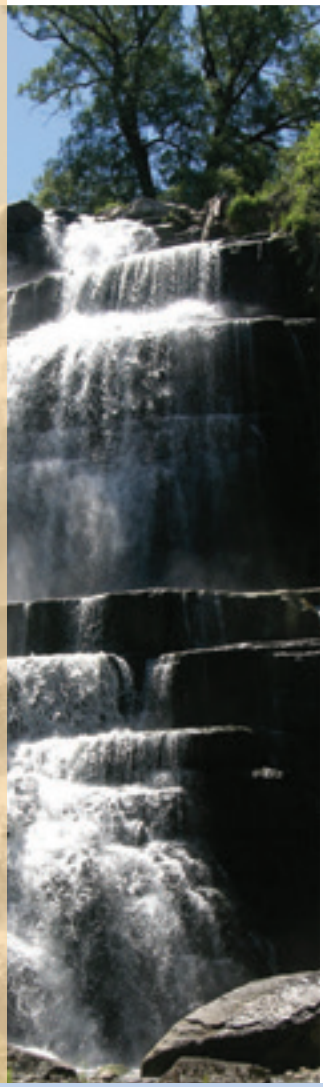
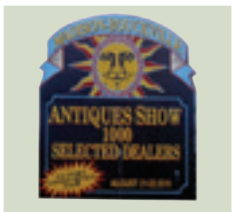
Madison County
Economic Development Strategy

Brookfield
Canastota
Cazenovia
Chittenango
DeRuyter
Earlville
Eaton
Fenner
Georgetown
Hamilton
Lebanon
Lenox
Lincoln
Madison
Morrisville
Munnsville
Nelson
Oneida
Smithfield
Stockbridge
Sullivan
Wampsville





D R A F T— November 14, 2012

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THE PURPOSE OF A LOCAL ECONOMIC DEVELOPMENT STRATEGY

An economic development strategy provides a community with a clear understanding of their current economic situation, identifies potential opportunities as well as challenges for economic growth, and defines the efforts required to achieve specific goals. A strategy is typically established for a ten to twenty year horizon and addresses the multiple facets of economic development at the local level including organizational structure, resource development and allocation (provision of basic public services, supply of qualified labor, capacity and accessibility of reliable utilities, availability of land and buildings, capital resources, favorable tax and regulatory policy, etc.), and the growth of specific target industries that will produce jobs and new wealth for the community.

An important part of the strategy is to promote a broad range of economic initiatives that not only help strengthen existing businesses, but also help to diversify the employment base through the start-up of new companies and the attraction of businesses to the area. Since the employment levels of any given company never stay constant, it is important to continually support expansion of the local economy with new opportunities. This approach helps insure jobs for the next generation seeking employment in the community.

To carry out this economic development mission, considerable attention must be paid to forces in the marketplace that will affect the likely success of any particular economic development initiative. In today's global economy, these forces operate on the international, national, regional, and local levels. Compounding the challenge is the need to pay close attention to the broad range of employers in a community, from the traditional large scale manufacturing firm to the entrepreneurial start-up with plans to introduce a new niche product or service into the marketplace. Attention must also be focused on key industry sectors in a community such as advanced manufacturing, professional and business services, agriculture, and tourism. In addition, the large institutional employers in a community such as colleges and universities, hospitals, and utility providers must be recognized. These institutions serve as major economic engines with their own set of resource needs and associated economic development opportunities.

When preparing an economic development strategy for a community it is important to start with a common understanding that the public sector has traditionally provided services to support business and commerce at the local level. These services cover a broad range of activities including governance, public safety, roads, sewer and water, education, recreation, solid waste management, environmental and public health protection, and the overall advancement of the common welfare. Maintaining the delivery of these vital public services in an affordable and efficient manner must be the starting point for any concerted effort to support the growth of a local economy. Building on these resources, attention can then be focused on the tools available in the public sector that can support job retention and creation in a market system based upon the concept of free enterprise. In today's competitive world, the application and use of these tools often requires an entrepreneurial and proactive approach at the government level.

THE PROCESS USED TO DEVELOP THE STRATEGY

Preparation of the Madison County Economic Development Strategy was initiated by the Madison County Board of Supervisors in 2010 under the direction of the Planning, Economic Development, Environmental, and Intergovernmental Affairs Committee and a Steering Committee formed by the Chairman of the Board of Supervisors. Interest on the Steering Committee included representatives from the County Legislative Planning Committee, the Madison County Industrial Development Agency, the Madison County Department of Planning, Madison County's Office of Workforce Development, Madison County's Department of Health, City of Oneida Department of Planning and Development, Cornell Cooperative Extension of Madison County, Madison County Tourism Office, and the CNY Regional Planning and Development Board.

The development of the strategy was based in part on a process that built upon a very thorough gathering of facts about the state of the local economy. This information was supplemented by input obtained from local and outside experts representing a broad range of industry sectors. In addition, reference was made to several related planning documents including work that was recently completed by the CNY Regional Economic Development Council on a five-year strategic economic development plan. At the conclusion of this background work, the Steering Committee formulated a goal and a broad set of recommendations. In formulating these recommendations, specific emphasis was placed on steps that can be taken by the County, working in conjunction with various departments and affiliated organizations, to support economic growth in the community. This work has been summarized into a draft report titled the Madison County Economic Development Strategy. The draft strategy will be finalized and presented to the Madison County Legislative Planning Committee for review and approval. At the conclusion of this process, the Legislative Planning Committee will present the strategy to the Madison County Board of Supervisors for final approval. The current schedule is to have this process completed by December 2012.

OVERVIEW OF THE ECONOMY AND MADISON COUNTY PROFILE

A review of the information presented in this report shows that the preparation of an economic development strategy must be carefully calibrated to account for developments which are occurring on an international, national, and regional level. As noted in a World Economic Outlook Update issued by the International Monetary Fund in July 2012, "In the past three months, the global recovery, which was not strong to start with, has shown signs of further weakness. Financial market and sovereign stress in the euro area periphery have ratcheted up, close to end-2011 levels. Growth in a number of major emerging market economies has been lower than forecast. Partly because of a somewhat better-than-expected first quarter, the revised baseline projections in this *WEO Update* suggest that these developments will only result in a minor setback to the global outlook, with global growth at 3.5 percent in 2012 and 3.9 percent in 2013, marginally lower than in the April 2012 *World Economic Outlook.* These forecasts, however, are predicated on two important assumptions: that there will be sufficient policy action to allow financial conditions in the euro area periphery to ease gradually and that recent policy easing in emerging market economies will gain insufficient policy action. In Europe, the measures announced at the European Union (EU) leaders' summit in June are steps in the right direction. The very recent, renewed deterioration of sovereign debt markets underscores that timely implementation of these measures, together will further progress on banking and fiscal union, must be a priority. In the United States, avoiding the fiscal cliff, promptly raising the dent ceiling, and developing a medium-term fiscal plan are of the essence. In emerging market economies, policymakers should be ready to cope with trade declines and the high volatility of capital flows"

Supplementing this information is an overview of the current condition of the NYS economy as provided by the NYS Comptroller's office in May 2012. This report noted that New York's Gross State Product (GSP) rebounded strongly after the recession, with the rate of growth exceeding the nationwide increase and ranking second among the 50 states in both 2010 and 2011. However, New York's rate of growth eased from 5.1% in 2010 to an estimated 3.8% in 2011, and IHS Global Insight forecasts that the State's GSP will slow to 2.6% in 2012. The report also noted that between December 2009 and April 2012, NYS has regained 312,700 jobs, nearly 95% of the jobs lost during the recession, and that New York has added more private sector jobs (335,900) during the recovery than it lost during the recession, but these gains have been offset by 23,200 jobs lost in the government sector.

Regarding employment, it was noted that job growth has been uneven across that State and the unemployment rate exceeded the Statewide rate of 8.5% in more than half of New York's counties (33 of 62), including eight counties in which the rate was 10% or greater.

In a previous report issued by the Comptroller in October 2010, it was noted that the State's population is projected to increase from 18.5 million in 2010 to 20.5 million over the next ten years, with most of the State's population growth occurring in the NYC metropolitan area.

Looking more closely on a regional and local level, data presented documents that the population base in Central New York and Madison County has stabilized in recent years following a sharp decline that took place from 1985–1995. In looking at these figures, it is important to note that the area's population is now at the highest level is has ever been in the history of this region growing from a total of 572,408 in 1950 to 791,939 in 2010 and correspondingly the region's labor force totals over 394,600 workers. While CNY is clearly not experiencing the level of population growth as other parts of the country, the fact the population base has stabilized and the labor force remains strong is important to the region's effort to retain existing businesses in the area and attract new companies to Central New York. This point is particularly noteworthy since there is very little that can be done on a public policy basis at the local level to influence what is generally considered a long term trend in a community that is directed by economic forces at play in the marketplace.

Other demographic factors that were reviewed for the region show that the area's per capita income of $36,833 is comparable with similar sized metropolitan areas and has increased in recent years in a manner that is consistent with general trends across the State and nation. This increase suggests that the area's economy has been able to support salary increases at a time when economic forces continue to create a great deal of turmoil in the marketplace. One area of real concern in looking at the demographic data is the aging of the region's population base. One of the factors contributing to this dynamic is the lack of significant population growth in the area. Again this issue is very difficult to address at the local level but suggests that efforts to support a strong employee retraining program and resident retention and recruitment program are needed to address a possible workforce shortage in Madison County.

Education data clearly suggests that the Madison County is in a strong position to provide the educated workforce needed by employers today and decisions at the State and local level to expend significant resources on public education continues to pay dividends for many communities across Upstate New York. At the local level, these dividends are reflected in the graduation rates, test scores, and higher education career plans of students graduating from the many K–12 programs in Madison County. Regionally, much attention is given to the institutions of higher education in Upstate New York which currently number over 44 with a student population of more than 215,000. These

colleges and universities are economic engines for many communities in Upstate New York given their employment levels and provide the career training demanded by businesses in the marketplace today.

On the economic front much has been made in recent years about the diversity of the region's economy which has proven to be a real benefit to the area as residents struggle with the nation's current economic recession. In December 2010, it was estimated there are 320,100 jobs in CNY, including 262,700 (81.8%) in the private sector with 40,000 in goods-producing and 280,100 in service-producing jobs. In reviewing this data, it is important to note that this economic diversity is consistent with similar patterns taking place in many parts of the country and is a reflection of a natural shift in the nation's economy and not the result of some major public policy initiatives which have been implemented at the federal, state or local level. A closer look at the data by industry sector shows that this area's decline in manufacturing is very similar to data shown for NYS and the nation, and the growth in the service sector reflects a similar pattern. Despite the decline in manufacturing there are still over 28,000 jobs in manufacturing in the region which generate a payroll of more than $1.7 billion, suggesting that this industry sector is worth significant public policy support in the years ahead. In reviewing this information, it is important to note that while there has been a general decline in manufacturing in recent years, there has also been a significant increase in employment in the region in professional/business services (34,600 jobs), education services (21,400 jobs), and in health care (42,200 jobs). Interestingly, public employment outside of education is shown to have declined 18.4% over the past 20 years from 28,200 in 1990 to 26,000 in 2000, and 23,000 in 2010.

With regard to the CNY labor force it is important to note that the region's labor force has remained very stable over the past 30 years fluctuating from 350,000 in 1980 to a high of over 391,000 in 2010. Data for this labor force clearly shows that wage rates in the region are very competitive with labor costs across the country and oftentimes significantly less when compared with large metropolitan areas in the nation. Industry sectors paying the highest wages in CNY include manufacturing ($56,000), professional and technical services ($55,000), finance and insurance ($55,000), and wholesale trade ($54,000). Regarding unionization of the labor force, overall approximately 23% of the workforce is unionized. However, it is important to note that most of the unionized workforce is in public employment and the utility sector and only 12% of private employers are unionized.

In addition to the information that can be gleaned from the data are the opportunities presented by trying to capitalize on the list of major employers in CNY which include such prominent names as Cornell University, Syracuse University, SUNY Upstate Medical University, Wegmans, Lockheed Martin, Constellation Energy Group, the Hartford Financial Group, Welch Allyn, Verizon, Syracuse Research Corporation, Bank of America, Excellus BC/BS, Anheuser Bush, Air Force Research Lab, Cooper Crouse Hinds, Nucor Steel, Bristol-Myers Squibb, Novelis, Pall Trinity Micro, MONY Group, Marietta Industries.

Complementing these companies are the opportunities presented by the existence of several major employment clusters in Central New York. These clusters include biomedical, logistics and distribution, electronics, industrial machinery, materials processing, forest products, food processing, education and health care service.

Supporting the economic base of the area is a large commitment of public resources to a strong network of transportation assets in the region including major interstate highways, state routes, county and local roads, a regional commercial airport, and a port. Supplementing these public assets are numerous public water and sanitary sewer systems, public safety services, and various recreational assets. Many of these systems are developed and maintained at great expense for the benefit of private enterprise by State, county and municipal governments across Central New

York. Also noteworthy is the extensive electric and natural gas supply systems that have been deployed across the area by major private utility companies and the NYS Power Authority. While the region's energy supply is fairly robust and of sufficient quantity to meet anticipated demand, the cost of these energy resources are very high and oftentimes uncompetitive in the marketplace. It is important to note that the increasing demand for energy downstate and the desire to generate alternative renewable energy resources may create additional opportunities for energy production facilities in Upstate New York, particularly if a number of bottlenecks in the electric power distribution grid system can be addressed. Complementing these public resources is an extensive professional business service and banking network that exists in Central New York. This network provides a very robust and competitive array of services and financial resources to support economic growth in the region.

Regarding governance, information was presented which demonstrates the challenges facing government today to provide vitally needed public services and infrastructure while at the same time controlling costs. Data presented by the Tax Foundation shows that NYS is uncompetitive with other states when it comes to overall tax expenditures. These costs present a very challenging situation to the region's business community and often undermines efforts to attract and retain companies at the local level. A closer look at the data shows that local government expenditures in Central New York have increased approximately 3% per year over the past ten years. Much of these increases in expenditures can be attributed to State policies regarding the sharing of certain social service cost's with local government and mandated retirement benefits without appropriate levels of employee contributions.

To put all of this data in perspective, information was gathered from two research companies that compare regional economies using a broad spectrum of factors to measure the economic vitality of an area. This regional benchmarking analysis showed that Central New York is in a fairly competitive position ranking 162 out of 366 metropolitan areas in the nation in one study and 80 out of 366 metropolitan areas in another study. Each of these studies presented information showing that the region's economy has improved fairly dramatically over the past ten years when compared to other communities across the nation.

Looking more closely at county-level data revealed that in recent years Madison County's population grew more than other counties in Central New York and currently stands at a total population base of 73,442, which is the highest level in history. Financially the per capita income in the County increased 32% over the past ten years and was estimated to equal $33,113 in 2009. Overall, the median age in the County is 39.8. On the education front, of the County's population 25 years old and over, 16,962 residents are high school graduates, 5,551 have an associates' degree, 6,476 have obtained bachelor's degrees, and 3,637 have gone on to obtain their graduate or professional degree.

Economically, Madison County has a very diverse employment base with over 25,000 jobs distributed across a broad spectrum of industry classifications. In reviewing these figures it is important to note that the top ten employers in the County employ over 18,841 people; these employers cross a broad industry spectrum from manufacturing, to education, and health care. Major employers include Colgate University (855), Oneida Health Care (786), Morrisville State College (450), Ferris Industries (410), Esco Turbine Technology (370), Community Memorial (305), Marquardt Switches (294), Dielectric Laboratories (223), ARC (210), and GHD (150). Each of these companies and/or institutions of higher education or health care play a very significant role in the County's economy in terms of employment, net wealth generating activity, and investment in the community.

In addition to this group of large employers, there are over 1,400 other business establishments in the County of which a large majority employ fewer than 50 people. In fact, over 89% of the County's business establishments employ four or fewer individuals and the nonemployer/sole proprietorships outnumber wage-paying employers by almost 3:1. Taken together these large and small employers generate an annual payroll of over $703 million with an average wage of $33,586. Included in this total are 65 manufacturing establishments with a payroll of $107 million. Targeting services to this mix of a few large and many small employers in the County is a tremendous challenge to business leaders and government officials today.

With respect to agriculture there are approximately 744 farms in operation in Madison County with an average sized farm of 253 acres. The total value of products sold by these farming establishments is $86 million. Seventy-two% of these sales were for dairy products. Total farm employment is estimated to be less than 1,000 or less than 2.5% of the total county workforce and account for less than 1% of all wages paid in the County. Tourism numbers demonstrated the importance of this sector to the area's economy with estimates of $70 million in visitor spending, over 1,600 employees, and $4.5 million in sales tax revenue to the County. In a related category, information suggests that the County is losing some retail spending to neighboring counties. While not significant, the estimated loss of $43 million in sales and $1.7 million in sales tax revenue annually suggest that new retail business opportunities should be developed in the County to capture these expenditures.

In reviewing workforce data for Madison County, it is important to note that over 10,290 (32.4 % of workforce) County residents currently commute to Onondaga County and 3,715 to Oneida County for work. Persons are commuting for work in many industry sectors including manufacturing, wholesale and retail trade, finance and insurance, and various professional service and heath care jobs. This workforce represents a potential source of new employees for existing businesses located in the County or new companies attracted to the community. To capture this resource, some attention will have to be given by area employers to the wages paid in Madison County, which are often below neighboring counties. Information regarding municipal governance and services suggest that Madison County is operating very efficiently with a per capita tax expenditure rate of $1,491—one of the lowest rates in NYS. Excluding local school districts, public employment at the local level has declined over the past ten years. Key services provided at the State and local level include an extensive road transportation system, public safety, a network of business parks, recreational assets, and a strong public school system with competitive graduation rates and reasonable costs. Complementing these services are various natural resources which are available to support tourism and alternative energy development in the County. These resources include extensive woodland biomass, wind energy, and water.

GOAL AND RECOMMENDATIONS

Every healthy economy is comprised of three levels of employers. The most significant employers are the net wealth generators for a community and consist of the primary industries that not only provide local jobs but also infuse new money into a local economy through the sale of a product and/or service outside of the area. The next level of employers provide business support services for the primary industries. At the third level are employers providing consumer retail services to support the daily activities of local residents. It is important for an economy to have a diverse primary industry base that is supported by a network of smaller firms, which together generate sufficient wealth for the community to function as a modern day economy capable of meeting the basic needs of its

citizens. In accessing these resources, it is important for local officials to acknowledge that every business, product, and service ultimately goes through a life cycle that may be measured in today's economy in months, years, or decades due to competition in the marketplace. At times, companies grow and become very successful only to be bought out by a larger firm, or the cost of production increases to a point that a company must move its operations to another locale to remain competitive. Essentially, no business can guarantee a community that it will be able to stay in operation forever, and communities must adapt to the constant ebb and flow of companies in and out of the local economy.

It is against this backdrop that the Steering Committee analyzed the local economy and formulated the following over-arching goal: **Madison County must direct its efforts to the growth of a diverse economic base that will provide employment opportunities for a broad cross section of its citizens across the entire county.** In keeping with this goal, the Steering Committee offered a series of recommendations to focus attention on several key areas including governance, business retention and expansion, business attraction, infrastructure and real estate development, manufacturing and the producer service industry, agriculture, retail and tourism, alternative energy development, and employee training and workforce development.

In developing an economic development strategy, it is important to acknowledge the important role played by local units of government to ensure that traditional public services are provided on a daily basis to business and residents across a community. In Madison County these services are provided, in part, through a formal legislative structure and professional County administrative office. Through these offices, the County has been able to maintain a complex road network and maintenance function, an effective public safety system and emergency communication service, a comprehensive solid waste system, records management, a range of public health and social welfare services, and an efficient tax collection system. As noted in the statistics, these services are provided very efficiently by the County with a per capita tax expenditure rate of $1,491—one of the lowest rates in NYS. Complementing this work are the services provided at the State and local government level across Madison County. Key components of these services include additional highway and road maintenance activities, the provision of public water and sewer services, additional public safety personnel, public education, land use controls, environmental protection, and public recreation resources. To build on this strong foundation, the Steering Committee recommends the following action points:

- *Maintain a strong foundation for management and delivery of government services at the County and local government level*
- *Maintain an appropriate County legislative committee system to provide proper oversight and support for planning and economic development efforts in the County*
- *Establish an Economic Development Leadership Council at the County level with representation from business, government, and higher education*
- *Support efforts to address concerns regarding the costs of State mandated services and energy costs in NYS*
- *Maintain a County-supported office of economic development with appropriate professional and support staff*

- *Establish an institutional framework to identify organizational responsibility for completing various economic development projects in the County*
- *Investigate opportunities to standardize County and municipal forms and applications for permitting, zoning, and building code applications and for making these available on the County website*
- *Maintain a County-wide infrastructure resource data base with current information about the size, capacity, and condition of road, sewer, water, solid waste, electric and gas, and a telecommunication systems operating in the County*
- *Undertake a coordinated effort to use municipal controls to protect major development sites from encroachment of competing uses—i.e. residential and commercial*

The provision of public infrastructure is one of the most vital services that can be provided to the business community in Madison County. The principal issues of concern to businesses in this area are access and proximity to markets and sources of supply, either physically through transportation networks or remotely though the telecommunications network; the cost, convenience and reliability of access; and the availability of sufficient land or built space to accommodate business needs at present and in the near future. A significant number of recommendations have been developed by the Steering Committee that the County can undertake to help ensure the area's infrastructure resources meet the needs of a 21st century economy. Key recommendations on this list include:

- *Develop a comprehensive inventory of public infrastructure and major real estate resources in the County, including an assessment of brownfield development opportunities*
- *Develop a coordinated capital improvement plan for major State, County, and municipal infrastructure that supports economic growth in the County*
- *Complete development of a modern 911 emergency communication that is coordinated with deployment of a County-wide telecommunication system*
- *Continue development and maintenance of a County-based solid waste management system*
- *Continue efforts to development the Madison County Agriculture and Renewable Energy Park*
- *Investigate the feasibility of establishing a county-based central heat and power plant at the County campus in Wampsville to create demand for biomass resources in the County*
- *Develop an inventory of major parcels of vacant land in the County and perform regular assessment of development potential of these parcels for many uses including a major retail outlet center, warehouse/distribution facility, a hotel/conference center, and senior citizen community*
- *Develop virtual building concept plans and pre-permitting at key business park/development sites in the County*

In addition to the provision of general government services, it is important to note in today's economic climate that many counties across the nation have formed dedicated economic development functions with full-time professional staff with responsibility for providing a range of services to support economic growth. The Madison County Industrial Development Agency (MCIDA) is the designated economic development agency for the County. The MCIDA is a public benefit corporation established under the provisions of NYS law with the authority to issue

taxable and tax-exempt bond financing, elimination of sales tax on materials and equipment used for manufacturing, and the establishment of payment-in-lieu-of-tax agreements for the management of real property taxes and the elimination of mortgage recording taxes. The MCIDA is staffed by three full-time positions and has offices in the Village of Canastota. Capitalizing on the strength of this economic development office, the Steering Committee recommends a number of high priority initiatives be undertaken to support the work of the MCIDA including:

- *Represent the Madison County Center for Economic Development whenever addressing economic development efforts associated with Madison County*
- *Maintain a County-supported office of economic development with appropriate professional and support staff*
- *Maintain a comprehensive economic development strategy for the County*
- *Organize outreach meetings with municipal officials to familiarize these officials with the County's economic development programs*
- *Develop a plan and allocation of staff resources to maintain the County's economic development website*
- *Convene workshops of industry experts; develop a local "economic expert" roundtable to regularly review economic status, resources and opportunities for economic development*
- *Convene an annual meeting of the MCIDA office of economic development with the Board of Supervisors and invited guests*
- *Coordinate a formal outreach program and education initiative to area chambers of commerce, i.e. quarterly/semi-annual meetings*
- *Regularly evaluate IDA incentive programs and loan fund objectives to ensure they align with evolving economic development objectives, community needs, and competition in the marketplace*

Beyond these organizational initiatives, a great deal of attention is paid today to work that can be done at the County level to support economic growth through an organized business retention and expansion program. While often undervalued as a strategy for economic development, business retention and expansion (BR&E) is nevertheless among the most common elements of a comprehensive economic development program. According to the International Economic Development Council (IEDC), two-thirds of all economic development organizations in the nation have BR&E programs, while less than half have business attraction programs.

