006 Estimate	2016 Projected	10 Year Growth	Annual New Growth	Annual Replacements	Annual Total Openings	2008 Regional Annual Avg. Wage	2008 State Annual Avg. Wage	Educational Requirements	Occupational License Required
Engineering Managers	520	570	40	0	10	20	\$103,669	\$112,937	Bachelor's or higher degree, plus work experience	
Engineers, All Other	780	870	100	10	10	20	\$70,388	\$66,270	Bachelor's degree	
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	40	40	0	0	0	0	\$25,411	\$25,498	Moderate-term on-the-job training	
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	110	100	0	0	0	0	NA	\$28,344	Moderate-term on-the-job training	
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	40	40	0	0	0	0	\$26,557	\$26,479	Moderate-term on-the-job training	
Forging Machine Setters, Operators, and Tenders, Metal and Plastic	30	20	0	0	0	0	NA	\$25,802	Moderate-term on-the-job training	
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	50	50	0	0	0	0	\$21,991	\$26,670	Moderate-term on-the-job training	
Industrial Engineering Technicians	110	120	10	0	0	0	\$64,290	\$56,041	Associate degree	
Industrial Engineers	490	580	90	10	10	20	\$65,730	\$61,768	Bachelor's degree	Lic. Req.
Industrial Machinery Mechanics	1,180	1,620	440	40	20	60	\$42,480	\$43,740	Long-term on-the-job training	Cert. Avail.

Occupational Title	2006 Estimate	2016 Projected	10 Year Growth	Annual New Growth	Annual Replacements	Annual Total Openings	2008 Regional Annual Avg. Wage	2008 State Annual Avg. Wage	Educational Requirements	Occupational License Required
Industrial Production Managers	470	470	0	0	20	20	\$75,928	\$75,059	Work experience in a related occupation	
Machinists	1,060	1,100	40	0	20	20	\$43,260	\$38,048	Long-term on-the-job training	
Materials Engineers	50	50	0	0	0	0	NA	\$75,895	Bachelor's degree	Lic. Req.
Mechanical Drafters	210	240	40	0	10	10	\$36,740	\$38,884	Postsecondary vocational training	Cert. Avail.
Mechanical Engineering Technicians	200	250	50	10	0	10	\$41,249	\$44,144	Associate degree	
Mechanical Engineers	680	760	80	10	20	20	\$72,680	\$73,785	Bachelor's degree	Lic. Req.
Mobile Heavy Equipment Mechanics, Except Engines	1,060	1,300	240	20	20	50	\$37,565	\$38,344	Long-term on-the-job training	
Plant and System Operators, All Other	160	190	30	0	10	10	\$41,444	\$40,282	Long-term on-the-job training	
Rolling Machine Setters, Operators, Tenders, Metal	120	130	0	0	0	0	\$34,976	\$31,283	Moderate-term on-the-job training	
Separating and Still Machine Setters, Operators, and Tenders	40	40	0	0	0	0	\$28,992	\$32,950	Moderate-term on-the-job training	
Sheet Metal Workers	760	740	0	0	20	20	\$34,363	\$35,170	Long-term on-the-job training	Cert. Avail.
Ship Engineers	560	530	0	0	20	20	\$56,463	\$58,886	Work experience in a related occupation	
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	160	160	0	0	0	0	\$35,256	\$35,277	Postsecondary vocational training	

SOURCE: Louisiana Workforce Commission



Job Estimates and Projected Growth in Target Industries: Mississippi

Occupational Employment Projections, Year 2006 Projected to Year 2016 Pearl River Community College District					
Standard Occupational Classification (SOC) Occupation	2006 Employment	2016 Projected Employment	Projected Employment Growth 2006 to 2016		Total Projected Avg. Annual Job Openings
			Number	Percent	
Engineers	630	730	100	15.9%	25
Aerospace Engineers	120	170	50	41.7%	5
Agricultural Engineers	0	0	0	0.0%	0
Biomedical Engineers	0	0	0	0.0%	0
Chemical Engineers	20	20	0	0.0%	0
Civil Engineers	80	80	0	0.0%	0
Computer Hardware Engineers	10	10	0	0.0%	0
Electrical Engineers	40	40	0	0.0%	0
Electronics Engineers, Except Computer	70	120	50	71.4%	0
Environmental Engineers	10	10	0	0.0%	0
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	10	10	0	0.0%	0
Industrial Engineers	50	50	0	0.0%	0
Marine Engineers and Naval Architects	0	0	0	0.0%	0
Materials Engineers	10	10	0	0.0%	0
Mechanical Engineers	70	120	50	71.4%	0
Nuclear Engineers	0	0	0	0.0%	0
Petroleum Engineers	50	50	0	0.0%	0
Engineers, All Other	90	90	0	0.0%	0

SOURCE: Mississippi Department of Employment Security, <http://www.mdes.ms.gov/wps/portal>

2006-2007 Project Announcements funded by State Initiatives

Project Name	Description	Type	Investment (\$)	New Jobs	Retained	Parish
Cabot Corporation	Chemical manufacturing	Expansion	14,500,000	20	265	Jefferson
Green Earth Fuels	Biodiesel plant	New	60,000,000	47	0	Jefferson
Lockheed	Aerospace manufacturing	Expansion	200,000,000	200	0	Orleans
Boeing	Aerospace manufacturing	New	500,000	20	0	Orleans
Textron	Ship manufacturing	Expansion	134,000,000	60	280	St. Tammany/ Orleans
Laitram	Machinery manufacturing	New	75,000,000	250	0	Tangipahoa

SOURCE: GNO Inc.

Business Expansions

Name	County/Parish	Description	Value
Calgon Carbon Corp.	Hancock	Industrial inorganic chemicals	\$1,000,000
JKS International at Stennis	Hancock	Plastic storage tanks	4 new jobs
Poly Chemie, Inc.	Hancock	Industrial inorganic chemicals	\$500,000
Lockheed Martin	Orleans	Orion crew vehicle	\$200,000,000



Chevron	St. Tammany	New office building	\$40,000,000
Textron	St. Tammany	Armored vehicle plant	n/a
Amite Foundry	Tangipahoa	Add capacity	\$43,000,000
Intralox L.L.C.	Tangipahoa	Injection molding plant	\$30,000,000

SOURCE: GNO, Inc.; *New and Expanded Facilities Report 2007*, Mississippi Development Authority, March 2009.

Major New Businesses

Name	County/Parish	Description	Investment
MAC, L.L.C.	Hancock	Small Arms Ammunition	50 new jobs/ \$35,000,000
PSL- North America	Hancock	Gas pipe, cast iron	275 new jobs/ \$100,000,000
Green Earth Fuels L.L.C.	Jefferson	Biodiesel plant	\$30,000,000
Boeing	Orleans	Ares I rockets booster	\$300,000,000
Sun Energy	Orleans	Waste to energy plant	\$550,000,000
Marine Power Holdings L.L.C.	St. Tammany	Marine engines manufacturing	\$36,000,000

SOURCE: GNO, Inc.; *New and Expanded Facilities Report 2007*, Mississippi Development Authority, March 2009.



Higher Education Resources

Technical & Community Colleges and Universities

Name	Type of Institute	Website	Address	Parish/County	Degree Programs
Delgado Community College	2-year college	http://www.dcc.edu/	Main Campus (City Park) 615 City Park Avenue, New Orleans, LA 70119	St. Tammany, Orleans	Workforce training, continuing education programs. Degrees in computer information technology, electronics engineering technology, chemistry, mathematics, physics, machinist apprentice program, ship fitter apprentice program
Dillard University	4-year college	www.dillard.edu	2601 Gentilly Boulevard, New Orleans, LA 70122	Orleans	Chemistry, computer science, mathematics, physics
Louisiana Technical College	Vocational/Technical	www.ltc.edu	475 Manhattan Boulevard Harvey, LA 780058	Jefferson, Orleans, St. Tammany	Aviation maintenance technology, computer electronics technology, electromechanical technology, maintenance/marine electrician apprentice, marine operations, nondestructive testing technology, ship fitter apprentice, ship fitter fabricator. East Jefferson Campus is home to advanced Manufacturing Center of Excellence.
Loyola University	4-year college	www.loyo.edu	6363 St. Charles Avenue, New Orleans, LA 70118	Orleans	Bachelor's in chemistry, math, or physics
Nunez Community College	2-year college	www.nunez.edu	3700 La Fontaine Street, Chalmette, LA 70043	St. Bernard	Computer Information Systems, Computer Technology, Industrial Technology
Pearl River Community College	2-year college		101 Highway 11 North Poplarville, MS 39470	Hancock	Chemistry, computer science, engineering physics, mathematics, aerospace electronics technology, aviation maintenance technology, computer information systems technology



Name	Type of Institute	Website	Address	Parish/ County	Degree Programs
Southeastern Louisiana University	4-year college	www.selu.edu	Southeastern Louisiana University, Hammond, Louisiana 70402	Tangipahoa	Bachelors includes business, chemistry, physics, computer science and industrial technology. Master of business and integrated science and technology
Southern University at New Orleans	4-year college	www.suno.edu	6801 Press Dr New Orleans, LA 70126	Orleans	Offers associate's, bachelor's, and masters in arts and humanities, general studies, natural sciences, and social sciences concentrations
Tulane University	4-year college	http://tulane.edu	6823 St. Charles Avenue, New Orleans, LA 70118	Orleans	Variety of undergraduate and graduate degrees; includes school of liberal arts, science and engineering, business, law, medicine. Majors are available in chemical engineering, chemistry, engineering physics, and physics
University of New Orleans	4-year college	www.uno.edu	2000 Lakeshore Drive, New Orleans, LA 70148	Orleans	Variety of undergraduate programs in business administration, education, engineering, liberal arts, science. 38 master's degrees, 12 doctoral degrees with programs available in various engineering disciplines, naval architecture and marine engineering, chemistry, mathematics, and physics
University of Southern Mississippi Gulf Coast	4-year college	www.usm.edu/gc	730 East Beach Boulevard Long Beach, MS 39560	Presence in Hancock	A variety of undergraduate and graduate programs are offered in areas such as applied technology, coastal science, computer science, and mathematics
Xavier University of Louisiana	4-year college	www.xula.edu	1 Drexel Drive New Orleans, LA 70125	Orleans	Courses in business, education, humanities, science, social studies with majors available in chemistry, mathematics, physics, and engineering.

SOURCES: Individual college websites, CityBusiness Book of Lists 2007-08, enrollment figures for Fall 2006.



Workforce Assets

Summary of Findings from Workforce Study performed for Greater New Orleans

The Greater New Orleans region has a variety of educational and workforce advantages including an extensive university base, which contributes to a relatively high percentage of college-educated young professionals in the region, private sector training facilities such as those at Northrop Grumman, and an increasing number of entrepreneurs attracted to the region who want to participate in the rebuilding process. Despite this, this region faces difficult challenges such as poor public perception of the area, a workforce development and education system that is not adequately linked to business community needs, and a brain drain effect as highly educated residents leave. The area's focus on educational reform and the creation of a workforce development strategy, however, present a unique opportunity to continue improving the image of this area¹⁰.

