

HILLSBOROUGH COUNTY MPO 2035 LONG RANGE TRANSPORTATION PLAN

ASSESSMENT OF ECONOMIC TRENDS AND TRANSPORTATION NEEDS



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The preparation of this report has been financed in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

April 2009

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INTRODUCTION

The linkages between transportation and economic competitiveness have become more important to transportation planning, whether at a local, regional, or national scale. Long-term transportation planning often incorporates economic considerations in addition to traditional performance objectives relating to pavement, congestion, bridge conditions, and safety. Today, transportation planning also may address business considerations such as access to labor, the movement of inbound and outbound goods, and the ability to connect to distant markets to enable trips for goods and people. Regions that are capable of moving goods and people efficiently (in terms of time, reliability, and cost) gain competitive advantages over those that cannot. These advantages translate to more economic opportunities, stronger industries, and income for working people. As Hillsborough County competes for jobs and investment, its transportation system will continue to be a key tool for attracting business as well as workers.

At the center of one of the fastest-growing regions in the country, Hillsborough County's transportation infrastructure has both fostered and accommodated the growth of West Central Florida's economy and population. The Port of Tampa and the rail system radiating from it have been instrumental in the successful development and marketability of Central Florida's phosphate deposits, and to bring in the steel and petroleum needed to support Florida's industries and drivers. Tampa International Airport provides Hillsborough County companies with access to business centers throughout the United States and brings in millions of visitors on an annual basis. Whether it is trucks carrying phosphates to the port, tourists driving to Busch Gardens, or workers commuting to financial services companies, all depend on Hillsborough County's transportation system to reach work, attract customers, receive supplies, or ship products to market.

Although Hillsborough County, with much of the rest of the country, is confronting economic headwinds in 2009, long-term jobs and population projections predict that Hillsborough County will continue to grow at a rapid pace. This anticipated growth underlines the importance of planning for strong roadway and transit networks in conjunction with well-organized freight transportation services that will be able to keep up with the needs of the County's businesses and industries. If mobility in Hillsborough County becomes more onerous to businesses, tourists, and workers, both quality of life and the county's attractiveness to existing and prospective businesses will decline. Already, transportation accounts for a higher share of household spending in Tampa than all but four other U.S. metropolitan areas.¹ On the other hand, by improving the mobility of goods and people, the transportation strategies included in the LRTP can contribute to the

¹ According to the Bureau of Labor Statistics Consumer Expenditure Survey, transportation accounted for 20.4 percent of household expenditures in metropolitan Tampa in 2003, the fourth-highest transportation cost burden in the country following Houston, Detroit, and Cleveland.

long-term prosperity of Hillsborough County's and the Tampa Bay region's industries and population.

This section will analyze the demographic and economic factors affecting the long-term use of Hillsborough County's transportation network and services. It also demonstrates how the County's economy can benefit from transportation improvements.

POPULATION GROWTH

Population change is a key contributor to economic growth and transportation demand, as increases in population create added demands for goods and services. In conjunction with the expanding demand for goods and services, increased population affects the number of passenger and freight trips moving on the Hillsborough County transportation system, impacting the County's highway and transit modes in particular. As the number of passenger vehicles and trucks continues to burgeon, competition will rise for the increasingly scarce space remaining on the highway system and higher traffic volumes will further strain existing roadway capacity, resulting in more severe congestion. The average peak-period driver in metropolitan Tampa now spends 45 hours per year sitting in traffic compared to 34 hours in 1990.² Many commuters and visitors to Hillsborough County also will seek transit alternatives, if they are viable in terms of connectivity, speed, and capacity, to avoid congested roadways and to bring down driving costs.

During the latter half of the 20th century, Florida emerged as one of the main drivers of United States population and economic growth as the focus of the nation's development shifted from Northeastern and Midwestern states to the Southeast and West. Throughout the period, a significant portion of Florida's growth occurred around Tampa Bay, with Hillsborough County at the region's center. The Tampa Bay region, collectively Hillsborough, Hernando, Manatee, Pasco, Pinellas, Polk, and Sarasota counties, grew from being the size of Providence, Rhode Island (650,000) in 1950 to the size of the Seattle-Tacoma metropolitan area in 2007 (about 4 million). Population growth results in more vehicles taking more trips. Between 1990 and 2005, the number of daily vehicle miles traveled on metropolitan Tampa's freeway and arterial systems increased by 124 percent as the region's population grew by nearly one-third.

Projections show that Hillsborough County and the Tampa Bay region will continue to grow at a rapid pace. This is raising concerns about worsening congestion and deteriorating transportation service in the region. If travel in the County and region becomes an increasing burden to businesses, tourists, and workers, the respected quality of life of the region and its attractiveness to prospective businesses may decline. According to the University of Florida's Bureau of Economic and Business Research (BEBR), the region is expected to

² Texas Transportation Institute, annual hours of delay per peak-period traveler, 1990 and 2005.

add about 1.6 million people between 2007 and 2035, a growth rate of almost 39 percent (see **Table 1** for a forecast of population growth by county through 2035).³ With a projected population of 5.6 million people in 2035, the Tampa Bay area will have about the same population as present-day Greater Miami.⁴ This represents the middle range of BEBR’s population projections. A low-growth scenario would result in a regional population of less than 4.5 million while a high-growth scenario projects as many as 7.3 million people in the Tampa Bay region by 2035. Entering 2009, population growth in Florida and the Tampa Bay region is slowing dramatically due to economic issues. The middle-range forecast assumes a resumption of moderate-to-fast population growth in the Tampa Bay region, representing a return to long-term historical trends.

Table 1: Tampa Bay Population Growth 2000 to 2035 (in Thousands)

	2000	2005	2015	2025	2035	2005-2035 Growth Rate
Hillsborough	999	1,132	1,347	1,550	1,729	52.8%
Hernando	131	151	188	222	252	67.3%
Manatee	264	304	358	415	464	52.5%
Pasco	345	407	507	604	691	69.8%
Pinellas	922	948	967	997	1,024	8.0%
Polk	484	542	661	766	858	58.4%
Sarasota	326	368	436	500	557	51.3%
Tampa Bay	3,470	3,851	4,464	5,054	5,575	44.8%
Florida	15,982	17,918	20,956	23,955	26,617	48.5%
United States	281,422	295,561	325,540	357,452	389,531	31.8%

Sources: U.S. Bureau of the Census and Projections of Florida Population by County, 2007-2035, Florida Bureau of Economic and Business Research (BEBR), medium growth scenario, March 2008. “Tampa Bay” represents the total for the seven-county region.

Population growth (in net terms) in the Tampa Bay region will continue to be led by Hillsborough County, which is forecast to grow by 536,000 people between 2007 and 2035 (see **Figure 1**). Hillsborough County will account for one-third of the region’s net population change and will be followed by neighboring Polk and Pasco Counties. Overall, one in every five new Floridians is expected to live in the Tampa Bay region over the 28-year forecast horizon. The pace of population growth in Hillsborough County (45 percent) is expected to be far faster than the

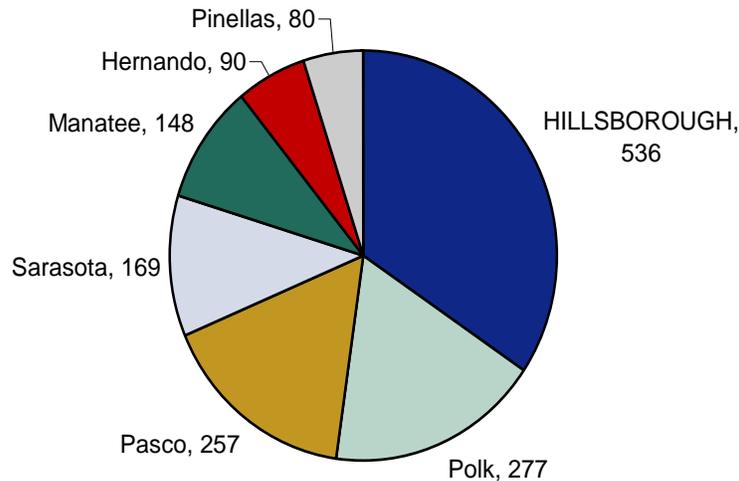
³ BEBR’s population forecasts are used by the Hillsborough City-County Planning Commission, as required by state law.