There is a common adage in economic development that it is far easier to retain an existing employer than to recruit a new one. In fact, research has shown that most new jobs are created by existing businesses in a community rather than those relocating from elsewhere. In today's global marketplace, with industries rapidly consolidating and economic developers competing to lure new companies to their communities, business retention is even more important as part of an economic development strategy. Business retention and expansion programs typically include a wide variety of activities undertaken to retain and facilitate the growth of local businesses. The "tools" used in BR&E are many of the same items found in the recruitment toolbox: financial assistance, workforce training, information on available sites or buildings, assistance with permitting and licensing, export/procurement assistance,

and so on. In some cases, the economic development organization (EDO) can provide services directly; in other instances, the EDO serves as a broker between the company and the source(s) of the assistance.

Because the services provided are based on the needs of the customer, BR&E depends heavily on a customer service orientation. Successful BR&E must begin with an effective outreach program to assess the needs, priorities, and concerns of individual businesses in cooperation with company owners and managers.

Based upon an analysis of numerous BR&E programs across the country and a review of the available staff resources and work that is being done by the MCIDA, the Steering Committee suggest that specific attention be given immediately to the following recommendations:

- *Convene workshops of local "economic experts" to review issues, resources, and opportunities for economic development in the County*
- *Establish a formal business outreach program in the County that coordinates the delivery of services provided by various agencies to the small business community*
- *Conduct formal outreach to various business service providers such as bankers, lawyers, and accountants to identify business development opportunities and needs in the County*
- *Complete a detailed inventory and contact list for major development projects/business opportunities in Upstate New York—Fort Drum, Albany Nanotech, Global Foundries, Turning Stone that may represent business development opportunities for local companies*
- *Support entrepreneurial initiatives and business networking forums at area colleges*
- *Support regional and statewide efforts to foster formal relationships with venture capital providers and angel investors to support entrepreneurial development in the County*
- *Maintain a competitive business incentive and small business loan program at the County level*

While a comprehensive business retention and expansion program must be a cornerstone to the County's economic development program, data provided by various site location experts suggest that resources should also be directed to a targeted business recruitment program. In trying to recruit a company to a community, officials must have some understanding of the global stress factors that are impacting companies today and how these factors may influence a company's decision to expand or relocate their operations to a new community. In reviewing these factors, considerable attention must be focused on high-growth industries and the potential to capitalize on certain industry clusters which exist in Central New York. In addition, the County must recognize that the site selection process typically begins on an international or national level today, transitions into a regional and state search, before finally focusing on a set of recommendations regarding potential host communities. While surprising to many, the site selection process is often characterized as a process of elimination that places a premium on communities being "ready-for-development" long before prospect interest is ever known to a community. Given Madison County's location between the Syracuse and Utica/Rome metropolitan areas, the strong population and labor force base in the region, and the availability of a well developed infrastructure system, the Steering Committee recommends that a carefully structured business recruitment program be continued in the County with an initial focus on the following initiatives:

- *Develop a target industry business recruitment plan based in part on certain industry sectors and employment clusters that currently exist in CNY, including renewable energy, medical instruments, food processors, information/financial back office services, pharmaceuticals, warehouse/ distribution*
- *Capitalize on proximity to major food processors based in NYS to promote the County as a viable location for food processing facilities*
- *Pursue opportunities for back office operations looking to expand/relocate from major metropolitan in the Northeast*
- *Pursue foreign investment opportunities through existing industry contacts in County*
- *Undertake a coordinated outreach campaign to college alumni through advertisements in alumni magazines if financially viable to undertake*
- *Develop and maintain relationship with key site selectors that serve key industry sectors appropriate for growth in the County*
- *Encourage a regional effort to inventory major companies with operating facilities in small town/ rural locations in other parts of the country—target these companies for marketing*

Most of the activities that can be undertaken to support the manufacturing and producer service industry are typically addressed in a comprehensive business retention and expansion program. However, the significance of these two sectors to any local economy deserves careful consideration and attention by the local economic development staff. This observation is certainly relevant in Madison County where manufacturing still holds an important position in the County's employment base and serves as a significant generator of new wealth for the community through the sale of products onto a regional, national, and international marketplace. Likewise, the producer service industry is another important economic component to the County led by the location of three institutions of higher education in the community along with several professional business establishments, and a number of important health care providers. To capitalize on these resources the Steering Committee recommends:

- *Continue efforts to develop a meat processing facility to assist local dairy and beef farmers*
- *Capitalize on opportunities to develop relationships with major food processors in the Northeast*
- *Seek to identify supplier network opportunities to serve local manufacturing companies*
- *Complete a detailed on-line inventory of major vocational and technical training programs available to serve area industry needs*
- *Pursue relationship with plant mangers*
- *Support efforts by CenterState CEO's Project ION, an internship outreach program for companies in CNY*

In addition to these two major industrial sectors, information gathered in this strategy suggests that the County should continue to focus attention on several other sectors in the local economy including agriculture, retail, and tourism. While each of these sectors plays a relatively small role in the overall structure of the County's economy,

their importance to certain segments of the local community and potential to generate or retain wealth in the area warrants consideration.

In considering these other economic sectors, agriculture drew a significant amount of attention from the Steering Committee as work was done on the overall goal and recommendations for the County. As noted in the strategy, agriculture is a relatively small part of the County's overall economy in terms of employment, wages, and the value of economic output. However, the rural nature of much of Madison County forms an important part of the County's image and is a distinct consideration when assessing the quality of life in the County. Moreover, the potential for additional economic development stemming from changing demographic taste and product demands on a national and regional level offer some promising opportunities for area farmers and food processors in the community. To capitalize on some of these opportunities, the Steering Committee considered a long list of initiatives some of which are highlighted in the following recommendations:

- *Maintain an Agriculture Economic Development staff position at the County level*
- *Develop a detailed inventory of farm resources, products, and services and place on-line*
- *Inventory major agriculture initiatives and commercial enterprise developments on a regional basis to identify agriculture supply side opportunities in the County*
- *Secure funds to support alternative crop / niche value-added product development*
- *Pursue business development opportunities in major metro area food centers with a focus on niche agriculture products produced in the County*
- *Promote niche products for major markets such as NYC*
- *Complete a detailed inventory of natural resources and under-utilized land inventory in the County as basis for alternative crop production*
- *Develop a program to help capitalize on the value of under-utilized and marginal land resources in the County*

While the retail sector is not known for creating high paying jobs generally, it is a major source of entry level and part-time job opportunities. The retail sector can also play a large role in improving the quality of life in communities as part of a revival of main streets in smaller towns and cities and by the improvement in the convenience of needed products and services in more rural areas. When evaluating information regarding this sector of the economy, it is important to note several national trends which may affect the retail business opportunities in Madison County. These trends include a general down-sizing and closing of unprofitable large chain retailers, a shift in buying patterns to discount destinations to replace lifestyle centers, a more cautious approach to spending among some elements of the "millennial generation", and a continuing migration of retail sales to the internet.

Information regarding the retail sector in Madison County suggest that there may be opportunities to create additional jobs and capture sales revenue that is currently being lost to neighboring areas in Onondaga and Oneida Counties. This "retail leakage" is estimated at $41 million per year. If the retail opportunities represented by this outflow of dollars were directed to certain communities and areas in the County, additional community benefits could be realized from this employment sector. Based on these factors, the Steering Committee suggests that a very

targeted approach be undertaken to help support the growth of the retail sector in Madison County and recommends the following action:

- *Complete a detailed "Buxton" study of retail leakage and opportunities in major retail centers in the County—City of Oneida and villages/hamlets across the County*
- *Investigate the feasibility of establishing an office of "Main Street" coordinator to support retail development in selected villages and hamlets in the County*
- *Establish a micro-lending program to support niche market retail opportunities in selected community centers /main streets*
- *Inventory resources available from the National Main Street program and market these services to communities and businesses in the County*
- *Identify key under-utilized and vacant property/buildings in retail centers across the County and target for redevelopment*
- *Coordinate main street activities with various college and university initiatives and development opportunities*
- *Investigate the feasibility of establishing a major discount outlet center at Thruway exit 34 in Canastota*
- *Investigate the economic impact and opportunities for attracting a destination retail center to the County*
- *Implement a "Buy Local" marketing program in the County*

In many communities across the nation, tourism has become recognized as an important component of an area's economy and an economic sector that can benefit directly from concerted actions taken at the local level. In viewing this sector it is important to note that data shows that tourism visitor spending in NYS exceeded $14.9 billion in 2008. On a regional level, approximately $1.76 billion of this visitor spending took place in the Central Leatherstocking region and $2.67 billion was spent in the Finger Lakes region. This spending is estimated to support more than 1,600 jobs in the area. In reviewing these figures it is important to note that tourism acts much like a net wealth generating industry by attracting dollars from outside the community and stimulating development of retail and service businesses. To capitalize on this business opportunity, the Steering Committee recommends continued operation and funding for the Madison County Tourism Development Office (MCTDO) and that the MCTDO and its partners undertake the following actions:

- *Complete a comprehensive inventory of major tourist attractions and resources in the County with data measuring levels of activity, attendance, and economic impact*
- *Develop a capital improvement plan for major tourism assets and resources in the County*
- *Develop an updated plan for the effective promotion, marketing, and funding of various recreation, cultural, and heritage sites in the County*
- *Utilize the strategic plan to complete an update of the County's tourism website and market the website through the use of various social media outlets*

- *Closely integrate the County's tourism marketing activities with other regional assets and attractions*
- *Improve the appearance and maintenance of visitor gateways to the County*
- *Pursue strategically located and coordinated development of a hotel/conference center with possible association with a hops/culinary/equine institute*
- *Establish micro-lending program to support tourism related business development in selected communities across the County*

In recent years the development of an alternative energy industry in the United States has received increased attention by public policy makers on a federal and state level. The impacts of climate change and the need to increase energy efficiency, reduce reliance on foreign oil, and address related international security threats are some of the issues driving the need for a national energy policy and practice. These public policy changes have created opportunities in the marketplace that can be used by communities to help create additional job opportunities on the local level. In viewing these opportunities it is important to recognize that alternative energy is not a separate industry sector in a local economy and development of alternative energy resources can incorporate a broad cross-section of several industrial sectors including utilities, manufacturing, professional services, construction, and agriculture.

Based upon developments in the marketplace and a preliminary assessment of the County's natural resources, the Steering Committee suggests the following recommendations regarding alternative energy development:

- *Undertake a coordinated effort to develop institutionally-based central heat and power plants in the County to expand the market demand for biomass resources in the area*
- *Undertake community-based alternative energy initiatives at ARE Park—i.e. wind farm, central heat and power plant, micro-hydro, and solar*
- *Monitor research and demonstration projects promoted by organizations such as SUNY-ESF, U.S. DOE National Renewable Energy Laboratory, Biomass Energy Research Center, Morrisville College (renewable energy center) and Colgate (willow biomass) for development opportunities in the County*
- *Inventory State forest and under-utilized land resources in the County as basis for development of energy resources and crops*
- *Obtain detailed guidance regarding access to State forest resources as basis for biomass energy initiative*
- *Develop an inventory of County waterways and dams to assess micro-hydro potential.*
- *Seek federal and state funds to support biomass crop assistance program*

The availability of a trained or trainable workforce may be one of the most crucial ingredients in any decision by today's businesses to expand or relocate. The development of specialized skills is an expensive undertaking for any company and the availability of a pool of workers ready to be productive is a major attraction for local and relocating firms alike. Having such a workforce is key to Madison County's ability to participate in the dynamic and highly competitive regional, national, and international economies of today. There are two essential challenges in this area: keeping a viable local labor pool available as the population ages, and providing the right type of training at the right

time for this workforce. Based upon these issues, the Steering Committee recommends several measures to help ensure the County has sufficient labor resources to support economic growth across a range of industrial sectors. These recommendations include:

- *Maintain an office of workforce development and employee training in the County*
- *Carefully inventory vocational and technology education programs on a County and regional basis as an information resource to area employers and site location consultants*
- *Disseminate information about available job training resources and case study projects to area employers*
- *Capitalize a small business loan/grant program to support employee training program in the County*
- *Develop a internship program for high school graduates and college level students with major area employers—public and private*
- *Investigate the merit of establishing additional specialized training programs to address economic development opportunities in the marketplace—see what other community colleges are doing across the country*
- *Develop a formal career-awareness outreach program to K–12 and colleges/universities*

The preparation of this economic development strategy represents a significant milestone in the community's efforts to promote a prosperous future for residents throughout Madison County. Like most effective plans of this type, the thoughts, strategies, and recommendations that are incorporated in the plan are not meant to be an exhaustive list of things that can be done by public officials to promote economic growth in their community. In fact, as has been well documented over the years, most of the hard work needs to be done in the private sector where the true entrepreneurial spirit of a community is unleashed in a strong free enterprise system. But the public sector clearly has a role to play in the economic health of a community and this plan is designed to help the County meet this obligation.

In reviewing this plan it is important to note that special emphasis was placed on trying to identify initiatives where the County can have a direct impact on their implementation. In addition, emphasis was placed in trying to balance out the many recommendations that were considered by identifying projects which might have a catalytic effect in the County. Given the purpose of the plan, limited consideration was given to trying to access the potential economic impact of the program recommendations that are presented. However, an effort was made to prioritize the recommendations in the form of a short, medium, and long term implementation horizon. Consideration was also given to identifying the various parties with responsibility for helping to implement the plan.

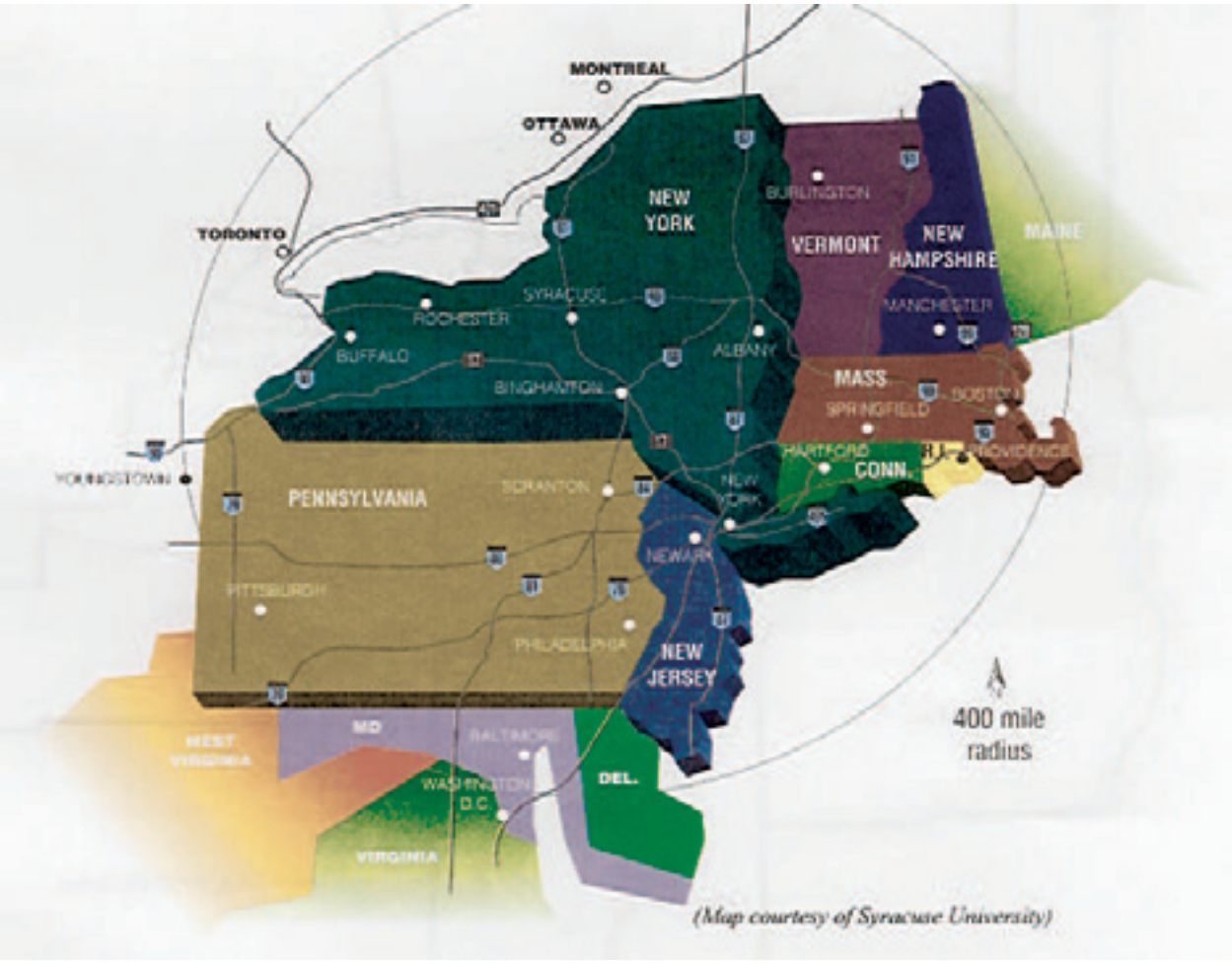
To be effective, this strategic plan must be widely and frequently circulated in the County. Citizens and businesses need to know that the County has a roadmap to help guide its economic development efforts in the years ahead. In addition, the plan must be updated on a continuous basis to reflect new economic data and information about the County. These updates must include an assessment of the success and failure of various program recommendations incorporated in the plan. In the end, the plan must be viewed as a tool which if applied effectively will help the County support a strong private sector that has many great employers, a tremendous workforce, and a reservoir of economic development assets to draw on at local, regional, state, and federal level regional level to support a strong economy in the future.

Regional Profile

Central New York is geographically centered in Upstate New York and includes the counties of Cayuga, Cortland, Madison, Onondaga, and Oswego. The region covers an area of 3,622 square miles, comprising a balance of an urban center - the City of Syracuse, suburban areas, small cities and towns, and rural farming communities. The region is located in close proximity to the cities of Rochester, Ithaca, Utica, Buffalo, Albany, and Binghamton and is within a 4–5 hour drive to several major metropolitan areas in the northeast including New York, Toronto, Boston, Montreal, and Philadelphia. Over 136 million people live within a 750 radius of Syracuse including over 50 percent of the population of Canada and the United States.

Central New York has a population base of approximately 790,000 residents. Historical population statistics show that the region's population has remained relatively stable over the past 20 years since reaching a peak in 1990. Per capita income for the Syracuse

Exhibit 1. Map of Northeast



Source: Source Syracuse University

Metropolitan Statistical Area totals $36,980 which compares favorably with other metropolitan areas across Upstate New York and with the nation.

The region's labor force currently numbers more than 394,600 workers and has remained stable over the past ten years. The average annual wage cost in the five-county area is estimated to equal $40,286 which is competitive with national levels and significantly below major metropolitan areas in the northeast. Over 38.9 percent of the region's population has attained a college associate's degree or higher. The skills of the Central New York labor force support a wide range of economic sectors including agriculture, manufacturing, health care, education, professional business services, warehouse and distribution, wholesale and retail trade, construction trades, utilities, and public employment.

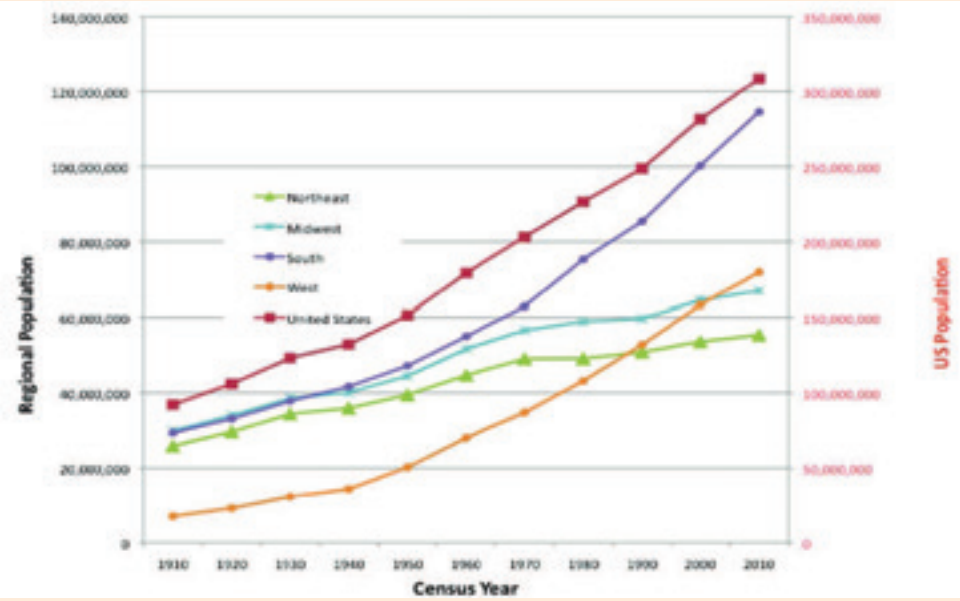
Current statistics for the region show a total of 330,000 jobs, including 262,000 in the private sector, with an annual payroll in excess of $13.6 billion. Over 28,500 jobs are based in the manufacturing sector with a total payroll of approximately $1.8 billion. The total value of agricultural products sold in the region is estimated at more than $532 million. Annual tourism spending in Central New York exceeds $4 billion. A metropolitan statistical area's economic strength ranking provided by the Policom Corporation shows that the Syracuse MSA ranks 162 out of 366 metropolitan areas in the nation.

Businesses in Central New York are served by an extensive transportation network, which includes Syracuse Hancock International Airport, the deep water Port of Oswego, several rail freight carriers, a CSX intermodal rail center, Amtrak passenger rail service, Interstate Routes 81 and 90, and a public transportation bus service maintained by the CNY Regional Transportation Authority. Companies are also served by an extensive network of public sewer and water facilities, which includes a major water supply transmission line from Lake Ontario that is provided by the Metropolitan Water Board and the Onondaga County Water Authority. Ample supplies of electric and gas service are provided by the New York Power Authority and several private utility companies including National Grid, New York State Electric and Gas, and Rochester Gas and Electric. The region is also served by an advanced telecommunications system that is provided by such major service providers as Verizon, Time Warner, and AT&T.

In evaluating the region's resources, it is important to note that businesses have access to a wide range of real estate opportunities that are very affordable and diverse—from sophisticated urban space and high-tech research centers, to office and industrial parks, and efficient warehouse and distribution facilities. This real estate inventory is well distributed throughout the five-county region and includes several major business parks and Build Now-NY "shovel ready" sites: the Aurelius Business Park in Cayuga County; the Finger Lakes East Business Park in Cortland County; the Canastota and Lakeport Business Parks in Madison County; the Clay Business Park, Syracuse University Research Park, Hancock Airpark, Collamer Crossing Business Park, and the Radisson Industrial Park in Onondaga County; and the Oswego County Industrial Park, Lake Ontario Industrial Park, and the Riverview Business Park in Oswego County. Together these real estate holdings represent over 1,000 acres of land that are ready for development at very affordable prices that range from $10,000–$100,000 per acre.