When compared with other states, Louisiana ranks 48th per capita in Research and Development, 34th in Venture Capital Investments, 31st in R&D Testing Labs, and 31st in High-Tech Employment.¹¹ In addition, this region will be in need of approximately 10,000 skilled employees in Advanced Manufacturing over the next three years.¹² Current estimates of the labor force have identified a "hidden workforce" of over 250,000 people who are under-employed, not-employed but interested in working, part-time workers who would prefer full-time employment, and recent graduates in the area. These people could be used to help meet the future workforce needs; a manufacturing or distribution organization located near Michoud, for example, could fill an estimated 1,474 positions under current conditions.¹³

The labor market in this area is very tight; a survey featured in the GrowthTech *Labor Market Assessment* found that 69.1% of employers in occupations with sufficient data to be included in the report claimed tight or unavailable recruiting conditions while only 6.5% of occupations could be recruited satisfactorily or better. The greatest shortages are in technical (including IT) installation, engineering, and construction/maintenance/production/extraction. Despite these shortages, employees in the area are very receptive to training. Over 34% of those currently employed and 69.1% of those not currently employed but interested in employment reported an interest in additional training and/or education.¹⁴

This interest in additional training was echoed in a 2008 report by NASA detailing the impact of the transition from the Space Shuttle to the Constellation program.

¹⁰ AngelouEconomics. *Greater New Orleans Regional Marketing Assessment*, August 2007.

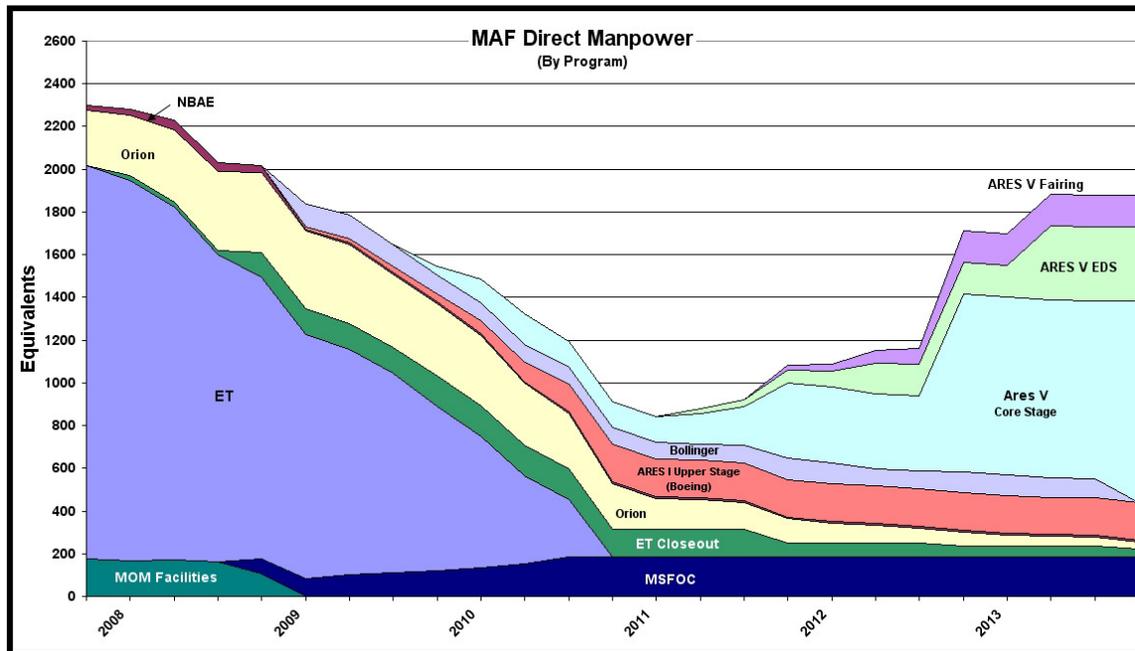
¹¹ Louisiana Technology Council. *Louisiana IT Skills Survey Report*, November 2008.

¹² Greater New Orleans, Inc. *Advanced Manufacturing Workforce Sector Update*, February 2008.

¹³ Wadley-Donovan GrowthTech L.L.C. and Younger Associates. *Labor Market Assessment of Greater New Orleans, Louisiana*.

¹⁴ Ibid.

When asked if they would be interested in after-hours training, 51% of responding employees said “yes,” 34% replied “maybe,” 15% replied “no.” NASA estimates that approximately 1,300 jobs will be lost at the Michoud Assembly Facility during the transition (a graph illustrating the labor force transition process is included below). Employees will be out of work for an average of 6 months; those that find jobs in Louisiana will take an average 10% pay reduction, and 20% of employees will leave the state permanently. The last statistic is particularly unfortunate, as 68% of employees surveyed would like to remain in their current geographic location.¹⁵



SOURCE: NASA. *Louisiana Workforce Training*, July 2008.

Several organizations have proposed solutions to the workforce and educational challenges facing the Greater New Orleans region. People who lose their job during the Space Shuttle to Constellation transition, for example, could enroll in retraining programs lasting anywhere from one week to a few years. The quickest option, Rapid Response Training, would last only one to two weeks and is designed to return people to work as quickly as possible. The estimated cost of such a program is \$1,800,000. A more in-depth training program of 2-6 weeks, known as Retraining, helps workers apply skills they already have but may not have used recently. The estimated cost of this program is \$4,126,000. Re-Careering is the longest-term option discussed by NASA, and would involve a one to two year training program that will lead to a degree and/or certification. This type of training has an estimated cost of \$18,312,500. Finally, NASA has proposed a loaned labor program through which Lockheed Martin employees would be connected with job opportunities in other companies whose needs align with the skills of these workers.¹⁶

¹⁵ NASA. *Louisiana Workforce Training*, July 2008.

¹⁶ Ibid.

In a 2007 report by Maher & Maher, other more systemic changes were proposed. They suggested establishing a regional intermediary that would be responsible for organizing a group of members from target industries, workforce agencies, social services, economic development, and educational and training institutions who would work together to align goals and respond to market needs. In addition, the creation of a flexible workforce training system that is demand-driven and engaged in marketing as well as information sharing with both employers and career seekers would be beneficial. An effective regional information management system would help area stakeholders monitor current activity, project future market needs, and address barriers to entry facing some workers.¹⁷

Occupational Data and Skill Sets

The following table shows the skills categories that were part of the IT survey along with their frequency within the sample as well as projected regional representation.

Table 2: Skill Categories of the IT Survey

Skill Category	Sample Frequency	Percent	Projected Regional Totals ²
User Support Skills	2060	59%	21918
Operating Systems Skills	2401	69%	13279
Database Skills	1453	41%	15460
Systems Management Skills	1359	39%	14460
Communication Skills	1248	36%	13279
Record Management Skills	1241	35%	13204
Web Management	1219	35%	13852
Software Dev Skills	1083	31%	11523
Security Skills	857	24%	9118
IT Certifications	648	18%	6895
Enterprise Operations Skills	613	17%	6522
Web Development	362	10%	25547
Computing Certs	249	7%	2649
IS Certifications	224	6%	2383
Operating Systems Cert	190	5%	2022
Network Support Cert	173	5%	1841
Business Applications Certs	156	4%	1660
Database Certs	85	2%	904
PM Certification	84	2%	894
Training Certification	79	2%	841
Network Security Cert	77	2%	819
IS Security Cert	73	2%	777
Software Development Cert	55	2%	585
Quality Certification	50	1%	532
Web Certification	27	1%	287

SOURCE: Louisiana IT skills Survey Report, Louisiana Technology Council, November 2008

¹⁷ Maher & Maher. *Executive Summary: Greater New Orleans Workforce Transformation Strategy*, June 2007.

According to the following table, the most frequent skill set of willing workers not currently employed is in office and administrative support, followed by technical healthcare workers and those in construction.

TABLE 19: Leading Occupational Skills of Residents Not in the Workforce but Interested in Employment
Source: YA Labor Supply Survey, Summer 2008

Occupational Skills	Percentage	Number
Office & Administrative Support	12.0%	18,281
Healthcare – Technical	10.1%	15,468
Construction	7.4%	11,250
Food Preparation & Serving	6.4%	9,843
Education – Professional	6.0%	9,140
Retail Sales & Service	6.0%	9,140

SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates.

TABLE 29 (continued): Top Occupations/Positions Currently in Demand and the Gap between Availability and Demand by Responding Surveyed Local Employers
 (X=modest gap; XX=gap; XXX=large gap)

Occupation	Demand		Availability Rating (5=Plentiful; 1=Unavailable)			Level of Education or Training Needed (2)
	Responses	Total Needed	Average Score	Median Score	Imbalance	
Professional, continued						
Engineers, electrical and electronic	7	17	2.0	2.0	XXX	Bachelors Degree
Engineers, environmental	1	1	1.8	1.5		Bachelors Degree
Engineers, industrial	4	19	1.9	1.5	XXX	Bachelors Degree
Engineers, mechanical	10	28	2.0	2.0	XXX	Bachelors Degree
Engineers, naval	2	10	1.7	1.0	XXX	Bachelors Degree
Engineers, other	8	27	2.0	2.0	XXX	Bachelors Degree
Engineers, petroleum	1	2	1.9	1.0		Bachelors Degree
Production						
Assemblers and fabricators	4	59	2.4	2.5	XXX	Short on the job training
Chemical plant and system operators	1	6	2.1	2.0		Long on the job training
Computer-controlled-machine-tool operators, metal and	2	23	1.8	1.0	XXX	Moderate on the job training
Instrumentation technicians	3	4	2.0	2.0		N/A
Machine operators, no set-up	3	14	1.8	1.0	XXX	N/A
Machine setters, operators and tenders	3	23	1.8	1.5	XXX	N/A
Machinists	8	48	1.9	1.5	XXX	Long on the job training
Plastic	-	-	2.0	2.0		N/A
Process technicians	3	6	2.1	2.0		N/A
Production assemblers and fabricators	1	5	1.8	1.0	XXX	Short on the job training
Production operators	6	75	2.7	3.0	XX	N/A
Skilled machine trades, general	5	34	1.6	1.0	XXX	Postsecondary vocational award
Technicians, general	8	122	2.6	2.5	XXX	N/A
Installation, Maintenance, and Repair						
Electrical and electronic repairers	8	15	1.4	1.0	XXX	Postsecondary vocational award
Electrical and electronic repairers/installers	1	6	2.4	2.0	X	Postsecondary vocational award
Industrial machinery mechanics	10	34	1.7	1.0	XXX	Long on the job training
Maintenance workers, machinery	19	51	2.3	2.0	XXX	Short on the job training

SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates

TABLE 30: Top Occupations/Positions in Demand in One Year and the Gap between Availability and Demand by Responding Surveyed Local Employers
 Source: WDG Employer Survey, Summer 2008

(X=modest gap; XX=gap; XXX=large gap)

