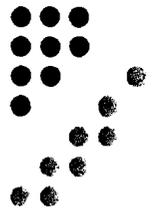


Implementation Activities for Hillsborough County Post-Disaster Redevelopment Plan

July 2010.



Prepared for:

**Hillsborough County Hazard Mitigation Section
Planning and Growth Management Department**

Prepared by:



CSA International, Inc.

8502 SW Kansas Avenue
Stuart, Florida 34997
Telephone: 772.219.3000

Task 1

Research of Economic Impacts Based on Previous Disasters

Economic Impacts and Recovery

Report for the Hillsborough County PDRP

Market Background

Emergency managers often refer to the four stages or phases involved in addressing disasters as preparation for, response to, recovery from and mitigation against disaster. However, in practice all of these phases are inextricably linked. Therefore, actions that are taken in each stage have an impact on and are impacted by actions taken in the other three. That interwoven relationship is exceedingly evident when dealing with physical and market impacts on a community's business activity and economic foundation.

The Hillsborough County Post Disaster Redevelopment Plan (PDRP) addresses these linkages in distinct, but related areas including a chapter addressing the cascading destruction a major disaster – specifically, a hurricane event – could have on the county's commercial trade and market activity required for a community to survive.

The Economic Redevelopment chapter of the county's PDRP makes certain impact assumptions, identifies challenges in addressing those impacts and recommends a number of specific action steps. In addition, the PDRP includes an economic analysis of a catastrophic event conducted by the Tampa Bay Regional Planning Council. This report is intended to complement and enhance those previous reports by further exploring the long-term challenges and potential solutions that may exist for Hillsborough County businesses and workers following a major economic disaster.

The Tampa Bay Region

The Tampa Bay area as defined by the Tampa Bay Regional Planning Council is composed of Hillsborough, Manatee, Pasco and Pinellas counties and more than 30 incorporated cities within those counties. The city of Tampa is the county seat of Hillsborough and is the area's primary employment and commercial center. As has been documented, the national recession that has significantly impacted Florida over the past two years has critically curtailed the economic growth of the four-county region.

In 2007, the Tampa Bay area's Comprehensive Economic Development Strategy (CEDS) cited three main areas that could impede the vital growth of the region's economy: infrastructure, workforce and continuity.

Specifically, the region's CEDS committee noted that roads, mass transit and rail services as limitations that "physically separated" employers from their employees, customers and other businesses. The committee suggested that the continued trend of urban sprawl and the lack of affordable housing within the urban center would curtail the region's economic competitiveness,

and by inference, could present challenges to recovering key industry sectors, particularly those that depend heavily on workers residing in dispersed areas of the region.

The downtown areas of Bradenton, Clearwater, St Petersburg and Tampa are located within a 60-mile area and all of these central business districts would be expected to take the brunt of physical damage wrought by a major hurricane impacting Tampa Bay. As with most urban centers these business districts are comprised of local government centers, retail banking centers, law firms and retailers that support the downtown businesses and restaurants.

As in many other major metropolitan areas, the region also has several other primary employment centers including Gateway in Pinellas County (north of St Petersburg, west of Tampa and east of Clearwater), the Westshore Business District (west of downtown Tampa and across Tampa Bay from Gateway) and new Tampa (northeast of Tampa). These three employment centers are of specific significance because of the primary businesses that call them home.

The Gateway area is home to the headquarters of international professional service companies including Raymond James Financial and Franklin Templeton and HSN broadcasting. The Westshore area is one of the largest office centers in the Southeast and is home to more than 400 businesses and about 100,000 workers who are employed in a diverse array of professional, hotel and retail services jobs. Both the Gateway and Westshore districts are located on the shores of Tampa Bay and therefore could be at the bulls-eye of a catastrophic storm entering the bay. The long-term ramifications on this primary impact area could displace thousands of highly skilled workers, families and business from an area that has some of the regional market's most upscale neighborhoods, hotels, restaurant and shopping establishments.

Tampa and Hillsborough County are also at the heart of a broader Tampa Bay region that is marketed to business investors, tourists and the world as high-growth hub of innovation that offers a quality of life attractive to all age groups. The Tampa Bay economic region is marketed by the Tampa Bay Partnership, a regional economic development organization that is a collaborative partnership of Hillsborough, Pinellas, Manatee, Sarasota, Polk, Pasco, Hernando and Citrus counties.

Polk County and Hillsborough County have historic economic ties that include shipping product from Polk County phosphate mines and farms through the Port of Tampa and attracting residents from Polk County to shop in Tampa's retail centers and work in Hillsborough tourism and service industries. But in recent decades, Polk County has grown to be recognized as the prime link between West Central and the East Central Florida region that includes Lake, Osceola, Orange, Seminole, Brevard and Volusia Counties, being reported as one of the country's "super regions". In the past decade, that role as the geographic link has spurred economic diversity and growth for Polk County and is has contributed to the county landing the state's only PolyTechnic University and an integrated logistics center that will serve all of Central Florida.

Organizational Capacity

Economic developers are charged with serving as forward thinkers in their communities. And, by that measure, Hillsborough County economic development leaders have marked accomplishments in retaining and recruiting employers that are expected to create high-skilled, high-wage jobs for current and future workers in the region. However, when a major economic disruption occurs, such as the natural disaster contemplated in the PDRP scenario, the area will be challenged to focus economic development on a number of parallel tracks. Members of the Economic Redevelopment Technical Advisory Committee (TAC) will be called upon to: assess the unmet needs of all businesses and displaced employees; reopen businesses that can be of immediate assistance to response and short-term recovery; put displaced workers in the area back to work and; assist businesses in the primary driver industries in reopening or relocating operations in the county and continue to develop a “pipeline” of prospect companies to invest in what is perceived to be a much riskier investment environment.

