

VOLUME 3
chapter **9**
ENHANCING PROSPERITY AND OPPORTUNITY



A Context

New Orleans is in the midst of fundamental economic transition. The city has made progress in rebuilding its economy after the devastation wrought by Hurricane Katrina, with some of its key industries such as tourism, maritime trade and advanced manufacturing showing considerable resilience. As this Master Plan is being written in 2009, like other cities across the U.S., New Orleans faces an uncertain economic climate that, if prolonged, could stall its progress. However, the city is more fortunate than most in that already-committed funding for rebuilding will continue to prime the economy and provide significant employment. Yet where will the city be and what economic direction will it take at the end of the rebuilding process?

Whatever the short-term economic prognosis, it is virtually a given that New Orleans' economic future will not look like its past. Few local industries will be untouched by national and international forces that are transforming the economic landscape. While their ability to influence broad economic forces is limited, city government and other economic stakeholders must understand the competitive challenges and opportunities facing the city's economy and take the actions necessary to provide the most favorable competitive environment for economic sustenance and growth. This chapter of the Master Plan identifies and describes New Orleans' important economic base industries—established, emerging, and potential—as well as the building blocks of economic prosperity that create the environment for development of human capital and new enterprises.

Economic base industries sell their products and services to business and consumers from elsewhere—regionally, nationally, and internationally—and therefore import income that circulates within the local economy, creating jobs and increasing business revenues. These industries are the key to wealth creation and economic prosperity. Established economic base industries include tourism, arts and culture, the maritime trade, advanced manufacturing, and oil and gas. Emerging industries—industries that are still relatively small but where strong growth opportunities exist—include life sciences, and media and film. Potential industries—embryonic industries that have the potential to develop and grow in New Orleans because of the competitive advantages New Orleans offers—include segments of alternative energy technology, coastal protection and restoration technology, and advanced building technology. Emerging and potential industries can benefit from the state of Louisiana's "Blue Ocean" initiative. This strategy is designed to identify and cultivate high-growth industries that are not yet dominated by other states through offering innovation, high value, and low cost. The chapter discusses the prospects for sustaining and growing these industries and the key factors that will influence their growth trajectories.

New Orleans' ability to grow, promote and sustain the processes of innovation, trade, and investment—its capacity to produce—is the key to achieving shared and sustainable economic growth. This capacity to produce is most directly a function of the characteristics of what can be called the community's economic building blocks—its human resources, its entrepreneurial climates, physical infrastructure, economic institutions, and general quality of life—and, more importantly, how these building blocks are put to use.

New Orleans' human capital is the foundation of the economy. Under the traditional economic development paradigm, people followed jobs. Businesses chose locations based on factors such as

proximity to markets or raw materials and access to transportation. Once businesses were established, people migrated to available jobs in search of economic opportunity. Under the new paradigm, the equation is reversed—jobs follow people. This is particularly true in the case of industries that rely on the most skilled and talented people and offer the highest-quality jobs. Cities that educate their youth to become highly productive workers and that offer the quality of life that attracts and retains highly skilled professional and technical talent are in a better position to attract and grow the high value-added, high growth companies whose workforces are their most important assets. Key human capital building blocks include high quality education and workforce training at all life stages, cultural and recreational amenities, and vibrant, safe, convenient, and environmentally sustainable neighborhoods.

Similarly, cities that develop a strong entrepreneurial culture can attract and retain footloose entrepreneurs seeking to exploit new product and market opportunities. Key entrepreneurial building blocks include a robust academic research base that aggressively moves technology into the commercial marketplace, a risk-oriented investment community, a critical mass of professional services and technical assistance, appropriately designed and priced physical space, and, in an age of increasing connectivity, ample opportunities for networking and collaboration.

Other economic building blocks are also important. One is physical infrastructure to support a variety of industries. A second is governmental functions that influence the business environment. Local government must use tax revenues as efficiently as possible to minimize the tax burden. And it must minimize regulatory burdens while carrying out legitimate regulatory functions. At the same time, it must effectively provide the basic public services that businesses depend on to carry out their day-to-day operations.

As one of the nation's largest ports, New Orleans' economy historically relied on manufacturing, oil and gas, and transportation, but since the mid-1980s, the city economy has been in transition. During the economic boom caused by the rapid increase in oil prices during the first energy crisis of the late 1970s and early 1980s, the New Orleans region added 100,000 new jobs, an increase of almost 25 percent. With the end of the oil boom in 1982, the oil and shipping industries entered a 10-year downturn, magnified by the migration of many oil and gas businesses to Houston and Dallas. Unemployment spiked and many residents left the region seeking jobs elsewhere.

In the 1990s, growth in the tourism industry stabilized the economy, aided by public and private investments to position the city as a major convention, tourist and sporting event destination—construction of the Convention Center, Harrah's, the New Orleans Arena, retaining the New Orleans Saints, and attracting a professional basketball team, the New Orleans Hornets. The growth of the tourism industry helped to mitigate the impacts of the oil and gas industry decline, but left the city heavily dependent on a single industry with lower quality jobs than those they replaced. Another bright spot in the regional economy during this time was the Port of New Orleans, which experienced significant growth having invested over \$350 million in capital projects in the 1990s that modernized its riverfront terminals, including over \$5 million in cruise ship facilities augmenting the city's tourism industry. However, unlike some other cities in the 1990s, New Orleans offered relatively few "new economy" jobs, ranking 38th out of the 50 largest metropolitan areas in an index measuring the role of high technology and new industries in local economies.¹

The impacts of Hurricane Katrina caused a disastrous, but temporary, fall in employment. Between the first half of 2005 and the first half of 2006, local wage and salary employment declined by fully 40 percent, a total of 97,000 jobs. However, by the first half of 2008, employment stood at about 70 percent of pre-Hurricane Katrina levels, with 25,000 of the 97,000 jobs lost having been restored. The New Orleans metropolitan area had the lowest unemployment rate, 5.3 percent, of any large metro area in the country in April 2009.

¹ New Orleans City Report published by NOLA.com 8/13/06.

Some of the job growth since Hurricane Katrina can be attributed to recovery-related jobs that are likely to influence employment data for years to come, but will decline in importance as recovery activities wind down. Other growth areas may indicate longer-term strengths. Jobs in construction and in professional and technical services, the latter of which is dominated by legal services and architectural and engineering services, have experienced higher than average employment growth since Hurricane Katrina. The information industry sector, which includes motion picture production and digital media, has experienced the strongest growth of any industry sector, returning to pre-Hurricane Katrina levels by the second half of 2008. Arts, entertainment and recreation, a key tourism industry driver; manufacturing, which is dominated by aerospace and ship manufacturing; and oil and gas, have all added employment at a faster than average pace. Industry sectors with slower than average growth include transportation and warehousing, which encompasses the important maritime trade industry, retail, health care, and education. Although warehousing is very strong elsewhere in the current economy, the slow post-Hurricane Katrina recovery reflects the lack of an industrial manufacturing base and smaller consumer population base in the New Orleans area. The many recovery-related residential, commercial, and institutional construction projects in the pipeline, along with new spending generated by the national economic stimulus package, are softening the effects of the 2008–2009 recession.

While New Orleans has a limited ability to influence the larger global forces that are shaping conditions in 2009, the city's longer-term economic future will be shaped by how it responds to the economic challenges and opportunities that are emerging at the national, regional, and local levels. The extent to which city government and other local economic stakeholders improve conditions over which they do have some control—efficient provision of basic city services, enhancing the residential, cultural and recreational amenities that attract foot-loose businesses and professional workers, improving workforce skills, providing modern transportation and telecommunications infrastructure, and supporting entrepreneurship—will influence the short-term pace of recovery and the long-term prospects for a strong and sustainable economic base.

1. Established Industries

A. TOURISM

Tourism is New Orleans' single most important industry. Each year, millions of visitors are drawn to the city by its unique history and culture. The region's tourism industry caters to both leisure and business markets. In 2008, approximately 75 percent of visitors came for vacation, 15 percent for general business or corporate and association meetings, and 10 percent for conventions and trade shows.

While visitation levels specific to the city are not available, the New Orleans Convention and Visitors Bureau reported 7.6 million visitors to the region in 2008 (25 percent below the all time high of 10.1 million in 2004) with the city as the focal point. Visitor spending totaling \$5.1 billion supported 78,000 tourism-related jobs cutting across several industries, including lodging, food services, art, entertainment and recreation, retail, and transportation. While data on total tourism employment in the city is not available, wage and salary employment in two heavily-tourism-dependent industries—lodging and food services; and art, entertainment and recreation—added up to approximately 32,000 jobs during the first half of 2008, or almost 19 percent of total wage and salary employment. Almost 2,000 additional self-employed individuals worked in these industries in 2006, the last year for which self-employment data is available. In the lodging industry, regional hotel room capacity reached close to 90 percent of pre-Hurricane Katrina levels in the second half of 2008, and bookings for the year reached approximately 85 percent. Total definite and tentative bookings for conventions and meetings had increased to 82 percent as of early 2009. The cruise industry contributed to these numbers. In 2008, cruises generated over 76,000 hotel room nights and about \$44.5 million in spending.

Many tourism jobs are relatively low paying. Average wages in accommodation and food services are very low, with an average weekly wage of \$457 during the first half of 2008. This was less than half the average of \$962 for all jobs. However, this wage level is likely to be understated, since many accommodation and

food service workers receive additional wages in the form of gratuities, which are not always fully reported. In addition, the hospitality industry offers opportunities for low-shelf workers to enter the industry and, with experience, to rise to management levels. Wages in the arts, entertainment, and recreation industry are considerably higher at \$808, or 84 percent of the average.

The city has three major tourism and marketing and development organizations with extensive marketing expertise. The New Orleans Metropolitan Convention and Visitors Bureau markets the city primarily to travel professionals, tour planners, and convention and meeting planners, while the New Orleans Tourism Marketing Corporation promotes the city as a leisure tourism destination with special emphasis on developing visitation during traditionally slow months. Both of these organizations are organized as private non-profits and receive much of their revenues from the hotel room occupancy tax. A third marketing organization, the New Orleans Multicultural Tourism Network, works to encourage multicultural visitation, and also receives an allocation from the room occupancy tax. Through these organizations, extensive marketing campaigns have been developed to lure visitors back to the city.

In January 2009, Lt. Governor Landrieu announced that he plans to work with tourism leaders in greater New Orleans to craft a master plan for drawing business and pleasure travelers to Louisiana's new and restored attractions, which include:

- The Mahalia Jackson Theater for the Performing Arts and restoration of Louis Armstrong Park, reopened in January 2009 (\$27 million).
- Saenger Theater renovations (expected 2011) as a catalyst for redevelopment of other theaters to create a downtown theater district. The State has enacted a tax credit as an incentive for private investment in theater redevelopment in the district.
- Jazz museum and performance space (expected spring 2010) in the third floor of the Old U.S. Mint on Esplanade Avenue (adjacent to the Frenchman Street entertainment district) that will become part of the New Orleans Jazz Historical Park.



The Mahalia Jackson Theater in Armstrong Park reopened in January 2009.

B. CULTURAL INDUSTRIES

New Orleans has an extraordinary mix of cultural assets. Although known throughout the world for Mardi Gras, New Orleans and Louisiana cuisine, and jazz, the city offers much more including world-class museums; thousands of individual artists and neighborhoods that have been transformed by the arts; a wealth of historic architecture; an antiques industry that builds off architectural assets; a music industry that extends beyond jazz and includes hip hop, classical, American roots, and an eclectic blend of everything from swamp to blues, as well as a strong recording industry and growing group of instrument makers; noted authors and a support infrastructure that keeps the literary arts alive and productive; grassroots community theaters and performance venues; a rich tradition of church music; and many of the state's principal art museums and arts associations and organizations.

The city's commitment to historic preservation has been and continues to be a critical foundation for the tourism and cultural economies. With some 37,000 structures located within National Register Historic Districts and world-renowned neighborhoods such as the French Quarter and the Garden District included in the 15 locally-regulated historic districts, the extent and depth of the city's extraordinary character is central to its attraction for visitors. This wealth of neighborhoods with historic and traditional architecture has also been the crucible of New Orleans' cultural riches.

Supporting culture and the arts in New Orleans

In New Orleans, culture is a way of life, a calling, a business, and an industry. World-renowned as the crucible of jazz and other American arts, the neighborhoods of New Orleans continue to nurture musical, visual, performing, culinary, and traditional artists, as well as traditional cultural activities in social clubs. Many of today's artists are natives of the city, but others are drawn to this fertile cultural ground from all over the world. New Orleans' culture is one of the pillars of the tourism industry, but individual artists and cultural groups often struggle to survive as artists. Moreover, innovative arts- and culture-related industries like film and digital media are creating new opportunities in the cultural economy.

What can the City do to give more robust support to the arts and culture community?

- **Recognize its critical role in New Orleans economy:** This Master Plan recommends that the cultural economy be one of the industry working groups convened inside the proposed economic development public-private partnership to develop a coordinated strategy.
- **Assist cultural organizations and artists in securing outside funding:** Include culture and the arts in the city's grant-seeking and grant-making system.



- **Make sure the regulatory system and community develop-**

ment programs encompass the special requirements of artists: Ensure that artist live-work situations are permitted in appropriate zoning districts; encourage arts projects to apply for community development funds for neighborhood development projects, especially within Cultural Products Districts; assist artists in accessing affordable housing.

- **Create a city Cultural Commission focused on neighborhood-based arts:** A

commission might be modeled on the San Francisco Arts Commission, which in 2008

spent about \$5 per person in San Francisco on six neighborhood cultural centers, community arts and education programs, a civic design review commission, and a program they call Cultural Equity Grants, which focuses on celebrating "the City's vast ethnic diversity and variety of cultural traditions" and includes grants to individual artists, programs and projects, and professional development, as well as other initiatives.