Occupation	Demand In One Year		Availability Rating (5=Plentiful; 1=Unavailable)			Level of Education or Training Needed (2)
	Responses	Total Needed	Average Score	Median Score	Imbalance	
Professional						
Accountants/auditors	8	24	3.0	3.0		Bachelors Degree
Architects, marine	4	14	2.1	1.0	XX	Bachelors Degree
Associate engineers (2-year degree)	3	25	1.8	1.5	XXX	Associates Degree
Auditors/accountants	11	27	2.4	3.0	X	Bachelors Degree
Commercial and industrial designers incl. CAD/CAID	5	30	2.2	2.0	XX	Bachelors Degree
Engineering technicians	3	7	2.2	2.0	X	Associates Degree
Engineers, aerospace	1	3	1.8	1.0		Bachelors Degree
Engineers, chemical	2	9	1.8	2.0	X	Bachelors Degree
Engineers, civil	7	22	1.8	1.5	XXX	Bachelors Degree
Engineers, electrical and electronic	6	33	2.0	2.0	XXX	Bachelors Degree
Engineers, environmental	2	3	1.8	1.5	X	Bachelors Degree
Engineers, industrial	5	32	1.9	1.5	XXX	Bachelors Degree
Engineers, mechanical	9	56	2.0	2.0	XXX	Bachelors Degree
Engineers, naval	2	18	1.7	1.0	XXX	Bachelors Degree
Engineers, other	7	35	2.0	2.0	XXX	Bachelors Degree
Engineers, petroleum	1	5	1.9	1.0	X	Bachelors Degree
Production						
Assemblers and fabricators	6	213	2.4	2.5	XXX	Short on the job training
Chemical plant and system operators	-	-	2.1	2.0		Long on the job training
Computer-controlled-machine-tool operators, metal and	2	53	1.8	1.0	XXX	Moderate on the job training
Instrumentation technicians	4	14	2.0	2.0	XXX	
Machine operators, no set-up	4	39	1.8	1.0	XXX	
Machine setters, operators and tenders	3	65	1.8	1.5	XXX	
Machinists	8	106	1.9	1.5	XXX	Long on the job training
Plastic	-	-	2.0	2.0		
Process technicians	5	37	2.1	2.0	XXX	
Production assemblers and fabricators	1	10	1.8	1.0	XXX	Short on the job training
Production operators	7	93	2.7	3.0	XX	
Skilled machine trades, general	5	76	1.6	1.0	XXX	Postsecondary vocational award
Technicians, general	9	142	2.6	2.5	XXX	
Installation, Maintenance, and Repair						
Electrical and electronic repairers	6	15	1.4	1.0	XXX	Postsecondary vocational award
Electrical and electronic repairers/installers	3	66	2.4	2.0	XXX	Postsecondary vocational award
Industrial machinery mechanics	9	40	1.7	1.0	XXX	Long on the job training
Maintenance workers, machinery	17	93	2.3	2.0	XXX	Short on the job training

SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates.

Workforce Development

Workforce Development Resources

Program	Description	Requirement	Benefit Type	Benefit Amount
Incumbent Worker Training Program	Encourages customized training of employees	Employers partner with training institutions to develop a training plan that fits the company's scheduling and curriculum needs	Grants	Grants to businesses to finance customized training to improve skills of existing employees- unspecified amount
On-the-Job or Customized Training	Employers offset training cost of new workers who lack typically required skills		Reimbursement	Reimbursement of 50% of trainees wages during on-site training or 50% of the cost of classroom instruction
Small Business Employee Training Program (SBET)	Helps employers offset the cost of standardized training for workers	50 or fewer employees	Reimbursement	Full reimbursement of tuition and materials for courses taken for non-credit in an adult capacity at Louisiana institutions, courses available through industry associations, or training provided by equipment manufacturers
Workforce Development and Training Program	Helps offset the cost of worker training	Must be new Louisiana company or existing company operating 3 years or less	Funding	Funding for qualified customized workforce training programs that improve the competitiveness and productivity of workforce and promote employment stability

Source: LED Louisiana Incentive Snapshot; Manufacturing Resource Guide for Jefferson Businesses, JEDCO.

Education and Training Resources

SOURCES: Individual program websites.

The following table shows the responses to a workforce survey conducted by Wadley-Donovan GrowthTech and Younger Associates. In this chart, employers rated the frequency at which they utilized regional training programs.

TABLE 39: Employer Ratings of Utilization Frequency of Training Programs from Regional Training Providers

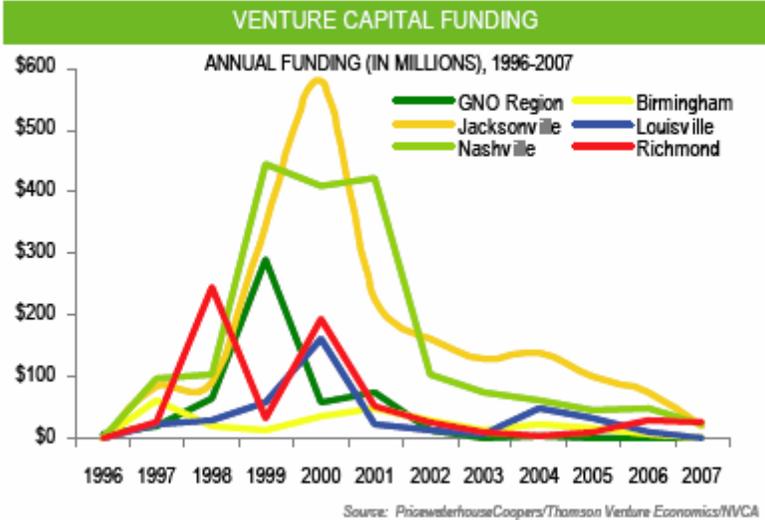
Source: WDG Employer Survey, Summer 2008

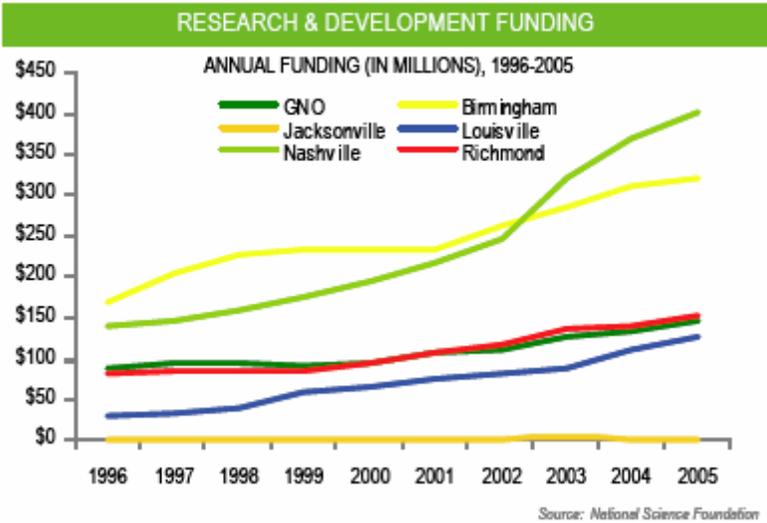
Institution	Responses	(1=Never, 5=Continuously)	
		Average Score	Median Score
Area high schools	151	2.2	2.0
Delgado Community College	119	2.1	2.0
Nunez Community College	117	1.6	1.0
River Parish Community College	145	1.5	1.0
LTC River Parishes	145	1.7	1.0
LTC West Jefferson Technical	114	1.4	1.0
LTC Jefferson Technical	113	1.4	1.0
LTC Sullivan Main Campus	111	1.3	1.0
LTC Hammond Branch Campus	113	1.3	1.0
LTC Florida Parishes Branch Campus	111	1.2	1.0
University of New Orleans	123	2.4	2.0
Southeastern Louisiana University	115	1.8	1.0
Tulane University	118	2.2	2.0
Loyola University New Orleans	118	2.0	1.0
Xavier University of Louisiana	115	1.6	1.0
Southern University at New Orleans	112	1.5	1.0
Dillard University	112	1.5	1.0
University of Phoenix	111	1.2	1.0
Our Lady of Holy Cross College	110	1.3	1.0
Private vendors (e.g. training and development consultants)	144	2.0	2.0

SOURCE: Labor Market Assessment of Greater New Orleans, Louisiana. Prepared for Greater New Orleans, Inc. by Wadley-Donovan GrowthTech L.L.C. and Younger Associates

Business Financing Resources

The following graphics illustrate the change in venture capital as well as research and development funding in the Greater New Orleans region, as compared to benchmark communities. These trends offer insight to the Greater New Orleans market while comparing the patterns in this area to communities elsewhere. Many of the trends seen in the New Orleans area mirror those elsewhere.





SOURCE: Greater New Orleans Regional Marketing Assessment. AngelouEconomics, August 2007.

These graphics illustrate two important points regarding business funding in Greater New Orleans: venture capital financing is decreasing, but investment in research and development is increasing.

Angel Investors, Venture Capital; State and Local Financial Programs

Firm Name	Type of Institution	Purpose	Website	Location
Advantage Capital Partners	Venture Capital Firm	An innovative group of venture capital partnerships with more than \$1 billion under management with offices in 12 states, including Louisiana and Mississippi.	www.advantagecap.com	New Orleans, LA (in addition to offices nationwide)
Barrett Vernon Montgomery/Louisiana Ventures, LP	Venture Capital Firm	Southeast Louisiana based VC, provides money to early and expansion stage companies with proprietary technology platforms or unique products addressing large markets	www.vcecapital.com	New Orleans, LA (in addition to offices nationwide)
Louisiana Angel Network	Angel Investor	Select network of accredited investors across Louisiana that provides seed and early stage investment capital to viable start up companies ready for angel-round funding.	louisianaangels.angelgroups.net	Servicing businesses in Louisiana
Mississippi Angel Network	Angel Investor	Group of accredited investors interested in reviewing fundraising presentations from Mississippi-based technology companies	www.technologyalliance.ms/services/ms-angel-network.php	Servicing businesses in Mississippi
Louisiana Technology Innovation Fund	Seed Fund	Provides "seed" money for innovative agency projects within state government with a goal of helping to retain and develop new technology jobs	doa.louisiana.gov/ltif/index.htm	
NASA (Stennis): Innovative Partnerships Program	Seed Fund	Offers bridge funding for joint-development projects	technology.ssc.nasa.gov/act_seed_fund.html	Stennis Space Center, Mississippi
Regional Loan Corporation	Loans	A non-profit corporation partnering with the US SBA and private sector lenders to provide growing businesses with long-term, fixed-rate financing for major fixed assets, such as land and buildings.	www.rlbsidco.com	New Orleans



State Incentives

Louisiana Tax Credits and Incentives

Program	Description	Requirement	Industries	Benefit Type	Benefit Amount
Corporate Jobs Tax Credit	Encourages job creation		Any corporation that establishes or expands in Louisiana	Income Tax Credit	One-time income tax credit ranging from \$100-\$225 for each new job created
Economic Development Award Program	Promotes infrastructure needed for industrial or business development- given to local governments or for-profit entities	Project must promote economic development and require state assistance	Infrastructure, industrial, business development	Incentive	Minimum \$25,000 for publicly-owned infrastructure to assist industrial or business development project
Enterprise Zone	Promotes job creation in areas of high unemployment or public assistance	10% workforce increase in first 12 months or 5 net new jobs in first 24 months	Any	Income and Franchise Tax Credits	\$2,500 JTC for each net new job, variable sales/use tax rebate
Film Industry Tax Credit	Promotes development of the film/video industry in Louisiana	State certification & approval, submission of production expenditures	Film & Television	Income and Franchise Tax Credits	25% of base Louisiana investment; additional 10% of Louisiana resident payroll
Industrial Tax Exemption	Promotes capital investment by manufacturers	Manufacturer investment in improvements to land, buildings, machinery, etc	Manufacturing	Property Tax Abatement (cash rebate)	Variable; property taxes on new investment abated up to 10 years
Industry Assistance Program	Encourages preference to Louisiana manufacturers and suppliers	Maintain existing employment	Manufacturing	Franchise Tax, Sales/Use Tax, Corp. Income Tax	Variable
Inventory Tax Credit			Manufacturers, Distributors, Retailers	Income and Franchise Tax Credits	100% credit toward state income and corporate franchise taxes of local inventory taxes paid
Manufacturing Sales Tax Exclusion	Promotes purchase and/or lease of machinery		Manufacturers	Sales and Use Tax Credit	Sales and use tax being phased-out on purchase and/or lease of machinery and equipment by manufacturers.