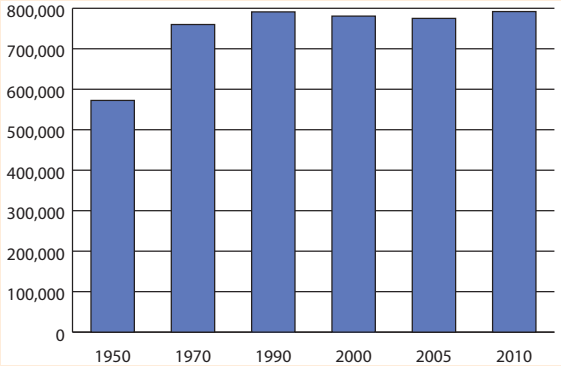
When seeking to build an educated workforce, companies across the region are well served by 44 institutions of higher education located in Upstate New York, with a combined enrollment in excess of 215,000 students, and several for-profit education centers. Top area schools include Cazenovia College, Clarkson University, Colgate University, Cornell University, LeMoyne College, Rensselaer Polytechnic Institute, Rochester Institute of Technology, Syracuse University, University of Rochester, Wells College and members of the SUNY system including Albany, Binghamton,

Exhibit 2. Historical U.S. and Regional Population Trends, 1910–2010



Source: U.S. Census Bureau

Exhibit 3. Central New York Population, 1950–2010



Source: Source U.S. Census Bureau:

Exhibit 4. Regional and County Population Estimates

	1950	1970	% Change '50 - '70	1990	% Change '70 - '90	2000	% Change '90 - '00	2010	% Change '00-'10
Cayuga	70,136	77,439	10.4%	82,313	6.3%	81,963	-0.4%	80,026	-2.4%
Cortland	37,158	45,894	23.5%	48,963	6.7%	48,599	-0.7%	49,336	1.5%
Madison	46,214	62,864	36.0%	69,120	10.0%	69,441	0.5%	73,442	5.8%
Onondaga	341,719	472,835	38.4%	468,973	-0.8%	458,336	-2.3%	467,026	1.9%
Oswego	77,181	100,897	30.7%	121,771	20.7%	122,377	0.5%	122,109	-0.2%
CNY Region	572,408	759,929	32.8%	791,140	4.1%	780,716	-1.3%	791,939	1.4%
Albany/Schenect-ady/Troy MSA						825,875		870,716	5.4%
Binghamton MSA						252,320		251,725	>-0.1%
Buffalo/Niagara MSA						1,170,111		1,135,509	-0.3%
Rochester MSA						1,037,831		1,054,323	1.6%
Syracuse MSA						650,154		662,577	1.9%
Utica/Rome MSA						299,896		299,397	>-0.1%
NYS	14,830,192	18,242,584	23.0%			18,976,457	5.5%	19,378,102	2.1%

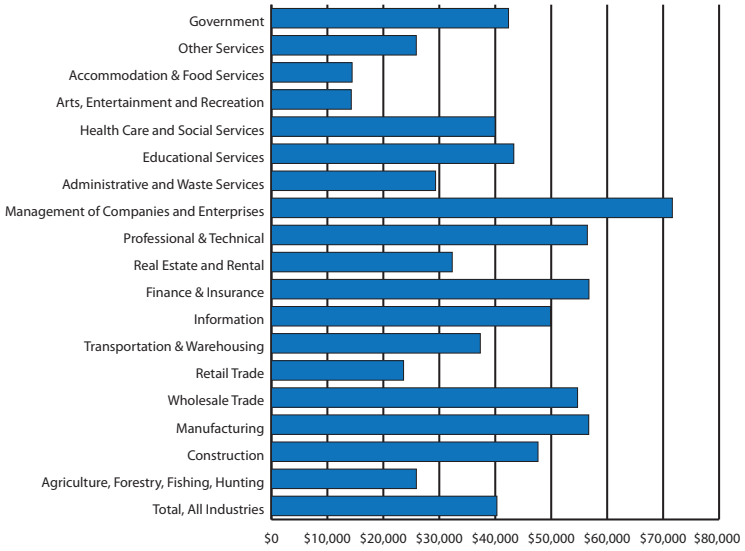
Source: Source U.S. Census Bureau:

Exhibit 5. Employment by Industry, Syracuse MSA 1990–2010, '000s

	1990	1995	2000	2005	Dec 2010
Total Non-Farm	317.8	307.8	325.4	320.8	320.1
Total Private	264.2	252.9	269.0	263.5	262.7
Goods Producing	61.2	53.0	57.3	45.5	40.0
Service Producing	256.6	254.8	268.1	275.4	280.1
Nat. Resources, Mining, Construction	15.6	11.7	12.9	12.3	12.0
Manufacturing	45.6	41.3	44.5	33.2	28.0
Wholesale Trade	20.1	15.8	15.8	15.6	14.1
Retail Trade	38.3	37.3	38.1	36.9	36.1
Utilities	6.4	4.8	4.8	4.0	3.4
Transportation/ Warehousing	9.5	9.4	9.2	9.4	9.2
Information	7.7	6.3	7.7	6.6	4.8
Financial Activities	20.6	18.0	17.7	17.6	17.0
Professional/ Business Services	27.8	29.0	30.2	34.3	34.6
Educational Services	11.8	13.7	15.2	16.7	21.4
Health Care and Social Assistance	26.9	31.9	34.4	38.0	42.2
Hospitals	8.9	9.3	9.1	8.9	9.4
Leisure/ Hospitality	24.1	22.8	25.2	26.6	27.5
Accommodation and Food Services	21.6	20.1	22.0	22.6	22.7
Other Services	9.8	11.1	13.3	12.5	12.4
Government	53.7	54.9	56.4	57.4	57.4
Federal	4.6	4.6	5.1	4.4	4.4
State	13.0	13.5	13.8	13.9	13.7
Education	6.0	6.6	7.4	8.2	8.3
Local	36.1	36.8	37.5	39.1	39.3
Education	20.3	21.9	23.0	23.6	25.8

Source: NYSDOL and BLS

Exhibit 6. Average Annual Wages by Industry Sector, Central New York, 2009



Source: NYSDOL

Buffalo, Cortland, Morrisville, Oswego, the College of Environmental Science and Forestry, the Institute of Technology, Cayuga Community College, Onondaga Community College, and Tompkins-Cortland Community College. Many of these colleges and universities have made the U.S. News and World Reports annual survey of the nation's best institutions of higher learning. Advanced education and research facilities in the region include Syracuse University's Center of Excellence and the Computer Applications and Software Engineering Center, the Human Performance Center at SUNY Upstate Medical University, Onondaga Community College's Applied Technology Center, Rome's U.S. Air Force Research Laboratory, and four national research centers at Cornell University.

Residents in Central New York enjoy very affordable housing, excellent health care, a strong K–12 public education system, several vibrant entertainment and shopping districts, cultural amenities that include a professional theatre, professional and college level sports, and numerous outdoor recreation opportunities. Quality of life rankings for the region are consistently very high—Forbes.com has ranked Syracuse #4 in the American Best Places to Raise a Family List and the ACCRA cost of living index maintained by the Council for Community and Economic Research shows the region is very competitive with other metropolitan areas across the nation.

Businesses in Central New York are supported by a strong professional business service community and

a network of county and regionally based economic development organizations. These organizations offer a range of services that include financial assistance, tax abatement programs, workforce training, entrepreneurial development, marketing, and site location assistance. Building upon these resources, companies and various development organizations across the region are engaged in efforts to capitalize on developments in the marketplace that could prove beneficial to CNY such as initiatives in biotechnology, alternative energy, information management, health care, national defense, and deployment of advanced infrastructure systems and smart grid technology.

In addition to the efforts noted above, support is being given to innovative initiatives being led by major area companies and those associated with the Syracuse Technology Garden, the SU Center of Excellence, and the Central New York Biotechnology Center. Attention is also being directed to work done by the NYS Energy Research and Development Authority and by the NYS Foundation for Science, Technology and Innovation, and to the economic opportunities associated with several major developments in Upstate New York. These developments include the ongoing growth of the U.S. Army Fort Drum military installation in the north country, the AMD/Global Foundries semiconductor manufacturing center at the Luther Forest Technology Park in Saratoga County, the activities associated with the SEMATECH industry research consortium and the College of Nanoscale Science & Engineering at the University of Albany, the GE Global Research Center in Schenectady, the Cornell Agriculture and Food Technology Park in Geneva, the NYS Yogurt Summit, the NYS Beer, Wine and Spirits Summit, the Roswell Park Cancer Institute in Buffalo, the New York Power Authority's off-shore wind power and solar initiative, Destiny USA and Turning Stone Resort, and high speed rail. These initiatives, when combined with the region's strong economic foundation, are expected to help generate the growth of a significant number of new jobs in the years ahead.

Exhibit 7. Comparison of Cost of Living of Selected Cities, 2008

MSA	Total	Food	Housing	Utilities	Transp.	Health	Misc. Goods/ Services
Rochester, NY	101.9	94.0	87.6	131.4	106.4	100.5	106.7
Cleveland, OH	99.6	105.9	90.7	113.1	104.6	101.7	98.8
Buffalo, NY	99.5	103.5	89.8	130.5	103.7	94.1	96.3
Syracuse, NY	98.8	98.5	82.6	122.5	100.8	93.4	105.1
Grand Rapids, MI	98.1	99.4	99.5	111.5	101.3	88.9	92.8
Erie, PA	96.5	99.2	83.6	127.8	99.8	96.3	95.9
Pittsburgh, PA	94.2	97.6	87.0	107.6	101.7	85.9	93.6
South Bend, IN	93.4	93.1	82.4	98.2	102.0	95.1	98.2
Akron, OH	93.3	96.6	80.9	101.1	106.9	90.9	96.3
Rockford, IL	92.8	89.8	77.7	96.3	109.1	104.0	99.0
Dayton, OH	91.9	88.9	75.2	100.2	107.1	94.1	99.3
Muncie, IN	91.1	98.0	77.3	86.8	103.4	93.6	96.9
Charleston, WV	91.0	85.2	85.7	93.9	98.8	95.5	93.8
Youngstown/ Warren, OH	89.6	96.9	76.2	107.8	95.2	86.9	91.0
Fort Wayne, IN	89.0	90.6	84.5	93.8	105.2	95.2	85.3

Source: Council for Community and Economic Research

Employment Clusters

Industries can group within an area as a result of several factors including geography, availability of natural resources, presence of intellectual assets, presence of a workforce with a high concentration of a particular skill, and the unique historical development of a region. Areas with such concentrations tend to attract similar industries or supporting industries; this provides a competitive advantage from the local pooling of talent and expertise.

Exhibit 8 represents data assembled by the NYSDOL regarding industry concentrations in Central New York (Cayuga, Cortland, Madison, Onondaga and Oswego Counties). The table lists the industry concentration within the region, the jobs and wages produced by each, their regional ranking and their Location Quotient (LQ), which are measures of employment concentration in a regional economy. More specifically, they compare the concentration of industry employment locally to that of the U.S. If an industry's LQ is greater than 1.0, the region's labor market contains a higher concentration of jobs in that industry relative to the U.S.

One particularly important aspect of industry clusters with LQ's greater than 1.0 is that they are assumed to be producing more than local demand and are therefore "export oriented", that is, they attract money from outside the region by either bringing consumers to the region or selling goods and services to other areas. The multiplier effects on local employment vary, but such export-oriented industries generally produce a healthy return for the local economy. A higher LQ ranking also suggests that the area possesses higher labor force skill levels in these industries, making it an attractive location for similar industries looking to expand.

Exhibit 8. Central New York Employment Clusters, 2009

Industry Cluster	Jobs	Rank	Total Wages ($ MM)	Rank	Average Wage	Rank	Employment Location Quotient	Clusters Ranked by LQ within Region
Central NY								
Back Office & Outsourcing	6,900	6	$210.9	9	$30,500	15	0.84	9
Biomedical	3,100	11	$215.6	8	$68,900	1	1.48	2
Communications, Software & Media Services	5,900	7	$290.5	6	$49,600	9	0.84	9
Distribution	14,200	3	$669.7	4	$47,200	10	1.07	6
Electronics & Imaging	2,100	14	$114.3	14	$55,300	6	1.09	5
Fashion, Apparel & Textiles	400	16	$13.7	16	$36,500	14	0.24	16
Financial Services	14,300	2	$761.7	3	$53,300	7	.97	7
Food Processing	3,900	9	$163.6	10	$42,400	12	0.79	11
Forest Products	3,500	10	$148.4	12	$42,900	11	1.26	3
Front Office & Producer Services	15,900	1	$986.0	1	$62,000	5	0.89	8
Industrial Machinery & Services	12,400	5	$781.2	2	$62,800	4	1.61	1
Information Technology Services	2,300	12	$150.3	11	$64,200	2	0.46	15
Materials Processing	5,700	8	$292.8	5	$51,100	8	1.12	4
Miscellaneous Manufacturing	600	15	$23.1	15	$41,200	13	0.57	14
Transportation Equipment	2,200	13	$140.8	13	$63,500	3	0.79	11
Travel & Tourism	12,600	4	$246.1	7	$19,600	16	0.79	11
Total, All Clusters								
Central NY	105,900		$5,208.7		$49,200			

Source: NYSDOL

Exhibit 9. Number of Companies by Select Industry Sectors, Syracuse MSA, 2009

	Syracuse MSA			United States			
	A	B	C	D	E	F	
Industry	Number of Companies	% of companies in an Industry Segment as a % of Total Companies in MSA	Paid Employees	Number of Companies	% of companies in an Industry Segment as a % of Total Companies in USA	Paid Employees	Ratio (B/E)
Estimated Total Number of Companies in MSA (includes Market Segments not shown below)	13,568	100.00%		6,417,035	100.00%		
Manufacturing	787	5.8%	28,202	363,753	5.7%	16,888,016	1.02
Food	67	0.5%	2,240	26,361	0.4%	1,471,050	1.19
Apparel	4	0.0%	500	17,065	0.3%	719,269	0.11
Wood & Paper	62	0.5%	2,848	23,307	0.4%	1,151,346	1.25
Chemical	28	0.2%	1,278	13,513	0.2%	884,321	0.97
Plastics/Rubber	38	0.3%	2,414	16,876	0.3%	1,029,976	1.06
Fabricated Metals	150	1.1%	4,467	62,501	1.0%	1,774,874	1.13
Machinery	74	0.5%	4,403	30,665	0.5%	1,421,820	1.13
Computer & electronic products	53	0.4%	5,771	17,465	0.3%	1,698,529	1.43
Electrical equipment & appliances	26	0.2%	3,030	6,946	0.1%	594,914	1.76
Furniture	21	0.2%	1,255	20,758	0.3%	604,845	0.48
Misc	67	0.2%	1	31,554	0.5%	735,337	1
Wholesale Trade	1,206	8.8%	15,611	453,470	7.1%	5,796,557	1.25
Retail Trade	2,895	21.2%	40,997	1,118,447	17.7%	13,991,103	1.22
Transportation & Warehousing	353	2.6%	10,954	178,025	2.8%	2,920,777	0.93
Truck Transportation	200	1.5%	3,967	103,978	1.6%	1,293,790	0.9
Warehousing & Storage	22	0.2%	394	6,497	0.1%	109,760	1.59
Finance & Insurance	941	6.9%	15,679	395,203	6.2%	5,835,214	1.12
Credit Intermediation & Related Services	334	2.4%	5,007	166,882	2.6%	2,744,910	0.94
Securities Intermediation & Related Services	88	0.6%	764	54,491	0.8%	706,053	0.76
Insurance Carriers & Related Activities	519	3.8%	9,908	172,299	2.7%	2,327,306	1.42
Professional, Scientific & Technical Services	1,362	10.0%	13,000	621,129	9.7%	5,361,210	1.03
Administrative & Support Services	528	3.9%	16,548	260,025	4.1%	7,066,658	0.95
Art, Entertainment and Recreation	289	2.1%	1,964	99,099	1.5%	1,587,660	1.37

Source: DeLoitte & Touche

In reviewing the data, it is important to note that Central New York has several industries that match this description, including biomedical, distribution, electronics and imaging, forest products, industrial machinery, and services and materials processing. Several other industries have high employment concentrations that suggest the area has a critical mass of skills that could be leveraged to expand activity in that sector through local growth or outside investment.

Of all industry sectors that make up an economy, manufacturing tends to have one of the largest multiplier effects. It is a "net wealth generator" that creates economic activity through its export of goods to other regions in the country and around the world. Jobs in this sector also tend to be well compensated. The promotion of existing manufacturing and attraction of new manufacturing firms is often a top priority of economic development efforts everywhere.

Regional Benchmarks

To assess the strengths and weaknesses of Madison County, the Steering Committee reviewed data from other parts of the country to benchmark the data collected for the County profile. The most efficient vehicle for comparison was the Metropolitan Statistical Area (MSA). An MSA is defined as a geographical region with a relatively high population density at its core and close economic ties throughout the area. Such regions are not legally incorporated as a city or town would be, nor are they legal administrative divisions like counties or sovereign entities like states. There are currently 366 MSAs in the United States. Madison County is a part of the Syracuse, NY MSA, The Syracuse MSA comprises the City of Syracuse, as the urban core, Madison, Onondaga and Oswego counties.

The Steering Committee examined sets of ranking indices which used various combinations of economic data to assess the relative economic strength of different MSAs. Two such ranking services were found to be particularly informative: the Policom Corporation's Economic Strength Rankings and the Milken Institute's Best Performing Cities.

The Policom approach emphasizes the condition of local economies from the "standard of living" perspective of those who reside in the area. Weight in its rankings is given to areas that have demonstrated rapid and consistent growth for an extended period of time. Areas with volatile growth typically rank lower. Three groups of data are considered:

- Earnings, jobs, and wages for the whole area and on a per capita basis reflect overall growth in the size and quality of a local economy;
- The same data, but specifically for small businesses (proprietors), the construction industry, and the retail industry, are measured because it is highly reactive to changes in the flow of money into or out of an area;
- Welfare and Medicare income are tracked as negative indicators of local economic performance.

The most recent release of Policom's rankings (2011) provides 8 years of rankings dating to 2004. The Syracuse MSA has shown significant improvement over this period and in 2011 ranked 162 out of 366 MSAs. Since 2004, the Syracuse MSA has improved its ranking position by nearly 100 places. Among other Upstate NY MSAs, Albany and Rochester had higher ranking although neither showed the type of improvement over time as the Syracuse MSA did. Other communities against which the Steering Committee benchmarked the region are shaded in the following partial reproduction of Policom rankings. Among these MSAs, Omaha, NE, Oklahoma City, OK and Fargo, ND demonstrated similar improvements in scores over the same period.

The Milken ranking system likewise focuses on job and wage growth to pinpoint areas that are thriving. Additionally, the system incorporates a measurement of high technology GDP growth and high technology location quotients to weight for a metro area's participation in the knowledge economy.

The Syracuse MSA saw an improvement in its 2008 overall ranking of 127, rising to 80 in 2010. The Syracuse MSA did especially well in the one-year job growth category (31), high-tech sector output growth relative to the U.S. average (42) and in the number of high-technology industries with a location quotient (LQ) above the U.S. average of 1.0 in 2009 (18). The addition of the high technology weighting component improved the ranking of several Upstate NY MSAs, possibly reflecting the results of years of public and private efforts to diversify the Upstate economy. Benchmarked communities are shaded for identification and comparison.

Exhibit 10. Policom Economic Strength Rankings

Metropolitan Area	2011	2010	2009	2008	2007	2006	2005	2004
Washington-Arlington-Alexandria, DC-VA-MD-WV (MSA)	1	2	2	2	1	3	1	3
Salt Lake City, UT (MSA)	2	6	10	9	28	18	6	17
Seattle-Tacoma-Bellevue, WA (MSA)	3	1	12	11	23	51	34	11
Austin-Round Rock-San Marcos, TX (MSA)	4	12	19	39	37	45	22	15
Houston-Sugar Land-Baytown, TX (MSA)	5	4	1	8	26	29	32	24
—Break in data—								
Dallas-Fort Worth-Arlington, TX (MSA)	11	10	4	7	22	16	13	12
Madison, WI (MSA)	12	9	6	15	8	20	7	13
Omaha-Council Bluffs, NE-IA (MSA)	13	23	22	23	32	38	57	48
San Diego-Carlsbad-San Marcos, CA (MSA)	14	8	8	3	6	21	21	5
—Break in data—								
Phoenix-Mesa-Glendale, AZ (MSA)	20	16	18	6	7	8	11	14
Napa, CA (MSA)	21	32	46	65	46	72	54	75
Raleigh-Cary, NC (MSA)	22	15	15	24	30	25	19	9
Fargo, ND-MN (MSA)	23	25	51	84	96	108	95	95
Colorado Springs, CO (MSA)	24	40	73	77	83	67	39	29
Portland-Vancouver-Hillsboro, OR-WA (MSA)	25	24	24	30	49	63	64	60
—Break in data—								
New York-Northern New Jersey-Long Island, NY-NJ-PA (MSA)	64	62	43	38	42	42	42	49
New Haven-Milford, CT (MSA)	65	55	52	57	41	35	69	83
Cincinnati-Middletown, OH-KY-IN (MSA)	66	50	38	31	38	34	33	38
San Francisco-Oakland-Fremont, CA (MSA)	67	51	41	62	63	74	86	80
Albany-Schenectady-Troy, NY (MSA)	68	92	68	75	65	54	82	110
Jacksonville, FL (MSA)	69	76	58	45	71	57	65	74
—Break in data—								
Cheyenne, WY (MSA)	74	119	152	126	158	175	162	133
Green Bay, WI (MSA)	75	48	78	68	50	48	20	27
Louisville-Jefferson County, KY-IN (MSA)	76	102	59	66	67	41	28	30
Miami-Fort Lauderdale-Pompano Beach, FL (MSA)	77	53	60	47	60	70	66	82
Los Angeles-Long Beach-Santa Ana, CA (MSA)	78	60	57	55	47	61	79	88
—Break in data—								
Fayetteville, NC (MSA)	92	122	165	131	128	150	189	227
Cedar Rapids, IA (MSA)	93	78	116	136	159	165	168	184
Milwaukee-Waukesha-West Allis, WI (MSA)	94	66	45	35	40	37	58	57
Albuquerque, NM (MSA)	95	111	129	111	100	88	74	61
Anchorage, AK (MSA)	96	154	180	217	226	223	276	328
Appleton, WI (MSA)	97	68	80	91	109	99	73	91
Knoxville, TN (MSA)	98	81	74	60	74	58	77	71

Metropolitan Area	2011	2010	2009	2008	2007	2006	2005	2004
Oklahoma City, OK (MSA)	99	75	97	148	180	153	157	183
Bismarck, ND (MSA)	100	145	188	221	229	264	228	200
—Break in data—								
Fort Collins-Loveland, CO (MSA)	116	103	114	107	80	75	45	37
Hagerstown-Martinsburg, MD-WV (MSA)	117	95	92	81	86	114	119	154
Chattanooga, TN-GA (MSA)	118	99	108	93	75	71	105	145
Salinas, CA (MSA)	119	107	83	92	95	124	169	202
Greeley, CO (MSA)	120	88	150	164	157	128	88	94
Rochester, NY (MSA)	121	135	110	106	115	147	175	214
—Break in data—								
Panama City-Lynn Haven-Panama City Beach, FL (MSA)	150	192	203	183	178	192	225	196
Worcester, MA (MSA)	151	160	172	160	122	98	109	118
Scranton–Wilkes-Barre, PA (MSA)	152	198	159	180	196	168	133	163
Bloomington-Normal, IL (MSA)	153	159	192	169	155	132	106	97
—Break in data—								
Ann Arbor, MI (MSA)	160	165	130	114	110	97	84	106
Oshkosh-Neenah, WI (MSA)	161	132	151	138	131	107	91	66
Syracuse, NY (MSA)	162	195	149	166	179	201	222	258
Manhattan, KS (MSA)	163	157	120	NR	NR	NR	NR	NR
Jacksonville, NC (MSA)	164	199	264	299	284	327	280	316
—Break in data—								
Palm Bay-Melbourne-Titusville, FL (MSA)	188	169	167	145	174	199	209	177
Atlantic City-Hammonton, NJ (MSA)	189	177	197	237	213	225	256	274
Buffalo-Niagara Falls, NY (MSA)	190	219	161	167	167	179	201	235
Akron, OH (MSA)	191	150	99	95	108	90	104	120
—Break in data—								
Toledo, OH (MSA)	276	249	195	190	203	214	220	233
Kingston, NY (MSA)	277	246	262	261	307	331	316	276
Glens Falls, NY (MSA)	278	303	324	316	339	348	344	340
—Break in data—								
Merced, CA (MSA)	286	247	281	246	208	233	259	299
Utica-Rome, NY (MSA)	287	308	289	306	326	321	308	282
Albany, GA (MSA)	288	307	335	333	321	279	270	257
—Break in data—								
Yuma, AZ (MSA)	294	271	318	310	278	278	301	281
Dayton, OH (MSA)	295	265	199	175	168	136	152	162
Binghamton, NY (MSA)	296	327	323	323	344	332	332	311
Florence, SC (MSA)	297	298	288	256	232	207	203	160
—Break in data—								