Each of the stakeholder organizations in the Economic Redevelopment TAC should develop a continuity of operations plan (COOP), which should include alternate locations from which to operate following a disaster. In addition, the COOPs should identify similar organizations that can provide support staff and technical assistance that will help navigate the complexity of securing public and private sector funding. Additional staff capacity may be needed to address the specific recovery functions maintain the usual business functions of the organization.

Some examples of such organizational capacity building came into play during the recovery periods following eight major hurricanes that damaged the state in 2004 and 2005. For instance, the Florida Small Business Development Centers Network has a disaster response plan that includes deploying business counselors and mobile units to serve as temporary counseling centers to communities in Florida and throughout the Gulf Coast that have been impacted by a disaster. In addition, Florida’s workforce development agencies, the Agency for Workforce Innovation, Workforce Florida, Inc. and the 24 regional workforce boards have deployed to assist workers in affected counties in Florida and Mississippi.

Economic development organizations (EDOs) and other organizations engaged in the Economic Redevelopment TAC should explore development of Memorandums of Agreement or similar commitments with like organizations in the state or in other states, to support community outreach, recovery assistance and ongoing marketing and investor prospect development during the short and long-term recovery phases. In addition, city and county EDOs should request assistance from the International Economic Development Council (IEDC). IEDC operates a technical assistance program by which experienced economic developers from around the country are deployed as volunteers to assist local EDOs in executing disaster recovery programs and maintaining other business recruitment and retention programs following a disaster.

In addition to turning to similar organizations in other regions of the state or country, economic development and other TAC stakeholders should explore opportunities to work with county and state government organizations that might provide tactical operational support.

Such support might be as simple as providing office space and communications support. Following Hurricane Katrina, a number of local economic development organizations were displaced from the greater New Orleans area. Staff from the organizations relocated to temporary office space provided by Louisiana Economic Development.

The Economic Redevelopment TAC should also work closely with Enterprise Florida Inc. (EFI), Workforce Florida Inc. (WFI) and other state agencies and organizations that are engaged with ESF #18 at the State Emergency Operations Center (EOC). and that will be the organizations through which public sector funding and other economic recovery resources will be organized and deployed to the region and the county following a disaster.

For example, the Governor's Office of Tourism, Trade and Economic Development (OTTED) and EFI will lead the deployment of the Florida Small Emergency Bridge Loan Program, should it be activated by the Governor. These organizations and others including WFI and the Agency for Workforce Innovation (AWI) and their network of local economic and workforce development organizations will coordinate the delivery of the financial and technical assistance provided by federal and state agencies at the local level.

Economic Impact Analysis

From purely a geographic perspective, any disaster event that strikes the Tampa Bay area, regardless of its nature, poses a threat to the economic vitality of Hillsborough County and its diverse industry sectors. The type of disaster and the specific commercial centers affected by the disaster will define the long-term economic restoration issues the county might face.

In an effort to forecast the specific impacts to the county's economy, The Tampa Bay Regional Planning Council (TBRPC) conducted an economic analysis based on hypothetical Category 3 and Category 5 storms that strike "evenly" across the county. As outlined in the "Economic Analysis of a Hurricane" attached, the analysis considered potential employment and loss impacts according to Hurricane Evacuation Levels A through E and the Special Inland Flooding Areas (areas that fall within the 100-year floodplain but outside the Coastal Planning Area), and the Non-Evacuation Area. In addition, workforce-return-to-work rates were calculated from an average of several studies that specifically were related to recovery efforts after Hurricanes Andrew and Katrina. The council calculated its findings based both on a "normal" rate of return (based on conservative estimates) and on an "accelerated" rate (a more aggressive rate that might be achieved if the county executes excellent recovery planning and coordination).

According to the council, in 2010, the county could expect to lose an estimated 217,000 jobs if no reconstruction or government spending occurred. Without any external stimulus, those jobs would not return to the pre-event level until 2015 and wouldn't achieve the pre-event forecast level (the level at which the county had forecasted job levels to grow) until 2018.

However, the TBRPC analysis also forecasts the employment impact from a Category 5 storm impacting the county, with the assumption that reconstruction, new construction and other recovery spending both public and private sector occurs within the county. From a practical

standpoint and based on historical scenarios in many disaster events across the country, Hillsborough County leaders should make some assumptions that such spending would occur.

Under a scenario in which post-event spending does occur, the county could expect 244,000 jobs to be created within a year after the event and another 136,000 additional jobs (380,000 total) to be created by the close of the second anniversary of the event, according to the council's economic forecasters. Net impact, from employment losses and spending gains peaks at 240,000 jobs in the third year following the event under normal recovery rates and 277,000 under accelerated recovery rates, according to the analysis.

The analysis also estimates revenues lost from employment losses at \$8 billion, or 29 percent, without government spending. Should construction spending occur, net impact from employment losses would be a net loss of \$13 billion a year after the event but would turn positive, years two, three and four and negative in years five, six and seven following the event.

The economic analysis performed by the regional planning council is by the council's own definition intended to serve as a tool rather than as a definitive assessment of the impacts a hurricane event might create. And while the general assumptions and impact forecasts by the council have been incorporated in the economic redevelopment section of the PDRP, there are other issues specific to expectations regarding industry vulnerabilities and potential to participate in long-term recovery that should also be taken under consideration by the county leadership.

Businesses as Response and Recovery Resources

Studies from numerous post-disaster communities illustrate common patterns regarding the economic impact on local businesses that provide products or services expected to be in high demand following a disaster. Some reports suggest that a community that was experiencing economic difficulties before a disaster often experience a boom in consumer spending and tax revenues following a disaster.

The nearly \$6 billion state budget surplus in Florida in the 2006-2007 budget year was attributed in part to the increased construction and rebuilding that occurred in many Florida counties that had withstood dramatic physical damage during the very active 2004-2005 hurricane seasons.

Primary Economic Drivers

As the economic hub of the Tampa Bay are, Hillsborough County has a diverse economy that includes a variety of primary and dependent industry sectors that are interdependent and vulnerable to impacts from a hurricane or other potentially devastating disaster event. In general, industries may be subject to vulnerabilities presented by their geographic location; infrastructure disruptions; disruptions in their supply chains and loss of customer base and market share.