Louisiana Tax Credits and Incentives cont.

Program	Description	Requirement	Industries	Benefit Type	Benefit Amount
Quality Jobs	Encourages quality job creation in specified industries	Create 5 new jobs with \$250k-\$500k additional payroll within 3 years	Bio-Science, Manufacturing, IT, Environmental Tech, Food Tech, Advanced Materials, Oil & Gas Field Service; OR any industry with stipulated amount of out-of-state sales	Cash Rebate	5%-6% of payroll generated by new jobs; variable sales tax rebate
R&D Tax Credit	Stimulates private research and development in the state	Increased R&D activities in the state OR receipt of federal SBIR grant	Any	Income and Franchise Tax Credits	8% of state share of R&D expenditures; 25% of state share of federal credit
Restoration Tax Abatement	Encourages investment in existing commercial structures	Investment in existing structure	N/A	Property Tax Abatement (cash rebate)	Variable-- 5 year deferred assessment of renovations and improvements
Tax Equalization Program (similar to Gulf Opportunity (GO) Zone)	Increases competitiveness with out-of-state sites	Sites viable for proposed operation	Manufacturing, Headquarters, Warehousing & Distribution	Tax equalization	Equalization of difference in tax burden between sites
Technology Commercialization Credit and Jobs Program	Encourages commercialization of Louisiana technologies and creation of new jobs	Technology must be created by a Louisiana business and researched by a Louisiana university or college		Tax credit	Qualified individuals or businesses may get refundable tax credit on any income or corporation franchise tax liability, and earn refundable tax credit based on new jobs created
Venture Capital Match Fund	Increases availability of venture capital funds	Minimum \$5 million privately raised capital for risk investment under management		Fund match	Provides a match or co-investment for qualified Louisiana venture capital funds

Mississippi Tax Credits and Incentives

Program	Description	Requirement	Industries	Benefit Type
Advantage Jobs	Rebate for a percentage of Mississippi payroll to qualified employers for a period of up to 10 years	Must meet category and employment requirements, provide a basic health benefits plan, and describe how the rebate will be used	Data or information processing, manufacturers, distributors, technology intensive enterprises, research and development	Rebate
Free Port Warehouse Property Tax Exemption	An exemption from property taxes on finished good inventory in transit to a destination outside Mississippi	Eligible companies must contact the county board of supervisors and municipal authorities	Varies	Tax Exemption
Growth and Prosperity Program (GAP)	Specific GAP counties receive income, franchise, sales, and property tax incentives for companies that locate or expand in those areas	County unemployment rate must be 200% of state's annual unemployment rate, or have at least 30% of the population below the federal poverty rate	Manufacturing, assembling, storing, warehousing, servicing, distributing or selling any products or goods, research and development; not retail, gaming, or electrical generation	Tax Incentives
National or Regional Headquarters Tax Credit	Tax credits for companies that establish a headquarters in Mississippi with officers and other high-level employees	Headquarters must be an office or location of a multi-state business where managerial, professional, technical, and administrative personnel live and are employed in financial, legal, technical, and other personnel activities. Must employ at least 35 full-time people.	Varies	Tax Credit
Property Tax Exemption on In-State Inventory	A finished goods inventory exemption on inventory that will remain in Mississippi	Eligible companies must contact the county board of supervisors and municipal authorities	Varies	Tax Exemption
Industrial Property Tax Exemption	Exemption from property taxes for eligible industries that locate or expand in the state	Eligible companies must contact the county board of supervisors and municipal authorities	Manufacturers, processors, and/or refineries, research and development, warehouse, distribution, air and transportation maintenance, telecommunication, data and information processing, technology intensive facilities	Tax Exemption
Jobs Tax Credit	Income tax credits for companies that create and sustain new jobs in Mississippi	Employer must create and maintain a minimal average annual employment as determined by the development ranking of the county	Manufacturers, wholesalers, processors, research and development, distributors, warehouses; also air and transportation maintenance facilities, telecommunications, data and information processing, computer software development, and technology intensive facilities	Tax Credit
Manufacturing Investment Tax Credit	Tax credits for manufacturers that have operated in Mississippi for at least two years	Income tax credits for manufacturers that have been in the state for at least two years and invest in at least \$1,000,000 in additional buildings and/or equipment	Manufacturing	Tax Credit

Mississippi Tax Credits and Incentives cont.

Program	Description	Requirement	Industries	Benefit Type
Property Tax Exemption for Industrial Revenue Bond Financing	Exemption from property taxes on land, building, and equipment for up to 10 years on property purchased with industrial revenue bond proceeds from the Mississippi Business Financing Corporation (MBFC)	Eligible companies must contact the county board of supervisors and municipal authorities	Varies; must have real and tangible property purchased with bonds issued by MBFC	Tax Exemption
Property Tax Fee-In-Lieu	A negotiated fee is paid in place of the standard property tax rate for a private capital investment of over \$100,000,000	A project must locate or expand in the state and have a private capital investment of over \$100,000,000. Eligible companies must work with municipal authorities and/or the local board of supervisors	Varies	Fee-In-Lieu of Tax
Research and Development Skills Tax Credit	Tax credits for any position requiring research and development skills	No minimum number of positions; job must require minimum of: bachelor's degree in scientific or technical field from an accredited four year college or university, employment in the employee's area of expertise, and compensation at a professional level	Research and Development	Tax Credit
Rural Economic Development Tax Credits	Tax credits based on the amount of bond-related debt service paid on industrial revenue bonds issued by the MBFC	Companies in qualified industries; precise requirements vary by industry	Manufacturers, telecommunications, national or regional headquarters, research and development, technology intensive enterprises	Tax Credit, applied to corporate income tax
Sales and Use Tax Exemption for Industrial Revenue Bond Financing	Eligible purchases made with industrial revenue bonds issued by the MBFC may be exempted from sales and use tax in Mississippi	Materials must be purchased by, billed to, and paid for directly by the eligible entity. Contractor's tax still applies to the labor portion of the construction contract	Varies	Tax Exemption
Sales and Use Tax Exemption for Construction or Expansion	A sales and use tax exemption is available for eligible businesses that construct a new facility or expand an existing facility in Mississippi	Must be in an eligible business category	Manufacturers, custom processors, data and information processing companies, technology intensive facilities	Tax Exemption
National or Regional Headquarters Sales Tax Credit	Sales and use tax exemption for eligible businesses that create or transfer their national or regional headquarters to the state	Minimum of 35 new headquarters jobs must be created. Employee positions must include managerial, professional, technical, and administrative; work functions include financial, legal, technical, personnel	Varies; headquarters	Tax Exemption
Skills Training Income Tax Credit	Tax credits that can be applied to state income tax	The training program must be offered by, or approved by, the community or junior college in the district where the business is located as well as the State Tax Commission. Qualifying expenses include instructors, materials, equipment, and construction as well as maintenance of facilities used for training purposes	Manufacturers, wholesalers, processors, research and development, distributors, warehouse; also air and transportation maintenance facilities, telecommunications, data and information processing, computer software development, and technology intensive facilities	Tax Credit



Site Visit Agenda

Day 1 – May 4th

2:30pm **Leave hotel for Michoud Assembly Facility**

3:00 – 6:00 pm **Tour & Meetings at Michoud Assembly Facility**

3:00 Arrival

3:00-3:30PM Brief Intro of MAF & MAF Business Model Overview

3:30-4:00PM IEDC Panel Questions & Responses – MAF Specific

4:00-5:00PM Discussion around Orleans and Jefferson Parishes

5:00-6:00PM MAF Tour (optional for non-IEDC team attendees)

Attendees:

Mike Dawson and Ray Vogel, Jacob Engineering
Malcolm Wood, COO, Michoud Assembly Facility (MAF)
Bruce Brailsford and/or John Vickers, NCAM at Michoud Assembly Facility (MAF)
Pat Campbell, Deputy General Manager, Jacob Engineering
John Filostrat, Jacob Engineering
Belinda Littlewood, Executive Director, NSA (Naval Support Activity)
Advisory Task Force, City of New Orleans
Gary Silbert, Entergy – New Orleans
General David Mize, Federal City, New Orleans Federal Alliance
Aimee Quirk, Manages the Mayor-Elect Landrieu’s economic development task force
Caitlin Cain, New Orleans Regional Planning Commission
Matt Rookard, GNO, Inc.

Location: Michoud Assembly Facility, New Orleans, LA

Purpose: Obtain an understanding of the specific opportunities and challenges at the Michoud Assembly Facility and Orleans Parish

6:30 – 8:30 pm **Dinner - IEDC Expert Panel**

Attendees: IEDC Expert Panel only

Location: Restaurant in French Quarter

Purpose: Discuss feedback on background report; site visit agenda/work schedule for week; expectations for the preliminary findings

Day 2 – May 5th

7:30am **Leave for Slidell City Hall**

8:30 am – 11:00 am **Overview Meeting for Stakeholders**
Attendees: Stennis Michoud Stakeholders (31 people)

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: Discuss the goals, objectives, key issues for the development of a marketing action plan as well as the site visit agenda; provide results from the business survey; discuss stakeholders' expectations

11:00 pm – 12:00 pm **Regional Perspective Meeting**

Attendees:
Pat Witty, LED
Chandler Russ, Mississippi Development Authority
Michael Hecht & Mike Rookard, GNO, Inc
Sue Wright, Mississippi Gulf Coast Alliance for Economic Development
Ned Peak, Partners for Stennis
Clay Wagner, Hancock Bank
Caitlin Cain, Regional Planning Commission
Arnie Williams, Mississippi Power
Michael Sibley, Cleco

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: Meet with regional and state organizations to discuss their marketing priorities & projects for region, particularly as it relates to the tech corridor.

12:15 pm – 1:30 pm **Lunch Meeting**

Attendees:
David Doss, COS, Senator Vitter
Myrtis Franke, Senator Cochran's coast representative
Jennifer Schmidt, Senator Wicker's staff
T. Bradley Keith, Senator Landrieu
Marcie Baria from MS State Senator David Baria
Wanye Labit, Legislative Assistant from LA State Senator A.G. Crowe

Location: Palmettos Bayou Bar & Grill, 1901 Bayou Lane, Slidell, LA 70458, (985) 643-0050

Purpose: Update on the current state of the Constellation program,

Obama's proposal to cut the program and its impact on the tech corridor, as well as initiatives to bring other federal opportunities to the region and advance aerospace/defense in Louisiana/Mississippi. In addition, receive an update on state initiatives around the tech corridor from state legislative representatives.