⁴ According to Census estimates, the Miami-Ft. Lauderdale-Pompano Beach MSA (Miami-Dade, Brevard, and Palm Beach Counties) had 5.4 million people in 2007.

U.S. average (29 percent) through 2035, maintaining a long-term trend (see **Figure 2**). As Pinellas County becomes increasingly dense and runs out of undeveloped land, a larger share of the Tampa Bay region’s growth is forecast to take place in Hillsborough County and the other five less space-constrained counties. This pattern of suburban-style development, however, may change over time with a greater emphasis on urban infill and more redevelopment and revitalization of currently developed areas.⁵

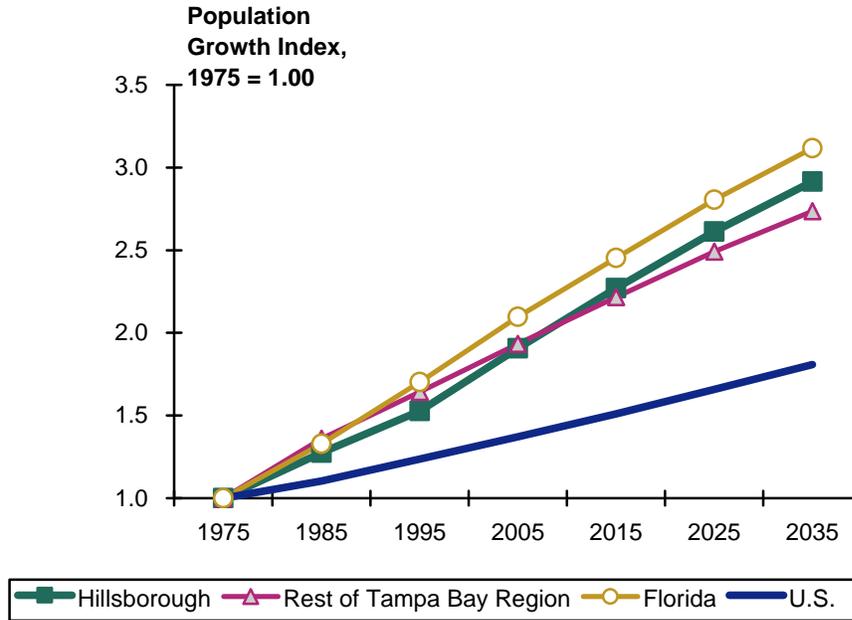
Although a significantly larger land area makes Hillsborough County less densely populated than Pinellas, smaller parcels in the County’s developed areas and the re-use of existing sites will need to handle a greater portion of Hillsborough County’s future commercial and population growth. More concentrated areas of population and development will have ramifications on transportation services and infrastructure, including the provision of an expanded transit network to serve workers and visitors – both crucial to the economic well-being of Hillsborough County and the Tampa Bay region.

**Figure 1: Net Population Growth by County in the Tampa Bay Region
2007 to 2035 (in Thousands)**



⁵ OneBay, a partnership of regional planning organizations, includes long-term growth scenarios (through 2050) that would emphasize placing future growth in existing developed areas and along transportation corridors. Should this occur on a large-scale in the Tampa Bay region, St. Petersburg and the City of Tampa may likely receive a higher share of regional population and employment growth.

Figure 2: Hillsborough County Forecast to Continue Growing Significantly Faster Than the Nation



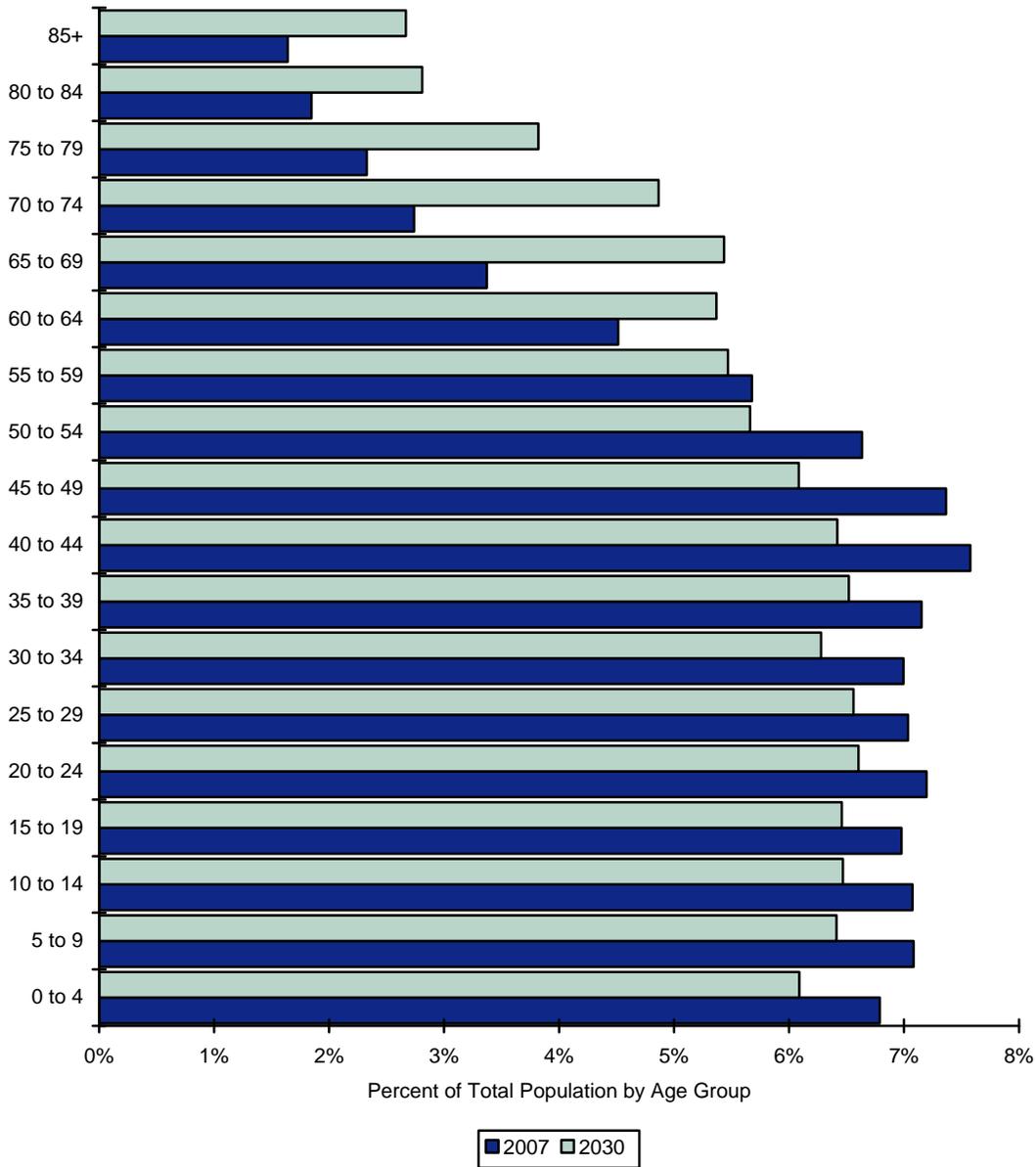
Sources: U.S. Bureau of the Census and Florida Bureau of Economic and Business Research (BEBR).