Source: Policom Corporation

Exhibit 11. Milken Best Performing Cities Rankings

2010	2009	Metropolitan area	2009 Value*	Rank5-yr job growth 2004–2009	2009	Value* Rank1-yr job growth 2008–2009	2008	Value* Rank5-yr wages/salaries growth 2003–2008	2008	Value* Rank 1-yr wages/salaries growth 2007–2008	Growth	Rankjob growth (Apr 09–Apr 10)	2009	Value* Rank5-yr relative HT GDP growth 2004–2009	2009	Value* Rank1-yr relative HT GDP growth 2008–2009	2009	Value* RankHigh-Tech GDP LQ 2009	2009	Value* Rank # of HT GDP LQs over 1 2009	Population 2009 (thousands)	Overall index**
1	2	Killeen-Temple-Fort Hood, TX MSA	110.75	7	103.84	4	122.72	1	106.18	1	1.52%	3	148.17	4	104.96	12	1.05	76	6	100	379	100
2	1	Austin-Round Rock, TX MSA	114.09	2	102.17	19	110.06	15	101.89	34	-0.09%	24	103.68	53	101.68	44	1.87	16	15	6	1,705	137.5
3	8	Huntsville, AL MSA	108.72	12	101.98	22	106.22	33	103.35	17	0.14%	18	104.54	48	103.67	21	2.57	6	11	28	406	137.6
4	4	McAllen-Edinburg-Mission, TX MSA	117.75	1	103.54	5	115.15	5	103.57	14	1.61%	2	110.69	32	105.53	9	0.38	196	4	146	741	195.1
5	6	Kennewick-Richland-Pasco, WA MSA	111.75	4	105.84	1	102.75	60	104.84	5	4.55%	1	87.19	157	105.19	11	1.56	35	5	116	246	206
6	25	Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	104.51	41	102.81	11	105.36	42	101.59	41	0.27%	13	95.69	109	102.81	34	1.87	16	9	54	4,277	227.9
7	10	Raleigh-Cary, NC MSA	111.85	3	100.13	84	109.82	16	101.15	51	-0.90%	56	109.14	34	101.48	53	1.83	19	13	12	1,126	241.3
8	40	Anchorage, AK MSA	106.64	21	104.22	2	104.30	48	103.25	20	0.41%	9	104.39	49	101.23	57	0.92	103	4	146	375	248.1
9	14	El Paso, TX MSA	106.26	26	102.26	17	104.47	45	102.59	29	-0.04%	23	113.53	23	100.93	63	0.84	120	7	80	751	253.3
—Break in data—																						
20	51	Bethesda-Gaithersburg-Frederick, MD MSA	100.47	88	101.81	28	100.94	77	99.94	117	0.02%	20	106.71	41	109.89	3	1.84	18	12	18	1,200	332.1
21	26	Oklahoma City, OK MSA	104.44	42	101.62	37	106.43	32	104.56	8	-1.22%	78	96.38	105	105.26	10	0.80	124	5	116	1,227	335.3
22	45	Cambridge-Newton-Framingham, MA MSA	101.93	67	100.55	68	101.95	64	101.22	49	-0.91%	58	100.58	77	100.08	72	3.25	3	18	1	1,505	343.1
23	12	Fort Worth-Arlington, TX MSA	107.39	19	101.35	45	105.69	38	101.08	56	-1.08%	66	90.76	139	99.06	96	1.30	49	8	64	2,121	356.4
—Break in data—																						
39	136	Clarksville, TN-KY MSA	100.43	89	101.34	47	114.67	7	103.51	15	0.37%	10	69.07	196	100.31	69	0.49	185	3	171	269	427.9
40	39	Savannah, GA MSA	105.33	34	99.31	125	107.35	26	100.30	104	-0.99%	61	138.80	7	110.94	2	1.17	65	2	185	343	429.9
41	72	Albany-Schenectady-Troy, NY MSA	100.24	95	102.34	15	94.23	168	102.86	22	-0.83%	52	99.35	84	101.10	59	1.53	36	7	80	858	431.7
42	61	Boston-Quincy, MA MSA	101.03	81	100.87	61	101.60	67	100.93	69	-1.03%	64	96.80	101	101.82	39	0.97	90	9	54	1,918	433.9
43	27	Fayetteville-Springdale-Rogers, AR-MO MSA	106.63	22	100.82	62	109.60	17	101.71	37	-1.35%	84	96.89	100	99.73	85	0.58	172	3	171	465	434.9
44	128	St. Louis, MO-IL MSA	98.71	122	100.20	81	97.42	126	103.26	19	-0.90%	57	104.18	50	102.07	37	1.22	57	12	18	2,853	436
45	112	Columbus, GA-AL MSA	98.24	132	101.12	52	99.93	90	101.49	43	-0.85%	54	98.62	90	99.81	82	2.08	10	8	64	293	443
46	66	Omaha-Council Bluffs, NE-IA MSA	104.34	43	102.16	20	99.60	95	100.98	66	-1.21%	76	100.62	76	97.57	127	0.97	90	6	100	850	444.7
47	21	Tacoma, WA MSA	105.83	28	100.21	79	111.63	11	102.69	28	-1.95%	125	112.66	25	97.13	138	0.71	146	4	146	797	446.3
—Break in data—																						
57	67	Beaumont-Port Arthur, TX MSA	103.89	46	100.44	69	108.29	23	105.17	3	-2.43%	158	101.96	64	91.21	193	0.74	139	5	116	378	496.9
58	54	Utica-Rome, NY MSA	99.47	108	103.02	9	94.95	157	101.00	65	0.15%	17	85.50	164	95.60	160	1.21	58	11	28	293	502.6
59	59	Mobile, AL MSA	103.17	52	99.01	137	105.27	43	101.97	33	-3.12%	182	121.20	16	107.37	6	0.79	128	7	80	412	504.1
—Break in data—																						

2010	2009	Metropolitan area	2009 Value*	Rank5-yr job growth 2004–2009	2009	Value* Rank1-yr job growth 2008–2009	2008	Value* Rank5-yr wages/salaries growth 2003–2008	2008	Value* Rank 1-yr wages/salaries growth 2007–2008	Growth	RankJob growth (Apr 09–Apr 10)	2009	Value* Rank5-yr relative HT GDP growth 2004–2009	2009	Value* Rank1-yr relative HT GDP growth 2008–2009	2009	Value* RankHigh-Tech GDP LQ 2009	2009	Value* Rank # of HT GDP LQs over 1 2009	Population 2009 (thousands)	Overall Index**
68	58	Salem, OR MSA	102.53	58	100.16	83	101.72	65	100.76	78	-0.82%	51	89.84	142	97.16	137	0.81	121	4	146	396	544.4
69	86	Buffalo-Niagara Falls, NY MSA	98.63	125	101.89	24	92.15	180	100.68	80	-0.22%	27	92.08	130	100.00	75	1.19	61	7	80	1,124	545.9
70	124	Visalia-Porterville, CA MSA	103.41	51	99.04	135	104.43	47	102.83	23	-1.49%	92	101.35	67	99.42	91	0.38	196	3	171	430	546.7
		—Break in data—																				
78	87	Virginia Beach-Norfolk-Newport News, VA-NC MSA	98.99	118	100.79	63	98.30	115	99.64	128	-1.01%	62	99.32	85	103.64	22	0.93	101	8	64	1,674	557.9
79	118	Richmond, VA MSA	100.58	86	100.19	82	101.64	66	99.48	136	-1.84%	119	103.47	54	101.54	49	0.97	90	7	80	1,238	561
80	74	Syracuse, NY MSA	99.31	113	101.77	31	93.29	176	100.38	97	-0.44%	34	88.98	151	97.05	140	1.40	42	12	18	646	561.6
81	91	Rockingham County-Strafford County, NH MSA	100.08	96	99.59	112	98.38	113	99.17	146	0.03%	19	95.49	111	99.45	90	1.11	69	13	12	423	562.3
82	73	Poughkeepsie-Newburgh-Middletown, NY MSA	99.27	114	101.82	26	95.86	146	101.09	55	-1.48%	91	89.02	150	98.09	113	1.18	62	7	80	677	568.7
83	96	Philadelphia, PA MSA	99.86	100	101.07	54	98.47	110	100.56	87	-1.20%	75	85.80	161	95.07	167	1.30	49	10	42	4,013	569.5
		—Break in data—																				
118	123	Minneapolis-St. Paul-Bloomington, MN-WI MSA	98.35	128	99.64	107	97.31	128	100.42	94	-1.93%	124	93.56	123	97.27	134	1.21	58	12	18	3,270	670.4
119	92	Winston-Salem, NC MSA	101.98	66	99.98	89	94.43	166	99.78	124	-1.38%	85	162.64	1	92.13	188	0.74	139	5	116	485	674.1
120	141	Jacksonville, FL MSA	101.70	74	98.53	153	100.71	80	96.91	180	-1.65%	105	96.66	102	106.47	8	0.89	105	5	116	1,328	679.4
121	132	Scranton–Wilkes-Barre, PA MSA	99.50	107	101.35	45	93.99	171	99.98	116	-0.78%	49	72.36	189	91.27	192	0.85	118	10	42	549	679.6
122	163	Duluth, MN-WI MSA	99.33	112	100.21	79	94.79	159	101.20	50	-1.09%	68	91.75	134	94.56	174	0.61	164	5	116	276	682.6
		—Break in data—																				
132	50	San Jose-Sunnyvale-Santa Clara, CA MSA	99.69	104	97.76	173	102.14	63	96.69	185	-2.24%	142	97.24	97	96.01	157	3.30	1	14	8	1,840	716.4
133	172	Chattanooga, TN-GA MSA	95.97	168	97.00	184	95.35	153	99.31	143	-0.18%	25	137.94	8	103.25	26	0.74	139	7	80	524	717.3
134	147	Edison, NJ MSA	98.14	133	99.71	100	95.50	150	99.92	119	-2.32%	151	92.39	129	98.51	107	1.80	21	10	42	2,335	719.9
		—Break in data—																				
138	43	Santa Barbara-Santa Maria-Goleta, CA MSA	97.51	146	99.48	120	98.39	112	100.00	115	-2.37%	152	97.39	95	93.91	179	1.64	29	11	28	407	727
139	151	Milwaukee-Waukesha-West Allis, WI MSA	97.70	141	99.21	129	94.53	165	100.49	90	-2.18%	137	114.49	21	95.74	158	1.08	72	9	54	1,560	730.7
140	170	Evansville, IN-KY MSA	96.23	166	100.34	75	91.34	184	100.69	79	-0.76%	47	72.12	191	84.86	198	1.10	70	7	80	352	735.3
		—Break in data—																				
194	190	Canton-Massillon, OH MSA	91.91	191	98.26	164	88.02	191	99.38	140	-2.93%	177	140.89	6	97.44	130	0.36	199	1	194	408	1,011.10
195	198	Toledo, OH MSA	90.57	193	97.67	175	86.43	193	96.93	178	-1.76%	113	96.02	108	99.94	77	0.51	183	2	185	672	1,011.90
196	143	Reno-Sparks, NV MSA	93.74	184	94.67	199	97.79	123	95.32	192	-3.05%	181	85.56	162	95.37	163	0.59	168	5	116	419	1,061.20
		—Break in data—																				

Source: Milken Institute

Regional Economic Development Plans

The Central New York community has a very diverse economy that is supported by a growing workforce, a well-developed infrastructure base, and strong academic resources. Despite these assets, the region is challenged economically as evidenced by various sociodemographic data. This data shows a stagnant population base, low per capita income, and areas of high long-term unemployment. To address these challenges, the region has developed a number of strategic economic development plans over the past twenty years which together represent a short-term economic development strategy and a long-term comprehensive approach to economic growth. These documents include the CNY Comprehensive Economic Development Strategy (CNY CEDS), Vision 2010: A Regional Economic Development Strategy for Syracuse and Central New York, and the Essential New York Initiative. The CNY CEDS is a document updated each year by the CNY Regional Planning and Development Board and focuses on a short term project priority list of public capital improvement projects for the region. Vision 2010 is a document that was prepared in 1996 by the Stanford Research Institute under contract with the Metropolitan Development Association of Syracuse and Central New York. The revisions to Vision 2010, now titled the Essential New York Initiative, were prepared in 2004 by the Battelle Institute and Catalytix (a Richard Florida Company), two nationally-recognized consultants retained by MDA.

In 2011, these planning efforts received additional support by Governor Andrew Cuomo's administration through the implementation of a regional economic development council program initiative. As part of this initiative, each regional council was tasked with the challenge of preparing a regional economic development plan for their respective region. The Central New York Regional Economic Development Council (CNY REDC) completed work on their Five-Year Strategic Plan: 2012–2016 in November 201. This plan was chosen by the Governor's office in December 2011 as the "Best Plan Awardee" in NYS and received $103.7 million in capital grants and tax credit financing to support a range of economic and community development projects in the five-county Central New York region .

Included in the CNY REDC's strategy are 30 priority projects that are eligible for capital funding and excelsior tax credits. Collectively, they represent a total investment of $785 million, total five-year payroll of $393 million, and total project expenses of more than $1.1 billion. Together, these projects are projected to support the creation of 1,958 new jobs and 1,928 construction jobs; the retention of 366 existing jobs; and promise a return on investment of 28:1.

The CNY REDC's strategic plan is built around three priority goals to guide the region's collective actions:

A. Strengthen Targeted Industry Concentrations that Leverage Unique Economic Assets

B. Improve Competitiveness in, and Connections to, the Regional, National, and Global Economies

C. Revitalize the Region's Urban Cores, Main Streets, and Neighborhoods

A. Strengthen Targeted Industry Concentrations that Leverage Unique Economic Assets

In planning for future prosperity, the CNY REDC identified several critical industry concentrations that are at the heart of its economic strategy. These sectors represent a cross-section of both traditional and new economy industries and share five common criteria: (1) they have critical mass of existing firms and a large base of existing employment in the region; (2) employment in these sectors is highly concentrated in Central New York; (3) there is significant growth in regional,

national, and global demand for the products and services they generate; (4) Central New York possesses resources to support these clusters and, therefore, this region has a competitive advantage to attract similar firms; and (5) they are deeply connected to our anchor institutions.

Priority industry concentrations identified in the plan include:

a. Clean Energy and Environmental Systems—Central New York has the eighth highest concentration of private sector "green jobs" of any region in the country and is home to New York State's Syracuse Center of Excellence in Environmental and Energy Systems (SyracuseCoE), a consortium of more than 200 research institutions and private sector companies.

b. Health, Biomedical Services, and Biosciences—The region's hospitals directly employ more than 23,000 people and another 3,500 are employed in private, high-tech biomedical companies with average wages approaching $70,000, nearly double the region's median wage. The region's extensive research and development (R&D) in the biosciences cluster not only fuels health and biomedical, but also drives the area's clean technology, agribusiness, and other core industries.

c. Financial Services—This industry employs more than 24,000 in the region. Recent research demonstrates that Central New York offers significant advantages to firms in this sector, such as a lower cost of operation and a highly skilled and experienced labor force that provides opportunities for employment growth.

d. Agribusiness and Food Processing—New York State is the nation's third-largest producer of fluid milk and commodity crops representing more than $1 billion in sales alone. Central New York is a significant contributor and increasingly focused on value-added opportunities for agribusiness, including food processing.

e. Advanced Manufacturing—Manufacturing represents 10 percent of the region's total employment and subsectors, such as digital electronics and radar and sensor systems, serve expanding global markets in security, information technology, and defense.

f. Tourism—Tourism is a $1 billion industry in Central New York, and current global economic conditions, including the weak dollar, create opportunities for the region to draw additional international visitors across our shared boundary with Canada and from entry points downstate.

B. Improve Competitiveness in, and Connections to, the Regional, National, and Global Economies

The CNY REDC's economic development strategy acknowledges and embraces the global nature of today's economy and encourages businesses, large and small, to compete in an increasingly competitive marketplace. As noted in the plan, Central New York's highly educated workforce forms the foundation for those investments, as does its unique concentration of leading higher-education and research and development institutions. In order to improve global competitiveness, the plan recommends making significant investments in several critical mechanisms that fuel economic growth:

a. Encourage New Venture and Product Development—The region has a strong foundation in entrepreneurship with collaborative programs between higher education and business. Further investments in this area are recommended to support successful venture development, including student venture development, as part of a transformational strategy to re-energize the regional economy.

b. Prioritize Investments in Innovation, Commercialization, and Process Improvement—Continuous improvement and the development of new products and services is critical to the success of businesses in a rapidly evolving global economy. The CNY REDC recommends private investment in research and

development; improve technology commercialization among its educational and research institutions; and the creation of a complete ecosystem of mentors, business services, and risk-capital to enable innovation.

c. Capture a Greater Share of the Global Marketplace—Ninety-five percent of the world's consumers currently reside outside of the United States. Improving export performance is critical to the long-term competitiveness of the region. Export-driven jobs also provide higher wages for the region's residents. In addition to promoting Central New York's products and services across the world, the region is well positioned to attract new foreign investment from global companies looking to serve domestic markets.

d. Build a 21st Century Infrastructure—Global competitiveness requires global connectivity. The region must improve its physical infrastructure, including its air service, port access, road and rail infrastructure, and broadband connectivity, in order to get regional goods and services to national and global markets.

e. Maximize Human Capital—While the region possesses a highly skilled and well-educated workforce, the region must expand the participation of the workforce in the new economy, particularly in key industry sectors, such as advanced manufacturing and health care.

C. Revitalize the Region's Urban Cores, Main Streets, and Neighborhoods

As part of the plan, the CNY REDC recognized that strong regions are built around strong municipal cores and neighborhoods that develop, attract, and retain the human and social capital required for industry to grow and remain competitive—the convergence of ideas and people. Many leading businesses and key industry sector hubs are located within these city and town centers, and the region's anchor institutions—educational, health care, and cultural—have been at the forefront of the national movement to leverage their assets for community revitalization. Building upon the strengths of these existing opportunities, the CNY REDC recommends that efforts be directed to recreate the social, physical, and cultural fabric of its neighborhoods, urban cores, and main streets. In pursuing the goal to invest in and strengthen the region's cores, the CNY REDC recommended:

a. Rethink—Reinvigorate the region's neighborhoods and main streets through mutually beneficial partnerships with diverse businesses and the region's anchor institutions, and invest resources that leverage the national movement of anchor institutions to restore neighborhoods, train new workers, retain young talent, and create small business and social enterprises.

b. Repurpose —Municipal centers represent significant investments in physical infrastructure that must be preserved and enhanced for future growth. Pursue a strategy that repurposes existing physical assets through adaptive re-use and brownfield remediation, links planned transportation investment with surrounding private development through transit-oriented strategies, uses green technologies to improve the efficiency of existing assets from individual buildings to entire neighborhoods, promotes density in development, and encourages quality communities.

c. Retrain—Human and social capital is the most important asset for a globally competitive economy, and the region must rise to the challenge to improve Pre-K-12 educational attainment; provide greater access to education; prepare students for high-demand careers; retrain workers for new careers; support minority, women, and veteran owned businesses; and create quality employment opportunities that will allow individuals and families to prosper.

D. Next Steps in Building the Foundation for Transformative Prosperity

Although the strategic plan is largely developed to address immediate funding opportunities in partnership with New York State, it also identified "transformational" projects, programs, and other opportunities that

are critical for the region's future. Transformational initiatives identified include:

a. Regional Industrial Clusters

New York Energy Regional Innovation Cluster—(NYE-RIC) NYE-RIC is a statewide alliance focused on accelerating the development and deployment of innovations to dramatically improve energy efficiency in buildings, addressing a global demand in a market that is expected to grow dramatically over the coming decades. The proposed investment of $225 million includes $150 million from private and federal sources, which can be used to leverage $75 million from various state and federal sources.

Food-to-Market and Agricultural Programming—Central New York is uniquely poised to be the agribusiness "hub" of New York if it can coordinate its use of agricultural and natural resources to create more robust systems for local food to market initiatives and regional energy production.

Tourism in the Arts and Culture—The region has an abundance of arts and cultural opportunities, with world-class offerings by individual artist studios to large-scale performance venues. Access must be provided to broader audiences while finding ways to leverage community support and funding for the arts to reach national and international markets.

Project "Top Hat"—A Fortune 1,000 financial back office services firm is considering an expansion in multiple regions in upstate New York, with the potential to generate more than 1,000 jobs. In order to accommodate the anticipated growth, the region must engage institutions of higher learning in terms of internships, curriculum development, and employment training to meet the company's anticipated workforce demand.

b. Connecting People, Jobs, and Housing

Municipal Core Mixed-Use Investment Program—The Restore New York program successfully provided needed gap financing to mixed-use projects of all sizes throughout the State. The program proved critical to getting new commercial and residential construction moving in Central New York's municipal cores and the State must consider the creation of similar mixed-use investment programs in the future.

Broadband/Connectivity Infrastructure—In an increasingly interconnected marketplace, ubiquitous high-speed, affordable broadband Internet access is a key component to thriving economies in both urban and rural communities. Rural areas need a strategy to support investment in broadband to connect its citizens with each other and the broader economy.

Region-Wide Waterfront Revitalization Strategy—To unlock the full economic potential of the region's abundant waterfronts, New York State must help create focused waterfront programs that leverage local investments in municipal revitalization, marketing, business recruitment, and shipping.

c. Workforce Alignment

Say Yes to Education—The nation's first-ever, district-wide implementation of Say Yes in the City of Syracuse is poised to be a visionary, turnaround model for education and economic development in urban centers across the United States. New York State must help expand the Say Yes Summer Academies throughout the five-county region, and further advance scholarship opportunities for aspiring youth.

d. Innovation Infrastructure

Innovate Upstate Fund—Central New York has a robust innovation ecosystem through R&D at major area employers and its academic institutions, and at strong early-stage companies; however, the State does not have a complete continuum of funding programs and tax breaks to assist in various emerging technology sectors. The region's private and institutional partners must work to capitalize a regional venture fund to provide critical risk capital to accelerate the launch and growth of more startup companies.

Profile of Madison County

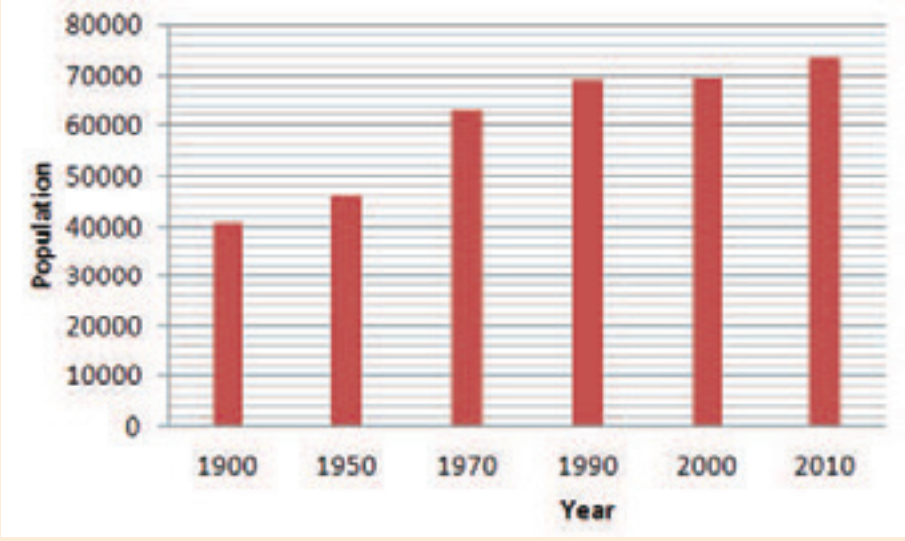
Madison County is located in Upstate New York in the Syracuse Metropolitan Statistical Area and is comprised of fifteen towns, ten villages and one city. It is one of 62 counties in New York and ranks 37th in population with a total of 73,442 residents, which represents the highest population total in the County's history. The County's population has increased each decade for the past seventy years.

Madison County has a total land area of 656 square miles and a total open water area of 5.7 square miles. In the 2010 Census, the population per square mile was approximately 112 persons. The average population density in New York State is about 411 persons per square mile. In Central New York, only Cortland County, at 99 persons per square mile, is less densely populated than Madison County.