1:45 – 3:00

Major Employers (Aerospace, Defense, & Advanced Mfg)

Attendees: Business representatives such as:

Howard Daigle (Advanced manufacturing)

Dr. Larry Crane, Senior Director Training, Northrop Grumman Shipbuilding

Sherrie Mullins and Bob Dempsey, Government Counselor, Louisiana Procurement Technical Assistance Center (PTAC)

Donald “Boysie” Bollinger, CEO of Bollinger Shipyards

Clay Moise, formerly the President of Textron

Bobby Savoie, Geocent

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: To obtain a better understanding of the opportunities & challenges from major local employers in aerospace, defense and advanced manufacturing.

3:30 – 4:45pm

R&D at Universities/Colleges

Attendees:

George Harker, Sr. Associate Vice Chancellor – Research and Economic Development, UNO

Pat Gibbs, President, UNO Research & Technology Foundation

Scott Whittenburg, Vice Chancellor for Research & Dean of Graduate School, UNO

Jim Logan, Dean of the College of Business Administration, UNO

Russ Trahan, Dean of Engineering, UNO

Rachel Kincaid, Vice Chancellor for External Affairs, UNO

Roy Keller, Louisiana Business & Technology Center

Pat Joachim, University of Mississippi

Ivan Miestchovich, Director, Center for Economic Development, UNO

Doug Meffert, Tulane University, Riversphere

Location: Center for Energy Resources Management (CERM) Building, Suite # 438, UNO Research and Technology Park, 2045 Lakeshore Drive, New Orleans, LA 70122

Purpose: Obtain an understanding of the engineering, research and commercialization efforts as well as other tech-related capabilities in

the region, particularly as it relates to the tech corridor.

5:00 – 6:00 pm **Workforce Development**

Attendees:

Ava Dejoie or Dawn Saucer, Business Liaisons, LA Department of Education

Dr. Scott Alsobrook, Workforce Education, Pearl River Community College

Kathleen Mix, Associate Dean of Community and Workforce Development, and Dr. Leroy Kendrick, Delgado Community College

Lauren King, Director of Workforce,, Louisiana Technical Colleges – Region 1 (focuses on Orleans, St. Tammany’s, Jefferson, St. Bernard’s)

Melissa Kirsch, WIB Director of St. Tammany/St. Bernard/ St. Plaquemines, 985-875-9275

Brian Moore, WIB Director for New Orleans

Mike Garvey, WIB Director for Jefferson Parish

Juan Chevalier, Career to College Transitions Coordinator, Region 1

Ernest Frazier, Workforce Development, and Don Hoffman, Dean of Business & Technology, Nunez Community College

Barbara Johnson, Johnson & Consulting

Susie Veglia, Workforce Development Director, Hancock County Development Commission

Dr. Shawn Mackey, Associate Executive Director for Workforce, Career and Technical Education, Mr. Dexter Holloway, Director of Workforce Education, Mississippi State Board for Community and Junior Colleges

Location: Center for Energy Resources Management (CERM) Building, Suite # 438, UNO Research and Technology Park (across from UNO’s main campus), 2045 Lakeshore Drive, New Orleans, LA 70122

Purpose: Obtain an understanding of the workforce development initiatives, challenges and opportunities.

6:30 – 8:00 pm **Dinner**

Attendees: IEDC Expert Panel only

Location: Restaurant in French Quarter

Day 3 – May 6th

7:15am **Leave for Stennis Space Center**



8:15 am– 1:30 pm **Tour and Meetings of Stennis Space Center; Meeting w/ Economic Development in Hancock & Lunch**

8:15 am Arrive at Stennis Space Center's South Gate

8:30 am Meeting with SSC Director Patrick Scheuermann

9:15 am Meeting with various site personnel:

Attendees:

Dorsie Jones, Manager, Office of Human Capital

John Bailey, Deputy Manager, Office of External Affairs

Ramona Travis, Chief, Integrated Partnership Program

Keith Brock, Director, Project Directorate

Rob Harris, Deputy Procurement Officer

Ron Magee, Center Operations

Sue Wright, Hancock County Development Commission

10:15 am Tour of propulsion test complex, briefing on Stennis
-11:25 and Tour of Nat'l Center for Critical Info Processing
& Storage (NCCIPS) with Ken Griffey

11:30 am Working lunch in Tower

-12:30pm Sponsored by Hancock County Development Commission

Attendees:

Ron Magee, NASA - Center Operations (conf)

Anne Peek, Chief of Applied Science & Technology Project

Sue Wright, Hancock County Development Commission

Ned Peak, Partners for Stennis

Tish Williams, Hancock Chamber of Commerce

Arnie Williams, Mississippi Power Company

Glade Woods, Applied Geo Technologies, Inc.

Tom Koger, Mississippi Enterprise for Technology

Roy Keller, Louisiana Business & Technology Center

12:45pm–
1:30pm

12:45pm Meeting with SSC Incubators & Start-up Companies
Attendees:
Tom Koger, Strategic Planning Consultant (4TCorp),
Mississippi Enterprise for Technology (MsET)
Craig Harvey, NVision Solutions (MsET incubator graduate)
Victor Johnson, Tech Transfer Specialist, Louisiana Business
& Technology Center (LBTC)

1:30 pm Depart from Stennis Space Center

Location: Stennis Space Center, Hancock County, MS

Purpose: Obtain an understanding of the specific opportunities and challenges at the Stennis Space Center

2:15– 3:30 pm

Meeting with Commercial Banks/Financial Institutions

Attendees:

Clay Wagner, Hancock Bank
Keith Williams, Hancock Bank
Ford Favre, Hancock Bank in Louisiana
John Ammerman, Omni Bank, Sr. Vice President
David Holman, The People's Bank, MS,
Jimmy Baum, Capital One, N.A.

Location: St. Tammany Economic Development Foundation's
Conference Room, 21489 Koop Drive, Ste 7, Mandeville, LA

Purpose: Discuss opportunities and trends for financing commercial real estate development in the region and the role of your financial institution in economic development efforts.

3:30 – 4:45 pm **Real Estate Development Meeting**

Attendees:

Stan Middleton, Corporate Realty/Bayer Properties
Sue Wright, Hancock County Development Commission
Scott Rojas, Churchill Park, JEDCO
Mike Saucier, President of Gulf States Real Estate Services
Brenda Reine Bertus, Executive Director, St. Tammany Economic Development Foundation
Rebecca Martin, Executive Director, St. Bernard Economic Development Commission

Location: St. Tammany Economic Development Foundation (STEDF)'s Conference Room, 21489 Koop Drive, Suite 7, Mandeville, LA 70471

Purpose: Discuss real estate development opportunities and marketing prospects for the region; discuss marketing efforts in St. Tammany's, St. Bernard's, and Jefferson Parishes

5 – 6:00 pm **Meeting with Local Small and Medium-sized Technology Firms**

Attendees:

Roy Keller, Louisiana Business & Technology Center
Tom Koger, Strategic Planning Consultant, MsET
Corinne Dupui, Director, MEPOL (manufacturing extension partnership)
Ethan Jolly, Vice President, NM Designs
Nancy McGee, 3001 International, Inc.
George Rey, Consultant to Marine Technologies
Craig Harvey, NVision Solutions, Inc

Location: St. Tammany Economic Development Foundation (STEDF), 21489 Koop Road, Mandeville, LA 70471

Purpose: To better understand the entrepreneurial climate and support for tech-oriented and advanced manufacturing start-up companies in region; discuss specific core strengths and potential niches for area

6:30 – 8:30 pm **Dinner**

Attendees: IEDC Expert Panel only

Location: Restaurant in French Quarter

Purpose: Start discussing action steps/preliminary recommendations

Day 4 – May 7th - Presentation

8:00am – 12:30 pm **Panel and Staff Preparation (with lunch)**
Attendees: IEDC Expert Team only

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

1:00 – 2:30 pm **Presentation on Preliminary Findings & Recommendations**
Attendees: Stennis-Michoud Stakeholders plus additional attendees (approximately 40)

Location: Slidell City Hall, Conference Room, 2055 Second Street, Slidell, LA 70458 (Conference room on 1st Floor, 1st door on the left)

Purpose: IEDC team shares impressions and insights gathered during site visit and preliminary recommendations for action plan

3:00 pm **Leave Straight for Airport**

IEDC Panelists and Staff Bios

IEDC Panelists

Bernie McShea

Vice President, Business Development, Space Florida

Bernie McShea leads Space Florida's business development efforts, focusing on opportunities to help new and expanding companies in Space Florida's defined market segments grow their Florida operations.

Bernie has a strong background in economic development; he is one of a handful who have been recognized three times by *Site Selection* magazine with its prestigious "Top Ten Economic Development Groups" award, winning in 2001, 2007, and 2008, while leading economic development efforts for the Pittsburgh Regional Alliance. During this time, the PRA amassed totals for located corporate location/expansion projects, and new jobs and investment that the Pittsburgh region last saw in the mid-1970s. Additionally, Bernie and his team reinvigorated the region's economic development marketing, instituting a comprehensive program themed "The New Pittsburgh Region," which highlighted investments made in technology development and transfer at local universities, and the successful growing companies that resulted.

Prior to the PRA, Bernie's role as a senior advisor on corporate location strategy in Deloitte's Fantus Consulting practice enabled him to work with numerous senior executives of Fortune 1000 companies in crafting strategies for new and expanded facilities. Cumulatively, he managed location projects that resulted in more than \$500 million in new investment, and 10,000 new jobs created, for clients including QVC, CSX, various Blue Cross/Blue Shield plans, Dow Chemical, and Carrier Corporation. He also developed economic development strategic plans for a number of communities, including a strategy for Elmira/Chemung County, NY that resulted in the attraction of Nucor's first new plant in the northeast United States.

Bernie also has senior level experience in government affairs, having served as Legislative Director of the Commonwealth of Pennsylvania's Washington, D.C. office under Governor Robert P. Casey. In that role he led development of Pennsylvania's annual priorities for federal appropriations, which resulted in \$250 million in new funding to support economic development and community revitalization efforts. He began his career as a Legislative Assistant to U.S. Representative James H. Bilbray (Nevada - 1st District), and directed Field Operations for Congressman Bilbray's successful 1988 reelection campaign.

Bernie holds a B.A. in Economics from Northwestern University, and a M.B.A. from the University of Michigan. He and his wife Jane co-lead a support group for parents waiting to adopt children from China.

Charles A. Hayes, CEcD

President and CEO, Research Triangle Regional Partnership

Charles A. Hayes has served as President & CEO of the Research Triangle Regional Partnership (RTRP) since 1996. Mr. Hayes is active in numerous professional organizations, including the North Carolina Partnership for Economic Development, North Carolina Economic Developers Association (past president) and International Economic Development Council.

Mr. Hayes is a speaker on economic development issues and has addressed such organizations as the National Governor's Association, the United States Economic Development Administration's Annual Conference and others. He is frequently quoted in news and business publications.