For the purpose of assisting the Economic Redevelopment TAC in assessing and addressing potential long-term recovery issues in the county, this report identifies some of the inherent vulnerabilities that may impact the county's targeted industries and primary employers. When

considering the vulnerabilities and assets various sectors present, it should be kept in mind that about 237,000 workers commute into the county from other counties. Those community workers are employed in a variety of industry sectors. To better understand the impact this segment of the workforce may have on long-term recovery, the Economic Redevelopment TAC might consider a survey or analysis that would reveal which industries are most dependent on commuting workers, from where those workers commute and the level of skills they possess.

There are major market sectors that serve as *primary economic drivers* to Hillsborough County and surrounding counties. Consequences of a disaster impact on these drivers are examined in the following market sectors.

Port of Tampa

The Port of Tampa is the largest bulk cargo port of Florida's 14 deepwater ports. Located in the Channelside/Harbour Island district in downtown Tampa, it represents an essential element of Hillsborough County's critical infrastructure and international trade structures and is one of the primary economic drivers for the county, the region and the state of Florida. The economic impacts generated by the port go far beyond the publicly owned and operated facilities located on property owned by the Tampa Port Authority. To measure the full impact of any disaster that causes a disruption of port operations, one must consider all economic activities generated at the port facilities including: marine cargoes that cross the piers and the private docks owned by Mosaic, Tampa Electric Company and other businesses; the cruise industry; the shipbuilding and repair industries and the non-marine real estate tenants located at Channelside Bay Mall and the World Trade Center.

More than 16,000 jobs and an estimated \$830 million of direct wages and salary income are earned by stevedores, terminal operators, trucking companies, shippers and others directly dependent on daily operations at the port, according to the Tampa Port Authority Master Plan completed in 2008. That \$830 million in direct wages and salaries generate an additional \$2 billion of income and local consumption expenditures and support approximately 21,000 additional jobs in Hillsborough County and throughout the Tampa Bay area, according to the economic analysis.

It's indirect impact on the regional and state economies are dramatic, with regional businesses receiving an estimated \$1.5 billion of sales revenue from services provided to the marine cargo activity at the port and \$6.3 billion of total economic output generated in the state by port activity. The majority of economic output is generated by the state's fertilizer industry, which is concentrated in Hillsborough, Polk and other nearby counties and depends on the port to ship its products to customers worldwide.

Businesses directly reliant on port activities are some of the most vulnerable businesses in the case of a direct impact from a major hurricane. As seen in other port cities, such as New Orleans, a direct hit from a hurricane could cause severe wind and storm surge damage to port facilities and shipping channels. However, because ports are vital assets to the local, state and national economies, repairing port facility damage and dredging shipping channels are

considered top priorities and drive federal and state funding and private investment to the community.

The adjacent Downtown Tampa/Ybor City business district, which is also a primary impact area under the hurricane scenario, hosts the primary government centers for the city of Tampa, the county and the federal courthouse and other federal government offices. In fact, about 15 percent of the Hillsborough County's workers work in this district and they earn about 16 percent of the wages earned in the county. Because the vast majority of the downtown workforce is employed by government or in other administrative jobs, such as banking and legal services, this district represents both some of the most highly educated workers and workers considered essential to planning the county's long-term economic recovery and to providing the public services needed to support the recovery.

Agribusinesses

Agribusiness is composed of traditional field crops, horticulture, apiculture, seafood, livestock, citrus, forestry, mining and aquaculture. The economic impact from all of these agriculture segments is estimated at about \$100 billion, according to the Florida Department of Agriculture and Consumer Affairs.

As mentioned previously in this PDRP, the very fact that agriculture is heavily influenced by weather, climate and fresh water availability makes this industry sector very vulnerable to disaster, particularly to natural disasters such as hurricanes. The most obvious threats include its susceptibility to contamination of water bodies – both fresh and saltwater – loss of crops or livestock, destruction of irrigation systems and other production and processing infrastructure.

In addition, this industry is also more highly susceptible than many other industries to workforce displacement because of its reliance on itinerate, low-skilled workers. When primary disruptions happen in these sectors, much of the workforce is immediately displaced and will remain so until debris can be removed, contamination is cleared from waterways, processing equipment can be replaced and other essential industry infrastructure issues can be addressed.

Much of the production labor that is displaced are individuals who have no permanent local ties to the county and few financial resources and may need to move quickly to another location, which means they may not be available to assist with the industry's short or long-term recovery.

Agriculture segments, particularly those related to traditional crop production and processing, historically also has been more likely to employ immigrant populations that often have unmet needs that are difficult to address because of their inclination to not seek government assistance or to participate in damage assessment surveys.

Loss of the viability of much of this industry also raises a host of long-term economic challenges for the county including: revisiting land use planning assumptions; the potential to engage in the growth industry of bio-products and "green" jobs; food safety issues that accompany increased reliance on agriculture and food imports; a decline in agriculture exports from the region; and the retraining of agriculture industry workers to qualify for job opportunities in other industries.

Because of long-standing and close ties to the identity of the county, the agriculture industry also plays a significant role in branding the county and the region. Brand names such as Ruskin tomatoes and Plant City strawberries are geo-branded names that can be incorporated into a “Back in Business” campaign for the county.

Financial and Business Services

Name-brand companies including JP Morgan Chase, Citi, Geico Insurance, and PricewaterhouseCoopers, all have located primary operations including shared service centers in the Tampa Bay area. And an estimated 10 percent of the Fortune 500 and 9 percent of the Fortune 500 companies have a shared-services operation in the Tampa Bay area.

The jobs represented by these industries include a variety of skills and offer opportunities for a broad range of workers who have the ability to be trained to sell, provide customer service or manage production operations for a wide range of industry goods and services.