Madison County's land development pattern has been influenced by its two physiographic regions—the Oneida Lake Plain in the north and the Appalachian Uplands in the south. The Oneida Lake Plain is generally level while the Uplands rise abruptly from the plain and consist of rounded hills and broad, deep, and steep-sided valleys. The population is concentrated in the Oneida Lake Plain with the Appalachian Upland population dispersed throughout the remainder of the County. A majority of the population (55 percent) lives outside of the incorporated boundaries of villages and the City of Oneida. This pattern has accelerated since 1980, with most of the population growth taking place near these incorporated areas.

Exhibit 12. Madison County

Exhibit 13. Madison County Population Change



Source: U.S. Census

Demographic Data

A basic statistic for any community is the size and dynamic of its population base. A community's population influences numerous economic development factors including workforce, demand on public infrastructure, and size of the local market for goods and services. The trend in a community's population reflects multiple underlying conditions related to the performance of the local and regional economy, the quality of life, and the relative success of the community in dealing with economic transitions.

The population of Madison County has exhibited growth over the last one hundred years, punctuated by several periods of rapid growth and relative stability. The number of Madison County residents remained nearly constant in the first half of the century and started to expand rapidly during the 1950s and 1960s. More moderate growth in the 1970s led to another period of stability in the 1980s and 1990s with growth resuming during the past decade.

As indicated in the profile of Central New York, the general trend in population in the region has been stable over the past decade after a 10-year period of decline from 1985–1995. Madison and Oswego counties were the only counties in the region to experience population growth over this period and the gains made in those communities offset the lack of significant growth in the rest of the region.

Current Population Estimates

According to the 2010 Census, the Central New York region experienced a modest 1.4% gain in population. Madison County's growth exceeded that of all other counties in the region, gaining 5.8% during the previous decade. The general growth in the region was a significant reversal of the previous trend of no or low growth in the area. The result of this more recent boost to regional population is that the area's population has remained virtually unchanged since 1990.

The two sources of population growth are natural increases in the existing population (births > deaths) and net migration. In the case of Madison County's above-average growth during this period, it seems largely due to a robust net migration into the County. The excess of births over deaths for the County would have added fewer than 200 residents per year over the previous decade, assuming they all remained in Madison County. That would account for only half the increase in population actually experienced. The balance of the increase is net migration into the County.

Villages and the City of Oneida accounted for approximately 45% of the County's population in 2010 as it had for the previous decade as well. Nine of the eleven villages and city experienced growth over the past decade. The Village of Hamilton grew by over 700 residents or more than 20%, the best showing in this grouping. Overall, village and city population in the County rose by nearly 7% from 2000 to 2010.

All towns in the County experienced growth over the past decade. The towns containing the colleges, Cazenovia, Hamilton, and Eaton exhibited some of the highest growth. The Town of Sullivan, which contains the Village of Chittenango, experienced modest growth as did some of the more rural towns. It is interesting to note that 53% of the County's growth stemmed from population increases in the City of Oneida and the Villages. The majority of the County's residents still live in towns outside villages, but this growth trend reversal might presage future concentration of the County's residents in villages and the City of Oneida.

It is also likely that some of the growth in the western towns and villages can be attributed to sprawl as these areas begin to fall into the Syracuse labor shed. The relatively attractive land prices and tax rates in Madison County may have pulled residents from the Onondaga County suburban communities willing to undertake a somewhat longer commute for more space and lower living expenses. In fact, it seems likely that

Exhibit 14. Madison County Population, Villages and City

	1990	2000	% Change Previous period	2010	% Change Previous period
Canastota	4,673	4,425	-5.3%	4,804	8.6%
Cazenovia	3,007	2,640	-12.2%	2,835	7.4%
Chittenango	4,734	4,833	2.1%	5,081	5.1%
DeRuyter	568	531	-6.5%	558	5.1%
Earlville*	883	791	-10.4%	872	10.2%
Hamilton	3,790	3,515	-7.3%	4,239	20.6%
Madison	316	315	-0.3%	305	-3.2%
Morrisville	2,732	2,148	-21.4%	2,199	2.4%
Munnsville	438	437	-0.2%	474	8.5%
Oneida	10,850	10,987	1.3%	11,393	3.7%
Wampsville	501	561	12.0%	543	-3.2%
Total Village & City	32,492	31,183	-4.0%	33,303	6.8%

Source: U.S. Census Bureau

Exhibit 15. Madison County Population, Towns (includes village population)

	1990	2000	% Change Previous period	2010	% Change Previous period
Brookfield	2,225	2,403	8.0%	2,545	5.9%
Cazenovia	6,514	6,481	-0.5%	7,086	9.3%
DeRuyter	1,458	1,532	5.1%	1,589	3.7%
Eaton	5,362	4,826	-10.0%	5,255	8.9%
Fenner	1,694	1,680	-0.8%	1,726	2.7%
Georgetown	888	946	6.5%	974	3.0%
Hamilton	6,221	5,733	-7.8%	6,690	16.7%
Lebanon	1,265	1,329	5.1%	1,332	0.2%
Lenox	8,621	8,665	0.5%	9,122	5.3%
Lincoln	1,669	1,818	8.9%	2,012	10.7%
Madison	2,774	2,801	1.0%	3,008	7.4%
Nelson	1,892	1,964	3.8%	1,980	0.8%
Smithfield	1,053	1,205	14.4%	1,288	6.9%
Stockbridge	1,968	2,080	5.7%	2,103	1.1%
Sullivan	14,622	14,991	2.5%	15,339	2.3%
Total Towns	58,226	58,454	0.4%	62,049	6.2%

Source: U.S. Census Bureau

some of the growth experienced by the County over the past two decades is due more to population transfer within the region than from any organic growth.

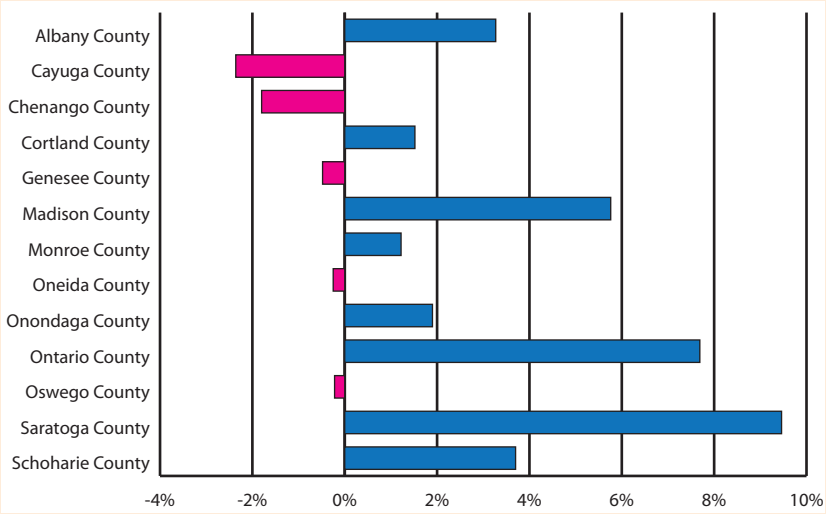
The distribution of population follows some predictable patterns. Approximately half of the County's population is located in the Towns of Sullivan and Lenox and the City of Oneida, along the northern corridor transportation route between Syracuse and Utica. This area also contains the Villages of Chittenango and Canastota. These are the most densely populated areas of the County concentrating not only half the County's population but likely half the County's workforce as well. The less densely populated Towns of Cazenovia, Eaton, and Hamilton, each of which contains a significant village and, within those villages, a university, are likely showing the impact of the college communities and, in the case of Cazenovia, of some of the growth that has come from Onondaga County.

Population Characteristics

The quantitative population data presented above are often useful in assessing the potential size or location of economic development projects in a community. Knowing how large a population base exists and where it can be accessed is important information for evaluating the size of a possible market or workforce. Entrepreneurs considering potential business sites or other related projects will consider this as primary information. Qualitative population data are likewise critical to several areas of business decision-making and the characteristics and attributes of a given population can have a significant impact on the evaluations noted above. This information can also cast the basic population data in different lights and provide a more nuanced profile of an area.

Exhibit 18 presents basic demographic characteristics about Madison County's residents and compares Madison County with its MSA, New York State and the U.S. Madison County stands outs in several ways:

Exhibit 16. Growth Rate for Selected Counties in New York State, 2000–2010



Source: U.S. Census Bureau, 2000 and 2010 Decennial Census, www.census.gov

Exhibit 17. Population By Selected County in New York State

	2000	2010	% Change
Albany County	294,565	304,204	3.27
Cayuga County	81,963	80,026	-2.36
Chenango County	51,401	50,477	-1.80
Cortland County	48,599	49,336	1.52
Genesee County	60,370	60,079	-0.48
Madison County	69,441	73,442	5.76
Monroe County	735,343	744,344	1.22
Oneida County	235,469	234,878	-0.25
Onondaga County	458,336	467,026	1.90
Ontario County	100,224	107,931	7.69
Oswego County	122,377	122,109	-0.22
Saratoga County	200,635	219,607	9.46
Schoharie County	31,582	32,749	3.70

Source: U.S. Census Bureau

Exhibit 18. Population Characteristics

	Madison County		Syracuse MSA		New York State		U.S.	
Sex:								
Male	49.3%		48.5%		48.6%		49.3%	
Female	50.7%		51.5%		51.4%		50.7%	
Racial Mixture:								
White	95.5%		87.2%		67.4%		74.8%	
African American	1.6%		7.7%		15.7%		12.4%	
Asian	0.7%		2.2%		7%		4.5%	
Age:								
18 Years and over	55,073	78.7%	499,499		15,118,997		232,509,573	
65 years and over	9,534	13.6%	88,633	18%	2,616,716	17%	39,506,648	17%
Median Age	39.8		38.9		38.1		36.8	
Educational Attainment								
Population 25 years old and over	44,894		427,645		13,197,392		201,952,383	
Less than 9th Grade	1,328	3.0%	12,427	2.9%	920,423	7.0%	12,640,961	6.3%
9th to 12th Grade, No Diploma	3,474	7.7%	33,343	7.8%	1,105,197	8.4%	17,144,287	8.5%
High School Graduate	16,962	37.8%	130,238	30.5%	3,641,890	27.6%	57,551,671	28.5%
Some College, No Degree	7,466	16.6%	82,888	19.4%	2,153,592	16.3%	43,087,484	21.3%
Associate's Degree	5,551	12.4%	46,596	10.9%	1,100,827	8.3%	15,192,326	7.5%
Bachelor's Degree	6,476	14.4%	70,285	16.4%	2,434,198	18.4%	35,494,367	17.6%
Graduate or Professional Degree	3,637	8.1%	51,868	12.1%	1,841,265	14.0%	20,841,287	10.3%

Source: U.S. Census Bureau: 2009 American Community Survey Estimates

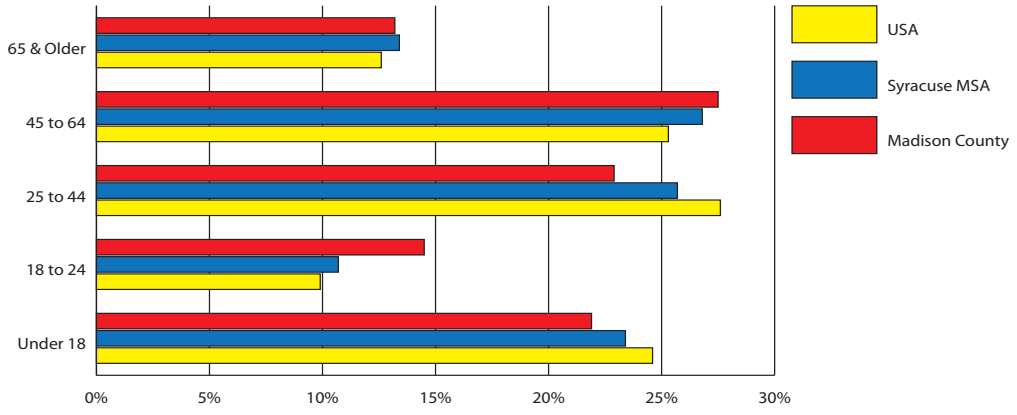
- It is considerably less racially diverse than New York State and the U.S. and less than the Syracuse MSA. However, the lack of racial diversity is not unique to Madison County within the context of Upstate New York demographics. A review of the 2010 Census data and the more recent estimates for other upstate counties indicates that a large majority of Upstate counties have populations that are 90–92 percent Caucasian.
- Home-ownership is quite high in the County compared with other areas, a situation possibly supported by the much lower median value of the owner-occupied homes. The median value of these homes in Madison County was nearly half that of the U.S. median value and only one-third of the NYS median value.
- Madison County residents also tend to remain in the same homes they occupied the year before to a greater extent than Americans generally and residents of the MSA but were more mobile than residents of NYS in general.
- The population of Madison County is somewhat older than the U.S. median of 36.9 years old and is equal to the median ages for the Syracuse MSA and NYS.

A population's age distribution can be an important predictor of an area's potential for economic growth. Over 40% of Madison County residents are either older workers or retired. Younger residents, with a presumably flexible set of skills, account for approximately 22% of the total population. A gap exists in the next level as the 18- to 24-year-olds just entering the workforce cannot adequately replace the next older group in the workforce. A larger cohort of under–18-year-olds exists but there is little guarantee they will remain in the area if well-paying jobs cannot be maintained.

There is clearly a shrinking base of younger residents and a proportionately smaller distribution in the 25–45 age group as the population ages *(Exhibit 19)*. This group provides the bulk of the workforce and the projected trend is negative for the County, especially when viewed by companies who might be interested in expanding into the area but for whom the availability of workers in this prime cohort is singularly important.

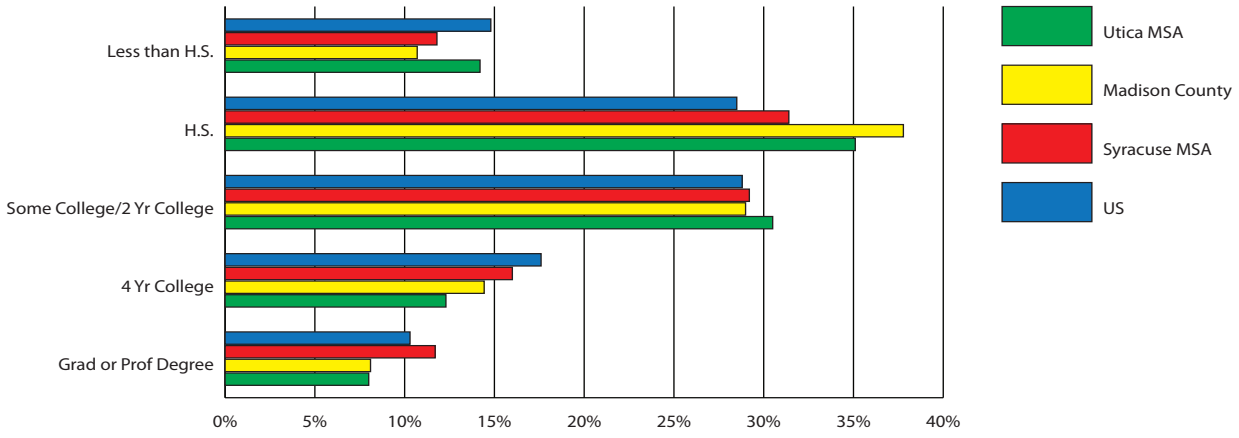
Another key demographic affecting a region's economic development profile is the education level of the potential work force. This demographic measure reflects a workforce's ability to perform certain types of work or its capacity to be trained in skills specific to an employer's needs. The need for a skilled workforce drives most economic development decisions in today's environment with critical technological skills becoming increasingly important in many different business environments.

Exhibit 19. Age Distribution of Madison County Residents as Percentage of Total Population, 2009



Source: U.S. Census. American Community Survey

Exhibit 20. Educational Attainment for Residents 25-years and Above, Madison and Neighboring Counties, 2009



Source: U.S. Census

Exhibit 20 summarizes the educational attainment levels of the County's 25+ year-old population in comparison to the Syracuse MSA, the Utica/Rome MSA and the U.S. Madison County has a relatively well-educated workforce. The percentage of high school graduates is significantly higher than that of all the areas being compared. However, as one moves higher on the attainment ladder, Madison begins to lag behind the Syracuse MSA and the U.S. in the percentage of the workforce with bachelor or professional degrees.

In comparison to areas that share the labor pool with Madison County, the educational attainment of Madison County residents is higher then the Utica/Rome area but lower than the more urban Syracuse MSA. The presence of three universities, a large hospital and several high-tech industries in Onondaga County may explain the high percentage of advanced degrees. Taken together with the earlier data, Madison County finds itself in a region whose educated workforce compares favorably on a statewide and national basis.

Additional information relating to the economic profile of Madison County residents is presented in the following sections. This information is important to consider when evaluating an area's past growth, the relative well-being of the residents, and its potential as a center of economic activity.

Per Capita Income

Madison County experienced an above-average growth in per capita income in the twenty years since 1980, but this growth appears to have subsided during the decade just ended as shown in *Exhibit 21*. Since 1980, on a decennial basis, per capita income growth in Madison County exceeded that of neighboring counties and exceeded or equaled the growth in U.S. per capita income.

Median Household Income

Another important measure of economic well-being is the median household income of a region or area. Since households are the smallest discrete consumer entity, the growth in and relative position versus other areas of median income can be indicative of the economic vitality of an area.

According to the data from the three decennial Census years, Madison County's median household income shown in *Exhibit 22* was close to the U.S. median household income, ranging from 95.5% in 1980 to 98.3% in 1990. The median household income in Madison County also lagged that of Onondaga County in those years, often by a wider margin. In the 2009 estimate, however, the County's median household income is expected to have surpassed both that of

Exhibit 21. Per Capita Income for CNY Counties In Unadjusted Dollars

	1980	1990	% Change	2000	% Change	2009 (est.)	% Change
Cayuga	8,000	15,500	94%	22,702	46%	31,989	41%
Cortland	7,277	14,739	103%	22,044	50%	29,900	36%
Madison	8,009	16,538	107%	25,175	52%	33,113	32%
Onondaga	10,025	19,964	99%	28,772	44%	39,311	37%
Oswego	8,838	15,226	72%	20,404	34%	29,695	45%
Syracuse MSA	9,441	18,841	100%	27,033	43%	36,833	36%
NYS	11,015	23,523	114%	34,898	48%	46 516	33%
U.S.	10,114	19,477	93%	29,847	53%	39,635	33%

Source: BEA—Income figures not adjusted for inflation

Onondaga County and of the U.S. In fact, the Madison County income figure is the highest in the CNY region according to the Census estimate.

Income Distribution

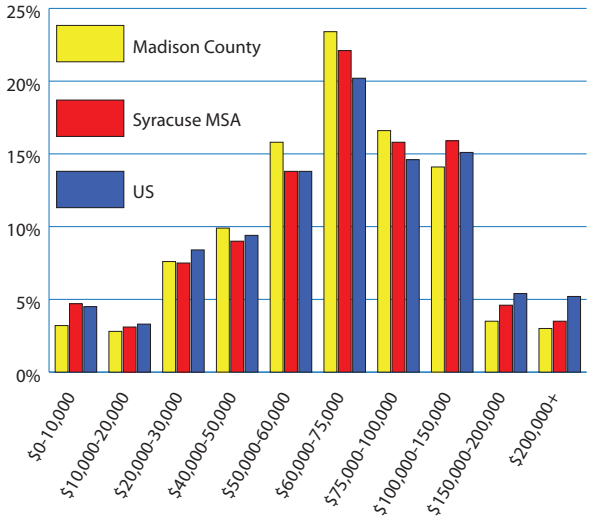
As displayed in *Exhibit 23*, family incomes in Madison County tend to skew toward the middle portions of income distribution as compared with the Syracuse MSA and the U.S. Family incomes between $40,000 and $100,000 are much more prevalent in Madison County while families with incomes below $40,000 and above $100,000 are much less common. Madison County is a distinctly middle class area.

Exhibit 22. Median Household Income for CNY Counties In Unadjusted Dollars

	1980	1990	2000	2009 (est.)
Cayuga	15,603	27,568	37,487	47,414
Madison	16,091	29,547	40,184	51,670
Cortland	14,248	26,791	34,364	44,853
Onondaga	17,574	31,783	40,847	50,129
Oswego	16,156	29,093	36,598	45,071
NYS	16,647	32,965	43,393	55,233
U.S.	16,841	30,056	41,994	51,425

Source: U.S. Census, Decennial Census & American Fact Finder..

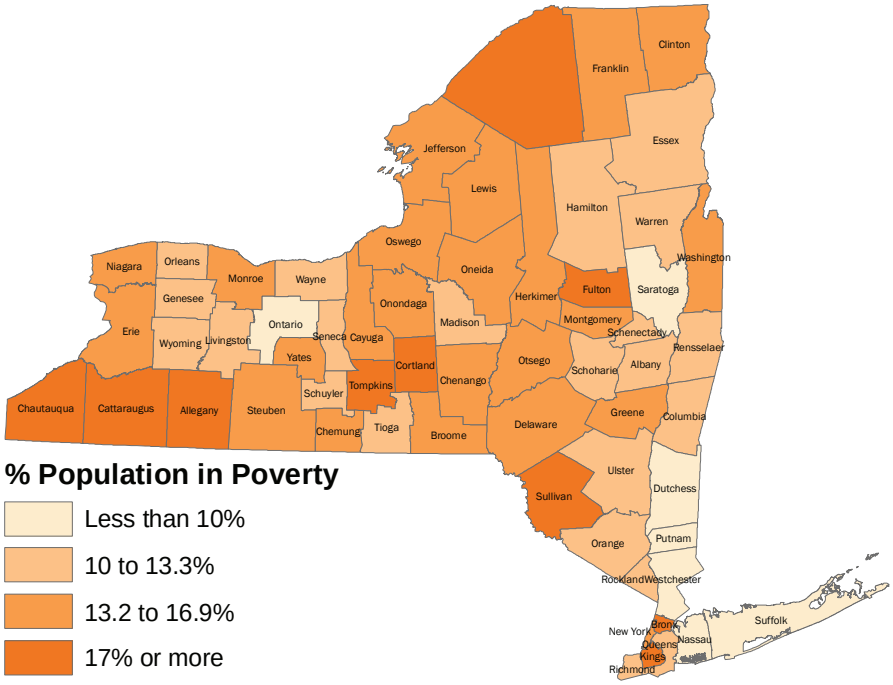
Exhibit 23. Comparative Family Income Distribution, 2009



Source: U.S. Census

Poverty Rate

Exhibit 24. Poverty in NYS Counties



Source: NYSDOL

An additional dimension of the income picture for an area is the percentage of individuals who fall below the poverty rate. The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is below the defined threshold, then that family and every individual in it is considered to be in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using the Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps). The NYS graphic depicted in *Exhibit 24* compares estimated poverty rates throughout the State on a county basis for 2008.

Exhibit 25 compares the percentage of individuals below the poverty level for Madison County, CNY counties, NYS and the U.S. for 1990, 2000 and 2009.

Madison County compares favorably with other Central New York counties, NYS, and the U.S. showing a generally lower poverty rate than other areas. The numbers suggest that Madison County residents have been enjoying a somewhat higher living standard compared to their neighbors in the region and to New Yorkers and U.S. residents in general. However, poverty rates across the State and in the U.S. have been on the rise, most notably during the past decade. Several CNY counties have seen their poverty rates surge, and Madison County is no exception.

Some significant socioeconomic differences between Madison County and other areas may have a role in explaining these results. For example, Madison County is less urban and less ethnically diverse than NYS and the U.S. Urban populations and certain ethic groups often exhibit markedly higher poverty levels than the population as a whole.