Under Mr. Hayes' tenure, RTRP has received:

- Economic Development Administration's (EDA) National Award for Excellence in Economic Development Regional Competitiveness Strategic Planning
- CED's Outstanding Service to Entrepreneurs Award
- Goodmon Award for Exemplary Regional Leadership by an Organization
- Goodmon Award for Exemplary Regional Partnership
- Accreditation as an economic development organization by the International Economic Development Council

Mr. Hayes is involved in the following professional activities:

- UNC Board of Governors
- International Affairs Council
- North Carolina Economic Developer Association (Past President)
- North Carolina Citizens for Business & Industry
- International Economic Development Council (IEDC)
- The 50 Group

Mr. Hayes' professional experience includes both public and private sector positions, including:

- N.C. Community College System instructor
- Local economic development director
- North Carolina county manager
- Business principal/owner

Mr. Hayes' education/certification and licenses include:

- International Economic Development Council, Certified Economic Development Certification (CEcD), 1988
- North Carolina Real Estate Brokers License, 1979
- University of North Carolina at Chapel Hill, Basic Economic Development Certification, 1975

- University of North Carolina at Chapel Hill, Institute of Government County Administration Certification, 1975
- East Carolina University, Greenville, NC, MA Ed. 1974
- East Carolina University, Greenville, NC, BSBA 1972

He and his wife Jan live in Sanford, NC. They have three children and two grandchildren.

Charles “Sid” Saunders

Partner, Pendulum Group

Charles “Sid” Saunders is responsible for strategic planning and marketing activities. Pendulum was formed in 1999 as an asset management company dedicated to maximizing value from client assets in a minimum period of time. Pendulum has assisted several clients in government and industry for asset recognition, reuse capability, technology transfer and value creation. As Manager of Pendulum, Sid has managed Pendulum contracts for National Marketing for the U. S. Army Government Owned, Contractor Operated Plants, establishment of business accelerators including the Picatinny Technology Acceleration Initiative.

Sid also initiated action for the creation of the Leonard Wood Institute, a not-for-profit established for the purpose of developing, promoting and managing world-class government, academic and private business collaborations that have an inherent synergy with the Department of Defense missions at Ft Leonard Wood. He also initiated action to create the Defense Transformation Institute, a not-for-profit that serves as the primary intermediary for leveraging assets at and around active military installations in San Antonio, TX, to create value for the community and the military.

From 1992 until 1998, Mr. Saunders was Vice President of Government Operations for ICI Americas Inc. In this position he was responsible for the management of Army Ammunition Plants in Charlestown, Indiana and Chattanooga, Tennessee. The Indiana site has served as a model for the U. S. Army ARMS (Armament Retooling and Manufacturing Support) Program. This program has been hailed as a successful model for privatization of Government facilities. In 1998, the Indiana site was awarded a Phoenix Award for excellence in development of a brownfield site. Between 1995 – 1998, Mr. Saunders directed the National Marketing campaign for the U. S. Army, Industrial Operations Command (IOC) ARMS program.

Mr. Saunders was Vice President of Business Development for ICI’s Advanced Materials Division from 1986 to 1992 and was responsible for product development and Government systems as well as market research and marketing to include advertising and promotion for high temperature superconductors, orthopedic implants and high performance ceramic polymer materials.

Mr. Saunders was Vice President of the Texas Research and Technology Foundation in San Antonio Texas from 1985 – 1986. He was responsible for land planning and acquisition of the original 250-acre tract for the Texas Research Park and options for an additional 1000 acres. During this planning of the project Mr. Saunders worked with land planners and architects as well as attorneys, financial analysts and community leaders on a development plan from the acquisition of the land to its use as an endowment for research. In the planning process visited research park facilities throughout the U. S. and participated in reviews and assessments of other projects.

Prior to joining ICI, Mr. Saunders was Director of Commercial Development for GAF Corporation in Wayne, New Jersey, and was responsible for new business development, market research department, economic evaluation, and for management of the advanced technology and materials group.

Mr. Saunders holds a B. S. Degree in Chemistry from Texas A&M University, and a M. S. Degree in Chemistry from the University of Utah. He has had articles published in a number of different periodicals as well as a section in the AMA Management Handbook, Third Edition on Industry Government Collaboration. He served as an officer in the U. S. Air Force and is retired from the U. S. Air Force Reserve.

Mark Sweeney

Senior Principal, McCallum Sweeney Consulting

Mark Sweeney is a senior principal in McCallum Sweeney Consulting (MSC), providing site selection services and economic development consulting to companies and organizations worldwide. Recent MSC clients include Sallie Mae, Nordex, PACCAR, Berg Pipe, Cytec Materials, Boeing, Oreck, Nissan, and Michelin.

With more than 20 years of experience in site selection and economic development, Mr. Sweeney assists companies in identifying, evaluating, and selecting the optimal location for their capital investments. Such projects cover a wide array of related factors, including sites, infrastructure, transportation, labor and demographics, state and local taxes, utility services, incentives, etc.

Mr. Sweeney also provides consulting services to leading economic development organizations across the United States in such areas as strategic planning and organizational design, site certification, adaptive reuse, target industry programs, incentive strategies, and sustainable development.

Mr. Sweeney has assisted clients in a wide variety of industries, from automotive manufacturing to software development and internet services. Recent clients include Sallie Mae (credit operations center), Nissan (headquarters; auto assembly; engine; distribution), Michelin (tire and rubber manufacturing distribution), Dollar General (distribution); and Oreck (headquarters; appliance manufacturing). Of particular note are the Nissan headquarters relocation from Los Angeles to Nashville, Tennessee (November 2005) and the Nissan auto assembly project that announced in Canton, Mississippi (November 2000). Mr. Sweeney has conducted siting projects in Europe and

Asia as well as most regions of the United States. Economic development clients include the Tennessee Valley Authority (TVA); Southern California Edison; and Duke Energy; the States of Oklahoma and Tennessee; and Alexandria, Louisiana; Topeka, Kansas; and Macon, Georgia.

Mr. Sweeney spent more than five years at the South Carolina Department of Commerce, serving as Director of Research and Communication. There, he directed departments providing project management support, information management (including world's leading economic development application of Geographic Information Systems), and communications. Mr. Sweeney was also one of the authors of *Approaching 2000 – An Economic Development Vision for South Carolina*, a state strategic plan for economic development.

Mr. Sweeney has a Masters in Business Administration from Clemson University and a Bachelor of Science from Appalachian State University. In addition, Mr. Sweeney was a recipient of a Murphy Fellowship for graduate work in economics at Tulane University. He lives in Greenville, South Carolina.

IEDC Staff

Jeff Finkle, CeCD

CEO & President, International Economic Development Council

Whether on a neighborhood or national scale, economic development is a complex, demanding endeavor. It requires financial skills, political acumen and the ability to gauge the social benefit that will result from a given undertaking. Since the late 1970s, Jeffrey A. Finkle has demonstrated mastery of all those skills, applying them worldwide—from his native Ohio to the Far East and most points in between.

This experience has made Jeff Finkle a recognized leader and international authority on economic development. As President and CEO of the International Economic Development Council (IEDC), the world's largest economic development membership organization, he contributes his expertise on community revitalization, business development and job creation to projects nationwide. Jeff has established multi-lateral partnerships with regional and national economic development organizations around the world and currently sits on the Consultative Committee of World Association of Investment Promotion Agencies (WAIPA). He has advised on economic development in China, Europe, Latin America, and Oceania. He now serves on the Board of Directors for Climate Prosperity, Inc., a company based on creating important regional economic outcomes -- green savings, green opportunity, and green talent -- while reducing greenhouse gas emissions.

He is also a leader in community service and philanthropy. In 2005, Jeff organized 250 economic development volunteers to work in Gulf Coast communities endeavoring to recover from Hurricane Katrina. He also founded the Bollinger Foundation, a non-profit organization that provides financial assistance to educate and support children who have

lost one or more parent who worked in the field of economic development. The foundation to date has awarded approximately \$500,000 in grants.

A former Deputy Assistant Secretary in the U.S. Department of Housing and Urban Development, where he oversaw programs such as Community Development Block Grants and Urban Development Action Grants, Jeff writes and lectures frequently about economic development issues and advises Congressional Committees. His vigorous support of the use of eminent domain to promote economic development, upheld by the U.S. Supreme Court, garnered him national media attention, including appearances on CBS Sunday Morning, Fox television and the Journal Report on PBS.

With the formation of IEDC in 2001, Jeff set the course for a more effective and influential economic development organization. IEDC resulted from the merger of the Council for Urban Economic Development (CUED), where Jeff was president for 15 years, and the American Economic Development Council (AEDC). Addressing significant financial and organizational challenges, Jeff has grown IEDC to a \$5 million annual operation with 30 employees. IEDC is recognized for its leadership in making sustainable economic development a priority in communities of all sizes and for professionalizing and diversifying the field of economic development.

A past member of the Arlington Virginia Economic Development Commission, he served on its BRAC Task Force in 2005, dealing with issues that directly impacted 4 million square feet of Arlington office space and 17,000 jobs. He sits on the Executive Committee of the Commission.

Jeff maintains a long-standing relationship with Ohio University's Voinovich School for Leadership and Public Affairs and serves on the School's Institute for Local Government Administration and Rural Development Advising Committee, where he regularly participates in programs of direct benefit to Appalachia Ohio. In this capacity, he worked closely with Ohio governors as well as other political and community leaders throughout the state. He received a Bachelor of Science degree in communications in 1976 from Ohio University in Athens and pursued graduate studies in business administration at Ohio State University.

Carrie Mulcaire

Senior Associate, International Economic Development Council (IEDC)

Carrie Mulcaire is a Senior Economic Development Associate in the Advisory Services and Research department at the International Economic Development Council (IEDC) in Washington, DC. She comes to IEDC with 13 years of broad experience in local and regional economic development in the United States, China, and Western Europe.

She currently serves as the program manager of a disaster recovery grant from the Economic Development Administration (EDA) for New Orleans & Gulf Coast Economic Recovery Program (2008-2010). This program seeks to rebuild economic development capacity and lay a foundation to generate new investment and job growth for communities impacted by Hurricanes Katrina along the Louisiana / Mississippi Gulf

Coast. She has helped with technical assistance projects in post-disaster communities such as Cedar Rapids, Iowa and Galveston, TX (2008). She recently served as the main author for a report, *An Improved Federal Response to Post-Disaster Economic Recovery*, which received input from numerous economic recovery experts across the country.

Previously at IEDC, she managed two large strategic assessment projects for the United Nations Industrial Development Organization (UNIDO) -ITPO-China office for two communities in Shandong Province, P.R. China. She has also served as project manager for technical assistance in the U.S. such as Columbus, OH; Rock Hill, SC; Pleasantville; NJ, Birmingham, AL, and Keweenaw Bay Indian Community in Michigan. Her work has covered a variety of economic development issues including strategic planning, industrial development, workforce development, technology-led economic development, entrepreneurship, downtown revitalization, and more.

Prior to joining IEDC, she worked as an Associate at Economics Research Associates (ERA) in Washington, D.C. as well as served as a consultant on an Asian Development Bank (ADB) technical assistance project in mainland China. She has also held positions that include: business attraction for the government of Northern Ireland; directing marketing efforts for a downtown Business Improvement District (BID) in Berkeley, CA; assisting in redevelopment projects for the Emeryville, CA Redevelopment Agency; and research on an NSF study on workforce issues in the IT industry.