Aging Population

Hillsborough County’s population will become older in coming decades. In 2007, 16 percent of the County’s population was over the age of 60. By 2030, this will grow to 25 percent (see **Figure 3**). Over the same 23-year period, people over 60 will account for nearly half of Hillsborough County’s net population growth (see **Figure 4**). As Hillsborough County’s population ages, roadways will need to better accommodate older drivers (e.g., through elder road user programs, better signage, etc.) and alternatives to personal vehicles will need to become available, allowing the County’s senior population a greater range of mobility options. Transit services can help foster economic independence by helping seniors reach jobs. This will be especially important to the Hillsborough County economy as the economic contributions of older people, retirees, and second career individuals will take on greater importance while people in their prime working years (25 to 64) account for a smaller share of the County’s population. The share of people between 25 and 64 will decline from 53 percent of Hillsborough County’s population in 2007 to 48 percent in 2030. As Hillsborough County and the Tampa Bay region compete to attract a talented workforce,

transit can play a role by reducing overall transportation costs for workers and to support the development of vibrant downtown commercial districts.⁶

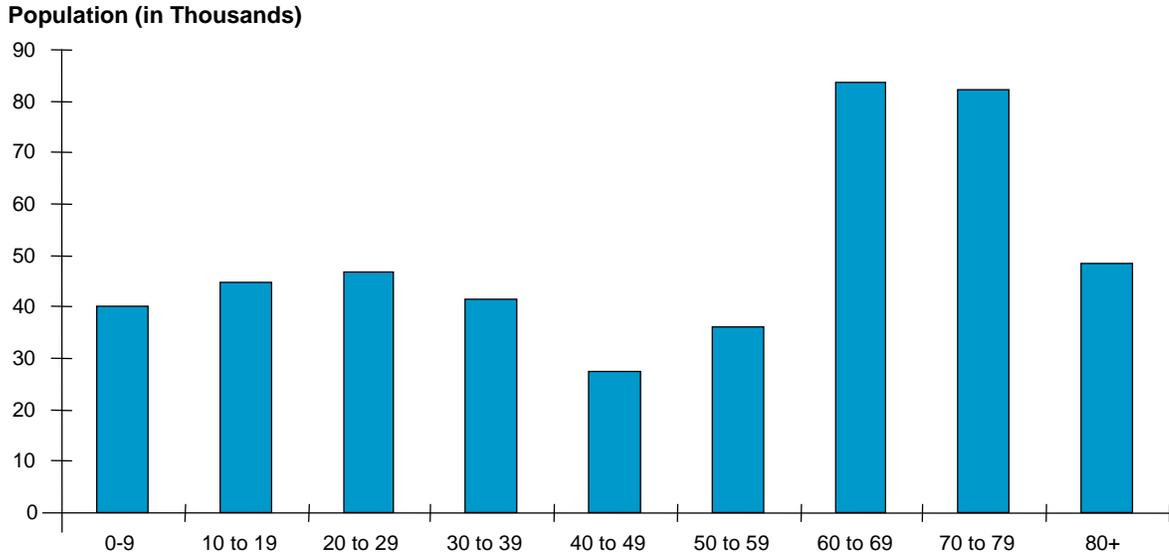
Figure 3: Share of Hillsborough County Population by Age Group 2007 and 2030



Source: University of Florida, Bureau of Economic and Business Research; BEBR's county-level forecasts by age go through 2030, only.

⁶ On behalf of a consortium of regional stakeholders, a study, *The Young and the Restless*, was released in 2004 highlighting the issues the Tampa Bay region faces in retaining and attracting young, educated workers. The lack of energetic downtown areas and public transportation were cited as issues.

Figure 4. Change in Population by Age Group
2007 to 2030



Source: University of Florida, Bureau of Economic and Business Research; BEBR's county-level forecasts by age go through 2030, only.

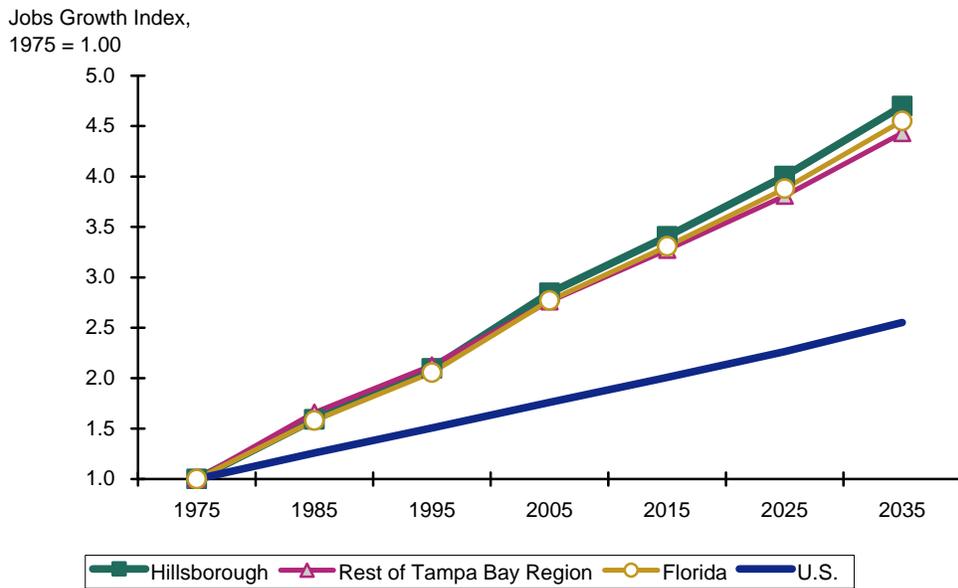
Employment Growth

One of the most tangible measures of a region’s economic vitality is employment growth and Hillsborough County, until recently (2007 and 2008), has been adding jobs faster than most parts of the country for years. As demand rises for a business’s products and services, employees and equipment are added to better satisfy the needs of customers. The jobs produced by these companies provide the incomes people need to sustain themselves and their families and attract additional workers. For years, a strong sense of economic opportunity in Hillsborough County also has helped fuel the County’s population growth. The combination of business, visitor, and resident demand then feed transportation growth, both freight and passenger, in the region. The ability of Hillsborough County to accommodate the varying transportation needs of industries, both to transport goods and bring people to work, will be an important factor in future competitiveness and jobs growth.

Similar to the population trends, long-term employment growth in Hillsborough County has exceeded national averages (see **Figure 5**) and is just slightly ahead of state growth rates. Between 1990 and 2007, the number of people employed in Hillsborough County increased by 59 percent, compared to 57 percent and 29 percent, respectively, for Florida and the United States. Adding 312,000 jobs, Hillsborough County accounted for over 8 percent of Florida’s net job growth

between 1990 and 2007.⁷ Through the period, growth of construction, business services, healthcare, and tourism helped to propel the Hillsborough County economy. Conditions in 2008 (and going into 2009), however, show that the County, with the rest of Florida and most of the country, is now experiencing an erosion of jobs. The resilience of the Tampa Bay region’s economy (and jobs growth) and its ability to bounce back will be tested in coming years as it confronts a slowdown in key industry sectors, including construction, finance, manufacturing, and tourism.