Exhibit 25. Comparative Poverty Rates 1990 - 2009

	1990	2000	2009
Madison	9.4	9.6	11.3
Onondaga	8.4	10.8	13.7
Oneida	11.4	12.6	14.4
Cayuga	10.6	11.3	13.5
Oswego	9.9	12.6	14.7
Cortland	11.2	12.9	17.8
NYS	12.3	13.2	14.2
U.S.	12.8	11.3	14.3

Source: U.S. Census, Small Area Income and Poverty Estimates

Economic Data

Employment by Sector

The total number of jobs in Madison County is estimated to equal 20,900 in 2009, including 16,261 private sector jobs. *Exhibit 26* indicates which industry sectors provided the largest percentage of jobs in Madison County in 2009 and compares this with the sectoral shares of MSA and national employment. Madison County is notable for its divergence from national averages in several areas. It has a comparatively higher labor force participation in educational services, public administration, and manufacturing while it lags in information, professional, scientific and technical services and transportation and warehousing. The County is unusual in possessing three institutions of higher learning, which explains the disproportionate presence of private educational services jobs in the community. The historical long-term presence of manufacturing in the area is likely the reason for a larger share for that sector. Some of the lagging sectors might be partially explained by considering the source of the data. As noted earlier, the presence of a large number of "non-employers" is ignored in most BLS and NYSDOL databases, as these are based on payroll tax information. In Madison County, 13% of the non-employers were engaged in the provision of professional, scientific and technical services; adding them to the total wage-paying jobs in that sector would produce a more pronounced sectoral presence for that group. This is true in several other areas as well, including construction, transportation and warehousing, and arts, entertainment and recreation.

There were several shifts among the different industrial sectors between 2004 and 2009. *Exhibit 27* presents numerical and percentage shifts for Madison County employment and percentage changes for the corresponding categories at the MSA and national level. Some of the divergences from national trends point to professional, scientific and technical professions and information jobs. The County seems to be following the general trend of shedding manufacturing jobs while creating jobs in educational services. The losses in information and professional, scientific and technical service may be masked by the non-employer data factor. Large increases in arts, entertainment and recreational and in accommodation and food services may indicate success of efforts to market Madison County as a tourism destination.

Exhibit 26. Employment Distribution by Industry 2009

	Madison County		Syr. MSA	U.S.
Industry	# Jobs	%	%	%
Ag., Forest. & Fishing	189	0.9%	0.3%	0.3%
Mining	n/a	n/a	0.1%	0.5%
Construction	787	3.8%	3.9%	5.0%
Manufacturing	2249	10.7%	9.4%	9.6%
Wholesale Trade	605	2.9%	4.7%	4.4%
Retail Trade	2590	12.4%	11.5%	11.5%
Trans. & Warehousing	167	0.8%	3.0%	3.9%
Information	197	0.9%	1.7%	2.2%
Finance & Insurance	552	2.6%	4.4%	4.4%
Real Estate & Leasing	160	0.8%	1.3%	1.6%
Prof., Scientific & Tech. Serv.	607	2.9%	4.9%	5.8%
Management of Companies	136	0.6%	1.3%	1.5%
Admin. & Support	325	1.6%	4.8%	5.8%
Educational Serv.	1777	8.5%	3.5%	9.8%
Health Care & Soc. Assist.	2864	13.7%	13.1%	13.0%
Arts, Entertain. & Rec.	302	1.4%	1.4%	1.5%
Accommod. & Food Serv.	2011	9.6%	7.7%	8.7%
Other Services	683	3.3%	3.3%	2.9%
Government, all levels	4671	22.3%	18.4%	7.6%
Unclass. Estab.	20	0.1%	0.1%	0.0%
Utilities	24	0.1%	1.2%	>0.1%
Total	20,916			

Source: U.S. Bureau of Labor Statistics, NYSDOL

Exhibit 27. Employment Change by Industry 2004 - 2009

	Madison County		Syr. MSA	U.S.
Description	# Change	% Change	% Change	% Change
Total Jobs	-395	-1.9%	-1.5%	2.0%
Ag., Forest. & Fishing	33	21.2%	0.2%	0.4%
Mining	n/a	n/a	-16.2%	34.7%
Utilities	n/a	n/a	-17.3%	-1.5%
Construction	72	10.1%	-0.5%	5.7%
Manufacturing	-483	-17.7%	-15.7%	-13.0%
Wholesale Trade	-82	-11.9%	-3.4%	1.9%
Retail Trade	-58	-2.2%	-4.0%	-1.3%
Trans. & Warehousing	1	0.6%	2.3%	0.9%
Information	-43	-17.9%	-26.8%	-8.3%
Finance & Insurance	-3	-0.5%	1.7%	-1.5%
Real Estate & Leasing	33	26.0%	-3.7%	-1.8%
Prof., Scientific & Tech. Serv.	-326	-34.9%	4.9%	14.0%
Management of Companies	-23	-14.5%	4.5%	11.7%
Admin. & Support	-213	-39.6%	-4.4%	-4.2%
Educational Serv.	176	11.0%	5.7%	7.0%
Health Care & Soc. Assist.	62	2.2%	7.8%	13.2%
Arts, Entertain. & Rec.	115	61.5%	7.7%	6.3%
Accommod. & Food Serv.	138	7.4%	2.0%	6.8%
Other Services	57	9.1%	-6.7%	1.1%
Public Administration	216	4.8%	2.9%	5.8%
Unclass. Estab.	-25	-55.6%	-45.7	0.4%

Source: U.S. Bureau of Labor Statistics

Industry Sector Distribution, Relative Size and Share of Employment

Exhibit 28 compares the distribution of businesses in Madison County across the major industry groups for 2000 and 2008. Madison County's business sector is diversified along the lines generally seen in Central New York. Most notable is the decline in manufacturing and the increase in employment in various services such as health care, financial, insurance and real estate (FIRE), and accommodation and food services. Another significant change is the increase in the number of professional, scientific, and technical services. These businesses increased in number by nearly 15% over the period 2000–2008.

Like the rest of the region and the nation as a whole, most of Madison County's businesses are small. According to the Census Bureaus' County Business Profile data for 2008, 56.2% of Madison County's businesses employ 4 or fewer individuals, down slightly from 56.4% in 2000. Over three-quarters (76.7%) of these businesses employed fewer than 9 individuals, down slightly from 77.2% in 2000.

Among Madison County's top employing private business sectors in 2008, the size of establishment varies from sector to sector. *Exhibit 30* depicts the distribution of various - sized establishments by sector. Health care and manufacturing establishments tend to be somewhat larger entities while retail establishments are smaller.

These figures only take into account employers that pay wages. So-called non-employers, defined as unincorporated business with no paid employees, annual business receipts of $1,000 or more and subject to federal income tax account, are not included. If these businesses were added then both the County's top employment sectors and the relative presence of small businesses in the overall mix would need to be re-interpreted. In 2008, there were approximately 4,116 such businesses in Madison County, nearly three times the number of establishments with paid employees.

When all these establishments are combined, certain industries become more significant in terms of job creation and income generation. For example, construction accounted for 925 jobs in 2008 while non-employer construction jobs totaled 609 in Madison County. On a combined basis, construction would have accounted for approximately 1,534 jobs. By similar

Exhibit 28. Madison County Business Establishments by Industry Sector

Industry Sector	No. of Establish-ments 2000	% of Total	No. of Establish-ments 2008	% of Total	% Change, 2000- 2008
Total Establishments	1377		1442		4.7%
Forestry, Fishing, Hunting & Ag. Support	5	0.4%	9	0.6%	80.0%
Construction	189	13.7%	194	13.5%	2.6%
Manufacturing	67	4.9%	65	4.5%	-3.0%
Wholesale Trade	55	4.0%	39	2.7%	-29.1%
Retail Trade	242	17.6%	223	15.5%	-7.9%
Transportation/Warehousing	26	1.9%	31	2.1%	19.2%
Finance & Insurance	59	4.3%	71	4.9%	20.3%
Real Estate & Leasing	42	3.1%	51	3.5%	21.4%
Professional, Scientific & Tech Services	108	7.8%	124	8.6%	14.8%
Health Care & Social Assistance	135	9.8%	157	10.9%	16.3%
Accommodation & Food Services	156	11.3%	166	11.5%	6.4%
Other Services (not Pub. Admin.)	147	10.7%	144	10.0%	-2.0%
Other	151	11.0%	177	12.3%	17.2%

Source: U.S. Census, County Business Patterns

Exhibit 29. Top Ten Private Employers in 2008 (including non-employer firms), by Sector*, Madison County

Sector	Jobs	Wages & Receipts	% NonEmp
Health Care & Social Assistance	3,195	$106,524,796	11%
Retail Trade	3,085	83,305,369	17%
Manufacturing	2,740	114,919,335	4%
Accommodation & Food Service	2,100	28,104,387	3%
Educational Services	1,891	77,345,250	7%
Construction	1,528	65,510,428	42%
Other Services	1,272	33,380,734	42%
Professional, Scientific & Tech. Service	1,255	49,692,084	46%
FIRE	1,048	84,053,986	33%
Wholesale Trade	727	45,497,964	12%
Total, All Sectors	25,651		16%

* Assumes Non-Employer establishment = 1 job.

Source: U.S. Census, NYSDOL

Exhibit 30. Sizes of Top Madison County Businesses in 2008 as Related to Employment Sector

Sector	Total Establishments	1–4	5–9	10–19	20–49	50–99	100–249	250+
Health Care	157	51	41	37	22	1	3	2
Manufacturing	65	23	10	8	9	7	5	3
Retail Trade	223	95	66	39	13	5	4	1
Accom.&Food	166	77	30	29	22	6	2	0
Ed. Services	17	6	4	3	2	0	0	2

Source: U.S. Census, County Business Patterns

estimates, retail trade jobs would increase to over 3,000, professional and technical services to 1,276 and jobs in the FIRE sectors to over 1,050, indicating a more significant presence of these industries in Madison County's economy than would otherwise be expected utilizing payroll-based figures alone. *Exhibit 29* summarizes the top ten employers in the County by sector and the combined wages/receipts generated in each sector.

Exhibit 32 indicates how the non-employer businesses in Madison County are concentrated by industry sector. While this distribution resembles that of wage-paying employers, there is a smaller representation of businesses in those sectors where scale is an issue, such as manufacturing, and a greater representation among those industries where a self-employed individual might be able to operate effectively, such as construction or the professional, scientific and technical service fields.

If approximately 4,116 non-employers were added to the 1,442 establishments reported in 2008 as wage paying employers, nearly 89% of Madison County's business establishments would employ four or fewer individuals. By comparison, such microenterprises represent 84% and 86% of all businesses in Onondaga and Oneida Counties, respectively. The rate is 88% for the U.S. as a whole while New York, which is second only to Florida in percentage of microenterprises, has a rate of 90%.

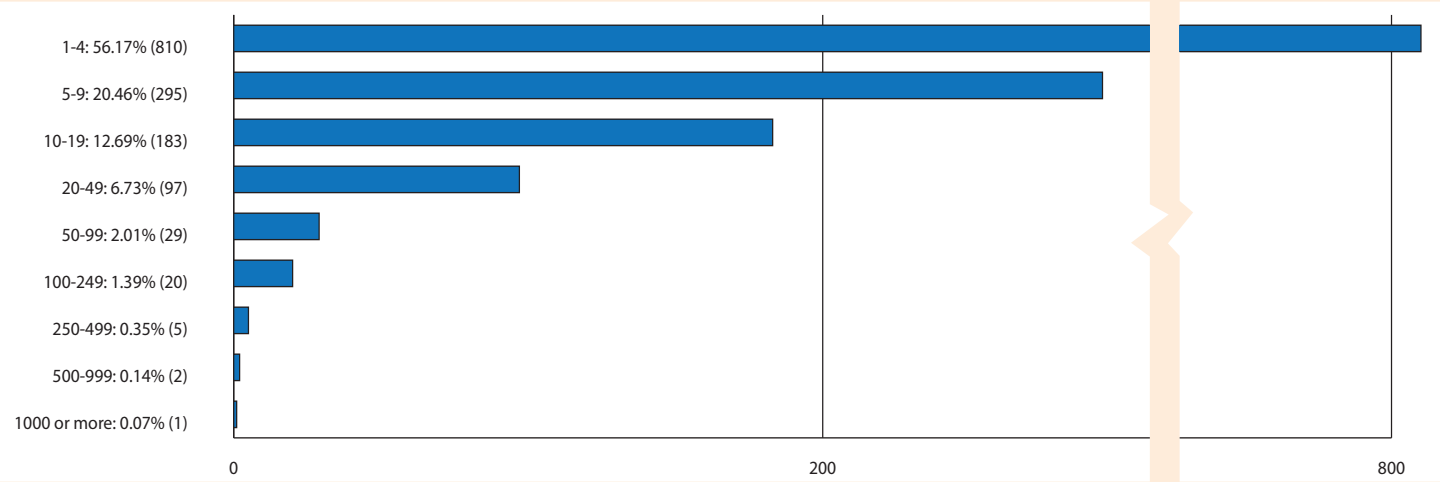
The data on microenterprise employment and non-employers underscore the importance of small businesses to the Madison County economy. According to the Association for Enterprise Opportunity (AEO), a national member-based organization dedicated to microenterprise development, from 2000 to 2003, total micro-business employment in rural areas of New York State grew by 6% while non-farm private employment was stable. The non-employer sector in Madison County experienced a 5% growth between 2002 and 2006 while overall private employment grew at a more modest 2.7%. Over the longer period of 2000 to 2008, private employment in Madison County actually shrank.

Large employers continue to be a significant factor in Madison County. Public employment is the largest employment sector in the County with 4,671 employees, representing 22% of all wage-earning jobs in 2009. Local government employment accounts for 3,714 of these workers and nearly half (1,840) of these local government employees are teachers or staff of local school districts. According to D&B, there were 23 Madison County employers in 2008 employing more than 100 people and their total employment was 5,586, about 26% of the wage earning workforce of 21,547. The three colleges, Colgate, Morrisville and Cazenovia accounted for 1,500 employees while hospital and nursing home employers accounted for approximately 1,400 workers. Manufacturers, which have tended toward larger establishments than other sectors, have seven firms with 100+ employees, with a total sector employment of 1,330.

Exhibit 33 indicates some of the changes that have taken place in Madison County's workforce and sectoral employment over the past five years. There has been growth in public education and educational services employment since 2005. Private sector jobs in manufacturing and professional, scientific and management fields, however, have declined during the period. Manufacturers in particular have been hard hit, shedding over 500 jobs over the period.

A longer view of sectoral changes in Madison County's employment structure is shown in *Exhibit 34*. Here, changes in jobs and wages in the larger employer sectors in the County are shown over the past decade. Significant job gains in public education are notable and, although the absolute number of jobs has declined in manufacturing and health care, substantial increases in wages in these sectors have taken place.

Exhibit 31. Madison County Businesses by Number of Employees, 2008



Source: U.S.:Census

Exhibit 32. Unincorporated Business Firms in Madison County, 2008

Segment	Number of Firms	Receipts ($1,000)
Total for all sectors	4,116	$196,482
Agriculture, forestry, fishing and hunting	86	$2,484
Mining, quarrying, and oil and gas extraction	n/a	n/a
Utilities	3	$23
Construction	609	$28,423
Manufacturing	104	$6,710
Wholesale trade	87	$10,250
Retail trade	535	$22,210
Transportation and warehousing	111	$10,186
Information	46	$1,513
Finance and insurance	102	$43,974
Real estate and rental and leasing	240	$14,391
Professional, scientific, and technical services	572	$22,631
Administrative and support and waste management and remediation services	305	$5,104
Educational services	122	$1,056
Health care and social assistance	349	$7,857
Arts, entertainment, and recreation	242	$3,002
Accommodation and food services	62	$1,413
Other services (except public administration)	535	$14,996

Source: U.S. Census Bureau

Exhibit 33. Workforce and Employment in Madison County, 2005–2009

	1990	2000	2005	2009	% Change
Labor Force (Total)			36,100	35,600	-1.4%
Employed			34,300	33,000	-3.8%
Unemployed			1,900	3,000	57.9%
Total, All Industries			21,313	20,932	-1.8%
Total, All Private			16,842	16,261	-3.4%
Agriculture, Forestry Fishing, Hunting			170	189	11.2%
Construction			735	787	7.1%
Manufacturing			2,782	2,249	-19.2%
Wholesale Trade			716	605	-15.5%
Retail Trade			2,591	2,590	0.0%
Transportation & Warehousing			146	167	14.4%
Information			226	197	-12.8%
Finance and Insurance, Real Estate, Rental and Leasing			705	712	1.0%
Professional, Scientific, Management, Administrative			1,403	1,068	-23.9%
Education - private			1,673	1,777	6.2%
Health Care and Social Services			2,791	2,864	2.6%
Arts, Entertainment, Accommodation, Food Services			2,162	2,313	7.0%
Other Services			627	683	8.9%
Government, including public schools			4,471	4,671	4.5%

Source: NYS Department of Labor

Exhibit 34. Changes in Employment and Wages by Selected Sectors in Madison County, 2000–2009

	2000		2009			
Sector	Jobs	Av. Wages	Jobs	Av. Wages	% Ch. Jobs	% Ch. Wages
All Government	4,188	$30,450	4,671	$35,752	11.5%	17.4%
Federal	112	33,849	155	$43,469	3.8%	28.4%
State	826	40,650	802	$41,025	-3.0%	>1%
Local	3,250	27,741	3,714	$34,291	14.3%	23.6%
Educational Services	1,512	$32,814	1,777	$44,770	17.5%	36.4%
Health Care	2,893	$21,445	2,864	$35,147	-1.0%	63.9%
Manufacturing	2,970	$32,130	2,249	$41,422	-24.3%	28.9%

Source: NYS Department of Labor

Madison County's largest employers are shown in *Exhibit 35*. The listing shows the top employers in the County, excluding government, according to the D&B report cited earlier. Twenty-three businesses employ 100 people or more with a total employment of 5,586. The three colleges are among the top ten employers in the County, combining for a total of 1,500 employees. Manufacturers account for seven employers on the list, the largest being ESCO Turbine which employs 370 people at its plant in Chittenango.

The largest employment sector in Madison County since 2000 has been the combination of local, state and federal government entities, the largest subsection of which is the public school system. The total number of jobs in this sector increased by nearly 12% over this period with most of this increase attributed to public school employment. Other sectors which saw increases in the number of jobs were arts, entertainment and recreation (+80%), construction (+30%), educational services (+17%), and professional and technical services (+12%). Significant losses of jobs were experienced in retail (-14.4%), manufacturing (-12%) and accommodation and food services (-8%).

After public schools, health care, manufacturing, retail trade, and accommodation and food services accounted for the largest segments of employment in Madison County, despite the fact that all these sectors lost jobs over this period. Increases in some smaller sectors such as arts, entertainment and recreation, professional and technical services, educational services, and management of companies and enterprises seems to have taken up the slack in these sectors by providing

Exhibit 35. Top Employers in Madison County

Business Name	2012	City	Industry
Colgate University	855	Hamilton	Colleges and universities
Oneida Healthcare Center	786	Oneida	General medical and surgical hospitals
Morrisville State College	450	Morrisville	Colleges and universities
Walmart Stores Inc	450	Oneida	Department stores
Ferris Industries Inc	410	Munnsville	Internal combustion engines, nec
Esco Turbine Technology	370	Chittenango	Steel investment foundries
Commun Mem Skill Nurs Care Fac	305	Hamilton	General medical and surgical hospitals
Marquardt Switches Inc	294	Cazenovia	Relays and industrial controls
Dielectric	223	Cazenovia	Electronic components
Cazenovia College	220	Cazenovia	Colleges and universities
HP Hood LLC	200	Oneida	Fluid milk
Crouse-Community Center Inc	158	Morrisville	Skilled nursing care facilities
GHD	150	Cazenovia	Engineering
Oneida Molded Plastics LLC	145	Oneida	Plastics products, nec
Lowes	135	Oneida	Lumber and other building materials
Nye Ford Lincoln Mercury	126	Oneida	New and used car dealers
Alternatives Recycling Center	125	Oneida	Individual and family services
Accudata Search Inc	120	Cazenovia	Title abstract offices
Tops Friendly Markets 532	112	Oneida	Grocery stores
Chittenango Center Nursing Home	109	Chittenango	Skilled nursing care facilities
New York Bus Sales LLC	100	Chittenango	Automobiles and other motor vehicles
Owl Wire and Cable Inc	100	Canastota	Steel wire and related products

Source: Phone Survey - MCIDA

Exhibit 36. Average Annual Civilian Labor Force, Non-Agricultural Employment and Unemployment Rate, Size of Labor Force and the Unemployment Rate for Madison County

Year	Labor Force	% Change	Employed	% Change	Unemployment Rate
1990	35,300		33500		5
1995	35,200	-0.28%	33,100	-1.19%	5.8
2000	35,100	-0.28%	33,700	1.81%	3.8
2005	36,200	2.85%	34,300	1.78%	5.2
2006	36,100	-0.27%	34,400	0.29%	4.7
2007	36,100	0.00%	34,400	-0.29%	4.7
2008	36,400	0.80%	34,300	0.00%	5.8
2009	36,000	-1.1%	33,000	-3.8%	8.3

Source: NYS Department of Labor

enough job opportunities to result in almost a static number of jobs (actual loss of approximately 190 jobs) for the County during this period.

Much of the County's economic activity takes place in the northern part of the County as evidenced by the concentration of the County's main employers here. Of the 102 county employers with 25 or more employees, 56% are located in the 13037/13032 and 13421 zip codes (Chittenango, Canastota and Oneida). Another 16% are located in Cazenovia along the County's western border with Onondaga County.

Workforce

Size of the Workforce

Exhibit 36 tracks several data points for the Madison County workforce. The size of workforce has been remarkably stable, growing by only 3.7% over the nearly–20-year period covered. The size of the workforce in the Syracuse MSA over the same period stayed essentially the same: 335,900 in 1990 to 335,700 in August 2009.

A workforce of 36,600 represents approximately 52% of the total population of Madison County. This is a relatively high participation rate and one that suggests a motivated and hard-working workforce.

Unemployment

Historical unemployment data are presented in *Exhibit 37* for Madison County and neighboring counties sharing the labor pool, as well as the MSA, state and nation. Madison County's connectedness to the region is visible in the close correlation between its unemployment rate and that of its neighbors and region.

Exhibit 37. Unemployment Rates for Selected Areas

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Chenango	4	4.5	5.4	5.9	5.6	5	5	5	6.5	8.9
Madison	3.8	4.5	5.3	5.6	5.6	5.2	4.7	4.7	5.8	8
Oneida	3.9	4.6	5.3	5.5	5.2	4.8	4.4	4.3	5.5	7.4
Onondaga	3.5	4	4.9	5.1	5.1	4.5	4.4	4.1	5.3	7.6
Syracuse MSA	3.8	4.3	5.3	5.6	5.5	4.9	4.7	4.5	5.7	8
NYS	4.5	4.9	6.2	6.4	5.8	5	4.6	4.5	5.4	8.4
U.S.	4	4.7	5	6	5.5	5.1	4.6	4.6	5.8	9.3

Source: NYS Department of Labor, U.S. Bureau of Labor Statistics

Educational Attainment

A review of the Madison County workforce indicates that the resident population 25 years old and older are relatively well-educated by national, state and regional standards. The static picture of educational attainment did not include some of the dynamic trends that could impact the County's job creation efforts in certain sectors.

One such trend is the apparent decline in the number of educated workers coming up from younger age cohorts. *Exhibit 38* looks at educational attainment by age group for the year 2000. All three counties in Madison County's "job marketplace" show declines in the number of workers with high school diplomas versus 1990 for the youngest three age groupings. The decline in Oneida County is particularly pronounced. As previously younger groups have aged, improvements over their 1990 rates are evident. However, this improvement in the local workforce seems to have halted in the decade from 1991–2000. Fewer of those in the local workforce in the age range 19–44 have HS diplomas. This could be due to migration of younger people and/or the concurrent reduction in the types of jobs which would attract or require those levels of education.

In the four age groupings comprising the workforce, the percentage of the workers with a bachelor degree or higher is significantly higher in Onondaga County in each subgroup, likely reflecting the concentration of certain higher level jobs there. The higher rates of bachelor degrees among the younger workforce in Onondaga County might indicate the ability of the County to attract or concentrate younger, well-educated workers through the presence of larger private sector firms and their attendant business services such as attorneys, accountants, etc., the concentration of the region's health care providers and a large university.

According to the NYSDOL, the workforce in Madison County increased by 3.1% from 1990—2008, representing a gain of 1,100 workers over the 18–year-long period. In Madison County, the number of employed hovered between a low of 33,000 and a high of 34,400, reached in 2007. In general, it is a stagnant job market. Some workers no doubt found employment in surrounding areas, filling gaps in the declining resident workforces of the Syracuse and Utica/Rome MSA's.