As part of a focus on neighborhood quality of life and local economic development, City support for the arts can be most effective at the neighborhood level, nurturing the grassroots cultural and artistic expression unique to New Orleans and ensuring its continuation into the future.

New Orleans' cultural economy contributes to economic development in four important ways:

- It is the primary attraction that draws visitors to the region.
- As a regional cultural center, it draws residents from the larger New Orleans' region to attend its arts performances, museums, galleries, and other cultural events, spending money in the city in the process.
- Its performing artists export their products outside the region through recordings, videos and performances on national and international tours and events.
- It plays a key role in creating the quality of life that retains and attracts the professional and technical talent that fuels the growth of businesses in a range of industries.

Precise estimates of employment in New Orleans' cultural industries are difficult. Wage and salary employment in arts, entertainment and recreation was approximately 6,800 people during the first half of 2008, about 80 percent of pre-Hurricane Katrina levels. While data on arts employment alone is

not available for confidentiality reasons, available data suggests that roughly half of this number can be considered cultural-related. This includes employment in performing arts companies, museums and historical sites, and arts promotion, as well as several thousand self-employed independent artists, writers and performers. Cultural workers are also employed in other industries, including education, architecture, and culinary arts.

Significant amounts of recovery funding have been provided to cultural institutions to restore facilities and cover operating deficits, and to individual artists to return to the city and obtain housing and jobs. However, cultural institutions and individual artists experience financial stresses. A recent study conducted by Tipitina's Foundation found that musicians in New Orleans earn an average of only \$21,000 annually from their work in the music field, well below a living wage. New Orleans' ability to raise cultural funding from philanthropic sources in the future may be affected by national declines in arts funding.

New Orleans has a wealth of organizations and initiatives dedicated to promoting the development of the cultural economy, including providing financial support for arts organizations and individual artists, supporting the development of cultural enterprises, expanding markets for cultural products, and educating the next generation of cultural talent. Among the most significant are:

- **The Arts Council of New Orleans.** The Arts Council awards grants to arts organizations and individual artists in a variety of disciplines for projects, technical assistance, and operating support. Its Arts Business Program offers business assistance, including entrepreneurial training, individual technical assistance, and legal assistance, for area artists, arts organizations, and arts businesses. The Council's experience in administering a grant-funded Art in Public Spaces project has resulted in preparation of a set of policy guidelines for donations of artwork. *(The proposal is in Volume 3, Appendix.)*
- **New Orleans Jazz and Heritage Festival and Foundation.** In addition to sponsoring the Jazz Festival and a number of other festivals, the foundation engages in a number of activities to increase economic opportunities for local performing artists, including housing assistance; grants for music and performing arts events; grants for education programs that employ local artists; the Jazz &



The annual Jazz Festival brings million of dollars in spending to New Orleans.

Heritage Talent Exchange, a searchable, online database that helps Louisiana musicians connect with festivals and other talent buyers for live performance engagements and music supervisors for licensing music into films, TV shows, commercials and video games; Sync Up, a set of activities designed to connect Louisiana musicians with international festivals and film and TV productions; and operating the Don Jamison Heritage School of Music, a free after school music education program for students 11–18 years of age.

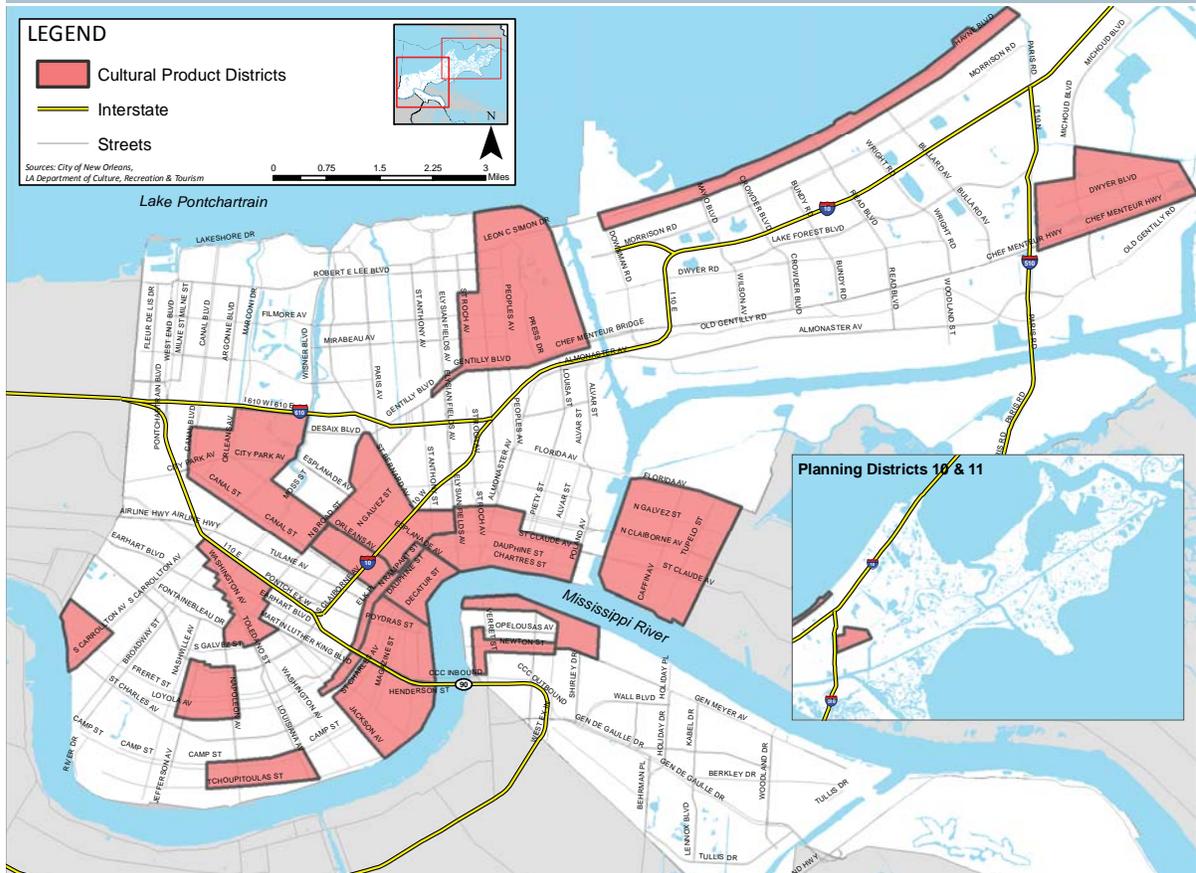
Recognizing the close

mandate in State Act 175 to employ performing arts and visual arts instructors in every public school. However, the lack of state funding to implement the act makes expansion of the program problematic. The foundation is also in discussions with the Hewlett Foundation about implementing an initiative modeled after Teach for America where recent college graduates in music fields are employed in the public schools. Such initiatives also help to cultivate the city’s next generation of cultural talent.

The Foundation has also been working to establish marketing mechanisms to help local musicians “export” their products. New Orleans lacks the private sector marketing infrastructure of managers, booking agents and publishers that traditionally play the marketing role for musicians. The Talent Exchange and Sync Up are designed to compensate for this gap. The foundation is also working with the Grammy Foundation and the Loyola University College of Music to develop a program to train students in music marketing, with the hope that graduates would remain to build a private infrastructure for music marketing.

- **Sweet Home New Orleans.** Sweet Home has established the *Renew Our Music* initiative that provides grants to subsidize the work of performing artists and organizations that preserve New Orleans music traditions. It also provides musicians with social services and housing assistance.
- **Tipitina’s Foundation.** The foundation’s Music Office Co-op is a statewide network of workforce development and jobs skills training for musicians, filmmakers and other media workers. The foundation also operates an internship program for New Orleans-based high school musicians.
- **The Creative Alliance of New Orleans.** CANO was established to promote professional development in the full range of creative fields.
- **Ogden Museum of Art at University of New Orleans.** The museum’s Education Department provides extensive materials for students and teachers of all ages on the Southern arts and related topics.

MAP 9.1: NEW ORLEANS CULTURAL PRODUCTS DISTRICTS

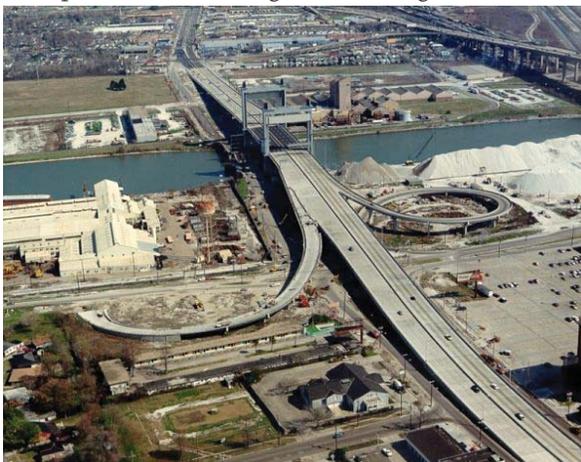


This includes providing teachers with lesson plans and units of study, and special programs for teacher training, events, starter ideas and studio workshops.

- **Contemporary Art Center.** The center offers educational opportunities for youth, including a summer arts camp for children 6–14, and “Artists for a Day” field trips for school groups and youth organizations.
- **Louisiana Cultural Economy Foundation.** The state organization provides grant funding to support individual artists and artisans, small arts businesses, and nonprofit cultural organizations such as galleries, museums and collectives.
- **Cultural Products District Program.** In 2007 the state enacted a tax credit for historic building restoration and a sales tax exemption for locally-produced arts products in designated cultural products districts. The program is designed primarily to support the purchase and restoration of historic structures by artists and others in designated districts, promote the establishment and expansion of art studios and galleries, and increase the sale of locally produced arts products. There are 19 districts in New Orleans, including: Old Algiers, Bayou Road, Lower Garden District, City Park/NOMA, Lower Ninth Ward, Oak Street, Magazine Street, DDD, Freret/Claiborne, Lafitte Greenway, St. Claude Avenue, Vietnamese Village, Rampart/Basin, Gentilly/Pontchartrain Park, Lincoln Beach, Oretha Castle Haley, the French Quarter, South Broad, and Federal City/Tunisberg/Algiers Point. In addition the Cultural Products Districts Program requires local governments who designate such districts to report on the impact to their community annually.

While the financial condition of most cultural organizations and individual artists is typically precarious, Hurricane Katrina’s aftermath put New Orleans’ cultural community at particular risk. The city’s cultural organizations, enterprises and individual artists are highly dependent on the market created by local residents and visitors, and this market was still down approximately 20–25 percent from pre-Hurricane Katrina levels in mid-2009. The city’s cultural community has been tremendously resourceful and entrepreneurial in facing this challenge, and has developed a number of promising initiatives. These

should be supported and when called for, expanded to sustain and strengthen the city’s cultural base.



The Industrial Canal

C. THE PORT AND MARITIME-RELATED INDUSTRIES

New Orleans has been a center of maritime trade since its founding by the French in the early 18th century. In 2007, it was the eighth-busiest U.S. port, handling a total of 76 million tons of cargo, about half of foreign origin or destination.² The port provides the critical link between oceangoing cargo and the Mississippi River System, which offers a cost-effective channel for cargo transport throughout the Midwest, and it is also a cruise ship destination.

The port is operated by the “Board of Commissioners Port of New Orleans,” established in 1896. The seven-member governing Board of Commissioners is appointed by the governor from a list of nominees submitted by 19 local business, civic, labor, education, and maritime groups and reflects the three-parish jurisdiction of the Board, with four members selected from Orleans Parish, two from Jefferson Parish and one from St. Bernard Parish.

The Port of New Orleans is considered the nation’s most intermodal deep water port. It is served by

² U.S. Army Corp of Engineers, Waterborne Commerce Statistics Center

six Class 1 railroads, giving port users direct and economical rail service to or from anywhere in the country. The New Orleans Public Belt Railway further enhances the value of these rail services by connecting the six railroads together, enabling efficient transfer of cargo from one line to another. This extensive rail infrastructure will be an increasing competitive advantage as land shipment shifts to more energy-efficient and environmentally-benign rail transport in years to come. The port is also served by 50 ocean carriers, 16 barge lines, and 75 truck lines.

The Port of New Orleans has 22 million square feet of cargo handling area and more than 6 million square feet of covered storage area. It handles the country's top market share for import of steel, natural rubber, plywood and coffee, and is home to two of the nation's most modern bulk processing operations. New Orleans is the country's main coffee-handling port, with 14 warehouses, more than 5.5 million square feet of storage space, and six roasting facilities within a 20 mile radius. Its general, or containerized, cargoes are diverse, and include apparel, food products and consumer merchandise. Two terminals serve the cruise ship industry. The Port also owns 550 acres along the Inner Harbor Navigation Canal (also known as the Industrial Canal) which is leased or available for lease to industrial and commercial users involved in activities including ship repair, boat building, trucking, warehousing, storage, distribution, scrap recycling, and basic material handling. Certain areas of the port have been designated as federal Foreign Trade Zones (FTZs), which enable foreign merchandise to be brought into the county without being immediately subject to the usual U.S. Customs regulations. FTZs are designed to promote the manufacturing and processing of imported materials and components for re-export.

An economic impact study conducted for the Port of New Orleans in 2004 identified 12,331 jobs that were directly attributable to port activities, primarily in and adjacent to the Port's operations in New Orleans. This included 314 employees of the Port itself, 1,047 employed by dependent shippers, 1,850 in truck and rail transportation, and 9,120 in marine services.³ No follow-up impact study has been conducted post-Hurricane Katrina. Earnings in the transportation and warehousing industry are slightly above the average for all employment—\$1,045 versus \$962 per week during the first half of 2008. Wages vary according to industry segment, however; sample weekly earnings for the period were \$1,309 in marine services, \$1,137 in warehousing and storage, \$1,204 in freight transportation arrangement, and \$875 in trucking.