Figure 5: Historic and Projected Jobs Growth in Hillsborough County Compared to Tampa Bay, Florida, and the United States 1975 to 2035



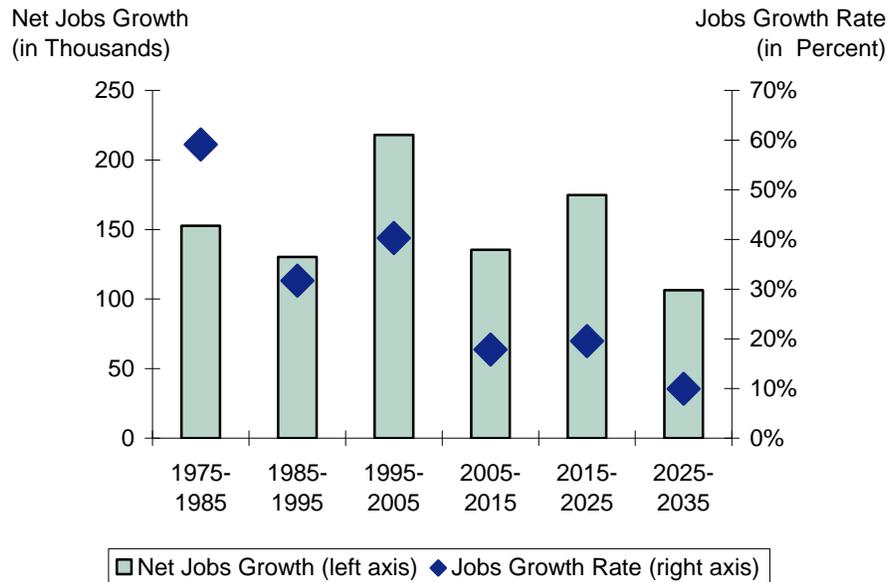
Source: Woods & Poole (historic based on Bureau of Economic Analysis data).

Longer-term, Hillsborough County is expected to resume its traditional role as a major generator of jobs in Florida and the nation. The overall rate of growth is forecast to be slightly higher than the State’s through 2035 (see Figure 5) and about 40 percent faster than the U.S. average during the 2007 to 2035 period. Similar to the population trend, Hillsborough County is anticipated to grow at a faster pace than the average for the remaining Tampa Bay region counties largely due to slowing growth in land-constrained Pinellas County. Jobs forecasts developed by the Hillsborough County-City Planning Commission

⁷ Bureau of Economic Analysis (U.S. Department of Commerce) data series (as presented in Woods & Poole), includes agricultural, proprietor, and wage and salary employment.

(see **Figure 6**) projects robust growth through 2025 (1.8 percent average annual growth rate) followed by slower growth to 2035 (1.0 percent annual average for 2025 to 2035). Overall, Hillsborough County is expected to add 105,000 to 170,000 jobs per decade, which will translate to substantial growth in vehicle (both car and truck) and transit trips resulting from commuting and business-related travel.

**Figure 6: Jobs Growth (Net and Rate) in Hillsborough County
1975 to 2035**



Sources: Woods & Poole (historic) and Hillsborough City-County Planning Commission (forecast; 2015 data interpolated by Cambridge Systematics, Inc.).

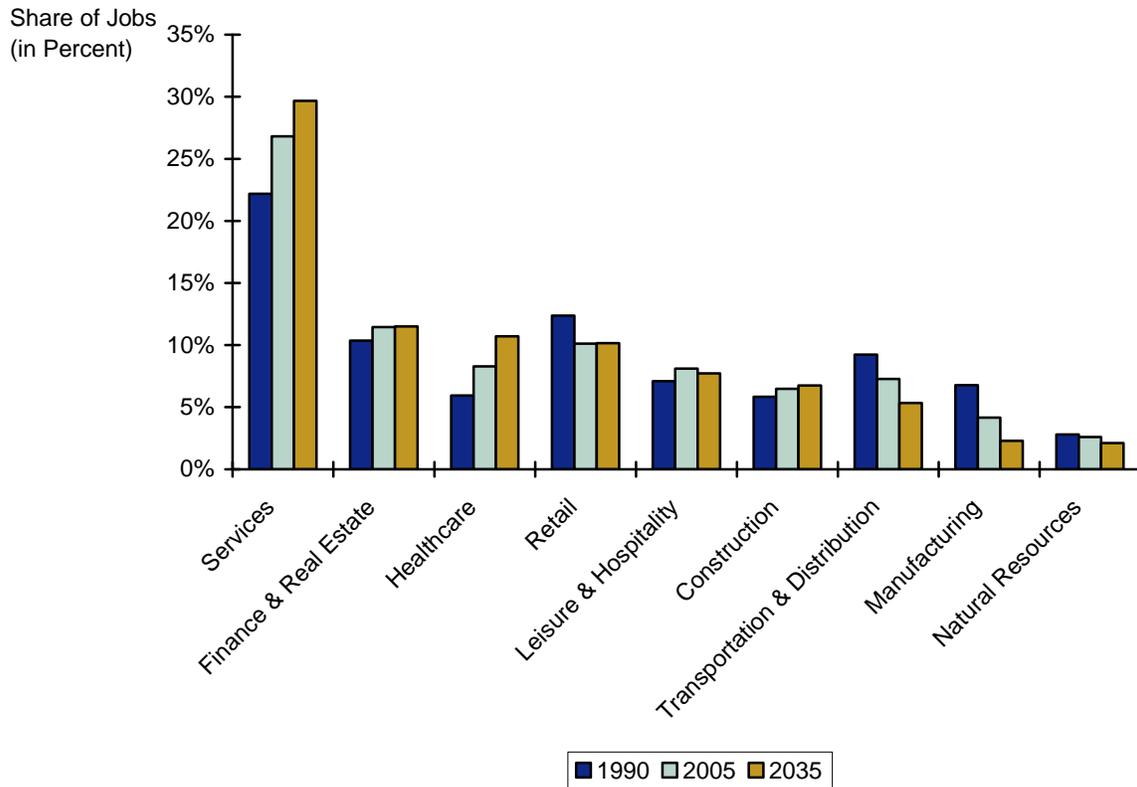
Economic Structure and Industry Trends

Economic Structure

The competitiveness and growth of the major industries that comprise the Hillsborough County economy will determine the County’s and the Tampa Bay region’s long-term prosperity. The ability of Hillsborough County to meet these industries’ diverse mobility needs for labor, customers, and freight will, in turn, be key determinants to the overall economic competitiveness of the region. This section will review the evolving economic structure of Hillsborough County and explain transportation’s critical contributions to the success of the County’s key industries.

The drivers of Hillsborough County’s economic growth has shifted to services, finance, and healthcare. The economy is less dependent on natural resources and manufacturing, and more dependent on technology, knowledge, and creativity. While manufacturing and natural resources remain important elements of the Hillsborough County (and the Tampa Bay region’s) economy and have played pivotal roles in the region’s development, the County’s rapid economic growth has been fueled by the services industries (including professional and business services, management, and personal services). **Figure 7** shows the historic shift in the major industry sectors’ contributions to employment between 1990 and 2005, with a forecast to 2035. By 2005, services accounted for 27 percent of Hillsborough County’s jobs, up from 22 percent in 1990. Finance, healthcare, and leisure and hospitality also experienced robust increases. Over the same period, manufacturing’s, retail’s, and transportation and logistics’ shares of Hillsborough County’s jobs fell. In the future, the services and healthcare industries are expected to continue to account for an expanding share of the Hillsborough County economy. This trend is similar to the Hillsborough County-City Planning Commission’s forecast results, which also point to a lower share of “industrial” jobs, a hybrid sector comprised of agriculture, mining, construction, manufacturing, wholesale trade, and freight, transportation, and warehousing.