She obtained a Master's degree in City and Regional Planning from UC Berkeley where she specialized in regional economics and international development. She has a Bachelor of Sciences in Business Administration from the Haas School of Business at UC Berkeley.

Appendix

Fiscal Year 2011 Budget Estimates for NASA



▶ 2

Highlights of NASA's FY 2011 Budget

- Top line increase of \$6.0 billion over 5-years (FY 2011-15) compared to the FY 2010 Budget, for a total of \$100 billion over five years.
- Significant and sustained investments in:
 - Transformative technology development and flagship technology demonstrations to pursue new approaches to space exploration;
 - Robotic precursor missions to multiple destinations in the solar system;
 - Research and development on heavy-lift and propulsion technologies;
 - U.S. commercial spaceflight capabilities;
 - Future launch capabilities, including work on modernizing Kennedy Space Center after the retirement of the Shuttle;
 - Extension and increased utilization of the International Space Station;
 - Cross-cutting technology development aimed at improving NASA, other government, and commercial space capabilities;
 - Accelerating the next wave of Climate change research and observations spacecraft;
 - NextGen and green aviation; and
 - Education, including focus on STEM.
- Cancellation of the Constellation program; and \$600 million in FY 2011 to ensure the safe retirement of the Space Shuttle upon completion of the current manifest.

▶ 3

Funding Table

Budget Authority (\$M)	FY 2009	ARRA	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Science	4,503.1	400.0	4,493.3	5,005.6	5,248.6	5,500.6	5,709.8	5,814.0
Earth Science	1,377.3	325.0	1,420.7	1,801.7	1,944.4	2,089.4	2,216.5	2,282.1
Planetary Science	1,288.1		1,341.3	1,485.8	1,547.3	1,591.3	1,630.2	1,649.5
Astrophysics	1,229.9	75.0	1,103.9	1,076.3	1,109.3	1,149.1	1,158.7	1,131.6
Heliophysics	607.8		627.4	641.9	647.6	679.8	704.4	750.8
Aeronautics and Space Research and Technology	500.0	150.0	507.0	1,151.8	1,596.9	1,650.1	1,659.0	1,818.2
Aeronautics Research	500.0	150.0	507.0	579.6	584.7	590.4	595.1	600.3
Space Technology				572.2	1,012.2	1,059.7	1,063.9	1,217.9
Exploration	3,505.5	400.0	3,773.8	4,263.4	4,577.4	4,718.9	4,923.3	5,179.3
Space Operations	5,764.7		6,180.6	4,887.8	4,290.2	4,253.3	4,362.6	4,130.5
Space Shuttle	2,579.5		3,139.4	989.1	86.1			
International Space Station	2,060.2		2,317.0	2,779.8	2,983.6	3,129.4	3,221.9	3,182.8
Space and Flight Support (SFS)	725.0		724.2	1,119.0	1,220.6	1,123.9	1,140.7	947.7
Education	169.2		183.8	145.8	145.8	145.7	145.7	146.8
Cross-Agency Support	3,306.4	50.0	3,095.1	3,111.4	3,189.6	3,276.8	3,366.5	3,462.2
Center Management and Operations	2,024.3		2,067.0	2,273.8	2,347.4	2,427.7	2,509.7	2,594.3
Agency Management and Operations	921.2		941.7	837.6	842.2	849.1	856.8	867.9
Institutional Investments	293.7	50.0	23.4					
Congressionally Directed Items	67.2		63.0					
Construction and Environ. Compliance and Restor.			448.3	397.3	363.8	366.9	391.5	398.5
Inspector General	33.6	2.0	36.4	37.0	37.8	38.7	39.6	40.5
NASA FY 2010	17,782.4	1,002.0	18,724.3	19,000.0	19,450.0	19,960.0	20,600.0	20,980.0
Year to Year Change			5.3%	1.5%	2.4%	2.6%	3.2%	1.9%

▶ 4

The IPP program has been transferred from CAS to Space Technology in FY 2011. The FY 2009 and FY 2010 amounts are \$160 million and \$175 million respectively. FY 2010 funding levels may also change, subject to approval in NASA's initial operating plan.



Exploration Research & Development

- ▶ **The Budget includes three new robust exploration programs:**
 1. **Technology demonstration program, \$7.8 billion over five years.**
Funds the development and demonstration of technologies that reduce the cost and expand the capabilities of future exploration activities, including in-orbit refueling and storage.
 2. **Heavy-Lift and Propulsion R&D, \$3.1 billion over five years.**
Funds R&D for new launch systems, propellants, materials, and combustion processes.
 3. **Robotic precursor missions, \$3.0 billion over five years.**
Funds cost-effective means to scout exploration targets and identify hazards and resources for human visitation and habitation.
- ▶ **In addition, the Budget enhances the current Human Research Program by 42%; and supports the Participatory Exploration Program at \$5 million per year (for activities across many NASA programs).**

▶ 5

2. Heavy-Lift and Propulsion R&D

	2011	2012	2013	2014	2015
Heavy-lift and propulsion R&D	\$559	\$594	\$597	\$598	\$754

- ▶ Led by NASA's Exploration Directorate, this program will investigate a broad scope of R&D activities to support next-generation space launch propulsion technologies.
- ▶ This program seeks to both reduce costs and shorten development timeframes for future heavy-lift systems.
- ▶ **Target R&D activities include:**
 - ▶ New approaches to first-stage launch propulsion;
 - ▶ In-space advanced engine technology development and demonstrations; and
 - ▶ Foundational – basic - propulsion research.
- ▶ Projects may include intra-governmental, commercial, academic and international partnerships.



▶ 7

3. Robotic Precursor Missions

	2011	2012	2013	2014	2015
Robotic Precursors	\$125	\$506	\$699	\$797	\$923

- ▶ Led by NASA's Exploration Directorate, this program will send robotic precursor missions to the Moon, Mars and its moons, Lagrange points, and nearby asteroids to scout targets for future human activities, and identify the hazards and resources that will determine the future course of the expansion of human civilization into space. Projects will generally support missions that are less than \$800 million in life-cycle cost.
- ▶ Research goals include testing technologies and operational concepts and making observations that can benefit future human activities in space.
- ▶ Missions may include:
 - ▶ Landing on the Moon with a robot that can be tele-operated from Earth and can transmit near-live video.
 - ▶ Demonstrating a factory to process lunar or asteroid materials for use for various purposes.

▶ 8

Full Utilization of the ISS

	2011	2012	2013	2014	2015
ISS Utilization	\$2,780	\$2,984	\$3,129	\$3,222	\$3,183

- ▶ Increases by \$463 million over FY 2010 enacted, and \$2 billion over 4-years (FY 2011-14) compared to the FY 2010 Budget.
- ▶ Supports extension of the lifetime of the ISS likely to 2020 or beyond in concert with our international partners.
- ▶ Funds programs to:
 - ▶ Increase Station capabilities through upgrades to both ground support and onboard systems; and
 - ▶ Support ISS's national laboratory activities.
- ▶ *The goal will be to fully utilize the Station's R&D capabilities to conduct scientific research, improve our capabilities for operating in space, and demonstrate new technologies developed through NASA's other programs.*



▶ 9

Commercial Crew and Cargo

	2011	2012	2013	2014	2015
Commercial Crew	\$500	\$1,400	\$1,400	\$1,300	\$1,200
Commercial Cargo	\$312	--	--	--	--

- ▶ Building off successful progress in the development of commercial cargo capabilities, the Budget invests \$6 billion over five years to spur the development of American commercial human spaceflight vehicles.
- ▶ NASA will allocate these funds through competitive solicitations that support a range of higher- and lower-programmatic risk systems and system components, such as human-rating of existing launch vehicles and development of new spacecraft that can ride on multiple launch vehicles. NASA will ensure that all systems meet the agency's stringent human-rating requirements.
- ▶ In addition, to these commercial spaceflight amounts, the Budget provides (only in FY 2011) \$312 million for additional incentives for NASA's current domestic commercial cargo service providers.

▶ 10

Space Shuttle

	2011	2012	2013	2014	2015
Shuttle	\$989	\$86	--	--	--

- ▶ Adds \$600 million to the FY 2011 budget to fund the Shuttle to fly out its remaining five flights, even if those flights slip into the first quarter of FY 2011.
- ▶ Fully supports Shuttle workforce and facility transition efforts.
- ▶ Next launch is planned for this Sunday, February 7th.



▶ 11

21st Century Launch Complex

	2011	2012	2013	2014	2015
Kennedy Space Center Facilities	\$429	\$500	\$400	\$400	\$200

- ▶ Makes a significant investment to modernize the Kennedy Space Center to increase the operational efficiency and reduce the launch costs not only for NASA, but for other users.
- ▶ Potential projects include:
 - ▶ Improvements to the effectiveness of the complex's range;
 - ▶ Changes to KSC's perimeter to allow increased access to KSC facilities;
 - ▶ Enhanced environmental cleanup; and
 - ▶ Improvements to payload processing capacity.

▶ 12

Space Technology

	2011	2012	2013	2014	2015
Space technology	\$572	\$1,012	\$1,060	\$1,064	\$1,218

- ▶ Funds advancements in next-generation technologies, to help improve the Nation's leadership in key research areas, enable far-term capabilities, and spawn game-changing innovations to make NASA, other government and commercial space activities more capable and affordable.
- ▶ Involves a broad array of participants including academic, commercial and international partnerships and incorporates the current Innovative Partnerships Program (including the Small Business Innovative Research and Small Business Technology Transfer Research programs.)



- ▶ Focuses on key areas, such as communications, sensors, robotics, materials, and propulsion.
- ▶ Uses prizes and other innovative research funding mechanisms, in addition to grants and other more traditional funding mechanisms.

▶ 13

Earth and Climate Science

	2011	2012	2013	2014	2015
Earth Science	\$1,802	\$1,945	\$2,090	\$2,217	\$2,282

- ▶ Increases by \$382 million over FY 2010 enacted, and \$1.8 billion over 4-years (FY 2011-14) compared to the FY 2010 Budget;
- ▶ Re-flies the Orbiting Carbon Observatory, which is critical to our understanding of the Earth's carbon cycle and its effect on climate change;
- ▶ Accelerates the development of new satellites to enhance observations of the climate and other Earth systems;
- ▶ Expands and accelerates Venture-class competitive PI-led missions;
- ▶ Enhances climate change modeling capabilities to enhance forecasts of regional and other effects;
- ▶ Operates 15 Earth-observing spacecraft in orbit and launches Glory, NPP, and Aquarius; and
- ▶ Proceeds toward completion and launch of remaining foundational missions: LDCM (6/13) and GPM (7/13).