Most of the port's facilities have returned to full operation in the years since Hurricane Katrina. The exception is facilities along Mississippi River Gulf Outlet (MRGO)/Industrial Canal area, which bore the brunt of the hurricane. MRGO was permanently closed in April 2009. The Industrial Canal lock, which provides direct access to the Industrial Canal from the Mississippi River, is too small to handle most ocean-going vessels and a long-discussed lock replacement project remains controversial. **(A discussion of the proposed lock replacement project appears in Chapter 11.)** As a result, many of the marine activities at the France Road and Jourdan Road terminals as well as maritime-related land-based activities along the canal have been or will be relocated to the Mississippi River, at an estimated cost of \$150 million. This has placed increased demand on the capacity of the existing Mississippi River facilities. Despite the MRGO closure, industrial properties located on the Industrial Canal will remain viable for certain types of port facilities.

Cargo volumes had returned to normal levels within a year of Hurricane Katrina. Declines in 2008 reflect the national and international economic recession rather than post-Hurricane Katrina recovery issues. Cruise ship activity has been slower to recover. After a record year in 2004 of 181 vessel calls and 735,000 passengers, passenger levels declined precipitously in 2006, but recovered to over 70 percent of the 2004 level by 2007, in line with overall tourism levels. Passenger levels declined in 2008, again most likely a factor of the national economic downturn.

The expansion of the Panama Canal to accommodate very large container ships, anticipated for completion in 2014, will likely mean a significant increase in the volume of cargo arriving from Asia to ports on the

³ This includes terminal employees, dockworkers, navigational services, agents and brokers, surveyors, freight forwarders, warehouseman, government (e.g., Customs, Coast Guard), shipbuilding and repair, barge lines, marine construction, container leasing and other maritime services.

Gulf of Mexico and the East Coast. Most of these ports cannot accommodate these giant ships, so cargo will be offloaded to smaller vessels. The Port of New Orleans multimodal capacity makes it an attractive option because of the ease of shipping inland. However, New Orleans faces competition from other Gulf ports including Houston, Gulfport, Mobile, and Tampa, which are all in the midst of massive investments in terminal facilities to expand their container handling capacity. The relatively small amount of cargo goods produced in Louisiana and the size of the local market are also comparative disadvantages for the Port of New Orleans.

Recent Initiatives

In the past 10 years, the Port has invested more than \$400 million in new state of the art facilities, including improved break-bulk and container terminals, expanded marshalling yards, cruise terminals, and the Clarence Henry Truckway, a port road dedicated to maritime access for riverfront terminals. In 2008, the Port of New Orleans released a new master plan, *Charting the Future of the Port of New Orleans 2020 Master Plan*, to guide port growth for the next two decades. The plan seeks to achieve the following goals:

- Nurture historic “niche” breakbulk cargoes such as steel, metal, plywood and rubber to create new breakbulk capacity beyond the traditional riverfront footprint of the port.
- Create new container capacity to position the Port to capture its share of growth in the worldwide container market.
- Nurture recovery of the cruise business and add more terminal capacity.
- Complete relocation from the MRGO and consolidation of deep draft terminals on the Mississippi River.
- Continue a major maintenance program of all Port facilities.
- Continue to extract maximum revenue from industrial properties leased to private companies.



The Port plans to triple the size of the Napoleon Avenue Container Terminal.

The plan envisions a number of major infrastructure investments. Among the most important are: 1) tripling the size of the Napoleon Avenue Container Terminal to accommodate up to 1.36 million containers per year; 2) replacing the Inner Harbor Navigational Canal lock with a modern, deep draft waterway lock to more efficiently accommodate barge traffic and smaller ocean-going vessels; and 3) construction of a new cruise terminal at the Poland Avenue Wharf.

The Port has historically paid for improvements from its own revenues by floating bonds. The State typically has not contributed more than 20 percent of the cost, and federal and other sources account for approximately 10 percent. As in so many other 21st century infrastructure areas, the scale of improvements needed to keep the Port competitive requires much more money than the Port has been used to financing. The capital improvement plan calls for \$1.04 billion in investment through 2020. While full funding has not been secured, the plan envisions a combination of Port bond issues, federal and state government support, and private sector investment.

Shorter-term improvements in development include:

- Near-dock rail service to eliminate the need for truck transfers, therefore reducing the time and cost involved in cargo and container handling: the CN Railroad established the first near-dock rail service adjacent to the Napoleon Avenue terminal in 2008. The Authority is working to extend access to all six railroads in conjunction with the Public Belt Railroad.
- Cruise terminal improvements: \$8 million dollars was recently approved in grant funding for the Julia Street Cruise Terminal, which will reconfigure the two smaller cruise terminals into one functional terminal to meet the demands of the industry in New Orleans, increasing capacity by 30 percent. This is in addition to the \$37 million from the Port of New Orleans for the adjacent Erato Street Cruise Terminal. Additionally, the Port is seeking funding to build a third permanent terminal at Poland Avenue.
- Relocation of refrigerated breakbulk facilities to the riverfront: \$23.5 million in state grants was approved in May 2009 to support the cost to relocate a refrigerated cargo handling warehouse for New Orleans Cold Storage, a frozen poultry exporter currently located at The Jourdan Road Terminal in the Industrial Canal. As of mid-2009, in response to community concerns over impacts from a proposed relocation site, the Port of New Orleans is reviewing alternative sites for the facility.

D. ADVANCED MANUFACTURING INDUSTRIES: AEROSPACE AND SHIPBUILDING

New Orleans' manufacturing industry is a high-wage industry dominated by the transportation equipment sector. In 2007, employment in transportation equipment manufacturing was 3,950, about one half of all manufacturing employment. Average annual wages in the transportation equipment manufacturing sector in New Orleans are very high—\$88,000 compared to an average for all jobs of about \$48,000. The next largest manufacturing sector was food processing, with 1,725 jobs, or a little over one-fifth of total manufacturing employment.



NASA Michoud Facility in New Orleans East



Bollinger Ship Yard along the West Bank

There are two major components of the transportation equipment sector—aerospace and shipbuilding. NASA's Michoud Assembly Facility is the city's major aerospace employer. The facility is one of the world's largest manufacturing plants, and has long been the production home of large space structures, including the space shuttles' external tanks. Michoud also plays a leading role in the development of experimental space vehicles and related projects, and has been selected by NASA as the site to manufacture several major components for the Constellation Program, the successor to the Space Shuttle Program.

While most of the shipbuilding and repair industry in the Greater New Orleans region is located outside the city, New Orleans is home to a number of facilities serving both defense and civilian markets. Among the largest are Textron Marine & Land, which manufactures landing craft for the U.S. Navy and Marine Corps; United States Marine, which manufactures small, high-performance military craft; Bollinger Shipyards, whose Algiers ship repair yard is one of the company's many shipbuilding and repair facilities throughout the region; LMS Ship Management, a manufacturer of barges and oil and gas services vessels; and Trinity Yacht, a builder of custom super yachts.

The city has an extensive higher education and research infrastructure supporting the aerospace and shipbuilding industries. In higher education, Tulane University's School of Science and Engineering and UNO's College of Engineering both have relevant specializations. These include UNO's Naval Architecture and Marine Engineering Department, considered one of the three leading schools of this kind in the country, UNO's Mechanical Engineering Department, and Tulane's Department of Physics and Engineering Physics.

Tulane and UNO also have a number of research centers focusing on research areas that are valuable to these industries.

- UNO's **National Center for Advanced Manufacturing (NCAM)**, a partnership between NASA, the State of Louisiana, and UNO, is a significant local resource for R&D (research and development) in advanced materials applicable to aerospace and shipbuilding design. The purpose of the partnership is to address NASA's needs in research and technology development, and build the technology base for manufacturing next-generation launch vehicle systems. NCAM is located on the grounds of the Michoud Assembly Facility. Current activity at NCAM includes research and applications of advanced technology processes such as:
 - > *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.
 - > *Non-Destructive Evaluation*—A system that applies non-destructive evaluation techniques in the testing of composite materials.

NCAM, under the auspices of the UNO College of Engineering, leads a consortium of seven universities where research is conducted, with the initial focus on using composite and metallic materials in the production of aerospace structures.

- UNO's **Gulf Coast Region Maritime Technology Center (GRMTC)**, in cooperation with industry, conducts research in ship design and manufacturing to improve performance, productivity and quality. The GRMTC, in partnership with Northrop Grumman Ship Systems, operates the UNO-Northrop Grumman Maritime Center of Excellence at Northrop Grumman's Avondale facility. The center serves



Research Centers at UNO and Tulane University focus on developing advanced manufacturing sectors that provide high wage jobs.

as home for 400 of Northrop Grumman’s engineering and design employees, and functions as a research and teaching laboratory for UNO’s School of Naval Architecture and Marine Engineering. Research areas include ship design and construction, manufacturing simulation and visualizations, structural engineering, robotic welding, and offline programming. Another GMRTC sub-center is the Maritime Environmental Resources and Information Center, which conducts R&D in “clean technologies” applicable for the shipbuilding, ship repair, ship operations and ship dismantling/recycling processes.

- UNO’s **Advanced Materials Research Institute** conducts research in the synthesis, fabrication, testing, characterization, development, and nanotechnology of nanomaterials, nanocomposites, and functional materials for the development of advanced materials for use in industry and defense applications. The Institute works collaboratively with the corporate and government sectors.
- **Tulane Center for Polymer Reaction Monitoring and Characterization** conducts basic and applied research in polymers.

With the Michoud Facility and most shipbuilding facilities suffering limited Hurricane Katrina-related damage, operations were quickly restored and employment rapidly returned to normal levels. In fact, annual industry employment, which reached a recent low in 2004, rose steadily between 2004 and 2007, when it stood 30 percent above the 2004 level. With its heavy dependence on federal space exploration and defense spending, the industry is less vulnerable than other manufacturing sectors to the national recession, although it is potentially vulnerable to future budget cuts by the federal government.

A number of recent developments and initiatives will influence advanced manufacturing in the years to come.

- Delgado Community College and Northrop Grumman partnered to establish an **Advanced Manufacturing Center of Excellence** at Northrop Grumman Ship Systems’ Avondale Operations, which opened in 2009. The center provides training and certification for production workers in areas such as welding, pipe fitting, electrical, maintenance, mechanics, press process and CAD/CAM.
- The Louisiana Department of Economic Development, University of New Orleans, and NASA are partnering to develop a new \$40 million teaching and business incubation facility at Michoud, to be completed in 2009. The Michoud Assembly Facility R&D Administration Building will be used collaboratively for research and development administration, education, training, and related matters at the Michoud Assembly Facility under the management of the National Center for Advanced Manufacturing.
- NASA’s commitment to use the Michoud Assembly Facility for the Constellation Program should keep the facility open for at least the next decade, providing several thousand jobs. NASA also plans to diversify the facility to include private contractors and other federal programs.
- Greater New Orleans Inc. has identified advanced manufacturing as a targeted sector for regional recruitment.

E. OIL AND GAS INDUSTRIES

The oil and gas industry employed approximately 3,700 workers in New Orleans in the first half of 2008. The city’s largest industry employer is Shell Exploration and Production, a division of Shell Oil Company, which oversees the company’s offshore Gulf of Mexico development and production activities. Other firms located in the city are primarily energy services firms, which provide engineering and oilfield services. A number of these firms based in New Orleans provide services in national and international markets. New Orleans’ oil and gas industry is part of a much larger regional industry involved in exploration, production, services, refining, petrochemical production, and plastics manufacturing, which relies on petroleum as a feed stock. Most of the industry facilities and employment are located in areas outside the city.

While industry employment in the city is relatively small, only 2.2 percent of total employment, these jobs pay very well. Industry facilities in New Orleans tend to house highly-paid management, scientific and engineering workers. Average annual wages are over \$150,000, more than three times the average for all workers, and by far the highest of any primary industry category. The industry also generates jobs within the city in linked industries including shipbuilding and repair, water and truck transportation, insurance, banking, legal services, software, and advertising.

However, oil and gas industry employment in the New Orleans region has been declining as Gulf-based companies have shifted to other cities, primarily Houston. A recent report prepared for Greater New Orleans, Inc. cites a number of reasons for this shift, including Houston's expert workforce, quality-of-life amenities, in-place infrastructure and role as the location of operations or headquarters for virtually every major private oil company in the world.⁴ Within the New Orleans region, the city has also experienced an outflow of companies to other areas, notably the North Shore, a major example being the relocation of Chevron Oil's regional headquarters and its 550 employees to Covington in 2008. Industry executives have cited reduction of storm risk as well as greater ease in recruiting professional employees who prefer living on the North Shore, as reasons for the shift.

In early 2009, GNO Inc. aired a proposal to create financial incentives to boost oil and gas production in the state and promote technology for recycling oil refinery by-products. The proposal involves developing gasification plants that produce fuel from petroleum coke, a by-product of the oil refining process, with less pollution and carbon dioxide emissions than burning the substance. This process would be coupled with piping carbon dioxide generated from gasification plants to oil fields in order to use a new technology that boosts oil production by injecting wells with carbon dioxide. The proposal calls for lowering severance taxes and royalties on energy production to make the state more competitive with other Gulf Coast states, and providing bonds and other incentives to encourage production of necessary infrastructure. It also advocates for new state tax incentives to encourage more natural gas exploration.