These companies are among the most often cited for hiring from the local marketplace, and in particular have recognized the quality of graduates from area colleges and universities – namely the University of South Florida and the University of Tampa in Hillsborough County – as one of the prime reasons for locating and expanding their operations in the county. Therefore, it would be expected that the ability of the community to reopen the doors quickly to these higher education institutions would be a key determinant in encouraging companies within this sector and many of the other high-growth business sectors to continue operations in the county or the region.

Corporate Headquarters

Some of Florida’s primary corporate headquarters including OSI Restaurant Partners and Fortune 1000 companies such as WellCare Health Plans are located in Hillsborough County. Attracting major corporate headquarters has helped the county and the Tampa Bay area overcome some traditional misperceptions that the area’s economy is totally reliant on agriculture and tourism.

Following a disaster, these headquarter companies, along with other primary employers, are also the ones expected to lead efforts to raise private sector donations and recruit volunteers to assist in the recovery efforts. These corporate chief executives would likely also be at the top of the call list for economic development officials.

After a major disaster event it will be critical to assess the potential impacts to such headquartered companies and large employers in order to determine what assistance, if any, the company or their employees may need. With the exception of those headquarter companies that have a direct ties to the local economy, such as TECO Energy, many of these companies could relocate their headquarters and, in many cases a significant number of employees elsewhere. In fact, for many of them, the decision to base their operations in the area is as much a personal statement on the quality of life they enjoy as it is on the business climate of the area.

Many communities have experienced the loss of corporate headquarters within months after an event and those departures, particularly when it involves a home-grown company, can call into question the viability of recovery for a long time after a disaster event occurs. One such very public example was the relocation of Ruth's Chris Steakhouse headquarters from New Orleans to Orlando within a few months following the impact of Hurricane Katrina.

Life and Marine Sciences

Hillsborough County is home to some of the Tampa Bay area's most value-added industries, many of which are directly related to healthcare and life sciences. The University of South Florida and researchers associated with its medical school and research centers are at the center of this high-tech cluster development, a cluster that is considered crucial to the county's economic recovery and its potential to create higher wage jobs in the future.

For instance, H. Lee Moffitt Cancer Center and Research Institute and the USF Center for Biological Defenses are prime examples of the groundbreaking research being conducted on the USF campus and the university serves as a market anchor and a focal point for launching new businesses and recruiting existing businesses in the life sciences to Hillsborough County and the Tampa Bay area.

Hillsborough County's location on Tampa Bay and surrounding waterways has become a key factor in the county and surrounding area developing a high-growth industry engaged in the innovation and commercialization of marine science technology. The USF College of Marine Science – Center for Ocean Technology and the U.S. Geological Survey Coastal and Marine Science Center are considered at the cutting edge of renewable energy, ocean monitoring and homeland defense research. However, this industry is obviously particularly susceptible to disasters that could devastate the natural coastal environment, such as the one threatened by the BP Deepwater Horizon oil disaster.

Manufacturing and Distribution

The Tampa Bay area boasts a strong roster of prime contractors in the aviation, aerospace, national defense and homeland security industries. Leading contractors such as Raytheon, Honeywell and Lockheed Martin are at the center of a deep supply chain of companies that include precision machine and research and design firms and are located throughout Hillsborough County and surrounding counties.

These industry sectors also are playing a major role in supporting the region's pursuit of "green technology" based businesses, particularly in solar power and nano-hydrology. These capital intensive businesses require a workforce with precise skills in a variety of high tech applications, both of which bode well for the area's economy post disaster.

In addition to the global brand manufacturers, there is a strong contingent of home-grown companies that are designing and producing a host of products including computers, electronics and medical devices.

Unlike many other businesses in a primarily service-based economy, these manufacturers have large investments in capital equipment and facilities and depend on a more highly skilled workforce, which make it more difficult to relocate established operations.

Government contracts and international purchasers of their products also impose strict production and compliance standards that tend to make these manufacturers some of the better prepared for disasters in terms of facility fortitude, data redundancy, insurance coverage and other elements indicated in a strong business continuity and contingency plan.

On the other hand, product manufacturers and their employees often are more dependent on public infrastructure, particularly the intermodal transportation systems. Even those manufacturers that have no significant, direct physical damage from a disaster event quickly can lose revenues if the transportation systems they depend on to move supplies and products aren't operational shortly after an event. To emphasize the criticality of the transportation system, a growing segment of these manufacturers operate on a "just-in-time" inventory system. While such a system can lower the likelihood that a large amount of stored inventory will be destroyed in an event, it also leaves less leeway for production and distribution delays that could be caused by an event.

Warehousing and Distribution

Hillsborough County has a host of attributes that have made it an ideal location for companies looking to locate wholesale trade or distribution centers for products targeted for both U.S. and international markets. With the deepwater ports of the Port of Tampa and the nearby Port of Manatee and the interstate road systems and major rail lines serving the area, the county has drawn distribution centers for notable brands including Wal-Mart, Coca-Cola, JC Penney's, Beall's and Home Depot.

The area's potential to attract such centers is expected to grow considerably with the planned expansion of the transportation infrastructure over the next few years. Such planned expansion includes a \$390-million investment in rerouting the Tampa area road networks and development of an integrated logistics center with warehouse , industrial and office space in adjacent Polk County.

Tourism

About 15 million business and leisure travelers visited Hillsborough County in 2009, spending nearly \$3 billion and through that spending, directly employing more than 46,000 workers in the area, reported Tampa Bay & Company, the county's primary convention and tourism promotion organization.

These numbers and the tax revenue they generate – nearly \$18 million in bed tax revenues alone in 2009 – explain why tourism is considered such a key economic driver in the county and the broader Tampa Bay area.

However, to consider the impacts of a disaster event on this key industry, it is helpful to consider the sub-sectors that compose the industry. Tourism is an industry composed of many underlying

sectors including lodging, restaurants and catering; airlines, automobile rentals, theme parks and attractions and ecotourism. And each one of these sectors to some degree also serves local residents.