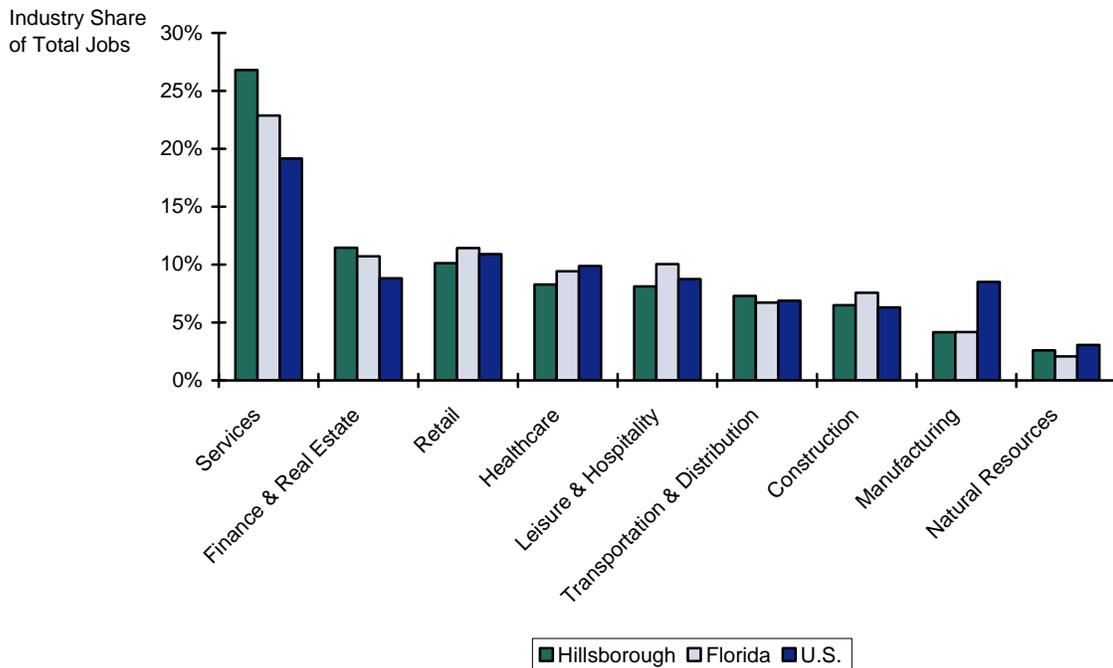
**Figure 7: Hillsborough County Economic Structure
1990, 2005, and 2035**



Source: Woods & Poole (historic based on Bureau of Economic Analysis data).

Figure 8 shows employment shares by major industry for Hillsborough County, Florida, and the United States in 2005. Hillsborough County possesses an industry mix that is distinct from the nation’s and in some instances, accentuates several of Florida’s economic strengths, particularly in services and finance. Also similar to Florida, the manufacturing sector is a relatively small contributor to the County’s jobs base. Given the size of the Port of Tampa and Tampa International Airport, the transportation and logistics sector also is more concentrated in Hillsborough County than in Florida or the nation. Hillsborough County’s economic structure is mostly similar to that of the remaining counties in the Tampa Bay region. The region has a slightly higher share of jobs in manufacturing and leisure and hospitality, while Hillsborough County has stronger concentrations in services and finance.

Figure 8: Hillsborough County Economic Structure Compared to Florida and the United States 2005



Source: Woods & Poole (based on Bureau of Economic Analysis data).

Industry Trends and Transportation Use

Transportation infrastructure and services play crucial roles supporting the Hillsborough County economy. In combination with labor and capital, transportation is a key input to production. This section of the report demonstrates the linkages between transportation and the economic productivity

and competitiveness of Hillsborough County’s key industries, emphasizing how they benefit from transportation infrastructure and services. The discussion will emphasize industry sectors that are consistent with those targeted by the Tampa Bay Partnership and the Greater Tampa Chamber of Commerce. These industries are targeted because they are expected to bring significant economic opportunities (expansions, relocations, research and development, jobs and higher wages) to Hillsborough County and the Tampa Bay region. The industry sectors include:

- Services (business and information services, finance, and corporate headquarters);
- Advanced manufacturing (microelectronics, medical devices, maritime electronics, and avionics);
- Life sciences and healthcare; and
- Port/maritime (e.g., maintaining competitiveness and capitalizing on opportunities at the Port of Tampa).

Although it is not specifically targeted by either the Tampa Bay Partnership or the Greater Tampa Chamber of Commerce, the transportation needs of the tourism (leisure and hospitality) industry also is discussed due to its importance to the regional and Florida economies. Lastly, the construction industry, a large employer in Hillsborough County and an intensive user of the County’s transportation system is discussed.

Business Services and Finance

Business services and finance have defined much of the growth of Hillsborough County’s economy in recent decades, and these two sectors, combined, now provide about 40 percent of the County’s jobs. Starting as a center for “back-office” operations (e.g., travelers check processing facilities, customer service centers), Hillsborough County and the Tampa Bay region have attracted a slew of leading financial services firms. Quality of life and low costs were considerations that drew these companies to Hillsborough County. While a portion of their operations remains with back-office activities, many of these firms are now performing higher-end activities such as worldwide securities, private banking, and other specialized services from their Hillsborough County locations. Maintaining the area’s quality of life is important to these companies and roadway congestion is a concern as it reduces the region’s attractiveness to prospective (and existing) employees. Rising transportation costs and lost time sitting in traffic will become more significant factors, on the margin, for service companies considering relocation or expansion within Hillsborough County. Additionally, more comprehensive transit services, including light rail, can be part of a strategy to encourage more vibrant downtown and commercial districts – a major draw for educated, young people who work in the types of businesses (corporate headquarters, high-end business and financial services, and research and development) Tampa would like to attract.

The services and finance sectors are very dependent on transportation systems (i.e., roadways and transit) to gain access to workers. By fragmenting the labor market, congestion imposes heavy costs (lost productivity and higher wages) on the services and finance industries as employers have to reach farther and farther out into a bigger market shed to draw on the needed specialized worker pool. Longer commutes (in terms of distance or time) translate to higher wage costs for employers. Some major employers are able to offer commuting and transportation options to their employees (such as carpooling or transit subsidies) that enable firms to overcome the costs of congestion.⁸ However, the majority of businesses do not offer these services on their own thus relying primarily on increased public investment to sustain their operations. A crucial role of an effective transportation system is expanding the effective size of a metropolitan region's labor market. Good access to workers, a key function of transit and commuter rail systems, is correlated with improved labor and business productivity.⁹

Advanced Manufacturing

The Tampa Bay region has a larger concentration of manufacturing employment than the Florida average (5.8 percent versus 4.2 percent of total jobs), although Hillsborough County's is the same as the State's. Manufacturing jobs generally pay wages that are significantly higher than prevailing averages.¹⁰ Hillsborough County has manufacturing concentrations in the food processing, chemicals, wood products, metals, cement, and computer/electronics industries. As Hillsborough County plans for the future of its transportation network, it needs to consider the contribution of manufacturing to the regional economy, a fact that can be obscured by years of declining jobs in the industry. While employment in the manufacturing sector has been *dropping* (similar to almost all other states and regions), manufacturing output in the Tampa Bay region has been *rising*.¹¹ Manufacturers have invested heavily in automation and sophisticated process technologies, reducing their need for labor while maintaining and increasing output. The drop in manufacturing employment also reflects the internal restructuring of manufacturing firms. To lower costs and maintain competitiveness, and focus on core competencies, manufacturers have been outsourcing functions, such as human resources, payroll, maintenance, engineering, and logistics services. This has shifted employment from manufacturing to other sectors, notably the service sector, which has seen continuing increases in employment.