2. Emerging Industries

A. LIFE SCIENCES INDUSTRIES

The life sciences industry uses modern biological techniques and supporting technologies with a goal to improve human and animal health, address threats to the environment, improve crop production, contain emerging and existing diseases, and improve currently used manufacturing technologies. The broad definition of the life sciences industry includes life sciences research and development (R&D), pharmaceutical and medicine manufacturing, medical device and supply manufacturing, medical and diagnostic laboratories, and blood and organ banks. Although hospital researchers are key elements of a life sciences industry, the local health care industry itself is not an export sector.

New Orleans has a relatively small number of firms in the life sciences industry. A 2004 survey by GNO, Inc. identified approximately two dozen firms in the life sciences field with less than 1,000 employees in the New Orleans region. Most of these firms were very small with an average of 3 to 5 employees.

New Orleans is Louisiana's center for life sciences, particularly in the biomedical field, and receives 65 percent of state's National Institutes of Health funding. In 2005, the New Orleans region was estimated to have about 3,000 people employed in life sciences-related fields, primarily in institutions that make up the downtown health sciences district.⁵ Institutions involved in life sciences research and some of their specialties include:

⁴ Angelou Economics, GNO Regional Target Industry Analysis, 2008.

⁵ New Orleans BioInnovation Center, Inc., Business Plan, November 2008

- **LSU Health Science Center**—neuroscience, alcohol and drug addiction, infectious diseases, ophthalmology, cancer and oral hygiene
- **Tulane Health Sciences Center**—infectious disease, cardiovascular disease, cancer, and gene therapy
- **Tulane’s School of Science and Engineering**—biomedical engineering (*e.g.*, biomaterials, biomechanics, biotransport, bioinstrumentation, and cell tissue and genetic engineering), and biomolecular engineering (*e.g.*, gene transfer therapy, tissue regeneration, targeted drug delivery)
- **Xavier University**—cancer, drug design, infectious disease
- **University of New Orleans**—assisted reproductive biology, population genetics, and biotechnology
- **The Research Institute for Children**—host-pathogen interactions, with an emphasis on fungal diseases, renal disease, and diabetes mellitus.

In addition, some of these local institutions have established joint research centers, with support from the state of Louisiana:

- The **Louisiana Cancer Research Consortium**, a partnership of Tulane Health Sciences Center and LSU Health Sciences Center-New Orleans, was established in 2003 to develop innovative cancer therapies and treatment programs. The Consortium conducts research and clinical studies in molecular genetics, molecular signaling, immunology, infection and inflammation.
- The **Louisiana Gene Therapy Research Consortium**, a partnership of Tulane Center for Gene Therapy, LSUHSC-New Orleans and LSUHSC-Shreveport based in New Orleans, was established in 2000 to develop gene therapy technologies for clinical applications.

In 2002, the state established the **New Orleans BioInnovation Center** to construct an incubator containing office space and wet labs to be leased to biotechnology companies. Working with partner universities, the Center’s objective is to identify technologies that are ripe for commercialization, attract the resources necessary to commercialize these technologies locally, and introduce local startups to national firms that can assist in their development. It is seeking to link business to support services, capital, intellectual property professionals, and networking opportunities with industry professionals.

Area universities also train significant numbers of students in life sciences fields. In the biomedical field alone, institutions including LSUHSC, Loyola, Tulane, UNO, and Xavier graduated 1,053 students in 2002 in fields including cellular biology, epidemiology, cardiovascular technology, biostatistics, and pharmacology.⁶

Although damage to research facilities and loss of research staff set back university research programs, universities have been working to rebuild them since the storm. Hurricane Katrina damage also led to the closure of Charity Hospital, which in addition to being a critical source of medical care for New Orleans’ residents, was also a location for research and clinical trials for new drugs, medical devices, and therapeutic treatments. With the focus on rebuilding, plans for building new research facilities were delayed. These include a \$90 million facility for the Louisiana Cancer Research Consortium, and a clinical manufacturing facility, Louisiana Gene Therapy Research Consortium, to be used for manufacturing cell and gene therapy technologies for human clinical trials.

While it is unclear whether any existing firms left the area after Hurricane Katrina, university technology transfer and economic development professionals report few new biomedical startups or cooperative industry-university research at the local level during the 2005–2008 period.

⁶ Bring New Orleans Back Commission, Biosciences Working Group, December, 2005.

In 2007, the New Orleans Regional Biosciences Initiative, a partnership of regional biosciences stakeholders, completed a comprehensive strategic plan for the development of the biosciences industry. The strategy has four components:

1. An **Innovation System Strategy** to expand research activities and promote more local technology transfer and commercialization through stronger collaboration among the city's biomedical research institutions.
2. A **Physical Development Strategy** which involves establishing a Biosciences Economic Development District encompassing and expanding the existing Medical District in the lower Mid-City area. The District is intended to cluster biomedical institutional and private sector research and commercialization activities in a synergistic way, and to incorporate design guidelines, infrastructure improvements and mixed used development to create an attractive environment and integrate the District into the surrounding urban landscape.
3. A **Market Strategy and Marketing Plan** to attract biomedical firms to the District.
4. A **Leadership and Management Strategy** that establishes the roles and responsibilities for various organizations to implement the other strategy elements.

While the plan is still in the initial implementation phase, some of the new institutional facilities envisioned for the district are underway or in the advanced planning stages.

- The U.S. Department of Veterans Affairs and Louisiana State University have selected New Orleans as the site for new hospitals to replace the hospitals that each institution lost to Hurricane Katrina. In addition to providing much needed medical care for local residents, these facilities will be essential venues for medical education and clinical trials. The importance of these institutions from an economic and social point of view is recognized throughout the city, but there is considerable controversy over decisions made so far on the site and design of these hospitals, as well as the fate of the Charity Hospital building.
- The BioInnovation Center plans to break ground on a 66,000 square foot facility with the capacity to house more than 50 companies in wet-lab office suites, stand-alone offices, conferences rooms and open spaces. It will also house the Louisiana Gene Therapy Research Consortium's clinical manufacturing facility. It is scheduled for completion in late 2010.

Despite this progress, many issues regarding the development of the District have yet to be resolved. In addition to the issues mentioned above, among the most important of these are the ability of the state to raise all of the \$1.2 billion needed to construct the LSU Medical Center and the respective responsibilities among various entities for planning, public investment, and marketing the Medical/Life Sciences District.

In addition to these issues, the life sciences industry needs a general improvement in the entrepreneurial environment in New Orleans, including strengthening of the research base, technology transfer from research to commercialization, seed and early stage capital, and an entrepreneurial support network.

B. FILM AND DIGITAL MEDIA

The information industry sector employed 5,430 people in New Orleans in the first half of 2008. The information industry includes motion picture and sound recording, software publishing, and internet services as well as broadcasting, telecommunications, and print media. The information industry in New Orleans has shown robust recent growth, with employment returning to pre-Hurricane Katrina levels by the second half of 2008, compared to 70 percent for overall employment. Statewide, Louisiana, along with New Mexico, experienced the highest rate of employment growth in film production in the U.S.⁷

⁷ "Louisiana Film Industry Has Record Year," *New Orleans City Business*, 12/22/08

New Orleans has become a popular locale for film and television production, spurred in part by enactment of generous state tax incentives. Louisiana provides tax credits for investment and job creation in the film, digital media, and recording industries. Recording tax credits can be used by film productions that use recorded music from Louisiana musicians in their film productions. New Orleans also benefits from lower productions costs compared to major film and media centers such as Los Angeles and New York.

According to a recent study conducted for GNO, Inc.,⁸ New Orleans provides an ideal setting to draw creative media and design companies and individuals. The region is home to an established sector of creative employment in film production, advertising, software and graphic design. Another recent study conducted for the Louisiana Technology Council shows that the New Orleans region has a large information technology workforce.⁹ The region is particularly strong in telecommunications and web development software skills. The GNO study notes, however, that there are few home-grown companies in the film or digital media businesses, and most investment in these industries tends to be by companies from outside the region seeking incentives for production within the state. This leaves the city vulnerable to the loss of employment in these industries should other states institute more competitive incentive programs. The potential for a tax credit “arms race” played out in the 2009 legislative year, when Louisiana raised its film tax credit from 20 percent to 30 percent because the industry was threatening to abandon the state for Georgia, which had enacted a 30 percent tax credit.

The city has a strong organizational infrastructure to promote film and television production. In addition to statewide promotion by the Louisiana Film Commission Office, the New Orleans Office of Film and Video, a city agency, works to attract film and television production to New Orleans and to assist companies with permitting, logistics, subcontracting, and communications. The office provides information on permits and procedures, acts as a liaison with other city agencies, and links producers to production, post-production, and support services. The New Orleans Convention and Visitors Bureau assists production companies and crews in selecting productions dates, and arranging accommodation, transportation, and events.

A number of New Orleans’ educational institutions provide training for careers in film and digital media. Most notable is University of New Orleans’ Department of Film, Theatre and Communication Arts. UNO considers its film program one of the most technologically advanced in the country, with its own motion picture facility and state-of-the-art digital post-production editing and audio suites. Its communications program teaches writing for film and television as well as theater. It is currently expanding its capabilities into digital media.

New Orleans Video Access Center provides training for entry-level positions in the film and television industries, including film crew, script supervisor, wardrobe assistant, camera assistant, grip and electrical worker, set construction worker, and set design worker. NOVAC’s Digital Film Institute offers a variety of workshops to help independent filmmakers, video producers, and media artists improve their skills.

Without home-grown production and its own large-scale production studios, the film industry will not become rooted in New Orleans. A number of plans to build such facilities, some announced before Hurricane Katrina, have not materialized for various reasons. Recently, Louisiana Film Studios LLC, which planned to build a new 200,000 square foot film studio in Algiers, decided instead to retrofit an existing property in Elmwood, primarily for cost reasons. One project that has moved forward is construction of a 90,000-square-foot film production studio in the Lower Garden District by Second Line Stages. The facility will include three sound stages, a 49-seat digital screening theater and nearly 50,000 square feet of space for office and production support. The project broke ground in early 2009 and is expected to open in early 2010.¹⁰

⁸ Angelou Economics, GNO Regional Target Industry Analysis, 2008

⁹ Louisiana Technology Council, *Louisiana IT Skills Survey Report for the Greater New Orleans Metropolitan Region*, 2008

¹⁰ Quillen, Kim. “New Orleans warehouse gets makeover as film studio.” *The Times-Picayune*, February 02, 2009.



PHOTO COURTESY OF SOUTH COAST SOLAR (WWW.SOUTHCOASTSOLAR.COM)

Emerging industries such as film and television production and renewable energy technologies represent opportunities for workforce development to expand the city's economic base.

A strong demonstration of the growth potential of New Orleans' digital media industry is the recent establishment of a grass-roots industry organization, Net Squared, a group of over 150 young digital media professionals. The group is developing initiatives to grow New Orleans' digital media industry. This includes attending Austin's South by Southwest Conference, an international music festival and industry trade show in music, film and interactive digital media, to promote New Orleans' as a digital media hub. On a more formal level, GNO Inc. established the Digital Media Alliance in partnership with academia and industry in late 2008. The goal of the Alliance is to make New Orleans a world leader in digital and new media. It has four areas of focus: marketing, incentives, work force, and capital. Its initial target is video game developers and web programmers.

3. New Opportunities: Green Industries

The imperative of addressing climate change and the environmental impacts and declining supplies of established energy sources will inevitably result in the dramatic increase in green industries over the next several decades generating tens of thousands of new jobs in a wide range of occupations.

New Orleans has competitive assets that could result in the creation of significant numbers of new jobs in certain segments of the green economy. These include: 1) coastal protection and restoration, which will grow considerably as coastal areas around the globe undertake programs to restore coastal wetlands and protect against flooding in the face of rising sea levels; 2) forms of alternative energy that are particularly suitable to New Orleans' climate and geography; and 3) advanced building design and construction technologies suitable for storm- and flood-prone coastal areas.

None of these industries are well-established in New Orleans, but there are elements of the region's industrial and research base that can provide a foundation for their development. Moreover, the extensive rebuilding required of the region's natural and built environments, is creating opportunities to make New Orleans a laboratory for the application of green technologies that can be leveraged to build sustainable green industries.

A. COASTAL PROTECTION AND RESTORATION

By some estimates, approximately \$40–50 billion is expected to be spent on coastal restoration and protection in Louisiana over the next several decades, much of it in south Louisiana. Nearly \$6 billion in public contracts for coastal restoration and levee construction are scheduled to take effect in 2009, an unprecedented level of work in the state, and this number is likely to continue to rise in the coming

decade. Large planning and engineering firms are already establishing offices in Baton Rouge and New Orleans and recruiting employees, as south Louisiana is becoming a unique laboratory for coastal protection and restoration methodologies

In recognition of this market opportunity, a number of local companies involved in coastal restoration, many of which have traditionally worked in the energy services industry, have established a trade association called the Coast Builders Coalition, which will lobby the federal and state government for more money for these projects, and will advocate research and workforce initiatives to support coastal restoration.¹¹ Moreover the impacts of global climate change create a growing international market for coastal protection and restoration services. Business infrastructure created for coastal protection and restoration locally can be exported much like the services of the energy services industry. The city already has a base on which to build through its energy services and shipbuilding industries. Some of the engineering and construction expertise and specialized equipment used by the energy services industry, including boats built to service the offshore oil industry, are transferable to coastal protection and restoration.

New Orleans' universities also provide a substantial research base to support the development of this industry.