With that in mind, it follows that each of these sectors has varying exposures to the impact of any disaster event. Like other industries, they are susceptible to physical damage to facilities, inventories and other necessary product resources. And more so than most, they are subject to the direct economic impact of the outside perception of the disaster's effects on the area. As goes perception so goes revenues, is a common mantra in tourism businesses.

Tourism businesses also are some of the first to find opportunities to assist in short-term recovery and, if given the necessary assistance, can dramatically assist in accelerating a community's recovery. For instance, hotels and motels, restaurants and rental car services are all businesses that stand to benefit in the short term from the influx of response and recovery workers that converge on a disaster-impacted community after an event.

Community promotion both for tourists and potential business investors, must be a priority early on in the recovery process and, by accounts from disaster impacted communities, is a confidence building effort that must continue through long-term recovery.

The Tampa market has a great advantage in that is home to three professional sports franchises – the Bay Buccaneers football team, the Tampa Bay Lightning hockey team and the Tampa Bay Rays baseball team – and Busch Gardens theme parks While such assets might not make a usual list of critical infrastructure, they are essential to the economic infrastructure of the area. The Economic Redevelopment TAC should include these assets as priorities on its long-term redevelopment list both for the direct revenue they can generate in tourism spending and for the perhaps the even more valuable positive influence their reopening might have on selling the market's brand and on recovering the hope of local residents.

Following Katrina, the city of New Orleans made reopening the Superdome, home of the New Orleans Saints football team and promoting the reputation of its internationally recognized musical artists major priorities and those investments paid off. Within a year, Mardi Gras and other local festivals were hitting record attendance and in 2008, the city played host to the Super Bowl, the BCS Championship game and the NBA All-Star Game.

Local Leadership

Post-disaster, economic development and local political leaders should make it a priority to secure commitments to stay in the county from businesses within the economic driver industries. To secure such commitments, the public officials will need to demonstrate their commitment to assist such businesses in locating alternative temporary or permanent facility sites and supporting displaced workers with housing, childcare or other needs. Such businesses may also need assistance in accessing financial or technical assistance, prioritizing repair to roads or other infrastructure that is essential to supply chain operations ,or may request local or state tax incentives or workforce training dollars.

Likewise, economic developers and their stakeholder organizations might recruit those key industry representatives as their community ambassadors post-disaster. These high-profile business executives can significantly influence the perception of their peers outside the Tampa Bay market and might strike the most convincing note to a branding effort to show that Hillsborough County and the area is “back in business.”

Chief executives might also assist the business retention and recruitment efforts by making personal calls to peers who will be making the corporate decision whether to either stay in the county or to locate a new facility in the county post disaster. Professional public relations staffs at local businesses might also assist in crafting a branding campaign and telling the recovery story through traditional and social media channels. And businesses can lend staff expertise and volunteers to all types of other community assistance initiatives following a disaster and by doing so increase the community’s capacity to recovery more quickly and effectively.

Workforce Consequences

As discussed in other sections of this report, preliminary damage assessments are based primarily on obvious physical damage done to public infrastructure, homes, government facilities and commercial properties. But to truly measure the long-term impact on a devastated community, the community must measure the direct effects that take some time to document such as lost commercial equipment and inventories, lost business revenues, lost wages for displaced workforce and supply chain interruptions.

In order to better anticipate potential long-term economic impacts and how to prepare to rebuild the county’s economy, Hillsborough County leaders need to examine how other disasters affected local employment levels and, more specifically, how workers who stayed in the community, those who returned to the community post-disaster or those chose not to return fared.

To better understand the labor market impacts, researchers at the RAND Gulf States Policy Institute analyzed the effects of Hurricane Katrina on the primary labor market – individuals aged 25-64 – to consider how this essential workforce fared after the disaster.

After Katrina, an estimated 1.1 million people evacuated from their homes in Louisiana, Mississippi, Alabama and Florida. The researchers found relatively short-term negative labor market consequences followed by stabilization in the immediate recovery and, eventually, a level of recovery.

Using data from the federal monthly Current Population Survey (CPS) as their study basis, the RAND researchers found that 84 percent of evacuees returned to their homes within a year after Katrina, and those who did not return, tended to be female, younger, unmarried, African-American and in demographic sectors most likely to be unemployed before the disaster struck.

The RAND analysis provides several observations that should be considered by the Economic Redevelopment TAC, Housing Recovery TAC and others engaged in the economic recovery process including:

- Those who evacuated fared worse than those who stayed and were more likely to be unemployed and underemployed a year after the event.
- Evacuees who did not return within a year after the hurricane struck, were more disadvantaged in terms of employment than those evacuees who returned within a year.
- The number of self-employed increased short-term as displaced workers started businesses to offer services in demand during the initial recovery period or simply because self-employment seemed their best option. Evacuees who returned were more likely to be self-employed, but after one year, their self-employment rate was only slightly above that for non-evacuees. Those who didn't return within a year, initially didn't tend to turn to self-employment, but by four months to one year after the storm, they had the highest rate of self employment.

Overall, aggregate numbers regarding the labor markets after natural disasters may suggest that the effects on overall employment may be short-lived. But displaced workers who evacuate and stay away more than a year may require special assistance to help them rejoin the local workforce, according to the RAND report.

Much of the post-disaster economic analysis on events in the last few decades suggest that many of those employed in the short term following an event find opportunities in construction, infrastructure repair and lodging and food services. But depending on the scale of the impact, the pre-event availability of experienced workers in these industries and the ability of these workers to relocate to other communities outside the impacted area, the area could find there is a shortage of skilled workers to quickly fill the increased demand for these jobs.

For instance, after the devastation left in the wake of eight hurricanes that struck Florida during the 2004 and 2005 hurricane seasons, Florida communities could not find the skilled contractors and labor needed for repair and reconstruction, in large part because many areas of the state were undergoing a building boom and all available workers were employed in those projects.