⁸ HART actively encourages businesses to assist their workers with transit expenses through its Corporate Transit Subsidy Program.

⁹ Prud'homme, R. and Lee, C-W. *Size, Sprawl, Speed, and the Efficiency of Cities*, November 1998.

¹⁰ According to the Bureau of Labor Statistics, average annual wages per manufacturing employee in the Tampa MSA was 16 percent higher than the average for all jobs in 2007.

¹¹ According to the Bureau of Economic Analysis (BEA), the value of manufacturing GDP in the Tampa MSA increased by about 40 percent between 2001 and 2006, in inflation adjusted dollars; BEA GDP figures are not available at the county level.

Within the manufacturing sector, Hillsborough County has identified opportunities for technologically advanced products that can compete effectively in world markets, including high-value defense-related goods/electronics, medical equipment, avionics, and maritime electronics that are at the forefront of cutting-edge innovations and modern production processes. The emergence of the Tampa Bay region as a center for high-technology industry has been cultivated by the High-Tech Corridor Council's initiatives to develop the area's technological capabilities.¹² The High-Tech Corridor, defined by Interstate 4 and now including surrounding Central Florida counties, is a corridor economic development strategy so connectivity between Hillsborough County and the rest of Corridor is important. The High-Tech Corridor works by bringing together universities, research centers, manufacturers, and suppliers together into a cohesive system to support innovation and production. The regional movement of labor and goods is a crucial contributor to the overall success of the High-Tech Corridor.

Transportation is a key contributor to the overall competitiveness of Hillsborough County manufacturers. Increasingly, high-technology and manufacturing industries depend on reliable transportation systems to support "just-in-time" (JIT) production methods that seek to minimize inventories and produce goods as they are needed by customers. Today, manufacturers draw on a worldwide supply chain and distribution network, hallmarks of JIT, that would not be possible without efficient transportation links. The Tampa region's manufacturers are succeeding through the adaptation of technology and quality in conjunction with aggressive efforts to control costs, including those achieved through the implementation of JIT production systems. Deficiencies in the transportation system may result in late deliveries of critical manufacturing inputs, potentially delaying production runs and adding to costs.

Hillsborough County's manufacturing capability, today, is tied together by its transportation system. The manufacturing sector makes extensive use of intermodal rail, water, and air cargo services, but it is trucking and the highway system that provide manufacturers with the capability to access a wide range of materials, labor, technology, and markets, and to integrate these elements into cost-effective, just-in-time manufacturing operations. Trucking and the highway system have allowed manufacturing to have door-to-door freight service, as well as direct access to international trade gateways, including the Port of Tampa and Tampa International Airport. For these reasons, Hillsborough County's roadway system must have the capacity to deliver freight reliably and at stable or lower costs to keep the manufacturing sector competitive. Air freight is particularly important for the advanced manufacturing industries that produce light-weight, high-value products and are targeted as economic development opportunities in the Tampa Bay region. Rising congestion levels on Hillsborough County roadways is a concern for manufacturers as it slows delivery times and decreases the reliability of shipments.

¹² The High Tech Corridor Council promotes the development of the I-4 corridor, stretching from the Gulf to Atlantic coasts, as a national center for high technology growth.

Life Sciences and Healthcare

While services, finance, construction, agriculture, phosphates, and tourism are traditional cornerstones of the Hillsborough County economy, the life sciences industry, supported by healthcare, is considered a major opportunity for economic growth in upcoming decades. Florida has earned international recognition in recent years for the expansions of major life sciences research centers in Palm Beach County, Orlando, and Tampa. In late 2007, construction started on M2Gen in Tampa, a joint venture between Merck and the Moffitt Cancer Center, that will focus on cancer research and advanced cancer treatments. The presence of the University of South Florida and new developments such as M2Gen, demonstrate a dynamic future for life sciences in Hillsborough County.

A key to Hillsborough County's success will be to nourish its developing cluster of life sciences assets, including academic medical centers, researchers, entrepreneurs, and biotechnology, medical device, and pharmaceutical companies. The life sciences industry is research intensive and is in constant contact with universities and hospitals (for clinical trials). Due to the importance of face-to-face meetings to foment innovation, roadway transportation and transit services will be pivotal to the performance of the life sciences industry in increasingly congested Hillsborough County. The County's roadway and transit systems provide the area's medical centers, research institutions, and businesses with access to specialized labor and mobility for the exchange of ideas at inter-institutional meetings. Constant gridlock and the lack of transit alternatives could hinder the expansion of the life sciences industry in the area, if talented workers find it difficult to reach work. Effective transportation infrastructure can play a role in reducing expenses by making areas with housing more accessible, reducing gridlock, and easing the commute for workers.

The products manufactured by the life sciences industry are low-weight, high-value, and perishable, making transportation timeliness and reliability essential. These product characteristics make air cargo a preferred mode for bringing in supplies and transporting finished goods to markets throughout the world. Trucks are used to reach the airport. Thus, mitigating congestion and bottlenecks to ensure on-time air cargo deliveries is important to the industry.

Transportation – Port/Maritime and Distribution

Transportation and the handling of goods are important contributors to the Hillsborough County economy. The Port of Tampa is the 16th busiest deep sea port in the country, handling over 42 million tons of cargo in 2008. Phosphates from quarries in Hillsborough, Polk, and Hardee counties account for about one-fifth the goods processed through the port. The phosphates and fertilizers produced in the Tampa Bay region are shipped nationwide (often by barge on the Mississippi Waterway) and to markets throughout the world, with China, Australia, India, and Brazil ranking among the leading foreign destinations. The production of phosphate and fertilizer puts extreme demands on Hillsborough

County's transportation system. Thousands of trucks and railcars carrying bulk phosphates, liquid sulfur, and fertilizer ply the highways and rail lines between the Port of Tampa and the mining areas to the east, on a daily basis. While the Tampa Bay region today accounts for about 16 percent of world phosphate production, production will decline longer-term unless new mines are opened in the region. A new mining area is under review in the northeastern corner of Manatee County, just south of the Hillsborough County border. By adding more sources for phosphates, fertilizer production in the region can continue.

Florida's location at the southeastern corner of the United States makes the State a crossroads for international trade, especially for goods being exported or imported from Latin America. While much of this trade is handled through Southeast Florida, the Port of Tampa also is pursuing increased international trade and has experienced significant increases in container volumes. The Port of Tampa is expanding its container terminal from 25 to 125 acres which will allow it to accommodate much higher freight volumes in the future and take advantage of the widening of the Panama Canal and increased trade with Asia.¹³ The Tampa Bay region already is an optimal location for distributors wishing to supply the large and growing markets within Florida and the expansion of trade with Asia through the Panama Canal also would make it suitable as a gateway for the eastern United States. The Port of Tampa's expanding container capabilities combined with rail and highway connections to the CSX freight terminal planned in Winter Haven are expected to make Hillsborough and Polk Counties more attractive for expanding warehouse facilities in the future. Distributors operating in the Tampa Bay region will rely on the area's road and rail networks and access to Interstates to reach their markets efficiently. The expansion of the Port's capacity will result in more trucks and trains on Hillsborough County's roads and rail lines.