- **The Tulane School of Science and Engineering** is the lead university of the of five-university National Institute for Climate Change Research. The Institute studies the impact of climate change on coastal ecosystems, including sea level rise, coastal subsidence and the possibility of increased intensity and/or frequency storms, including hurricanes
- **The Pontchartrain Institute for Environmental Sciences** conducts scientific analysis to address environmental challenges of the Pontchartrain Basin, the Gulf of Mexico, and similar coastal ecosystems. It addresses issues such as water quality, critical habitats, biodiversity and coastal restoration strategies. This includes modeling and the use of databases to assist companies in designing coastal restoration projects.
- **The Tulane/Xavier Center for Bioenvironmental Research** conducts research on the dynamics of the Mississippi River and its related estuaries, wetlands, and communities to support informed management of the region's natural resources.
- **Tulane's Center for River-Ocean Studies** conducts research on the impacts of changes in global conditions on rivers and coastal environments, with particular focus on the Mississippi River.

B. GREEN ENERGY

Global energy and climate issues create opportunities to develop new forms of sustainable, environmentally-benign energy production that were previously uneconomical. New Orleans' location and climate conditions create opportunities to develop certain alternative energy segments, including hydrokinetic, solar and wind. Increases in federal funding for alternative energy research and development will further spur the development of sustainable forms of energy.

Hydrokinetic Energy

The Mississippi River is a potentially huge source of hydrokinetic energy using small-scale energy systems (*e.g.*, river turbines). Turbines can be placed in a number of locations along the riverfront, including on barges, pilings, and existing wharves. As these water turbines have become smaller and more efficient, they have become simpler and more ecologically benign. River systems research at Tulane and advanced manufacturing research at UNO can support the development and testing of hydrokinetic energy systems. Many companies have developed turbine prototypes but more testing is needed of turbine design and performance in different hydrological conditions.

¹¹ <http://coastbuilderscoalition.org>

Two firms have already established facilities in New Orleans to test river turbine technology. These companies have bought limited term rights to use the river to test the turbines and connect them to the local utility. In addition, Tulane University recently completed a river study to determine the feasibility of installing river turbines at Global Green's development at Holy Cross. The results of the study were favorable and Global Green is in discussions with the city about implementing the project.

With the Mississippi River as the energy feedstock and the research capacity to help manufacturers test and improve their equipment, New Orleans could become a center for the development and manufacturing of small water turbines as well as a significant generator of hydrokinetic energy. This could create hundreds of jobs, reduce carbon-base energy generation, and potentially make New Orleans an exporter of clean energy.

Solar Energy

New Orleans is considered to be among the best cities for solar generation in the southeastern U.S. The tax climate for solar installation is also favorable. The state offers a 50 percent tax credit for solar energy system installation on top of a 30 percent federal tax credit, which leaves the property owner to pay only 20 percent of the full cost. Developers including Global Green and Make it Right are incorporating solar energy into their housing designs, as are some private developers and property owners. Global Green is also working with the Recovery School District on a green schools program to make roofs on all new and renovated schools solar ready. And the City's Energy Smart plan, which recently received seed funding, envisions installing solar energy systems on hundreds of homes. While solar energy will be used in new housing construction and retrofitting throughout the U.S., the concentration of construction and renovation activities in New Orleans provides an opportunity to attract manufacturers of solar energy systems to the city. With large parcels dedicated for industrial uses, and with its port and rail network, the city offers an excellent location to ship panels inexpensively.

Wind Energy

Gulf wind conditions are extremely favorable for wind energy generation, and turbines can be placed on pre-existing offshore oil and gas platforms less expensively than installing free-standing platforms, as has already occurred off the Gulf Coast of Texas. This would result in significant job creation in installation, maintenance and repair, and transmission. If wind power generation is developed on a significant scale, New Orleans could potentially attract one or more wind turbine manufacturers, which could potentially locate within existing industrial zones along the Industrial Canal or in New Orleans East, offering convenient access to freight and highway transportation routes.

Cleaner Residential Energy

The Clean Power and Energy Research Consortium, a collaboration of six Louisiana universities including Tulane and the University of New Orleans, conducts research to improve current technology in power and energy generation, including the reduction of harmful emissions. CPERC efforts are focused on reducing undesirable emissions from power and energy generating systems, developing new technologies for clean energy including the use of biomass, coal, or synthetic gas as raw materials, and hydrogen generation, and improving the efficiency and reliability of gas turbine systems.

C. SUSTAINABLE BUILDING DESIGN AND CONSTRUCTION

The effects of climate change are requiring the development of new building design and construction techniques in New Orleans and other coastal and storm-prone areas. New Orleans can become a laboratory for the application of new building design and construction techniques applicable to subtropical and coastal environments. The sheer volume of reconstruction can motivate existing companies involved in building design and construction (*e.g.*, planning, architecture, engineering, and construction) to develop

this expertise and attract companies with this expertise to the region. In this context, the city has the opportunity to establish itself as a leader in sustainable building design and construction, and to develop an industry that serves not only New Orleans but a larger national and international market.

Efforts to build structures that incorporate elements of advanced building design should be encouraged throughout the City and are already underway. The Tulane City Center at the Tulane School of Architecture has been experimenting with new designs by building prototype houses around the city. It provides models for construction firms to adapt construction techniques to evolving climate conditions. Global Green is building 27 LEED Platinum homes designed to withstand high water and 130 mph winds at its Holy Cross development, and is working with the Recovery School District on the Green Seed Schools program that retrofits and upgrades schools to make them more energy efficient and environmentally friendly. The Make it Right Foundation is building green homes in the Lower Ninth Ward. NORA's Pontchartrain Park neighborhood development program will result in LEED platinum single family homes built to withstand storms and floods.

Sustainable building design not only involves the structure itself but its relationship to the surrounding environment. The Tulane/Xavier Center for Bioenvironmental Research Urban Ecosystem Initiative has created an urban/natural environmental laboratory to study and foster climate-neutral rebuilding and sustainable urban planning in the Holy Cross neighborhood, in partnership with Global Green.

4. Education and Workforce Development

A well-educated workforce along with an amenity-rich environment is the key to attracting and retaining high-wage industries and creating high-quality jobs. Developing an educated workforce requires a comprehensive, high-quality system of lifelong learning from youth to mature adulthood. This continuum moves from career preparation for youth in elementary and secondary education, career training in the community colleges and universities, and adult workforce training to improve skills and support career advancement. Workforce development must be seen as a high priority for all economic stakeholders. In the long run, providing high quality education uniformly across the city is the best path to increasing opportunities for economic inclusion.

A. CAREER PREPARATION FOR YOUTH

Career preparation for youth involves providing students with information about career opportunities, offering educational programs that teach basic occupational skills and work competencies, and providing students with real-world work experience. Career preparation activities occur primarily in elementary and secondary schools but also in non-school youth development programs.

It is widely acknowledged that K–12 schools in New Orleans, as in many other communities, have not done enough to prepare students to succeed in the workplace. However, positive steps are being taken at both the state and local levels to address these issues:

- The state Department of Education is engaged in a high school redesign initiative that places strong emphasis on career preparation. Among the actions to increase career readiness are introduction of a career exploration and planning website, **LA ePortal** (www.laeportal.com), administration of career interest inventories and assessments beginning in the 8th grade, greater work-experience opportunities through job shadowing and internships, reform of the core curriculum to align it with workplace competencies identified by employers, updating and expansion of career and technical education programs, and development of early college high school programs in partnership with the Louisiana Community and Technical College System.
- While there is no comprehensive information on school-based career education activities on the local level, many New Orleans schools are paying increased attention to career preparation. For example, the Recovery School District (RSD)'s new curriculum introduces career themes that involve classroom study,

work study, and internships. Its internship program covers 16 career categories.

- There are also a number of community-based career preparation programs. Most notable is the **School to Career Initiative (STC)** of the United Way of New Orleans, established in 1994 and led by the United Way since 2005. The program facilitates career fairs, employment workshops, classroom speakers, workplace tours, job shadowing, and internships. STC has developed a career awareness curriculum for K–8 students, which is available to local schools. It also supported the development of the Priestly School of Architecture and Construction.
- The United Way is also the lead partner in the **New Orleans’ Kids Partnership**, a collaboration of nonprofit organizations, private funders, and educational institutions formed in 2006 initially to support children and families affected by hurricanes Hurricane Katrina and Rita. The Partnership received the support of the America’s Promise Alliance, a national youth development funder. In 2008, the Alliance made a multi-year, multi-million dollar commitment to the city by designating New Orleans as its first “Promise Zone,” a new youth development initiative. The Promise Zone model includes a career preparation component involving service learning and career exploration for middle-school students, as well as other youth development activities at elementary and high schools.
- **Job 1**, New Orleans’ Workforce Investment Board, is establishing a community-based career preparation program in recreation centers, with a focus on at-risk youth. The program will offer tutoring, job placement, case management, peer assistance, and supportive services (e.g., child care, transportation). There are four planned locations, two on the East Bank and two on the West Bank.
- A number of non-profit organizations provide mentoring and life skills development. These include the **Urban League Young Professionals University**, which helps inner-city students prepare for college, **Big Brothers/Big Sisters**, and **Communities in Schools**.
- Delgado Community College is seeking to establish an early college education program, a joint high school diploma-associates degree program with New Orleans high schools. This program would offer students the opportunity to begin college classes in high school and earn an associates degree in one year instead of two.

The business community plays an important role in these programs, to ensure that curricula are designed to develop skills and competencies needed in the real world of the workplace; to provide job shadowing and internship opportunities; to provide equipment for technical training; and to act as mentors to young people seeking career guidance. While many local businesses are already participating in these programs, past problems with the public school system have made some within the business community reluctant to become involved in education initiatives. With a growing consensus that reforms are taking hold and schools are improving, and with career preparation initiatives expanding, there is now an opportunity for the business community to re-engage with the schools in a productive way. However, career preparation activities are currently very fragmented, largely because of the decentralized administration of the public schools. With the RSD, Orleans Parish School Board, and charter schools all acting independently, businesses can receive multiple requests for participation or assistance. A coordinating body through which requests to the business community can be handled in an efficient and equitable manner is likely to encourage more business participation and increase overall opportunities for the city’s youth.

B. ADULT WORKFORCE TRAINING

The task of matching workforce supply and demand in New Orleans is assumed by the network of education and training providers and workforce intermediaries sometimes referred to as the workforce development system. Education and training resources include adult basic education programs, occupational training programs, post-secondary degree-granting institutions, and industry- and employer-based workforce training programs. Publicly-funded One-Stop Career Centers play an intermediary role

by matching job seekers with employers and by funding education and training for workers who need to enhance their skills. Private sector businesses including employment services and job posting services also play an intermediary role. This section describes the network of public and nonprofit education and workforce development organizations serving New Orleans and highlights the major challenges facing the workforce development system.

Adult Basic Education

Adult basic education (ABE) includes basic literacy training, General Educational Development (GED) preparation, adult diploma programs, English for Speakers of Other Languages (ESOL), and basic computer literacy. ABE programs are critical resources for adults who have not graduated from high school, or have graduated but still lack basic literacy, and want to develop the skills needed to enter occupational training and obtain higher-paying jobs. There are six state Department of Education (DOE)-funded organizations in New Orleans providing ABE programs at eight locations: Youth Empowerment Project; YMCA of Greater New Orleans; Hope House; Hispanic Apostolate Community Service; Delgado Community College; and Catholic Charities. Job 1 also offers ABE programs at its two career centers.

Workforce development professionals cite a number of problems related to ABE programs. First, and most important, the combined capacity of the programs is inadequate to meet demand. Second, there are not enough classes for individuals with daytime jobs. Only the career centers and two DOE-funded sites offer evening programs. Third, certain parts of the city are underserved. For example, only one program is located east of St. Bernard Avenue. Finally, providers generally do not have enough staff to provide intensive services to individuals with severe educational deficits.

Adults lacking basic skills often work in low skill, low paying jobs, and have little chance of obtaining a living wage job without successfully completing an ABE program. Programs need to be expanded, more intensively staffed, and provided at times and at locations that make them more accessible to working adults.

Job 1 Career Centers

Job 1, New Orleans' Workforce Investment Board, provides governance and oversight of the federal and state resources that support the local One-Stop Career Centers and education and training investments in New Orleans. Its mission is to collaborate with leaders and policymakers in business, government, economic development, education, and the public sector to develop a comprehensive workforce development strategy for the region designed both to meet the workforce needs of employers and provide quality job opportunities for residents. Board membership consists of a majority of private-sector businesses, along with representatives of labor, education, economic development, human services, and local government.

Job 1 Career Centers are designed to provide universal access to an integrated array of workforce development services for job seekers and employers. In addition to Adult Basic Education programs, these include job search assistance, job referral,



Expanding opportunities for technical training in key economic growth sectors such as construction, renewable energy technology, coastal restoration, and others will be critical to ensuring a highly skilled workforce and economic opportunity for all residents.

and placement assistance for job seekers, re-employment services for unemployment insurance claimants, and recruitment services for employers with job openings. The career centers can also provide Individual Training Accounts (ITAs), which are vouchers of up to \$6,000 to purchase training services from eligible providers, to clients seeking occupational skills training, and subsidize wages up to 50 percent for clients receiving on-the-job training.

The five career centers that existed before Hurricane Katrina have been reduced to two: one on the East Bank and a satellite on the West Bank. Job 1 also has a mobile career center with a bank of 12 computers.

While serving all workers and employers, Job 1 seeks to target certain critical industries including tourism, health care, advanced manufacturing, transportation, and construction. It is also starting to focus on biomedical and green jobs.

The Southeast Regional Alliance is a collaborative established to coordinate workforce development on a regional basis. Membership in the alliance includes the New Orleans region's four workforce investment boards, employers, organized labor, educational institutions, economic development organizations, and human services organizations. Recognizing that the labor market is regional, the Alliance seeks to simplify access to workforce development services for both job seekers and employers, use resources more efficiently, and ultimately make the region more competitive in meeting employer workforce needs.