In order to ensure displaced workers and other Florida residents were employed in the recovery of their communities, Workforce Florida Inc. and the Agency for Workforce Innovation launched the "Florida Rebuilds" training program that trained thousands of workers in construction skills and safety measures. Similar training programs primarily focused on repairing and rebuilding physical damage have been implemented in other states experiencing a physically devastating disaster.

However, as long-term redevelopment indicates, skills training may not be limited to construction related training. As part of its ongoing economic impact assessment, the Economic Redevelopment TAC should assess the job losses for all industry sectors that have withstood game-changing impacts – whether through physical damage, post-event market loss or primary business relocation.

Workers displaced through such industry shifts may need assistance that goes beyond disaster unemployment assistance or temporary jobs. Workforce developers and other stakeholders within the Economic Development TAC should consider establishing a mechanism in blue sky

times that efficiently assesses workforce skills of the displaced workforce, identifies existing or post-recovery industries to which those skills might apply and provides help to transition displaced these workers to new jobs.

Hillsborough County might look to the U.S. Department of Labor (DOL) experience post Katrina as the department has awarded \$438 million to support economic revitalization across the Gulf Coast through initiatives that provide workers with education and training for new career opportunities and help state and local leaders integrate education, economic and workforce development systems. In addition, the department awarded \$10 million in grants to support the Gulf Coast Workforce Development Initiative to train 20,000 new construction workers by the end of 2009.

Recovery Strategy

The Economic Redevelopment TAC has outlined an infrastructure a host of action steps that will take to assist the county in quickly mobilizing response and short-term economic recovery. These activities should assist business in obtaining gap financing, finding temporary jobs for displaced workers and estimating some potential cascading effects that major disruptions disaster could cause the local economy.

For any community to fully recover from a catastrophic disaster, its businesses must reopen, its workers must go back to work, the public and private sector infrastructure must be restored and the industries that drive the economic engine and supply the tax base must all be restored. The quicker all of these economic resumption steps occur the better and more sustained the economic recovery will be.

However well intended, single-minded focus on taking immediate steps to get as many business reopened as quickly as possible, might not have the long-term positive effects hoped for if broader economic realities aren't taken into consideration. For instance, if a community provides gap financing and other assistance that allow small retail shops to reopen quickly but the primary businesses on which the retailer's business depends do not reopen the retailer is still at great risk of closing in the long term..

While the economic restoration steps outlined in the county's PDRP are enumerated within a timeline format, many of these actions and initiatives must occur simultaneously in order to maximize their impact and effectiveness in encouraging a broad-based, robust economic revitalization.

The Economic Redevelopment TAC should collaborate with the other seven TACs designated in the Hillsborough County PDRP in order to identify related challenges to recovery and potential collaborative solutions to those challenges. Some of the collaborative opportunities for this TAC include:

- Collaboration with the Land Use and Infrastructure and Facilities TACs to identify essential criteria and potential locations that would be appropriate as Priority Redevelopment Areas. Stakeholders engaged in the Economic Redevelopment TAC should work during "blue-sky" periods to determine which industry sectors would be

most vulnerable to physical damage and economic injuries such as supply chain disruption, customer dislocation or other factors that could greatly influence executive level decisions whether to reopen operation in the county or relocate.

- The process of identifying sites for Priority Redevelopment Areas, should include factors such as identifying primary employers from specific industry clusters that can serve as job centers; access to a workforce that has the skills to support those employers; available transportation modes (rail, port facilities, highways, etc.) that are needed to support the employers and their supply chains and the ability of the PRAs to sustain and support the growth of the industry clusters located there.
- Collaboration with the Housing Recovery and Human and Social Services TACs to assess the potential unmet needs of individuals who compose the workforce of all industry sectors in the county. Once potential needs such as transportation and, childcare services are identified, these TACs could work together to determine financial and other resources that may be put into place in order to assure those needs are met following a disaster event.
- Collaboration with the Financial Administration TAC during pre-disaster planning and post-disaster redevelopment periods to develop a system to identify local businesses that can provide resources for disaster response and recovery.
- Collaboration with the Financial Administration TAC to identify federal, state and local public funding resources that would be made available post-disaster and to identify how to most effectively utilize those funds to long-term economic redevelopment of the region by restoring primary and dependent industry sectors. In the process of developing strategies to fund economic redevelopment, these TACs might also identify and secure private sector funding resources that may be leveraged to support local matches and capital investment in the county.

Measures for Economic Recovery

Any community hit by a major disaster has struggled with how it should measure recovery. These challenges become particularly complex when one considers how to measure economic recovery. In an assessment of recovery of the New Orleans metropolitan area a year after Hurricane Katrina, researchers for the Federal Reserve Bank of Atlanta outlined measurable objectives that might be used to benchmark economic recovery progress and community stabilization. Because common national measures, such as gross domestic product and consumer spending aren't documented at the local level, other statistics must be engaged to chronicle recovery progress.

Sales tax at the local level, new and renewed business license fee collections and state-level imposed corporate taxes can be used to track spending patterns. In New Orleans, first quarter 2006 sales tax revenues were 35 percent below first quarter 2005 levels following Hurricane Katrina, but in adjoining Jefferson Parish sales tax revenue increased 50 percent during the same time period, indicating spending shifts by population and market shifts from New Orleans to surrounding parishes, according a analysis conducted by the Federal Reserve Bank of Atlanta. Sales tax revenue often increases in the short-term as disaster survivors and

businesses receive insurance proceeds and government assistance and begin repairs and replace lost items. However, long-term recovery is better indicated by broader tax revenue increases from major capital purchases and investments.

Likewise, unemployment is likely to increase immediately following a catastrophic disaster only to decline as immediate recovery jobs are created and some displaced workers determine to stay away for an extended period and thus fall off the local unemployment rolls. In the New Orleans metro area, where a reported 205,000 workers lost their jobs post-Katrina, a net 24,200 jobs were created in the leisure, hospitality and construction industries shortly after the event. But a year after the event, no private sector industry was close to its pre-hurricane level, according to the U.S. Department of Labor.