Wages in Madison County

Of interest to many economic development officials and businesses are the wages demanded by the workforce for particular types of jobs. Local officials would like to be competitive with other regions, but at the same time attract high paying jobs to the area. Businesses are looking for skilled labor, but at wage rates that allow them to compete in national and sometimes international markets.

Exhibit 39 summarizes the change in total wages paid in the County and the average wage paid. Overall wages paid and average wages increased in Madison County over the past decade with a noticeable drop off in 2009 of total wages paid and a slowdown in the growth of average wages, a likely result of the recession that took hold during 2008–09. Given the relative stagnation in labor force growth during this period, most of the gross payroll amount increase is due to an increase in average wages. These increased 33% over the period while the gross payroll amount increased by 28%. The Madison County workforce increased 3.6% during this time while the regional labor force was stagnant.

As noted earlier, in addition to the availability of relevant skill sets, businesses looking to locate or expand into an area are also seeking competitive wage levels that will enable them to be viable in the marketplace. *Exhibit 40* compares Madison County, MSA and U.S. average annual wages from several key industrial categories. These wages are averaged across numerous

Exhibit 38. Educational Attainment

2000. Ages 18–24	Percent w/High School Diploma	Change from 1990 (%)	Less than 9th grade	9th to 12th grade, no diploma	High school graduate	Some college, no degree	Associate degree	Bachelor's degree	Graduate or prof. degree	Total age group	% HS grad or higher	% Bachelor's or higher
Madison County	85.3	-0.5	86	1,130	2,046	4,076	537	395	19	8,289	85.3%	5.0%
Onondaga County	81.4	-1.8	504	7,582	10,018	17,564	2,363	5,011	336	43,378	81.4%	12.3%
Oneida County	72.9	-5.8	591	4,911	5,157	6,824	1,616	1,120	80	20,299	72.9%	5.9%
2000. Ages 25–34												
Madison County	88.1	-0.8	174	758	2,472	1,579	1,144	1,227	465	7,819	88.1%	21.6%
Onondaga County	89.5	-0.9	1,031	5,134	13,824	10,979	7,916	13,222	6,535	58,641	89.5%	33.7%
Oneida County	80.9	-5.2	1,143	4,397	8,661	6,013	3,650	3,708	1,486	29,058	80.9%	17.9%
2000. Ages 35–44												
Madison County	88.9	-1.8	257	1,001	3,632	2,132	1,636	1,656	1,010	11,324	88.9%	23.5%
Onondaga County	90.9	-0.4	1,137	5,644	20,360	14,092	10,316	13,574	9,185	74,308	90.9%	30.6%
Oneida County	84.7	-3.5	1,316	4,421	11,849	7,613	4,761	4,521	2,900	37,381	84.7%	19.9%
2000. Ages 45–64												
Madison County	84.9	8.7	536	1,873	5,375	2,908	1,621	1,996	1,628	15,937	84.9%	22.7%
Onondaga County	88.7	9.9	2,873	8,522	28,371	19,969	9,734	16,170	14,924	100,563	88.7%	30.9%
Oneida County	84.5	8.3	2,624	5,695	17,359	11,323	5,047	6,291	5,205	53,544	84.5%	21.5%
2000. Ages 65+												
Madison County	69	12.7	814	1,878	3,040	1,161	316	768	705	8,682	69.0%	17.0%
Onondaga County	71.3	12.9	6,389	11,828	23,854	8,448	1,892	6,159	4,832	63,402	71.3%	17.3%
Oneida County	64.8	14.4	5,876	7,809	13,879	5,104	1,234	2,718	2,243	38,863	64.8%	12.8%

Source: Various—NYS Education Department, Rochester Democrat and Chronicle "Roc Docs" on SAT scores

subsectors and so are not reflective of any particular type of job within that sector. But even this high level comparison offers some insights into where Madison County may offer a business a competitive advantage in labor costs.

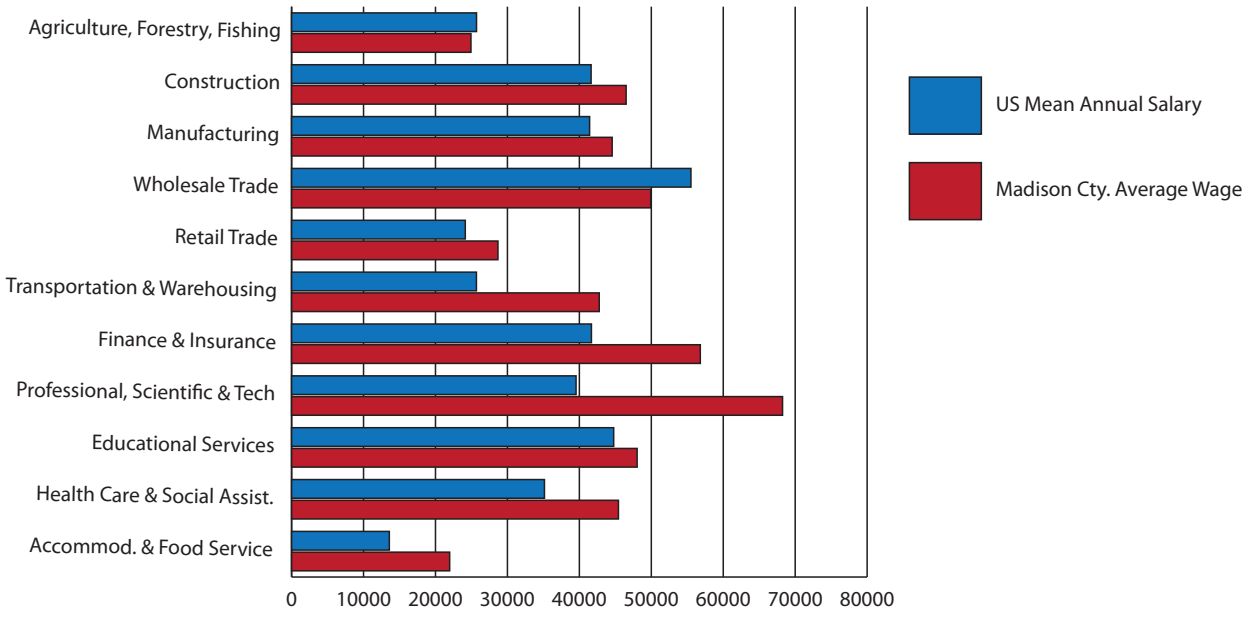
Madison County wages lag the national average in most sectors but are noticeably higher in areas such as transportation and warehousing, finance and insurance, professional, scientific and technical services, and accommodation and food services. These segments in particular seem to have potential for Madison County because of other inherent characteristics, such as an advantageous location, tourism and retail development efforts, and existing workforce assets.

Exhibit 39. Annual Payroll in Madison County - All Industries

Year	Payroll ('000's)	% Change	Average Wages	% Change
2000	$548,354		$25,273	
2003	$592,142	8%	$28,739	13.7%
2006	$643,400	8.6%	$29,871	3.9%
2007	$679,688	5.6%	$31,231	4.5%
2008	$713,902	5.0%	$33,151	6.1%
2009	$703,020	(1.5%)	$33,586	1.3%

Source: NYS Department of Labor

Exhibit 40. Comparative Average Annual Wages by Sector, 2009



Source: NYS Department of Labor and U.S. Bureau of Labor Statistics

Commuting Patterns

For the past thirty years, Madison County has exhibited a consistent pattern of filling jobs for approximately half of its working age residents while approximately half the working age residents found employment in neighboring counties, principally in Oneida and Onondaga counties. Madison County residents are part of two labor pools that support the economies of the Syracuse and Utica MSA's.

According to the Bureau of Economic Analysis, U.S. Department of Commerce, nearly 51% of Madison County workers filled positions within the County while over 32% worked in Onondaga County and nearly 12% found jobs in Oneida County. None of the other 25 NY counties represented registered above 2% of Madison County's workforce.

Alternatively, Oneida and Onondaga County sent nearly 6,000 commuters into Madison County in 2000. Over 3,800 Oneida County residents went to work in Madison County that year, 100 more than travelled in the opposite direction. In 2000, outbound commuters exceeded inbound commuters by 8,142 which is the difference between the number of working age residents (31,752) and the number of jobs being performed in Madison County by both residents and non-residents (23,610) (see *Exhibit 41* and *Exhibit 42*).

Exhibit 44 shows that Madison County residents who worked in Oneida and Onondaga Counties filled slightly over 14,000 jobs. The main categories of jobs filled by these commuters were in services (28%), manufacturing (19%), wholesale and retail trades (15%), Information and FIRE (10%) and state and local government (10%).

In the two main destination counties of Onondaga and Oneida, the average wage paid in these sectors ranged from a high of $45,533 for manufacturing positions in Onondaga County to a low of $24,330 for a position in services in Oneida County *(Exhibit 45)*.

Madison County filled more than 7,400 jobs with commuters from other counties, principally Oneida and Onondaga, whose residents accounted for 88% of the inflow. More than half of these jobs were in either manufacturing or services. State and local government

Exhibit 41. Madison County Residents Commuting to Other Counties (2000):

County of Work	Total	% of Workforce*	% of Commuters
Onondaga	10,290	32.4	66.0
Oneida	3,715	11.7	23.8
Chenango	613	1.9	3.9
All Others	960	3.0	6.2
Total Outbound Commuters	15,578		

*Total Resident Workforce = 31,752 of which 16,174 remain in-county

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Exhibit 42. Commuters to Madison County from Other Counties (2000):

County of Residence	Total	% of Workforce*	% of Commuters
Onondaga	2,064	8.7	27.7
Oneida	3,849	16.3	51.8
Chenango	682	2.8	9.2
All Others	841	3.6	11.3
Total Inbound Commuters	7,436		

*Total In-County Workforce = 16,174 resident + 7,436 commuters = 23,610

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Exhibit 43. Largest Madison County Employment Sectors, by Residence of Worker, 2000

Sector	# of Jobs	Filled by County Resident	%	Filled by Commuter	%
Services	7958	5605	70	2353	30
State & Local Gov't	3923	2625	67	1298	33
Manufacturing	3496	1960	56	1536	44
Wholesale & Retail	2831	1890	67	941	33

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Exhibit 44. Madison County Residents Leaving for Work, 2000

Destination/ Employment Sector	Onondaga County	Oneida County	Other Destination	Total by Sector	% of Total Commuters
Forestry/Fishing/Ag	105	45	20	170	1%
Utils./Trans./Warehousing	530	80	77	687	4.4%
Construction	645	150	144	939	6%
Manufacturing	1,810	905	258	2,973	19%
Wholesale/Retail Trade	1,685	420	176	2,281	14.6%
Info./FIRE	1,165	220	167	1,552	10%
Services	2,740	1,200	414	4,354	27.9%
Private Households	10	0	0	10	~
Fed. Gov. & Military	235	50	30	315	2%
State and Local Gov't	985	490	186	1,661	10.7%
Other	380	155	101	636	4%
Totals by Destination	10,290	3,715	1,573	15,578	

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Exhibit 45. Comparative Wages in Largest Employment Sectors, 2000

Sector	In-County Wage	Onondaga Wage	+/- %	Oneida Wage	+/- %
Services	20,268	32,929	+ 62	24,337	+ 20
State and Local Gov't	28,176	38,098	+ 35	37,963	+ 35
Manufacturing	30,531	45,533	+ 49	37,695	+ 23
Wholesale & Retail	21,052	38,246	+ 82	27,283	+ 30

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Exhibit 46. Non-Residents Working in Madison County, 2000

Origin/Employment Sector	Onondaga County	Oneida County	Other Origin	Total by Sector	% of Total Commuters
Forestry/Fishing/Ag	40	30	30	100	1.3%
Utils./Trans./Warehousing	20	45	43	108	1.5%
Construction	140	95	60	278	3.7%
Manufacturing	445	835	256	1536	20.7%
Wholesale/Retail Trade	220	630	91	941	12.7%
Info./FIRE	55	210	58	323	4.3%
Services	630	1245	478	2353	31.6%
Private Households		4		4	~
Fed. Gov. & Military	4	90	8	102	1.4%
State and Local Gov't	425	505	368	1298	17.5%
Other	85	160	131	376	5.1%
Totals by Origin	2064	3849	1523	7436	

Source: U.S. Department of Commerce, Bureau of Economic Analysis

and the wholesale/retail trade were also main job sectors for inbound commuters (see *Exhibit 46*).

As a result of these commuting patterns, Madison County had a net flow of earnings of $440,930,000 in 2000. That is, more County residents earned wages working outside of the County than non-residents were paid for their jobs in Madison County. By contrast, Onondaga and Oneida counties' net flow of earnings balances are typically negative, indicating a large inflow of commuters. This is likely due in large part to the existence of two large cities in these counties which have acted as "job magnets".

As can be seen, a significant portion of each sector's workforce is drawn from the surrounding counties. The numbers alone are not so large that these jobs could not have been filled by residents of the County. In fact, 4,354 residents left to work outside the County in services, in state and local government - 1661, in manufacturing—2,973 and in wholesale and retail—2,281.

Of interest are the reported discrepancies in average wages between residents working in-county and those who travel to one of the major destination counties to work in a similar job.

It would appear that wages paid in the two main magnet counties are substantially higher than what is offered from Madison County employers and this could partially explain the job drain. Average Madison County wages paid in the top four employment sectors are considerably lower than those paid in the same sectors in Oneida and Onondaga counties. This could be part of the reason for the out-commuting in these sectors. The wage discrepancy could result from a mismatch of skills required in the respective sectors, from the nature of the specific industries within the sectors, and/or lower expectations or needs of employers in Madison County. Less costly labor is also an attractive workforce attribute for potential employers.

Manufacturing

In 2008, it was estimated there were 2,940 manufacturing jobs in Madison County out of a total employment base of 20,900 jobs. As noted in the previous section, manufacturing continues to play a large and essential role in Madison County's economy. While only 4% of all Madison County firms are engaged in manufacturing activity, they provide 15% of the annual payroll in the County and, as a sector, are the largest employer in the County in terms of wages and one of the largest employers by jobs created, accounting for more than 10% of all jobs in the County. Moreover, given that manufacturing has the highest multiplier effect on economic activity (some studies indicate that every $1's-worth of manufactured goods generates an additional $1.43 in economic activity, twice that of service industries), the impact of this sector on the County's economy is understated by traditional measures of impact, such as wages.

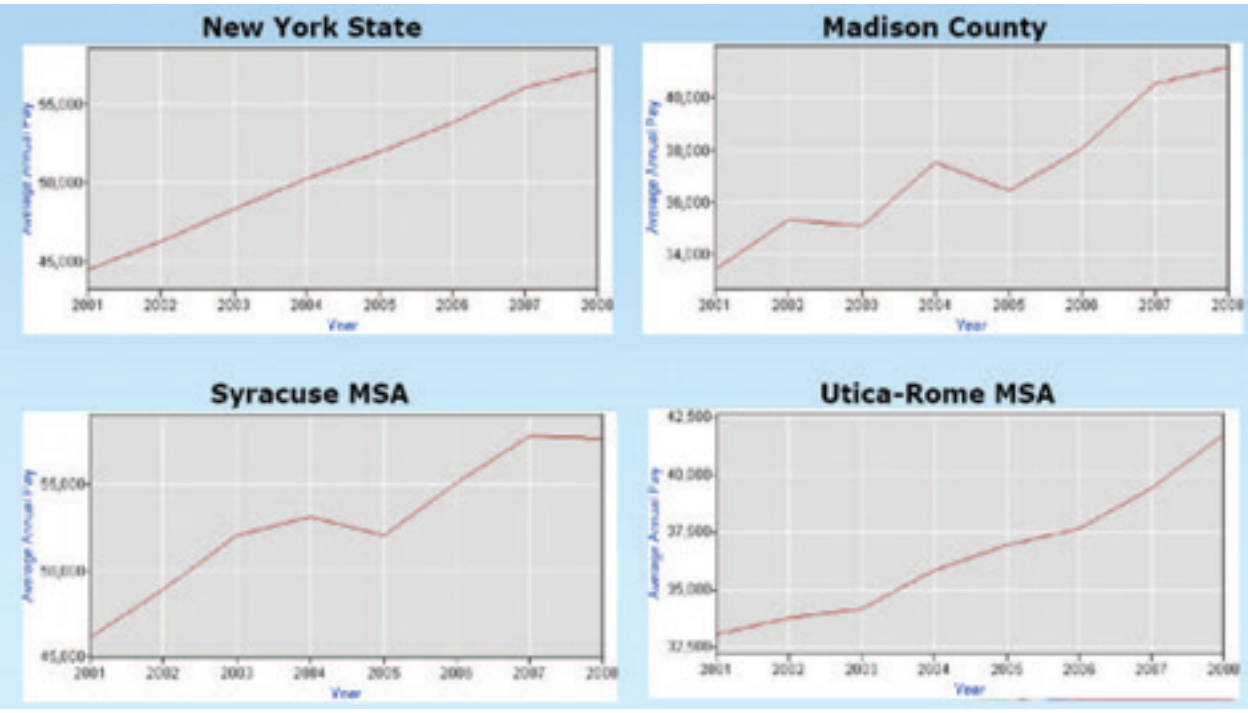
While structural economic issues have diminished the role of manufacturing nationally, the sector plays a proportionately larger role in the CNY region and in

Exhibit 48. Manufacturing 2008

	Madison County		Syracuse MSA		NY		U.S.	
	2000	2008	2000	2008	2000	2008	2000	2008
No. of Establishments	67	65	757	629	22,129	18,251	354,498	326,216
% of total	4.9%	4.5%	4.6%	4.0%	4.5%	3.5%	5.0%	4.3%
$ amount payroll ($1,000)	95,473	107837	1,771,185	1,529,602	27,508,371	24,258,450	643,953,798	622,306,547
% of total payroll	19.8%	20.0%	20.3%	15.5%	8.3%	5.5%	16.6%	12.1%
No. of Jobs	3,008	2,940	43,416	29,394	705,914	511,209	16,473,994	13,096,159
% of total jobs	15.0%	16.1%	14.9%	11.1%	9.6%	6.7	14.4%	10.8%

Source: U.S. Census, County Business Patterns

Exhibit 47. Manufacturing Pay



Source: Herron Consulting

Madison County than it does statewide or nationally. According to the data assembled by the U.S. Census and presented in *Exhibit 48*, manufacturing accounts for a larger proportion of Madison County's economy on all levels (number of businesses, percentage of total payroll, and number of jobs) than it does on the regional, state or national level. In fact, Madison County showed an increase in manufacturing's total payroll and percentage of total payroll from 2000 to 2008 even as the number of manufacturing establishments and manufacturing jobs were decreasing (some of these data will differ from what was presented earlier as the source of the data was changed to provide comparative information, U.S. Census vs. NYSDOL).

The comparative trends in manufacturing pay over the decade explains in part what has happened in this sector even as the number of manufacturers have declined. As seen in *Exhibit 47*, average wages increased during this period, possibly driven by scarcity of employees in a declining sector and by the increased specialization of the manufacturing base that has remained.

Even in the case of rising wages, Madison County appears to have an advantage. The data shown in *Exhibit 50* indicate the comparative wages in this sector and Madison County wages are extremely competitive.

It is clear that manufacturing is a critical player in the local economy having retained if not increased its relative position during a period of general decline in the manufacturing sector.

While the data results from this source—County Business Patterns (CBP)—are not ideal, some sense of how the manufacturing sector is composed in Madison County can be obtained from this information. There are some concentrations in printing and related activities, plastics and rubber manufacturing, and primary metal manufacturing. In the latter case, it appears that at least some of the gains seen in payroll figures in manufacturing during the 2000—2008 period have come from this subsector, which includes foundries and wire manufacturers.

While information may be incomplete for the entire period, it seems likely that the computer and electronics sector, which includes semiconductor and electronic capacitor fabrication, has continued to operate in the County at a substantial level. Considering data

Exhibit 49. Manufacturing in Madison County 2000–2008

Sector	2000	%	2008	%
All				
Payroll ($1,000)	$95,476		$107,837	
Establishments	67		65	
Employees	3,008		2,940	
Paper Manufacturing				
Payroll ($1,000)	$2,349	2.5%	n/a	
Establishments	3	4.5%	n/a	
Employees	78	2.6%	n/a	
Printing & Related Support Activities				
Payroll ($1,000)	$512	0.5%	433	0.4%
Establishments	7	10.4%	5	0.077
Employees	27	0.9%	n/a	
Plastics & Rubber Mfg.				
Payroll ($1,000)	$15,734	16.5%	$8,036	7.5%
Establishments	6	9.0%	6	9.2%
Employees	478	15.9%	326	11.1%
Primary Metal Mfg.				
Payroll ($1,000)	$24,978	26.2%	$28,112	26.1%
Establishments	4	6.0%	4	6.2%
Employees	675	22.4%	727	24.7%
Computer and Electronics Mfg.				
Payroll ($1,000)	$14,062	14.7%	n/a	
Establishments	5	7.5%	n/a	
Employees	642	21.3%	n/a	

Source: U.S. Census, County Business Patterns

Exhibit 50. Local Manufacturing Labor Cost, 2008

State/County	Manufacturing Industry Annual Pay
Madison County	$41,200
Oneida County	$42,414
Virginia	$48,736
Vermont	$50,669
Pennsylvania	$51,529
Ohio	$51,902
U.S. Average	$54,400
New York	$57,235
Onondaga County	$60,072
Connecticut	$70,574

Source: Herron Consulting

from the NYSDOL, it is clear that many of these sectors are part of a regional concentration of industrial competence.

The NYSDOL data also highlight the importance of two other manufacturing sectors in Madison County: food and fabricated metal.

The manufacturing sector continues to play a major role in Madison County's economy and decisions regarding the future economic development of the County would not be complete without an understanding of this role or a coordinated approach toward the County's manufacturing employers.

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Service Sector

As the United States has developed from a manufacturing-based economy to a predominately service-oriented economy, there has been considerable growth in these sectors on both national and local levels. Employment and wages generated in these sectors has come to represent a significant part of Madison County's economy as well. It is estimated there were 7,658 service sector jobs in Madison County in 2009, representing 36.6% of the County's total employment base of 20, 932. The table below shows detailed year-end data for employment and wages in the services sector.

As was noted earlier, the figures drawn from the NYS Department of Labor understate the number of jobs in certain sectors as they exclude the establishments of self-employed workers. As previously, several service sectors, notably professional, scientific and technical services/administrative and waste services/ health care/other services, have a sizeable representation among the "non-employer" sector. *Exhibit 51* combines the information for both wage-earning and self-employed workers in these sectors and shows the relative positions of each sector in terms of employment and wages.

Jobs in the information and scientific and technical sectors are viewed as positive indicators for local economies. These jobs are often in higher growth, cutting-edge fields that bode well for future economic development. They also tend to create relatively well-paying jobs and so have a positive impact on other parts of the local economy. Economies with healthy arts, entertainment and tourism sectors can indicate a dynamic community which is poised to leverage travel and tourism dollars. In Madison County, the professional, scientific and technical sector is a significant part of the economy and, while small, the arts, entertainment and tourism sector has shown growth in recent years.

Exhibit 51. Service Sector in Madison County, 2009

Sector	Employment	% of Total	Wages	% of Total
Utilities	24	0.1%	$1,789,740	>0.1%
Transportation & Warehousing	167	0.8%	$4,290,409	0.6%
Information	197	0.9%	$5,827,386	0.8%
Finance and Insurance	552	2.6%	$23,004,432	3.3%
Real Estate and Rental and Leasing	160	0.8%	$4,394,465	0.6%
Professional, Scientific and Technical Services	607	2.9%	$24,000,691	3.4%
Administrative and Waste Services	325	1.6%	$9,997,540	1.4%
Educational Services	1,777	8.5%	$79,555,785	11.3%
Health Care and Social Assistance	2,864	13.7%	$100,662,152	14.3%
Arts, Entertainment, and Recreation	302	1.4%	$4,336,895	0.6%
Other Services	683	3.3%	$16,451,605	2.3%
Total Service Sector	7,658	36.6%	$274,311,100	39.0%
Total All Sectors	20,932		$703,020,710	

Source: NYSDOL

Retail

The total number of retail jobs in Madison County in 2009 was estimated to equal 2,600. While the retail sector of the economy is not a significant wage generator, it does perform several important functions in any local economy. It generates entry-level or part-time jobs for various segments of the population; it provides convenient access to many goods and services for community residents; it captures sales tax revenue for the relevant taxing authority.