Job 1 faces two significant challenges; limited funding and insufficient coordination with employers and economic development organizations. The federal Workforce Investment Act (WIA) budget, Job 1's major funding source, has declined by 30 percent between 2002 and 2008 and Job 1 lacks enough ITAs to meet client demand for occupational training. The 2009 federal stimulus will pump some short-term money into the system, and increased WIA funding is expected in 2010. However, funding will remain insufficient to meet the need.

Job 1's director reports that not enough employers use the career center job posting system, participate in its on-the-job training subsidy program or use other employer services. Employers express frustration with such issues as slow response and program restrictions, many of which are federally-mandated. More dialogue is required to find ways to make the career centers more useful to employers and increase employer participation while acknowledging the limitations imposed by federal regulations.

Occupational Skills Training

The major provider of post-secondary occupational skills training at the certificate, diploma and associate degree level in New Orleans is Delgado Community College. In the skilled trades, trade unions and construction firms provide apprenticeship programs. Non-profit organizations such as Arc of Greater New Orleans and Goodwill provide training for individuals with physical and mental disabilities. There are few private occupational training providers in the city, although some are located elsewhere in the region.

Delgado Community College and Louisiana Technical College Region 1 have recently consolidated their operations under a state pilot program, with Delgado as the lead institution. The consolidation is designed to reduce overlap, create synergies among programs and facilities, and use existing resources more efficiently. Delgado has four campuses in New Orleans: its main campus at City Park, its West Bank Campus in Algiers, Charity School of Nursing, and its Maritime, Fire and Industrial Training Facility. The LTC Sidney Collier Campus in Desire closed due to significant damage from Hurricane Katrina, but will reopen by 2011. Delgado also has community and technical college campuses in Jefferson and St. Tammany parishes.

Delgado's Workforce Development and Education Unit provides customized training for employers as well as commercial training and professional development courses. State funding for employer-based training is funneled largely through Delgado and other community and technical colleges. In 2008, the state

established two new employer-based training programs in partnership with the Louisiana Community and Technical College System:

- The **Workforce Training Rapid Response Fund**, a \$10 million annual fund that will address immediate training needs for new or expanding businesses in the state at community and technical colleges, and fund training for high-demand, high-cost training programs.
- The **Louisiana Fast Start Program**, a \$3 million fund that will help attract new industry into the state by delivering comprehensive workforce training services, pre-employment recruitment, and customized, job-specific training.

The state also has an **Incumbent Worker Training Program** that subsidizes incumbent worker training for small businesses (50 or fewer employees) and funds customized training programs for larger employers. While employers are free to choose qualified training providers, much of the training is provided through community and technical colleges.

In line with a recent state policy, Delgado is developing sector-based curricula focused on key regional industry sectors. New state funding formulas also encourage greater alignment with employer demand. Delgado and Northrop Grumman Ship Systems recently joined forces to develop the Advanced Manufacturing Center of Excellence to train production workers in advanced manufacturing skills, with a particular focus on shipbuilding. The Center is available to all manufacturers and offers ten apprenticeships certified by U.S. Department of Labor.

In sum, New Orleans has significant organizational capacity for occupational skills training with Delgado/LTC at the center. At the same time, a number of challenges must be addressed to strengthen and expand this capacity. Key issues include:

- Delgado's City Park campus suffered serious damage from Hurricane Katrina, and many classroom buildings and the library remain closed.
- With the Sidney Collier Campus closed, New Orleans students have to travel to the Jefferson, West Jefferson, or Slidell campuses for a number of the certificate and diploma-level technical education programs. There is no public transportation to these locations from the city.
- There are no pre-apprenticeship construction training programs offered in New Orleans, although some are found elsewhere in the region. Individuals who want to enter the construction trades typically must complete a pre-apprenticeship program. With so much reconstruction planned or underway, more initiatives to provide pathways into construction careers for local residents are needed.
- Drawing from the promising partnership established with the shipbuilding industry, Delgado is seeking to strengthen partnerships with other key local industries, including health care and hospitality.
- Delgado spends significant resources on remedial education because high school graduates entering college still lack basic reading and math skills.

Employee Support Services

In addition to basic education and occupational training, workers often require certain support services to help them obtain and maintain employment. Among the most widely needed services are convenient public transit for workers who cannot afford to maintain a reliable motor vehicle, and quality, affordable child care for families with young children.

In addition, some job seekers face particular employment barriers that require specialized assistance. These include individuals who have substance abuse and mental health problems, lack permanent housing, or have been involved in the criminal justice system. These issues must also be considered an essential component in efforts to increase employment opportunities for residents and meet the workforce needs of employers.

Service Coordination

Workforce development and employee support services cut across a number of programs and organizations. This can make it difficult for individuals trying to obtain education and training, find a job, or secure related services to identify and access all of the services they need. Workforce development professionals acknowledge that no real system exists to serve clients in a holistic and user-friendly way. The challenges involved in addressing this issue include:

- Establishing a single, up-to-date resource inventory of all workforce development and related services.
- Conducting a thorough analysis of supply and demand of workforce development services to identify gaps and develop strategies to fill these gaps. It is likely that more resources are needed but also likely that there are more efficient ways to use existing resources.
- Reducing the fragmentation of current workforce development services, determining the most efficient scale of service delivery, and better defining the roles of various organizations.
- Developing a more client-centered system that better coordinates and integrates the services of different providers.
- Fuller engagement with employers to obtain better intelligence on labor market demand, more closely align training and other services with employer needs, and provide mechanisms to improve employer access to information about available services.
- Developing common performance standards for service delivery, practitioner training and certification, and better tracking of results to more effectively serve customers and improve credibility of the system for both job seekers and employers.

C. HIGHER EDUCATION

New Orleans' many higher education institutions make it the leading higher education center of Louisiana and the entire central Gulf Coast. It is critical for New Orleans' long-term economic future that its higher education base be sustained and strengthened. The city's colleges and universities have approximately 60,000 full-time and part-time students and account for approximately 15,000 jobs in 11 institutions as of 2010.

- Delgado Community College
- Dillard University
- LSU Health Sciences Center
- Loyola University
- New Orleans Baptist Theological Seminary
- Notre Dame Seminary
- Our Lady of Holy Cross College
- Southern University of New Orleans
- Tulane University
- The University of New Orleans
- Xavier University

In addition to educating the next generation of highly-skilled workers, the city's research universities, notably Tulane University, University of New Orleans, and LSU Health Sciences Center, conduct significant scientific and technical research, some of which is highly relevant to the city's established and emerging industries including energy, life sciences, and advanced manufacturing. All of the city's higher education institutions



New Orleans' ability to attract investment and grow its economy will depend on building and maintaining a highly skilled workforce through broader workforce-development opportunities for residents at all stages of their career life and expanding research connected to competitive industries. Educational institutions will be critical partners in achieving this vision.

help to attract and retain talent to the city, and often provide civic leadership and a volunteer base for civic efforts through involvement in planning, urban design, public education, and small business development.

New Orleans' higher education institutions were challenged by the impact of Hurricane Katrina, and are now faced with the fallout of the 2008–2009 economic downturn and financial market shake-out. Additional spending by the federal government on academic research and student financial aid will somewhat mitigate budget cutbacks.

5. Talent Retention and Attraction

Knowledge-based and creative industries are the key to New Orleans' economic future and the ability to retain and attract professional, creative, and entrepreneurial talent will be a critical factor influencing New Orleans' economic development. New talent brings new ideas, skills, energy, and ways of thinking that will invigorate the economic landscape.

The aftermath of Hurricane Katrina brought a wave of volunteers to participate in recovery and reconstruction. Many volunteers were recent college graduates and young professionals with a sense of social mission. Many were also natives who had established careers or businesses elsewhere but returned to New Orleans after the storm to help with reconstruction efforts. While many found the city's character and lifestyle very appealing, and would like to stay if they can find good jobs or grow their businesses, connections to jobs and business opportunities in New Orleans have traditionally been through personal relationships. This can put newcomers and others at an economic disadvantage and result in the outmigration of talented people.

A number of organizations and initiatives have been established that focus on talent retention and attraction, some through grass-roots efforts by young adults themselves. These include 504Ward (a collaborative of 18 organizations), NOLA Young Urban Rebuilding Professionals Initiative, Urban League Young Professionals Initiative, and the Young Leadership Council. These groups focus on graduating college students and young professionals in the 25–39 age group and often consciously seek to cut across class and racial divides. These organizations are undertaking a range of initiatives including connecting young professionals with business and civic leadership; developing a variety of social and business networking events; reaching out to the business community to encourage more open hiring practices;



Attracting and retaining a skilled workforce involves cultivating young leadership in civic activities, through these and other organizations of young professionals.

developing web-based job posting services; and developing public support through media efforts.

In addition to these efforts, representatives of organizations involved in talent retention and attraction cite other ways the local environment could be made more attractive to young professionals and entrepreneurs, such as stronger partnerships between universities and the business community to develop relationships between students and employers that can lead to jobs after graduation; more home buying incentive programs for young professionals; and developing housing choices and neighborhood environments that offer the amenities and lifestyle desired by a younger, urban-oriented demographic.

6. Entrepreneurial Environment

Creating a strong entrepreneurial environment is important in three ways: 1) it supports the creation of new companies that expand economic base industries, and create new jobs and wealth; 2) it provides a path of economic opportunity for individuals who have the skills and motivation to operate their own businesses; and 3) it sustains businesses that sell goods and services to residents and visitors across the city's many neighborhoods, enhancing the quality of life.

The term “small business” is a broad characterization that encompasses different types of businesses that employ a limited number of people (often fewer than 100 employees), or that are small in relation to potential market size. It includes new business ventures with a proprietary product or technology and the potential for rapid growth; businesses that provide business and professional services such as legal, accounting, and engineering; businesses that provide personal or household services; businesses that produce specialty products; and street-level businesses such as retailers and restaurants. Efforts to support entrepreneurship and small business development must recognize that a supportive environment has a different meaning for each type of business.

A. SUPPORT FOR NEW VENTURE DEVELOPMENT

The development of new business ventures with proprietary products or technologies can be an important engine of economic growth. Successful ventures export high-value products to national and international markets, creating new jobs and wealth, and expanding the city's economic base. The local factors that support new venture development include entrepreneurs with ideas, management skills, and entrepreneurial drive; a research base that generates new technologies with market potential; sufficient seed and early stage capital; and a strong entrepreneurial support network of other entrepreneurs and business professionals.

Developing the “ecosystem” that fosters a critical mass of entrepreneurial activity is a long-term process. New Orleans lacks the robust entrepreneurial infrastructure that can be found in entrepreneurial hotbeds like Boston, Silicon Valley and the Research Triangle. Yet in recent years there have been a handful of successful new ventures, some developed by young entrepreneurs who moved to New Orleans or returned during the past decade, and new organizations have sprung up to promote and support entrepreneurship:

- **Idea Village**, formed by former residents who returned to New Orleans after starting successful business ventures, seeks to build an entrepreneurial network by working with entrepreneurs to develop business plans and link them to professional, technical and financial resources. Idea Village

holds business plan competitions to highlight entrepreneurial talent, supports development of “cool space,” such as renovated factory space for new entrepreneurs, raises awareness of entrepreneurial activities among key economic stakeholders and the general public, promoting New Orleans as a “laboratory of innovation,” and provides direct assistance to individual entrepreneurs.

- **Startup New Orleans'** web site promotes New Orleans as a new center of entrepreneurial activity by profiling successful new enterprises
- The **Louisiana Technology Council** offers educational events and one-on-one small business services to technology companies.

While these organizations have made progress in strengthening the entrepreneurial environment, they report difficulty getting the established business and political leadership to embrace the value and importance of entrepreneurship.

The ability to tap into the research base of the city's research institutions can stimulate the startup and expansion of new business ventures. New Orleans is currently not a top tier research center on the level of Boston, the Research Triangle, Silicon Valley, or even secondary research centers such as Cleveland and Pittsburgh. However, its research institutions currently spend approximately \$250 million on research annually. The strongest research capacity is at Tulane, LSU Health Sciences Center, and the University of New Orleans. The majority of research is in the life sciences, but other areas of research include energy, advanced materials, and the environment.

Local research universities have strengthened their technology transfer activities in recent years, and technology transfer managers say they are investigating ways to increase local technology commercialization. Until now, most licensing has been to non-local firms. Technology transfer managers cite a lack of local management capacity and venture financing as key barriers. In addition, there has not traditionally been a strong culture of entrepreneurship among university research staff, although this seems to be changing with younger faculty. Building on this research base and focusing more aggressively on local technology transfer will be an important factor in increasing new venture development. The promise of increased academic research funding at the federal level presents new opportunities, but funding is highly competitive. On the downside, potential cuts in state higher education funding put budget pressure on the research programs of public universities.

Risk capital for new ventures is in very short supply in New Orleans and throughout Louisiana. However there has been some growth in seed and venture capital sources in recent years:

- The **Louisiana Fund** was recently established with \$26 million in capitalization to do early stage investing in life sciences. Its emphasis is on technologies originating in Louisiana universities. The Fund attracts seasoned entrepreneurs to manage portfolio companies. They are currently establishing a local office in New Orleans.
- Other recently established funds include the **Gulf South Rebirth Fund** (for renewable energy investments using \$120 million in New Markets Tax Credits through the GO Zone Program) and the **South Coast Angel Fund** (offering seed and early stage venture capital). Louisiana enacted an angel investor tax credit program in 2005.
- **Advantage Capital Partners**, a private venture capital firm that received state tax credits through the now-inactive CAPCO (Certified Capital Program) program, makes later-stage venture investments, primarily in the communication, information technology, and life science and energy sectors.

The city's entrepreneurial community also sees a shortage of appropriate space for new entrepreneurial ventures. There have been some recent initiatives to address this issue.