▶ 14

Planetary Science

	2011	2012	2013	2014	2015
Planetary Science	\$1,486	\$1,547	\$1,591	\$1,630	\$1,650

- ▶ Increases by \$16M/yr for identification and cataloging of Near Earth Objects;
- ▶ Restarts Plutonium-238 production w/ DOE to support future missions;
- ▶ Continues to operate 11 planetary missions and launches Juno and Gravity Recovery and Interior Laboratory (GRAIL);
- ▶ Completes launch preparations for Mars Science Laboratory launch in fall of 2011;
 - ▶ Continues work toward LADEE and MAVEN launch in 2013;
 - ▶ Moves Mars 2016 mission into formulation;
 - ▶ Continues funding Europa Jupiter System Mission (EJSM) concept development; and
 - ▶ Begins flight development of the Advanced Stirling Radioisotope Generator (ASRG) for 2014/15 Launch Readiness Date.



▶ 15

Astrophysics

	2011	2012	2013	2014	2015
Astrophysics	\$1,076	\$1,109	\$1,149	\$1,159	\$1,132

- ▶ Continues to operate 15 missions;
 - ▶ Works toward NuSTAR launch in 2012 and Astro-H in 2014; and
 - ▶ Funds JWST at a 70% confidence level for launch in 2014.
- ▶ *Note: The new decadal survey is expected to establish science priorities for future missions.*

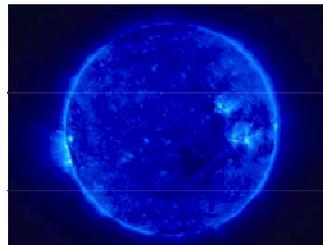


▶ 16

Heliophysics

	2011	2012	2013	2014	2015
Heliophysics	\$642	\$648	\$680	\$704	\$751

- ▶ Operates 17 missions with the launch of SDO in February;
- ▶ Works toward RBSP launch in 2012 and MMS launch in 2015;
- ▶ Initiates the highest priority “large” mission, Solar Probe Plus; and
- ▶ Funds Solar Orbiter Collaboration with ESA in project formulation. (NASA is providing key instruments and launch vehicle for ESA spacecraft).



▶ 17

Cross-Agency Support and Construction

	2011	2012	2013	2014	2015
Cross-Agency	\$3,111	\$3,190	\$3,279	\$3,367	\$3,462
Construction & ECR	\$397	\$364	\$367	\$394	\$399

- ▶ Cross-Agency Support Highlights:
 - ▶ Continues to fund operations and maintenance of NASA's 9 field centers
 - ▶ Funds agency-wide management functions
 - ▶ Works to find efficiencies and drive down operating costs
- ▶ Construction and Environmental Compliance and Restoration Highlights:
 - ▶ Funds major repairs of NASA's facilities
 - ▶ Constructs new or modified facilities as required to conduct NASA's program missions
 - ▶ Manages NASA's environmental clean-up responsibilities

▶ 19

Education

	2011	2012	2013	2014	2015
Education	\$146	\$146	\$146	\$146	\$147

- ▶ Increases the base NASA education program by \$20M to fund several new initiatives, including the recently announced *Summer of Innovation*.
- ▶ The *Summer of Innovation* will pilot programs over three years involving NASA scientists and curricula to inspire middle-school students and their teachers with exciting experiences that spur those students to continue in STEM careers.
- ▶ Other important programs include:
 - The Innovation in Higher Education STEM Education program and Innovations in Global Change Education program, which will focus on innovative ways to reach undergraduate and graduate students, improve student retention in STEM disciplines, leverage the research platform of the ISS, and better engage community colleges and minority institutions.
 - The NASA Informal Education Opportunities program, which will seek innovative approaches to conducting informal education in the Nation's science centers, museums, community groups, and other organizations.



▶ 20

Cancellation of Constellation Program

	2011	2012	2013	2014	2015
Cx Close Out	\$1,900	\$600	--	--	--

- ▶ The FY 2011 Budget cancels the Constellation program and provides \$2.5 billion over two years for related facility and close-out costs including any increased cost for Shuttle transition due to Constellation cancellation.
- ▶ Working with the Congress, NASA will strive to close out the existing Constellation contracts as soon as possible.
- ▶ NASA will create a tiger team to assess workforce, procurement and other issues, which will report to the Administrator over the coming months.
- ▶ Most important, we are not ending our ambitions to explore space. In order to explore new frontiers, we are launching a vigorous new technology development and test program that will pursue game-changing technology development that can take us further and faster and more affordably into space.

▶ 21

An Exciting New Direction for NASA

- ▶ NASA's new strategic approach will spawn exciting developments in research and technology that will make future spaceflight more affordable and sustainable, inspire a new generation of Americans, and increase our knowledge of the solar system and the universe of which we are a part.
- ▶ This investment will ensure that future space explorers will have tools, capabilities and knowledge that we can only dream about today.
- ▶ NASA looks forward to working with the Congress and others to further the President's and the nation's goals for NASA.

▶ 22



Article on Northrop Grumman – Avondale site in Louisiana

DefenseNews

By Christopher P. Cavas
March 28, 2010

For more than a decade, six major shipyards have met most of the shipbuilding needs of the U.S. Navy. But those needs are declining, even as the service builds up to its 313-ship fleet.

A question beginning to loom large in shipyard planning is whether the planned number of ships will be enough to keep those six shipyards in business, and a growing consensus is that the answer may well be "no." Among the first victims could be a key employer in the already hard-hit New Orleans area.

"The most challenging aspect of the plan is volume," David Heebner, head of General Dynamics' shipbuilding division, told Congress on March 3. The new plan, he pointed out, builds 13 fewer surface ships in the near term compared with last year's plan.

"This volume challenge," Heebner said, "will likely trigger shipyard work-force resizing."

Mike Petters, Heebner's counterpart at Northrop Grumman, buttressed those remarks at the same hearing. The new plan, he said, "presumes that there will be a smaller industrial base required to support the plan, and it presumes that that base will be healthy."

"I think these are very bold presumptions," Petters continued. "Our industrial base today has been established to support a 600-ship Navy, and yet this plan presumes even greater adjustments are to come."

A "rationalization would also be challenging in terms of our facilities," each of which, Petters added, is "tailored for specific applications in support of particular missions."

Of the six yards - three each owned by Northrop Grumman and General Dynamics - four seem to have solid order books. Northrop's Newport News yard in Virginia builds all the nation's aircraft carriers and half its submarines. The company's Ingalls yard in Mississippi constructs destroyers and all amphibious assault ships, along with large Coast Guard cutters.

GD's Electric Boat yards in Connecticut and Rhode Island supply the other half of Navy submarines, and Bath Iron Works in Maine builds major surface combatants.

GD's weak link is the National Steel and Shipbuilding Co. (NASSCO) yard in San Diego. While the yard is held in high regard for its workmanship and management, its order book is dwindling, with only five T-AKE dry cargo ships left to build and deliver. The yard has no further orders after the last ship is delivered in 2012. However, NASSCO is expected to compete for three new Mobile Landing Platform ships, the first of which is included in the current budget request.

Avondale: Just 6 Years of Work

In weaker shape is Northrop's Avondale yard at New Orleans, which specializes in building LPD 17-class amphibious ships. While four more LPDs are under construction or planned, the new shipbuilding plan canceled or delayed two programs that were expected to provide work for the yard, and as of now, Avondale has no further ships to build after the last of the LPDs is delivered in 2016.

Both companies, to some extent, seem to be holding out hope for building at least a few Littoral Combat Ships (LCS) at its shipyards. Neither company owns the small shipyards bidding for the current 10-ship LCS contract, expected to be awarded this summer, but both GD and Northrop could bid on another five-ship contract that will be competed in 2012.

Compounding the questions about Avondale's future is Northrop's need to get its sprawling Ingalls facility back to delivering the kind of quality the Navy wants from the yard that builds two out of every three of its major surface ships. Hurricane Katrina hit Ingalls hard in 2005, and Northrop since has struggled to repair and rebuild the yard's infrastructure while getting its extensive building schedule back on track.

Quality assurance has been an issue with some of the yard's ships as well - perhaps not surprising, since a considerable portion of the work force never came back after Katrina.

"Our demographics have shifted to a work force of employees with less than five years" of experience, Petters said, "coupled with a large population of shipbuilders with more than 25 years' experience nearing their retirement eligibility. And that experience is not easily replaced."

Petters, who already led the Newport News yard, added the Gulf Coast shipyards to his portfolio in 2008. Navy officials heartily supported the move, and Petters continues to have the support of his top customer. But some in the Navy say the challenge of improving the Gulf Coast yards while maintaining sufficient quality at the Virginia yard may be too much, and, privately, are urging Northrop to close the Avondale yard and concentrate on fixing Ingalls.

'Under-Performing Business'

Such a move, some industry analysts said, might fit in well with the style and desires of new Northrop CEO and President Wes Bush. Soon after taking over in January, Bush declared the company would move its Los Angeles headquarters to the Washington area, and shortly after that announcement, he pulled Northrop out of the Air Force aerial

tanker competition, charging the competition was unfairly weighted to favor competitor Boeing.

"Bush is very focused on operating margins and free cash flow," said defense industry analyst Jim McAleese. The Navy is concentrating construction at its major shipyards on nuclear-powered and surface combatants, he said. "I would expect that Northrop is aggressively re-examining certainly its non-nuclear shipyards right now."

"I don't believe that shipbuilding fits clearly into the future with Northrop's leadership," McAleese said. "A betting man would bet that Northrop would do something in the next year to rationalize at least one of its yards. The grim reality is that something dramatic is going to have to happen to Avondale."

Another Wall Street analyst agreed.

"It's a continually underperforming business," said the analyst, who asked not to be named. "The financial community would likely applaud it."

If Northrop decides to divest itself of Avondale, it could try to find a buyer or simply close down the facility.

Inside the Levee

Avondale, established in 1938, sits on 268 acres in a unique location on the Mississippi River. The yard is split by the levee - a large earthen dike built to contain the river in times of high water. During Katrina, the levee successfully held off the rising river, but ironically the barrier also is an impediment to development.

Shipyards now build ships in ever-bigger blocks, rolling them into place for final assembly. But Avondale's fabrication shops are all inside the levee, and blocks need to be driven up a relatively narrow ramp or hoisted over the dike for assembly alongside the river. Northrop has made a number of investments in the yard's infrastructure, but a lot more money would be needed to keep pace with construction methods at Ingalls and elsewhere.

"They could sell Avondale to anybody," observed one Capitol Hill source. Although improvements are needed, "it's a good piece of property other than the levee," the source said.

BAE Systems, which has garnered a large chunk of Navy ship repair work in Norfolk and San Diego, reportedly expressed interest at one time in buying Northrop's shipyards, but it is not clear how the company would view an Avondale acquisition.

The Gulf Coast also teems with commercial shipyards, many supporting the offshore oil industry.

"If Avondale gets sold, it's not going to be in the Navy business," the Capitol Hill source said. "I could see smaller vessels, there, but it won't be battle-force ships in my opinion."

Northrop has not signaled any specific intention to close the yard.

"Avondale shipyard has not approached me. They have not conveyed that to me at all," said the region's congressman, Rep. Joseph Cao, R-La. "That would be a terrible economic impact to the region were Avondale to close down. It would be of great concern to me."

Asked to comment on future plans for Avondale and its 4,600 employees, Northrop Grumman issued a simple statement:

"The combination of excellent facilities and wide ranging work force experience at several locations gives Northrop Grumman Shipbuilding the flexibility to continuously move both employees and work to best serve the needs of our customers."

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