Tourism

Hillsborough County and Tampa Bay are leading destinations for international and domestic travelers. According to figures obtained from the Tampa Bay & Company, Hillsborough County attracted 16.8 million domestic and international visitors in 2007. By comparison, Visit Florida estimates that a total of 82.4 million people overall, visited the State in 2007.¹⁴ In 2007, nearly 370,000 passengers embarked on cruise ships at the Port of Tampa, making it one of the top 10 cruise ports in the country.¹⁵ The long-term expansion of the Tampa Bay region's tourism and leisure industries is evidenced by increases in tourism and recreation-related sales between 1995 and 2007. Adjusted for inflation, these sales increased by over 26 percent during the 10-year span, from \$6.4 billion in

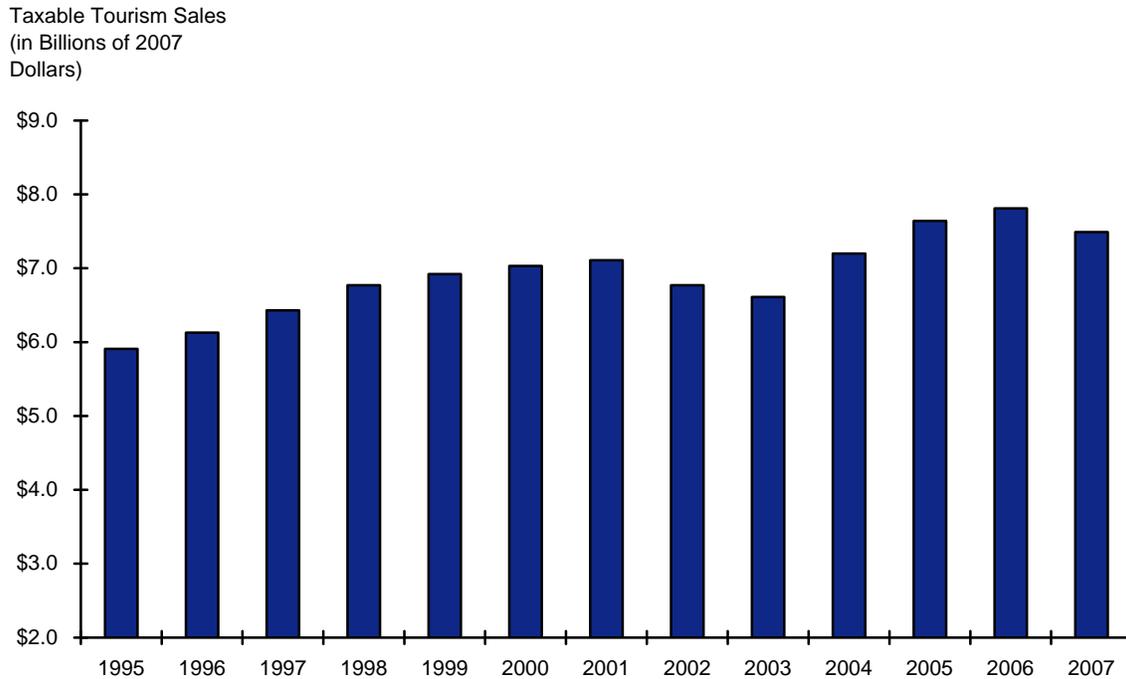
¹³ The Port of Tampa forecasts handling up to 740,000 containers per year by 2027, based on planned facility expansions, up from today's capacity of 139,000 containers per year. Tampa Port Authority Master Plan, July 17, 2008.

¹⁴ The county totals include visitors who may have also traveled to other counties in Florida.

¹⁵ Maritime Administration, U.S. Department of Commerce.

1997 to \$7.5 billion in 2007 (see **Figure 9**). Although tourism has declined somewhat since peaking in 2006, longer-term it is on a slowly upward trend and remains a critical foundation of the Hillsborough County and Tampa Bay economies.¹⁶

**Figure 9: Tampa Bay Region Growth in Tourism-Related Spending
1995 to 2007**



Source: Florida Office of Economic and Demographic Research, Taxable Tourism and Recreation Sales; all figures adjusted to 2007 dollars.

Tourists, like residents, use Hillsborough County’s roadways and highways as their primary means for travel. In 2007, 58 percent of visitors arrived to the County by car while the remaining 42 percent arrived by air.¹⁷ Once in the County, air travelers are likely to rent a car or take a taxi to their destination. The large volume of visitors in the region makes safety, congestion, signage, and accessibility, especially to and from the large-scale attractions in the region, essential considerations for long-term transportation planning. Transportation is an important element of the traveler experience and any difficulties visitors encounter navigating unfamiliar geography and making transfers between modes can tarnish the image of a destination, reducing the likelihood of repeat trips and

¹⁶ The Hillsborough City-County Planning Commission forecasts the total number of hotel rooms in the County will increase to 29,295 in 2035, up from 20,282 in 2006.

¹⁷ “Analysis of the 2007 Hillsborough County Visitor,” Tampa Bay & Company.

discouraging positive “word of mouth” to friends, relatives, and colleagues about the destination. Foreign travelers, in particular, often favor using mass transit on their trips in the United States.

By increasing the appeal of Hillsborough County to visitors and improving labor access, transit improvements also can yield economic benefits for the County’s tourism industry. Transit creates a more attractive environment for tourism by allowing visitors to navigate the area without a car, easing access to attractions, improving safety, and reducing congestion. Hillsborough County and the Tampa Bay region are magnets for Europeans who are generally familiar with how to use transit and often prefer it over cars. Expansions of Hillsborough County’s transit services and network will help visitors to reach more conveniently the area’s attractions and enhance their overall tourism experience.

Construction

The construction industry, until recently, was a leader in jobs growth for Hillsborough County and remains a significant contributor to the regional economy. While the current recession and its aftermath may dampen the demand for residential and commercial construction for several years, long-term population growth and an economic recovery point to an eventual resurgence of construction in Hillsborough County. The construction industry has a bearing on transportation demand, and freight in particular, because it is a primary end user of a range of supplies, including lumber, aggregate, and steel carried by rail, trucks, and ships. The timeliness of freight deliveries is crucial to the construction industry, making transportation reliability a primary concern. Congestion and delays add hours and costs to deliveries needed by construction contractors. Some construction inputs are perishable (e.g., ready-mix concrete only lasts two hours before thickening) and missed shipments can lead to work stoppages. Although construction is clearly sensitive to economic cycles, and a contributor to the current downturn, the long-term outlook for construction is positive as Hillsborough County’s population and economy resume a historical trend towards moderate-to-fast growth.

Benefits of Transportation Improvements

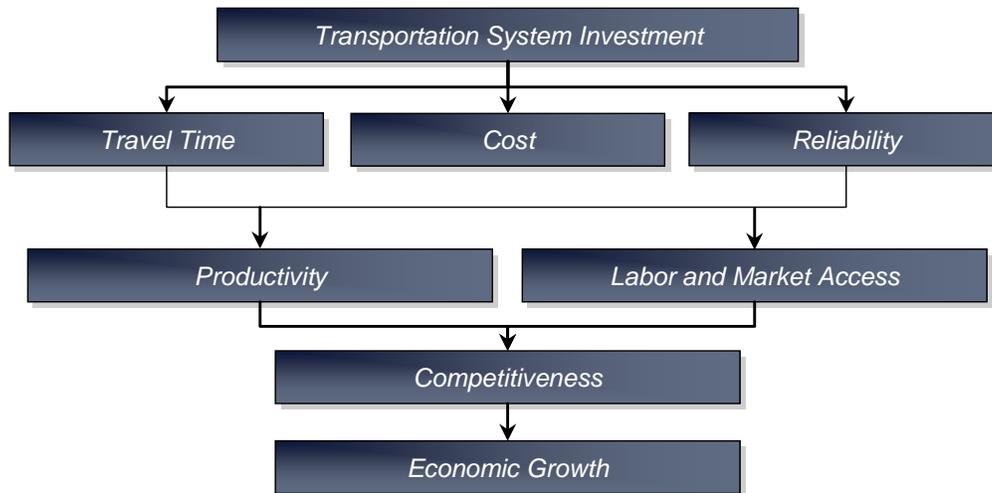
Transportation infrastructure plays a crucial role supporting the Hillsborough County economy, and in combination with labor and capital, is a key input to production. This section of the report demonstrates the key linkages between transportation and economic competitiveness and social well-being, emphasizing how Hillsborough County would benefit from improvements to its transportation network and services.