- The **BioInnovation Center**, an incubator with wetlab space for biomedical startups, is expected to be complete in late 2010 or early 2011. There are opportunities for the development of other incubator

space or conventional private R&D space in the Biomedical District.

- A new facility, including space for small companies, is being developed by University of New Orleans at the Michoud Assembly Facility, with a focus on attracting NASA subcontractors and other advanced manufacturing firms.
- The **New Orleans EcoPark**, a retail and industrial park for emerging businesses in energy efficiency, green building, renewable energy, and other green industries is being developed through a partnership between EcoPark and the Idea Village.
- The **Tech Quarter** a creative media building developed through a partnership between GNO Inc. and the Idea Village, is scheduled for completion in 2009.

There are also opportunities for the development of space with shared facilities and services in areas such as the Warehouse District, Uptown, and Mid-City. These may need incentives and/or subsidies and compatible zoning to succeed.

B. SMALL BUSINESS FINANCING AND TECHNICAL ASSISTANCE

Many new small businesses need help getting started and both new and existing businesses often need help with a range of issues, including bookkeeping, marketing, pricing, and space needs. Some businesses also have trouble obtaining financing from banks and other conventional sources. Because of New Orleans' population loss since Hurricane Katrina, businesses who sell products or services to local consumers face the additional challenge of a weakened consumer market.

Myriad government, nonprofit and higher education organizations provide financing and technical assistance to small and micro-businesses. The number of such organizations has expanded significantly since the storm as special recovery programs have been implemented and a number of national and regional organizations have established operations in New Orleans. However, some service providers report that despite the many organizations serving the small business community, services gaps and resource shortages still exist, and that their own organizations cannot serve all of the businesses that request services. The large number and fragmented nature of service provision increases the potential for overlap, duplication, and inefficient use of staff resources.

The Collaborative for Enterprise Development, a major effort to address this issue, was initiated by the Louisiana Disaster Recovery Foundation (LDRF) in 2006 to improve the delivery of business assistance to New Orleans businesses affected by Hurricane Katrina. The Foundation invited several local business assistance organizations, including The Enterprise Corporation of the Delta/Hope Community Credit Union, Good Work Network, Idea Village, the NewCorp Business Assistance Center, the Capital Access Project, and the Louisiana Association of Nonprofit Organizations, to establish the Collaborative. It funded the Collaborative with a grant of \$4.6 million over a two-year period. Each of these organizations provides different and complementary financing and technical assistance services. The organizations have established a common intake, referral and case management system, and take joint responsibility for the progress of client businesses. The Collaborative recently received a follow-up grant of \$1.2 million for three years ending in 2011.

The Collaborative, which served almost 600 businesses through 2008, is a promising model for integrating small business services; however, its membership does not include all of the city's small business assistance providers. While resource guides have been published that provide comprehensive listings of available business assistance sources, it is still difficult for businesses to sort through the available information to find a provider that best meets their needs. Expanding the Collaborative to incorporate more service providers would help to address this issue. Developing a more coordinated business assistance system would not only improve service delivery, but could provide an organizational mechanism for service providers to advocate more effectively for small businesses at the local and state levels.

There is little effort to assess the effectiveness of business assistance programs. Business assistance organizations should work collaboratively to develop common performance measures and assessment techniques, tailored to types of businesses and types of assistance, to develop a better understanding of what impact they are having on client businesses and how they can improve outcomes. The Collaborative for Enterprise Development could provide a platform for engaging more business assistance providers in efforts to improve the overall functioning of the small business assistance system.

C. PUBLIC CONTRACTING OPPORTUNITIES

Minority Business Enterprise/Disadvantaged Business Enterprises (MBE/DBE) set-asides and preferences in public contracts for construction and services are viewed as an important mechanism to increase business opportunities for minority, women and disadvantaged business owners. The City of New Orleans and a number of other public agencies have established such requirements. City legislation requires that 50 percent of city construction contracts be awarded to local firms and 35 percent awarded to minority firms. Small business assistance organizations report that, while these requirements are important, a number of practical factors lessen their impact. These include:

- Different public agencies, such as the City, the Aviation Board, the Sewerage and Water Board, and the Housing Authority, have different certification requirements and processes. This places a burden on small firms with limited staffing, and can limit the range of public contracts they are certified to bid on. Aligning certification criteria and establishing a universal certification process would address this problem.
- The city and some of the other public agencies have very small staffs responsible for reviewing certification applications, leading to long delays in certification.
- Information about new contract opportunities is difficult to obtain in a timely manner.
- Small contractors have limited marketing capacity. Initiatives to provide them with marketing tools would help them to compete with larger contractors.
- The manner in which contracts are structured can inhibit MBE/DBE participation. For example, it is not feasible for small firms to bid on large master contracts. Breaking these contracts into smaller pieces would increase bidding opportunities for smaller contractors. In addition, MBE/DBE contractors are often given small slices of contracts by prime contractors, requiring them to manage a large number of smaller jobs. Structuring the contracting process to give them larger pieces of fewer jobs would be less administratively burdensome. Under the federal 8(a) contracts program aimed to help small businesses compete in the larger U.S. economy, the Army Corps of Engineers sets aside entire contracts under a certain amount for MBE/DBE firms.
- More monitoring is required to ensure that prime contractors meet their minority subcontracting requirements. For example, in some cases the prime contract is increased, but the minority subcontracting is not increased proportionately.

D. BUSINESS REGULATION

Businesses in New Orleans must conform to a number of permitting processes, including applying to obtain building permits and occupancy certifications, occupational licensing, alcoholic beverage permits, amusement tax permits, and other special purpose permits and licenses.

The building permitting process has been noted as a particular concern among the business community. One serious problem is the number of entities that can be involved in the permitting process. These include:

- **Safety and Permits:** Building and occupancy permits, approval of occupation licences, review of subdivisions, Taxi Cab Bureau, CPNC Licences.

- **City Planning Commission:** recommendations on changes to zoning maps or zoning codes, conditional uses; administrative site plan reviews in conjunction with overlay regulations, disposition and acquisition of public property, subdivision review and approval of various reviews as assigned by the City Charter or City Council.
- **Board of Zoning Adjustments:** Variances from standards of the Comprehensive Zoning Ordinance (CZO), appeals of administrative decisions of the Director of Safety and Permits.
- **Historic District Landmark Commission (HDLC):** Demolition, new construction and exterior modification to structures within local historic districts and review of subdivisions. Levels of control vary making it difficult to anticipate regulatory requirements.
- **Vieux Carré Commission (VCC):** Demolition, new construction and exterior modification to projects in the Vieux Carré. Review of occupational licenses and subdivisions.
- **Division of Capital Projects:** Input on public projects on public property.
- **Division of Real Estate and Records:** Input on public projects, projects on public property, leases of right-of-way, acquisition and disposition of public property and review of subdivisions.
- **Department of Parks and Parkways:** Input on landscaping within the public right-of-way.
- **Department of Public Works:** Input on improvements in the public right-of-way, review of subdivisions, approval of traffic impact analysis.
- **Sewerage and Water Board (SWB):** Input on improvements in the public right-of-way and subdivision review.
- **Mayor’s Office of Coastal and Environmental Affairs:** Coastal use permits
- **Fire Department:** Input on certain projects, permitting, review of subdivisions.

(All of these departments also sit on the Planning Advisory Committee, except BZA, which is represented through The City Planning Commission, and the Mayor’s Office of Coastal and Environmental Affairs.)

In many cases, coordination with the Louisiana Department of Transportation and Development is required due to the many state highways that run through Orleans Parish and in some areas permits are required from the Orleans Parish Levee District.

Having to deal with multiple entities can add significant costs and serious delays to the process of constructing a new building or making improvements on an existing property. Another concern expressed by the business community is the inflexibility of the current zoning code, which often requires many building projects to be classified as conditional uses and receive City Council approval, adding further time, cost, and complexity to the approval process. A related concern is the perceived arbitrariness of the process. Organization of a comprehensive permitting process could ease some of these concerns.

The City of New Orleans website has in some ways improved the process of doing business with the city. It enables businesses to pay taxes online, print application forms for licenses and permits, and download a variety of guides and pamphlets on doing business with the city agencies. However, plans to streamline the permitting process by creating a “one-stop” permitting shop with dedicated staff to walk applicants through the process have yet to be implemented.

E. OPPORTUNITIES FOR LOCALLY OWNED AND SMALL BUSINESSES

Locally-owned, minority-owned, and small businesses represent a significant source of job creation and can also play an important role in revitalizing neighborhood business districts. Ensuring that economic development initiatives benefit the full spectrum of the community will require incorporating the principle of inclusion in all economic development efforts. City representatives and business owners both agree that there is an urgent need to coordinate and bring together, under one roof, the different functions necessary

to operate a business. It is also important to structure public contracts to maximize opportunities for locally-owned and smaller companies. The many incentive programs to assist with purchasing, renovating, and operating a business in New Orleans need to be more accessible to all kinds and sizes of businesses. These programs are available through the federal, state, or local governments and include tax credits, training programs, tax exempt bonds, low interest loans, deferred property assessments, and property tax exemptions. There is little marketing of information on incentives to small businesses. The proposed PPP could serve as a vehicle to address this issue. At present, businesses must be very proactive to identify incentive programs and seek information from a variety of sources. A “one stop” shop with information on funding, technical assistance, and other information is needed to serve new and existing businesses.

Business Incentive Programs

A wide range of financial incentives are available to existing and new businesses and development projects in New Orleans. These include local, state and federal programs:

Property Tax Credits and Rebates

- **Restoration Tax Abatement (State)**—The program provides a 5-year property tax abatement on improvements made to commercial and residential properties in designated downtown development districts, economic development districts and historic districts. (A 5-year extension is available).
- **Industrial Property Tax Exemption Program (State)**—Program exempts new manufacturing facilities and expansions from state, parish and local property taxes for up to ten years. Program benefits can be combined with those of other programs, such as the Enterprise Zone or Quality Jobs programs.
- **New Markets Tax Credit (Federal)**—Upon expiration of GO Zone programs at the end of 2010, equity investors in qualified Community Development Entities (CDEs) can obtain a tax credit against federal taxes of 5 to 6 percent of the amount invested for each of the years the investment is held—up to 7 years.

Worker Tax Credits and Rebates

- **Work Opportunity Credit (Federal)**—Up to \$3,500 for the first year and \$5,000 for the second year for each new hire of someone on long-term family assistance.
- **Welfare to Work Credit (Federal)**—Up to \$2,400 for employees hired from groups that have high unemployment rates or other special employment needs, including youth (ages 18 to 24) that live in a designated Renewal Community (RC). Other qualified groups include veterans, ex-felons, food stamp recipients, vocational rehabilitation referrals and summer youth hires.
- **Enterprise Zones (State)**—Program provides tax credits and other incentives to businesses hiring from within officially designated Enterprise Zones. EZs are areas of

high unemployment, low income, and/or where a large number of residents are receiving some form of public assistance. A company must hire at least 5 new employees or increase current workforce by 10 percent. Many areas of New Orleans have been designated as Enterprise Zones.

- **New Jobs Tax Credit Program (State)**—Businesses are allowed a one-time credit against their State income or corporate franchise tax liability of between \$100 and \$200 for each new job created. \$100 per new employee. \$200 per new economically disadvantaged employee.
- **Quality Jobs Program (State)**—Grants businesses engaged in manufacturing or other basic industries cash rebates up to 6 percent of annual gross payroll. Qualifying companies must have a minimum annual payroll of \$500,000 (\$250,000 for less than 50 employees), pay wages of 1.75 the minimum wage, and provide 85 percent insurance coverage. The program can be used in conjunction with the Industrial Property Tax Exemption Program.

Employee Training

- **On-the-Job Training (State)**—Employers can create a skilled and reliable workforce by training workers while on the job. Employers save 50 percent on wages for the duration of the training period.
- **Incumbent Worker Training (State)**—Employers can enable their current workforce to attain higher-level jobs within the organization, in turn opening entry-level opportunities for new entrants to the workforce. Designed for current employees who seek career growth within the company. Employers save 50 percent on wages for the duration of the training period.
- **Customized Training (State)**—Employers in high-demand, high-growth industries with special training needs can access customized training services for new employees. Employers receive 50 percent up front for the cost of the training program.

Renewal Community

Parts of Uptown and Mid-City are designated as federal Renewal Communities (RC).

- **RC Commercial Revitalization Deduction (Federal)**— Commercial businesses receive a tax deduction of one-half of qualified revitalization expenditures (associated with new construction or expansion) in the first year a building is placed into service. Mixed use establishments must be at least 80 percent commercial.
- **Zero Percent Capital Gains Rate for RC Zone Assets (Federal)**—A business that holds an asset for at least five years (if acquired between 1/1/02 and 12/31/09) does not have to pay taxes on the profit of its sale.
- **Wage Credit (Federal)**—Businesses receive a credit up to \$1,500 or 15 percent of an employee's salary up to \$10,000 for each employee who lives and works within the Renewal Community.
- **Increased Section 179 Deduction (Federal)**—Allows businesses to claim a deduction (up to \$20,000 in additional expensing increasing to \$35,000 for property acquired after December 31, 2001) if the business qualifies as a Renewal Community Business. This claim can be used on certain depreciable property such as equipment and machinery.
- **Work Opportunity Tax Credit (Federal)**—Businesses can receive a tax credit (up to \$2,400) for hiring employees (ages 16–24) that reside within a Renewal Community.