Hillsborough County should also recognize the likelihood employee layoffs will not all be seen in the first few weeks after a disaster event, but could ratchet up months after a major disaster strikes.

For instance, tourism and retail businesses (particularly those whose success depend on sales to local residents and tourists) might incur immediate layoffs because they lack the resources to keep employees after even short-term business interruptions. However, large primary employers that generate most of their revenue from outside the immediate market often carry the insurance or have other financial resources to keep employees on the payroll for several months after an event, even if they have not reopened their doors.

Such was the case in the Gulfport-Biloxi metro area following Katrina. While the region marked a 17,000 job loss within weeks after the August 29, 2005 event, another 5,100 workers were laid off in December, 2005, when the gambling casinos and related businesses – primary employers in that area – remained closed and were no longer able to keep paying their workers, according to an analysis by the Federal Reserve Bank of Atlanta in 2006.

Funding for Business Assistance

FEMA's Disaster Relief Fund serves as a major source of federal disaster recovery assistance immediately following a disaster. It supports a wide range of programs providing grants to assist state and local governments and private and nonprofit organizations in their immediate disaster recovery effort.

The U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) program provides funds that may be used to provide grants and loans to businesses and establish revolving loan funds. But the rules regarding implementation of revolving loan funds capitalized by repaid CDBG-funded loans are not consistent state to state. The U.S. Small Business Administration (SBA) provides low-interest loans to businesses but collateral requirements to secure these loans and the often high-debt load already carried by many small businesses often discourage businesses from applying for these loans. The USDA Rural Development programs also can provide financing assistance for infrastructure, affordable housing, community facilities and private businesses, but they are geared for rural communities that wouldn't include much of Hillsborough County. And the Economic Development

Administration (EDA) of the U.S. Commerce Department provides limited funds for industrial/economic development, infrastructure and business financing.

A post-disaster economic redevelopment working group of the International Economic Development Council (IEDC) has considered the unmet needs of communities in their attempt to reopen businesses, to redevelop commercial activity and to address the underlying private sector infrastructure needs for long-term economic recovery. IEDC recommended that communities employ federal funding, such as the CDBG grants, for business lending programs and that these communities be allowed to “de-federalize” the federal dollars after the initial use. In short, once the federal funds are distributed in the loan program, a community could utilize the repaid loans without the federal restrictions imposed on the original lending program.

Following the tragic terrorism attack of September 11, the New York State Economic Development Corporation partnered with nonprofit CDFIs as did the Louisiana Recovery Authority in the aftermath of Hurricane Katrina, to execute revolving loan programs that leverage “seed” funding offered by CDBG grants. As CDBG-funded loans were repaid to the nonprofit lender, the repaid capital, or program income, became available for the participating nonprofits’ lending activities and administrative costs. Furthermore, the ability to use program income as a loan loss reserve provides a leverage mechanism that attracted private capital.

Over the last few years, a number of states impacted by major natural disasters – hurricanes, floods and tornadoes – have creatively used CDBG funds to assist business and economic recovery. These funding programs should be explored by the Economic Redevelopment and Financial Administration TACS to fund the plan development and implementation for long-term economic recovery.

Small Business Assistance

In the best of times, small businesses are challenged with accessing capital and other technical and business resources that stimulate self-sufficiency and sustainability. Therefore, in post-disaster scenarios, small businesses often have limited access to capital, limited ability to assist employees, and are in great need of technical assistance to develop a business restoration plan.

As the IEDC noted, experience illustrates that it can be assumed that many “mom and pop” businesses impacted by a disaster will have an urgent need for ‘gap’ or ‘bridge’ financing. In addition, the same businesses often need resources for their employees to assure their workers stay in the immediate area and are available to return to work.

For those who are able to rebuild and reopen, the second wave of urgent need is cash flow to cover rent/mortgage, payroll, inventory and other medium-term expenses. Worker housing may be critical depending on the extent of damages to housing and availability of transportation. Finally, in the long term, equity and other long-term financing is critical as businesses adapt to a new environment, sometimes changing their business models.

Hillsborough County businesses also can anticipate that the cost of insurance will continue to escalate and increasingly will be seen by them as a major barrier to recovery. Many of Florida’s

small businesses have no flood insurance, no business interruption insurance coverage and often are uninsured or underinsured, placing them in an extremely vulnerable position with little or no cash flow following an economic disaster.

Following the 2008 floods in Cedar Rapids, Iowa, businesses took on an excess of \$120 million of additional debt load, while at the same time experiencing revenue decreases of more than 40 percent. Unlike major multi-state or multinational businesses that often carry insurance or can afford self-insurance to carry their capital needs and payroll expenses for a period of months following an event, small retailers and other small businesses often don't carry insurance that will cover such expenses. Florida's insurance crisis has imposed particular pressure on such businesses that opt to risk operations without insurance rather than pay the high premiums and deductibles that often accompany commercial insurance policies.

Often even businesses that do own their facilities and carry property insurance do not carry business interruption insurance. To complicate matters, some small businesses do not fully understand their insurance policies and therefore, do not know that business interruption insurance does not cover losses if the facility had no physical damage.

Private and nonprofit community development financial institutions (CDFIs) and other small business assistance providers can play a critical role in quickly deploying funds, but they have limited resources with which to do so. With the appropriate capital, loan loss and operating support, these private financial partners can help small businesses through the lingering effects of a catastrophic event, particularly at a time when the market is unwilling to invest with so many unknowns.

The primary federal assistance for business is the low-interest disaster loan program for physical and economic injury offered by the SBA. While "small businesses" defined by the SBA can be businesses with as many as 500 employees, small businesses by most common terms employ less than 100 and most often, less than 25 employees. In Florida, many of these smallest businesses are debt-adverse and are in service industries and often do not own their facilities and are not heavily invested in capital equipment that can be used as loan collateral.