The linkages between transportation improvements and economic growth are illustrated in **Figure 10**. Similar to land, labor, technology, and capital, transportation is a key input to production and economic activity. Investment in transportation – whether to increase capacity or to improve service – reduces travel time, lowers trip

cost, increases people and business access and mobility, and improves travel-time reliability. For individuals, as well as for businesses, these improvements translate into greater productivity and better access to labor and markets, thereby making industries more competitive and enabling economic growth.

Several domestic and international studies have looked at the relationship between public infrastructure investment and GDP growth. According to a recent British study, a 10 percent increase in public infrastructure capital stock increases GDP by around 2 percent (on average).¹⁸ These increases to GDP in response to improved infrastructure then compound on an annual basis, providing a stream of benefits for years. In Florida, a study of the macroeconomic benefits of the Florida Department of Transportation’s Work Program found \$5.60 worth of total economic benefits for every \$1.00 invested in the transportation Work Program. This included the multiplier effects of investments in the State’s highway, seaport, transit, and railway systems.¹⁹

Figure 10: Linkages between Transportation Investment and Economic Development



Source: Cambridge Systematics, Inc.

Transportation will play a strategic role contributing to the competitiveness of Hillsborough County in the future. Plans that are put in place by the 2035 LRTP to improve mobility, connectivity, accessibility, efficiency, and safety for the movement of people and goods will translate to economic benefits for Hillsborough County and the Tampa Bay region. By responding to the following

¹⁸The Eddington Transport Study: The Case for Action: Sir Rod Eddington’s Advice to Government, prepared for HM Department of the Treasury, U.K., December 2006.

¹⁹Macroeconomic Impacts of the Florida Department of Transportation Work Program, prepared for FDOT by Cambridge Systematics, 2006.

trends, Hillsborough County's transportation network and services can foster the growth of key industries, encourage economic diversification, and help the county capitalize on economic opportunities.

- **Increasing demand for specialized services to support aging and a more diverse population.** Demographically, Hillsborough County is becoming older like much of the rest of Florida and the United States. Improvements to the county's transit and paratransit services will help older people live independently, allowing them to remain economically active and commute to jobs. This will become more important as the number of people in their prime working years (25 to 64) experiences a declining share of the County's population. Transit services also are crucial to supporting younger, educated workers in the 25 to 34 age group who increasingly prefer living and working in or near dynamic commercial centers.
- **Accommodating a more diverse industry mix that is leading to growth in demand for all modes.** Hillsborough County is pursuing opportunities in high-end corporate business services, life sciences and healthcare, research and development, port/maritime, and advanced manufacturing (electronics, avionics, navigation, defense, medical, etc.) to diversify its economy and attract more sophisticated, higher wage jobs to the region. The growth of these industries, combined with continuing support for the County's tourism, construction, and natural resources-based industries, will require an integrated multimodal transportation network to ease the flow of people and goods within, into, and out of Hillsborough County. Life sciences, advanced manufacturing, and corporate business services, in particular, will require a transportation system that supports reliable small package freight deliveries, more business travel, and access to a highly educated labor pool, a factor that is enhanced by transit services.
- **Increasing population and employment density is creating more demand for transit services to connect to activity centers.** Current estimates show Hillsborough County adding over 400,000 jobs (+55 percent) and more than a 500,000 people (+47 percent) between 2006 and 2035, the forecast horizon of the LRTP. The magnitude of growth will change the character of Hillsborough County, making it much denser. With increased development around major activity centers, including the University of South Florida, Downtown Tampa, Westshore/Tampa International Airport, Ybor City, MacDill Air Force Base, Hyde Park, and the port, among others, strong transit connections will be needed to maintain mobility in the County between major job generators and residential areas. Improved transit services is key to long-term and more sustainable land-use strategies to encourage future growth in existing developed areas and along transportation corridors.
- **Increasing demand for moving people and freight.** Meeting the needs to move more people and greater freight volumes on short trips within Hillsborough County and on longer trips to and from Central Florida, the rest

of Florida, and other domestic and foreign markets will be a factor underlying Hillsborough County's ability to meet economic goals.

- **Within Hillsborough County.** Population and jobs growth is expected to put considerable new demands on the County's transportation network and services in coming decades. Traffic congestion already is a major issue in the County and will become worse without adequate capacity to meet the mobility needs of people and growing volumes of freight. By improving mobility and mitigating congestion, Hillsborough County can expand labor markets and increase the reliability of freight movements and thus increase the competitiveness of its industries and businesses.
- **Within the increasingly integrated Tampa Bay region.** The seven-county Tampa Bay area is now one of the larger urban areas in the United States and is becoming a more cohesive, single market. Commuters are crossing county lines in increasing numbers for jobs; businesses, universities, and research facilities are working collaboratively from locations within the region; and visitors are moving between the port, airport, beaches, and attractions. Improved linkages for intercounty trips to and from Hillsborough County, the economic hub of the Tampa Bay region, will support a more robust regional economy in the future.
- **To/from other counties in Florida (e.g., I-4 Corridor).** Hillsborough County and Tampa Bay's location within Florida make it a favored location for statewide distribution. Long-term freight volumes will increase in response to rising demands from a growing population and increased economic activity and result in more rail and truck traffic from Tampa Bay distribution centers to locations throughout Florida. Institutional, academic, and business relationships fomented by the Florida High-Tech Corridor Council along I-4 and beyond depend on intercounty goods movements for production and the transport of people to promote innovation. These regional economic linkages can also be extended north on the I-75 corridor to Ocala for distribution and to Gainesville for academic and research and development relationships. Tampa Bay and Central Florida form a huge regional travel market, with visitors entering the area at different gateways (Tampa, St. Petersburg, Sarasota-Bradenton, Sanford, and Orlando International Airports, and the Port of Tampa) and then traveling throughout the region to attractions, beaches, and meetings. The Tampa Bay travel market also is becoming more integrated with fast-growing Southwest Florida and improved connections to more distant large cities within Florida, Jacksonville and Miami, will encourage the face-to-face interactions that will further support growth in the State and Hillsborough County. Stronger regional transportation linkages between gateways, business and corporate centers, and attractions will enhance the travel experience and increase economic opportunities.
- **To/from markets in other states/nations.** The Port of Tampa, already the largest port in Florida in terms of tonnage, will increase its role in global trade and take advantage of the widening of the Panama Canal by

expanding its container-handling facilities. As a more significant gateway into the U.S. market, this will increase truck and rail traffic in Hillsborough County but also create additional opportunities for warehousing and distribution. The ease of access to the port and to intermodal facilities will contribute to the port's and Hillsborough County's success in competing with other major ports throughout the country. Access to Tampa International Airport also will be crucial, not only for tourism and business travel, but for the Tampa Bay region's technology companies (e.g., pharmaceuticals, microelectronics, medical devices, etc.) that will depend on air freight to transport lightweight, high-value products.