Gulf Opportunity Zone (GO Zone)*

- **Gulf Opportunity Zone Tax-Exempt Bonds (Federal)**— Prior to the changes in the Internal Revenue Code in 1986, commercial establishments such as restaurants, hotels, motels, office buildings, *etc.*, could not be financed with tax-exempt bonds. Tax-exempt bonds can now be issued for these various commercial purposes.
- **New Market Tax Credits (Federal)**—New market tax credits can be used anywhere within the Gulf Opportunity Zone. This allows qualified equity investments in community development entities to get federal credit on income tax owed for investors, resulting in considerably lower interest rates for investors in rehabilitation and restoration.
- **HUBZone Empowerment Contracting Program (Federal)**—Provides contracting preferences to small businesses that obtain HUBZone (Historically Underutilized Business Zone) certification in part by employing staff who live in a HUBZone.

Sales/Use Tax Credits and Rebates:

- **Foreign Trade Zone (Local)**—The local Foreign Trade Zone makes it possible to import materials and components into the U.S. without paying duties until they enter the U.S. market. Goods shipped out of the country from FTZs are duty-free.
- **Inventory Tax Credit Programs (State)**—Manufacturers, distributors and some retailers are allowed a credit of 100 percent of the amount of local inventory taxes paid against state corporate income and franchise tax liability.
- **Enterprise Zones (State)**—Businesses that expand or locate in a designated Enterprise Zone are eligible for a state rebate of four percent, and a local rebate (depending on the local rate) for sales/use taxes paid on equipment, machinery and construction materials. A company must hire at least five new employees or increase current workforce by 10 percent.
- **Industrial Property Tax Exemption Program (State)**— This incentive program for capital investments may be used by manufacturers new to the State as well as new investments and miscellaneous capital additions to existing facilities in Louisiana. The taxes may be exempted for up to ten years. Program benefits can be combined with those of other programs, such as the Enterprise Zone or Quality Jobs programs.

Incentive Financing

- **Tax Increment Financing (TIF) (Local)**—A new program is under development. Louisiana allows TIF on sales taxes, not property taxes, as of 2009.
- **Industrial Revenue Bonds (Local)**—Industrial Revenue Bonds can be issued by the New Orleans Industrial Development Board to finance industrial sites and buildings, equipment, storage facilities and pollution abatement and control projects.
- **Payment in Lieu of Taxes (PILOT) (Local)**—The Industrial Development Board essentially owns the facility and leases it back at a predetermined rate which will be less than the ad valorem on the facility. Time frame is determined by a cost benefit analysis. Past PILOTS have ranged from 10 to 30 years.
- **Enterprise Zone (EZ) Facility Bonds (State and Local)**—State and local governments can issue EZ facility bonds to make loans at lower interest rates to EZ businesses to finance qualified zone property.

* **Gulf Opportunity Zone incentives are scheduled to expire at the end of 2010.**

7. A Strong Downtown

Downtown remains a major employment center and economic asset in New Orleans. It includes Planning District 1, encompassing the Central Business District (CBD), the Warehouse District, and the French Quarter. In addition to a business and civic center, this area includes the city's most important existing tourism and entertainment assets—French Quarter attractions, the convention center, Superdome, museums and casino. It once had a significant theater district and major retail area.

This area of New Orleans revived relatively quickly after the storm. Between the storm and mid-2009, new investments and initiatives included the Audubon Institute's "Insectarium," opened in the U.S. Customs House on Canal Street and the expansion of the National World War Two Museum in the Warehouse District. New retail outlets have opened on Canal Street, as well as a condo project and the renovated Roosevelt Hotel. In January 2009, the Downtown Development District (DDD) identified almost \$4 billion in development projects, including over 3,000 new housing units. Public investment includes renovations to the Saenger Theater and the Dominion Tower, as well as upgrades to the Superdome. The BioInnovation Center has broken ground and major investments in the city's biomedical infrastructure in the Medical District will occur.

The CBD still serves as a major employment center for the city and the region. Of the 9.3 million square feet of Class A office space in the CBD before Hurricane Katrina, approximately half a million square feet of space is empty as of mid-2009, but will be renovated and used for state offices. An additional 2.3 million square feet of Class B office space is located downtown, of which only 60 percent is occupied. This stock of Class B space has potential for future downtown residential development. With the exception of the French Quarter, downtown has small areas of contiguous, thriving urbanism and contains nearly 100 acres of underutilized or vacant lots without buildings. Assuming a relatively conservative potential density for new construction on these properties, downtown could easily accommodate an estimated 4,000 new residential units and nearly 6,000 residents, just through development of vacant parcels—not to speak of redevelopment of vacant buildings.

Downtown New Orleans is also the heart of civic activity for the entire region with a number of government buildings such as the Louisiana State Supreme Court, the U.S. District Court Eastern District of Louisiana, the U.S. Bankruptcy Court Eastern District of Louisiana, the U.S. 5th Circuit Court of Appeals, City Hall, and the main public library, as well as a number of museums and public parks. These include the Louisiana Children's Museum, the Aquarium of the Americas, the National World War Two Museum, the Ogden Museum of Southern Art, Jackson Square, Lafayette Square, Duncan Plaza, and Armstrong Park.

The cultural attractions and museums are located in appealing structures that foster pedestrian activity. The public buildings and sites located downtown could contribute much more significantly than they currently do to civic life and the overall appeal of downtown. Duncan Plaza, the adjacent civic buildings, the main public library, and Armstrong Park (among others) need improvements. The Convention Center—while a thriving, well maintained structure—unfortunately cuts off adjacent neighborhoods from direct riverfront access. Enlivening the Convention Center's street frontage and creating more access points to the riverfront and the Riverfront Streetcar would be worthwhile goals.

Canal Street was for a long time, home to New Orleans' most prestigious stores and the center of retail for the entire region. Its retail mix as of mid-2009 includes a number of high-end stores (both free-standing and in the Canal Place mall), lower-end retail serving a moderate income population, and tourist-oriented retail selling liquor, beads, tee-shirts, and knick-knacks. However, the street still faces some challenges: storefront vacancies and the poor appearance of some storefronts; fragmented ownership and small, narrow parcels that are hard to redevelop; limited transit access and poorly marked and expensive off-

A 21st-Century downtown marked by a unique blend of preservation and innovation



The president of CEO's for Cities notes that cities with vibrant downtowns "out-compete" others in attracting investment and jobs, in part because housing in their regions has proven to be a better investment; educated workers necessary for economic diversity seek regions with vibrant downtowns; conventions that build bridges to other cities seek venues in lively and historic downtowns; and the tolerance for diversity that serves as a litmus test for many companies flourishes in healthy downtowns.

New Orleans is increasingly successful in these and other dimensions. More important, downtown is New Orleans' birthplace and common ground.

Dedicated stewardship—with active engagement by a substantial residential population—continues to preserve and enhance a rich mix of historic and cultural amenities, reinforcing downtown as a regional economic engine that fosters investment in the medical district; fast-growing creative and green "industries of the mind"; higher-value "cultural tourism"; and similar benefits. Market support exists to double downtown's residential population over the next seven years and create new neighborhoods along the South Rampart corridor and on the vacant Convention Center expansion site.

The Downtown Development District's collaborations with the Canal Street Development Corporation, the French Quarter and other partners are critical to taking steps essential to achieving the downtown's full promise:

- Bring Canal Street's historic theaters and upper floors back to life with a rehabilitation building code and targeted financial incentives (recouped as investors respond to public leadership).
- Restore the historic former Charity Hospital and nearby buildings to create a vibrant seam with the medical district.
- Manage development in all of the historic districts to preserve their integrity and character.
- Animate key walking streets like Julia, Magazine, and Royal to encourage convention and Super Dome attendees, French Quarter visitors, medical district employees, Warehouse District gallery visitors, and others to explore other parts of downtown. In the process, all of downtown will become more competitive as a place to live, work, shop, visit, and invest.
- Aggregate land to set the stage for creation of new mixed-use downtown neighborhoods, and work with the Iberville public housing residents on further planning.
- Undertake a series of transit and other transportation initiatives to enhance connections to the city's neighborhoods and the larger city and region.
- Using DDD's Lafayette Square/Upper CBD refined height study as a guide, adopt clear and predictable building height limits for that portion of the Central Business District as part of the new Comprehensive Zoning Ordinance."

As this Master Plan is being completed, the mayor has raised the issue of the need to rebuild City Hall or find a replacement. Over the longer term this offers New Orleans the opportunity to plan for a vital new civic center and city hall that can emerge as a national symbol of New Orleans' spirit, energy, and inclusiveness...and make an important contribution to downtown's vitality.

street parking; and regulatory barriers to renovation of upper floor space. Of the two shopping malls in downtown before the storm, one, New Orleans Centre, has not reopened, while the other, Riverwalk Mall, continues to serve primarily tourists.

The French Quarter maintains its character as a true, thriving mixed-use neighborhood, replete with a diversity of small businesses. French Quarter businesses would benefit from better non-automobile access downtown and more affordable, more accessible parking for those who choose to drive. In

neighborhood-serving retail and services, like grocery stores to downtown

- Adapting and adopting a New Orleans version of the New Jersey Rehabilitation Subcode, which provides flexible building codes specifically tailored to encourage the rehabilitation of older, historic buildings otherwise difficult to renovate under modern building codes, as well as targeted financial incentives
- Making downtown a regional transit hub
- Promoting the creative economy and the biosciences/medical district as critical to downtown success
- Promoting inclusiveness and diversity
- Establishing new regulatory approaches such as transfer of development rights, to promote rehabilitation of historic buildings, taller buildings where appropriate, better parking management, and district level open space and retail planning
- Continuing to upgrade downtown's public realm
- Using DDD's Lafayette Square / Upper CBD refined height study as a guide, adopt clear and predictable building height limits for that portion of the Central Business District as part of the new Comprehensive Zoning Ordinance.

Improving the urban design character of downtown is critical to making it a 24-hour neighborhood and destination. In addition to the French Quarter, the downtown area includes some important historic buildings, such as Gallier Hall, the former city hall; significant numbers of older commercial structures that have been successfully rehabilitated; newer buildings that tend to have monolithic facades that do not engage the street; a number of dilapidated buildings; utilitarian infill development; and many surface parking lots. Much of the Warehouse District and Central Business District are now within local historic districts.

Although many adaptive re-use projects have taken underutilized warehouses and office buildings and converted them into attractive residential and mixed-use projects, some have off-street parking located in prominent, sidewalk-facing locations which detract from the vitality of the street. Improving public transportation and bicycle infrastructure and establishing development standards for the placement and aesthetic treatment of off-street parking would largely address this problem.

The quality of downtown's public realm (streets, sidewalks, street trees, and parks), is good in comparison to other areas of New Orleans. Utilities are underground for the most part, sidewalk widths are generous, and many streets benefit from street trees. Canal Street streetscape improvements made a major difference. Most of the other streets downtown need basic maintenance, repair, and the installation of pedestrian amenities.

8. Quality of Life

Economic development typically focuses on the factors that directly affect the business environment. But in an economic environment where the skills, talents and civic commitment of a city's population are an increasingly critical resource, preserving and enhancing the overall quality of life must be an important focus of economic development.

Many aspects of New Orleans' quality of life—its vibrant culture, rich architectural heritage, and old world charm—are strong attributes. At the same time, there is a broad recognition that other factors seriously detract from the city's quality of life. In addition to concerns about the city's physical vulnerabilities, these include concerns about the quality of public education, threats to public safety, poorly maintained infrastructure, and the effectiveness and efficiency of basic government functions. Without addressing

these basic quality-of-life issues, the most effective economic development efforts are likely to fall short of creating a strong, dynamic economy. While significant strides have been made in some of these areas, more progress is needed to turn these factors from a negative into a positive.

B What The Public Said

The economic issues highlighted in previous plans and that emerged from this Master Plan process include:

- Tailor business retention and recruitment efforts to the distinct needs of each targeted industry.
- Support and grow traditional New Orleans industries (*e.g.*, tourism, health care, manufacturing, and the port).
- Create new business opportunities by building on existing industries (*e.g.*, port-related manufacturing, building materials manufacturing).
- Work to attract large (Fortune 500) employers.
- Develop new home-grown industries that build on New Orleans' existing assets.
- Support and expand New Orleans' historically significant and rich artistic and cultural economy.
- Develop the full range of cultural industries, including grassroots artists and established professionals.
- Improve the city's marketing of cultural attractions.
- Support the restoration of New Orleans' historic architecture to both preserve the city's culture and provide additional employment.
- Encourage growth in new sectors that offer higher wages (*e.g.*, "green" industries, biomedical, and information technology).
- Capture additional retail activity.
- Occupational training is not enough: Offer entry-level workers basic life skills and job readiness programs.
- Provide high-quality education at all levels.
- Provide workforce development programs for various skill sets and vocations.
- Provide job training for industries that have opportunities for advancement.
- Provide incentives for locally-owned, small businesses throughout the city.
- Encourage small business development in neighborhoods.
- Small businesses need a centralized on-line source of information on business programs, incentives and regulations.
- Promote buyer-supplier relationships between local businesses.
- Create appropriate, affordable space, such as small business incubators for start-up and early stage businesses.
- Develop a more comprehensive and detailed inventory of available sites to market to prospective businesses.

Downtown issues discussed during the Master Plan process include:

- More incentives for Canal Street revitalization and building codes that encourage adaptive re-use.
- Improve the quality of retail along Canal Street.
- Keep the medical district in downtown.

- Stronger transit connections and bike infrastructure.
- Cultural tourism and a revitalized theater district and revitalized Rampart Street.
- Streetscape improvements and enhanced maintenance.
- Streamline the development process, and don't regulate businesses or property owners out of existence.
- Promote affordable housing and revitalize the Iberville Housing Development.
- Revitalize Armstrong Park.
- Grocery stores and basic retail for the residents downtown.
- Better, more affordable parking near Canal Street.
- Extend tourism activity to other neighborhoods throughout New Orleans.
- Encourage hazard mitigation practices in structures.
- Encourage the use of green building technology.