Florida is among a handful of states that following past disasters has offered its small businesses no-interest, emergency bridge loans. The Florida Small Business Emergency Bridge Loan Program offers loans of as much as \$25,000 for a six-month period to help businesses that sustained physical damage from a declared disaster, close the cash flow gap while they wait to collect insurance claims or pursue long-term funding from the SBA or other lending sources. However, because the bridge loans are funded from the state's general revenue fund it should not be assumed that this loan program would be available after all declared disasters in the state.

Some communities have deployed other financing assistance strategies for small businesses that may include forgivable loans or grants. For instance, the Cedar Rapids Chamber of Commerce showed strong private sector leadership within a short time following the dramatic flooding of the city in the summer of 2008. It employed private sector funding and matching funds from the city to create a Jobs and Small Business Recovery Fund. That fund distributed

\$5.4 million to small businesses in need of recovery assistance. The Chamber also provided the structural support to facilitate the intake and distribution of a state assistance program.

Administered through the Iowa Department of Economic Development, the Jumpstart Iowa Small Business Assistance Program provided forgivable loans to small businesses impacted by the 2008 summer disasters. The funding provided to the state helped businesses pay down their SBA loans from the federal government, and provided funding to promote sustainable rebuilding efforts. The maximum award was a \$55,000 loan. The loans were forgivable if the business opens its doors within 12 months of receiving funds.

In addition, CDBG funds that were utilized in Iowa to fund or supplement other public or private funding should be considered for implementation in Hillsborough County,

The Business Rental Assistance Program is designed for businesses remaining in or locating in rental space that was physically damaged. Such businesses can receive up to \$50,000 to help offset building rental lease payments for a maximum of six months and may receive reimbursement of 75 percent (or up to \$75,000) of the actual replacement costs for damaged equipment.

The Loan Interest Expense Program is designed to assist small businesses that have received SBA disaster assistance or private sector loans. This program provides funds to business owners to pay for the interest on an SBA or private loan for disaster recovery up to a total of \$50,000 for a maximum of three years.

Long-term Redevelopment Incentives

The hurricane seasons of 2004 and 2005 had a dramatic impact on the state of Florida, with eight named storms crisscrossing the state over a period of 15 months, impacting the majority of the state's 67 counties to some degree. Because of the dramatic impact of those extremely active seasons, state officials took steps to encourage targeted industries and major employers to remain in the state, including extending some deadlines on job creation requirements that are one of the criteria in state economic development incentive programs.

Should a major disaster impact Hillsborough County and the Tampa Bay area, it would be expected that local economic developers would identify employers in primary industries that may have been impacted by the event and would work with the state to determine the appropriate application of new state incentives or amendments to requirements for employers who could no longer meet the job creation obligations to continue to receive tax incentives that they were awarded prior to the disaster.

Among the incentives that may be considered for review following a major economic disruption to the county would be the primary job creation incentives programs including:

- Florida Qualified Target Industries Tax Refund Program, which is extended to "targeted" industry businesses that create jobs with average wages that exceed 115 percent of the state average;

- High Impact Performance Incentive Grant, which provides grants to qualifying businesses in designated “high-impact” sectors that include: biomedical technology, financial services, silicon technology and transportation equipment manufacturing; and
- Capital Investment Tax Credit, which is targeted for extraordinarily capital-intensive industries, in the “high-impact” designated sectors.

In addition, following a major disaster event, county economic development and workforce officials should work with Enterprise Florida, Workforce Florida and other state officials to consider the role other state infrastructure, special opportunity and workforce training incentive programs might play in both retaining existing employers and their employees and attracting new employers and capital investment to the area.

Some of the other state incentives that may play a significant role in developing the long-term economic recovery strategy for the county and the Tampa Bay area could include:

- Incumbent Worker Training Program, which provides training to currently employed workers and is available to Florida businesses that have been in operation for at least one year and that require skills upgrade training for existing employees. Priority is given to businesses in targeted industries and business located in “special opportunity zones” such as Enterprise Zones, HUB Zones, Inner City Distressed areas, Rural Counties and areas, and Brownfield areas. This workforce training program could be considered in conjunction with the assignment of Priority Redevelopment Areas “PRAs”, many of which might also qualify to be designated as “special opportunity” zones following a disaster event.

Some of the incentives that should be considered for application in the long-term economic recovery strategy could also include “special opportunity incentives” including:

- Urban Incentives that offer increased incentive awards and lower wage qualification thresholds for businesses locating in many urban core/inner city areas that are experiencing conditions affecting the economic viability of the community and hampering the self-sufficiency of the residents.
- Enterprise Zone Incentives, which offer an assortment of tax incentives to businesses that choose to create employment within an Enterprise Zone, which is a specific geographic area targeted for economic revitalization. These tax incentives include a sales and use tax credit, tax refund for business machinery and equipment used in an enterprise zone, sales tax refund for building materials used in an Enterprise Zone, and a sales tax exemption for electrical energy used in an enterprise zone.
- Brownfield Incentives, which are offered to businesses that locate on underutilized industrial or commercial sites due to actual or perceived environmental contamination. The Brownfield Redevelopment Bonus Refund is available to encourage Brownfield redevelopment and job creation.

Should a major disaster impact Hillsborough County, local and state leaders should look to capital investment and job creation programs that have experienced major economic disasters. One of the successful such post-disaster incentive programs was the Gulf Opportunity Zone Act of 2005, which included significant incentives to rebuild the Gulf Coast following the impact of Hurricane Katrina and Rita.

With the economic incentives provided by this act, businesses locating in what is commonly referred to as “Go Zones” in Louisiana and Mississippi were eligible for a number of special considerations including bonus depreciation deductions for eligible investments in business equipment and commercial property. Many businesses have also rebuilt or renovated damaged properties with funding from Go Zone Bonds.” Even investment in the renovation of landmark properties, such as the Hyatt Regency New Orleans, which became a familiar symbol on television of the city's damage from Hurricane Katrina, is being funded by Go Zone bonds.