As discussed earlier, the retail sector is the most numerous type of business establishment in the County, accounting for 15% of all wage-paying businesses. Retail businesses currently provide nearly 12% of the total jobs in the County, a percentage that tracks the national average closely. The sector provides only 8% of the total payroll in the County and the average annual wage currently (2010) is approximately $24,000, an amount more than 15% below the national average. Unlike national trends, the number of jobs in this sector declined by 4% over the five year period of 2003–2008 while on a national level retail jobs increased by 2.5%. This is perhaps a symptom of a trend that is causing additional problems for a semi-rural county like Madison—the concentration of retail operations into "big box" stores located closer to metropolitan area centers. Retail jobs are more difficult to obtain or even access for job seekers in Madison County as these jobs are drawn closer to urban areas. Needed goods and services that these businesses formerly provided in the community become less available to residents of smaller communities.

Data available on retail potential, retail surplus, and retail leakage for Madison County can shed light on some of the issues facing the County's retail sector. Retail surplus is when local retailers sell more than what was demanded locally, thus attracting retail dollars from outside the area. A retail leakage is the opposite situation; that is, local household demand for goods and services provided by these sectors exceeded what was available in a community. Consequently, this gap was satisfied by retail businesses located elsewhere. *Exhibit 52* and *Exhibit 53* compare retail sectors that have surpluses and leakages and estimate the size of the gaps produced. Retail surplus in the County totaled $135 million while retail leakage stood at $178 million, resulting in a net $43 million leakage of sales. Assuming these sales were taxable at the County rate of 4%, the net leakage costs Madison County approximately $1,720,000 in lost sales tax revenue annually.

An additional cost to Madison County residents is the amount of time and money they must spend to obtain these goods and services outside their immediate communities or to travel to and from jobs at retail locations outside Madison County. An interesting calculation looks at the average national sales in certain retail segments where there is a local gap in sales and calculates the type of retail businesses, their sales, jobs and wages created if their potential was realized within Madison County. The data in *Exhibit 54* depict this potential relationship.

Exhibit 52. Sales Potential, Retail Businesses in Madison County, 2009

Industry Group	Supply (Retail Potential)	Demand (Retail Sales)	Retail Surplus	Surplus Factor
Automobile Dealers	$152,513,939	$119,813,619	$32,700,320	12.0
Motor Vehicle & Parts Dealers	$166,371,020	$138,907,087	$27,463,933	9.0
Limited-Service Eating Place	$42,735,117	$18,120,829	$24,614,288	40.4
Other General Merchandise Stores	$29,318,617	$11,403,948	$17,914,669	44.0
Health & Personal Care Stores	$39,887,428	$28,566,277	$11,321,151	16.5
Food & Beverage Stores	$106,958,566	$100,914,309	$6,044,257	2.9
Specialty Food Stores	$7,475,736	$2,610,851	$4,864,885	48.2
Sporting Goods/Hobby/Musical Instrument Stores	$7,761,506	$4,492,651	$3,268,855	26.7
Special Food Services	$2,455,292	$487,764	$1,967,528	66.9
Sporting Good, Hobby, Book and Music Stores	$8,332,728	$6,479,508	$1,853,220	12.5
Used Merchandise Stores	$2,476,987	$1,137,323	$1,339,664	37.1
Building Material and Supplies Dealers	$20,959,013	$19,720,869	$1,238,144	3.0

Source: Camoin Associates

Exhibit 53. Leakage of Sales in Madison County, 2009

Industry Group	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage Factor
Full-Service Restaurants	$73,845,440	$35,520,750	$37,964,690	34.8
Department Stores Excluding Leased Depts.	$36,962,177	$7,719,235	$29,242,942	65.4
Clothing and Clothing Accessories Stores	$18,743,559	$3,466,602	$15,276,957	68.8
Food Services & Drinking Places	$96,798,314	$82,886,635	$13,911,679	7.7
Furniture & Home Furnishings Stores	$20,504,188	$7,884,386	$12,619,802	44.5
General Merchandise Stores	$48,366,125	$37,037,852	$11,328,273	13.3
Clothing Stores	$13,805,736	$2,725,499	$11,080,237	67.0
Furniture Stores	$15,415,083	$5,447,514	$9,967,569	47.8
Electronics & Appliance Stores	$13,185,909	$4,997,616	$8,188,293	45.0
Other Motor Vehicle Dealers	$12,635,250	$8,138,378	$4,496,872	21.6
Miscellaneous Store Retailers	$10,841,726	$7,692,923	$3,148,803	17.0
Other Miscellaneous Store Retailers	$6,002,993	$3,206,678	$2,796,315	30.4
Home Furnishings Stores	$5,089,105	$2,436,872	$2,652,233	35.2
Drinking Places - Alcoholic Beverages	$4,704,281	$2,175,476	$2,528,805	36.8
Jewelry, Luggage, and Leather Goods Stores	$2,629,737	$482,738	$2,146,999	69.0
Shoe Stores	$2,308,086	$258,365	$2,049,721	79.9
Lawn and Garden Equipment and Supplies Stores	$3,062,938	$1,100,823	$1,962,115	47.1
Gasoline Stations	$83,095,900	$81,274,744	$1,821,156	1.1
Book, Periodical, and Music Stores	$1,986,857	$571,222	$1,415,635	55.3
Office Supplies, Stationery, and Gift Stores	$2,725,087	$1,379,210	$1,345,877	32.8
Auto Parts, Accessories, and Tire Stores	$6,458,218	$5,718,703	$739,515	6.1
Bldg. Materials, Garden Equip. & Supply Stores	$22,783,807	$22,059,836	$723,971	1.6
Florists	$976,323	$630,048	$346,275	21.6

Source: Camoin Associates

Exhibit 54. Retail Potential in Madison County, 2009

Industry Group	National Average Sales	Trade Area Retail Gap	10% Recapture Rate-Retail Potential	20% Recapture Rate - Retail Potential	50% Recapture Rate - Retail Potential
Furniture & Home Furnishings Stores	$833,640	$12,619,802	1.51	3.03	7.60
Electronics & Appliance Stores	$685,129	$8,188,293	1.2	2.39	6.00
Bldg. Materials, Garden Equip. & Supply Stores	$704,416	$723,971	0.1	0.21	0.50
Gasoline Stations	$4,032,667	$1,821,156	0.05	0.09	0.20
Clothing and Clothing Accessories Stores	$542,667	$15,276,957	2.82	5.63	14.10
General Merchandise Stores	$5,038,999	$11,328,273	0.22	0.45	1.10
Miscellaneous Store Retailers	$190,583	$3,148,803	1.65	3.30	8.30
Food Services & Drinking Places	$665,427	$13,911,679	2.09	4.18	10.50

Source: Camoin Associates

Agriculture

Agriculture and related activities continue to play an important role in Madison County's economy. It is estimated there are approximately 1,000 jobs in the agriculture sector in Madison County, including many sole proprietorships. As shown in *Exhibit 55,* between 2002 and 2007, the number of farms in Madison County increased by 1% to 744 operations. New York State saw its number of farms decline by 2% while 39 other states reported an increase in the number of farms for a 4% gain nationwide. (A farm, for the purposes of the Census, is any place from which $1,000 or more of agricultural products were, or normally would be, produced and sold during the Census year.)

The amount of land in farms in Madison County increased by 12% to 188,320 acres. This represents approximately 294 square miles of land in farm use or 44% of the County's total land /water area of 662 square miles. The average size of a farm in Madison County increased from 229 acres to 253 acres.

Exhibit 56 compares the distribution of farms by number of acres over a ten-year period ending in 2007. Farms in low to mid-range sizes (10–49 acres and 50–179 acres) have shown an increase over this period as have very large farms of over 1,000 acres. Very small farms have declined as have the larger mid-range farms in the 180—499 acres category.

Average sales per farm *(Exhibit 57)* increased from $83,929 to $116,036 between 2002 and 2007. However, a third of all farms reported sales of less than $2,500 and nearly three-quarters (71%) of farms reported annual sales of less than $25,000.

Exhibit 58 shows the overall market value of agricultural products sold in Madison County increased by 40% to $86 million, ranking it 21st of the 54 New York counties reporting agricultural revenue. Of this amount, crops accounted for $16 million (19%) and livestock, poultry and their products yielded $70 million (81%) in sales. Of the latter amount, milk accounted for $62 million which was 89% of livestock/livestock product sales and 72% of total sales. According to USDA statistics, farm operators keep about $24.7 million of these sales or about $33,000 on average per farm.

Madison County's agricultural output accounts for approximately 33% of the MSA's agricultural output of $262 million. This sector is a fairly small portion of the region's economy - the BEA estimates the MSA's Gross Domestic Product to be approximately $26 billion. While agricultural activity accounts for a larger share of Madison County's economic activity than in Onondaga or Oswego counties, it is still a relatively small, though not insignificant, portion of overall output. Farming at the local level in Madison County retains its significance in several ways. Agricultural activity contributes to the economy in direct and indirect ways. As noted, the value of farm products sold was more than $86,000,000 in 2007 and as this money circulates through the local economy, it generates approximately $260,000,000 of business in other sectors. Moreover, as will be discussed below, agriculture and activities related to agricultural pursuits may offer the County continued new opportunities for the growth and development of its economy. Finally, the agricultural setting of Madison County and the lifestyle that prevails as a result is a major factor influencing the quality of life and contributes in many intangible ways to the economic health of the County.

Madison County ranked 14th in the State (out of 54) and 116th in the nation (out of 2,493) in milk and dairy products from cows and 21st in the State in overall value of agricultural products sold. The dependence on milk can be problematic given the commodity nature of the product. While relatively high milk prices in 2007 benefited producers and were probably responsible in part for the large increase in agricultural product revenue for that year, the current state of milk prices

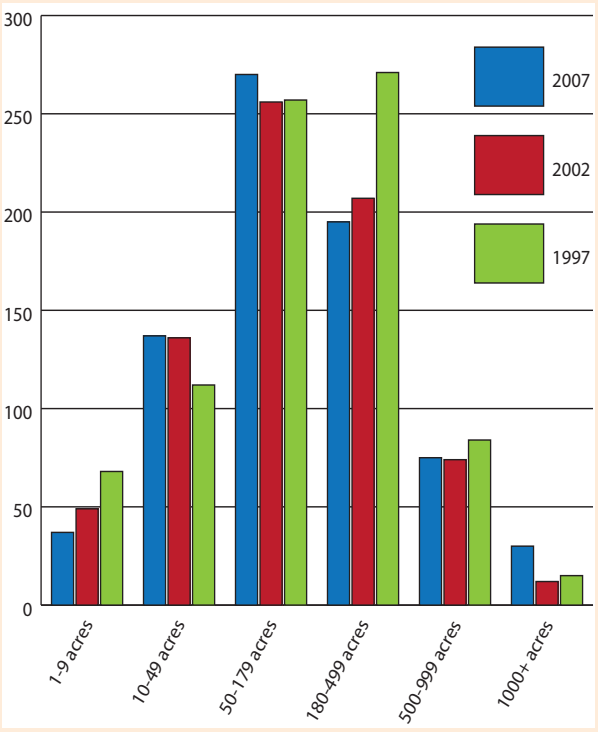
As noted in the County's 2005 Agriculture and Farmland Protection Plan, "[T]here are currently 13 Agricultural Districts, which encompass over 153,000 acres in Madison County. Together these districts make up over 36% of the County's total land base, [and] provide both economic and regulatory incentives for farmers to continue farming..."

Exhibit 55. Agricultural Summary, Madison County 2002 & 2007

	2002	2007
Total Farms	734	744
Land in Farms (acres)	168,264	188,320
Average Size of Farm (acres)	229	253
Proportion of Land Area in Farms	40%	44.8%
Market Value all Products Sold ($1,000)	$61,604	$86,331
Market Value Average Sales per Farm (dollars)	$83,929	$116,036

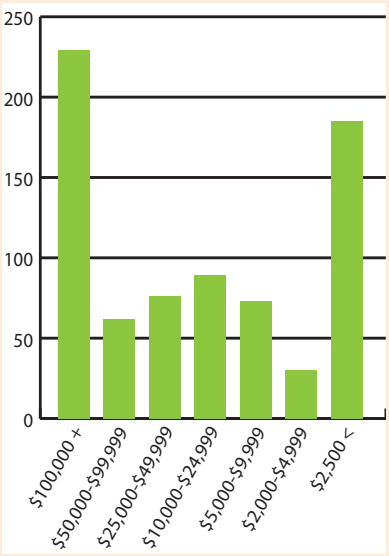
Source: U.S. Department of Agriculture

Exhibit 56. Madison County Farms by Size, 1997 to 2007



Source: U.S. Department of Agriculture

Exhibit 57. Farms by Value of Sales, 2007



Source: U.S. Department of Agriculture

Exhibit 58. Agricultural Products

Product	$Revenue ($1,000)
Total Crops, nursery,greenhouse	$16,124
Corn	$4,875
Soybeans	$1,014
Vegetables, melons, potatoes	$1,946
Nursery, greenhouse, floriculture	$3,758
All other	$4,531
Livestock, poultry and products	$70,207
Cattle & Calves	$6,992
Milk and other dairy prods from cows	$62,337
All other	$878

Source: U.S. Department of Agriculture

in the Northeast is causing many producers to consider exiting the industry.

A distant second and third ranking in the County's agricultural sales were the sale of cattle and calves at $7 million and the sale of grains, oilseeds, dry beans and dry peas at $6.5 million.

The top crop item in Madison County was forage which utilized 59,000 acres. Another 30,000 acres was utilized for corn production which was nearly evenly split between corn for grain and corn for silage.

It's difficult to completely assess this sector's impact on the County's employment in that farm operators are, by and large, self-employed proprietors and some farm labor comes through the involvement of immediate family members. Moreover, as will be seen below, farm operators are increasingly working in this sector as part-time employers/employees. In 2008, NYSDOL reported 181 wage earners from 29 reporting units in the agricultural support, forestry and fishing category, of which 141 were engaged in crop and animal production sub-categories. The total number of wage earners for this period in Madison County was 21,562. Agricultural workers generated $4.4 million in wages out of a total of $726.5 million (<1%). Non-employer statistics for 2006 indicated 86 establishments in the sector out of a total of 4,200.

Farming as Lifestyle

A significant number of farms in the Madison County are small, with nearly 50% reporting less than $10,000 in sales.. Of the 744 farms in the County, 374 show a positive net income while 370 show a loss. As noted earlier, many if not most operators have to rely on other sources of income to sustain themselves. In fact, only 56% of the farm operators in Madison County reported farming as their primary occupation (still much higher than the national rate of 45%). There were 423 operators reporting that they worked some days off the farm while 256 operators reported working more than 200 days off the farm. This reflects not only the challenge of making a living by farming but also a trend toward part-time farming that is evident here and nationally.

Exhibit 59. New Farm Trends in the U.S.

New Farm Trends	All Farms	New Farms
Percent of Total	100%	13%
Average Size	418 acres	201 acres
Average Value of Products Sold	$135,000	$71,000
Sales and Government Payments <$10,000	58%	73%
Average Age of Operator	57	48
Farming as Primary Occupation	45%	33%

Source: U.S. Department of Agriculture

National trends in farming may be instructive, as shown in *Exhibit 59*. Underlying the change in farm numbers is the fact that farmers are continually entering and exiting agriculture. Since the 2002 Census of Agriculture, 291,329 new farms have begun operation in the U.S. Farms that began operation between 2003 and 2007 tended to be smaller and have lower sales than all farms nationwide. New farms, on average, had 201 acres of land and $71,000 in sales. By comparison, the average for all farms in the United Stated was 418 acres and $135,000 in sales. Operators of new farms were more likely to be engaged in occupations other than farming and to derive income from non-farm sources. The percentage of principal operators report farming as their primary occupation was 33 percent for these new farm operators. The average for all principal farm operators was 45 percent.

Boutique and Organic Crops

Exhibit 60 summarizes some basic information on organic production for the counties most involved in this sector in New York State.

These are small farms, or portions of larger farms, averaging 153 acres and selling products valued at, on average, $61,000 per year. Madison County is squarely

Exhibit 60. NYS Farms' Organic Products - 2007 Largest Producers

County	# of Farms	Acres Used for Organic	% of acres in farms	Value of Organic Products ('000)	Value all Products ('000)	Organic % of total
Allegany	31	5,718	3.8%	$1,281	$46,068	2.8%
Cayuga	42	3,459	1.4%	$1,463	$214,403	0.7%
Chautauqua	30	2,378	1.0%	$1,353	$138,578	1.0%
Cortland	30	3,860	3.1%	$1,584	$54,884	2.9%
Delaware	18	4,061	2.5%	$101	$55,143	0.2%
Erie	13	4,568	3.1%	$1,578	$117,031	1.3%
Herkimer	33	4,951	3.5%	$2,096	$62,141	3.4%
Jefferson	31	7,494	2.9%	$2,198	$139,242	1.6%
Madison	22	4,741	2.5%	$1,460	$86,331	1.7%
Montgomery	21	3,939	3.2%	$1,560	$73,612	2.1%
Onondaga	21	2,404	1.6%	$2,020	$137,372	1.5%
Orleans	16	2,561	1.8%	$1,440	$101,026	1.4%
Seneca	46	4,850	3.8%	$2,955	$84,075	3.5%
St. Lawrence	62	13,716	3.9%	$3,456	$140,151	2.5%
Steuben	52	5,204	1.4%	$1,535	$135,286	1.1%
Tompkins	41	5,815	5.3%	$5,263	$60,185	8.7%
Yates	49	5,579	4.4%	$2,720	$88,382	3.1%
Totals	558	85,298		$34,063		

Source: U.S. Department of Agriculture

in the middle of this listing in terms of land and farm involvement and the value of organic products among the largest producers of organic in the State and 13th overall in terms of value of organic products. Nearby Tompkins County, a smaller, more densely populated county than Madison, leads the list in terms of percentage of land devoted to organics and in the percentage of total product value derived from organics and overall value of organic products (over $5 million).

Equine

Exhibit 61 summarizes the economic impacts of horse-breeding activities in the County presented in the Agricultural Census for 2002 and 2007.

There has been a sizable increase in revenues in this sector over the past five years. The large increase in economic activity has been supported by the development of local equine science and business management programs at two local colleges, SUNY Morrisville's Equine Science Program and Cazenovia College's Equine Business Management Studies Program. Each program has invested in its equine program in recent years; Cazenovia through the construction of a 243-acre horse farm and Morrisville's Equine Rehabilitation Center.

As an example of how this benefited the local economy, the annual Syracuse International Horse Show sponsored by the American Saddlebred Horse Association and the New York State Fair Horse Show drew significant attention to Central New York on an annual basis as a center of equestrian activity. An

Exhibit 61. Economic Impact from Horse Breeding, Madison County

	2002	2007	% Chge
Operations with Sales	38	46	17%
Sales measured in head	92	209	127%
Sales measured in $	$185,000	$443,000	139%

Source: U.S. Department of Agriculture

important by-product of these activities is the money pumped into the local economy directly through the events and indirectly through any resulting revenues to local stables and equestrian related businesses. A local equestrian Olympic medalist may also be an important resource in terms of symbolizing the equestrian status of Madison County.

CSA participation

Community Supported Agriculture arrangements, in which consumers purchase produce directly from local farms as buying groups, is an increasingly popular means for nearby urban residents to purchase locally grown produce. The Census of Agriculture began to track this activity in its 2007 report. There were 9 Madison County farms that participated in CSA arrangements at that time.

The movement toward utilization of local food sources comes from a variety of sources (security, health, energy conservation, and environmental concerns) and appears to be growing. The proximity of the metro areas of Utica and Syracuse may be part of the reason Madison County seems to have better than average participation in this form of direct-to-consumer sales and might further support the maintenance and development of farms in the County and help diversify the product base.

Agritourism

An agritourism farm is any land based farm or business that is open to the public. These specialized agritourism destinations generally offer things to see, things to do, and produce or gifts to buy, and are open to the public at least some parts of the year. Some agritourism farms are open 365 days, some only open for a few weekends in the fall. All offer a unique and entertaining farm experience and are generally appealing to all members in a family. Wine tasting, farm tours, country bed and breakfast, corn mazes, hay rides, u-pick farms and even farm stands are all examples of agritourism. The national market for agritourism is put at $567 million, up from $202 million in 2002. The average farm earned $23,350.

There has been increased participation in agritourism by Madison County farms and in NY as a whole. Revenue from this source has increased by nearly 500% in Madison County over the five year period with the average participating farm earning $20,133.

Agritourism activities can support the maintenance or creation of farms, especially given the trend toward farming as a part-time occupation for so many. It also can drive development opportunities for other local services and retail. Madison County has significant resources already devoted to promoting tourism in the region and agritourism's rapid growth nationally and locally seems to be a trend in which the County could participate.

Tourism

Madison County is located in the New York State-designated Central New York/Leatherstocking Tourism Region. A 2011 report for the State by Tourism Economic, Inc. on the economic impact of tourism noted that tourism in the CNY/Leatherstocking region is a $1.8 billion business supporting 32,000 jobs. The same report estimated there are 1,852 tourism-related jobs in Madison County supported by tourism spending that exceeded $77 million in 2011. *Exhibit 62* shows how total tourism spending is distributed among the counties belonging to the CNY/Leatherstocking region.

The tourism industry in Madison County has a large impact on residents as it provides over $23 million in direct income to residents and over $17 million in indirect and induced incomes. This accounts for about 5% of the total wages in the County. The tourism industry employs over 1,286 people directly and another 566 indirectly. According to a 2011 study, the tourism industry contributed $4.9 million dollars in local taxes (4% sales tax and property taxes) and $4.6 million in State sales taxes.

In terms of trends, tourism spending in the region has been on a consistent upward swing. In the early part of the decade revenue increased at rates of 10–15% yearly. In 2005 and 2006 those rates were closer to 5%. In 2011 tourism spending increased 7.3%.

As shown in *Exhibit 63,* over one-third of the visitor spending in Madison County went toward food and beverage spending. Lodging and retail & service station revenues were also significant components of overall tourist spending in the County.

Exhibit 62. Tourism Impact by County, 2011

Total Tourism Impact, 2011	Visitor Spending, '000s	Labor Income, '000s	Employment	Local Taxes, '000s	State Taxes, '000s
Broome	$283,089	$142,748	6,264	$17,650	$17,250
Chenango	$29,210	$10,944	509	$1,749	$1,780
Herkimer	$92,076	$40,008	1,568	$5,066	$5,611
Madison	$77,029	$40,303	1,852	$4,940	$4,694
Montgomery	$32,332	$15,376	670	$2,223	$1,970
Oneida	$1,106,934	$553,996	16,548	$63,357	$67,450
Otsego	$153,160	$74,005	3,233	$10,453	$9,333
Schoharie	$55,753	$21,882	978	$3,280	$3,397
Total	$ 1,829,583	$899,262	31,622	$108,717	$111,484

Source: Empire State Development Corp.

Exhibit 63. Visitor Spending by Category, 2011

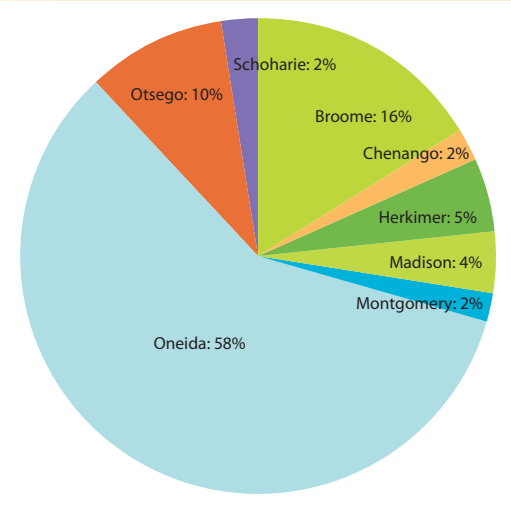
2011 Visitor Spending, '000s	Lodging	Recreation	F&B	Retail & Svce. Stations	Transport	Second Homes	Total
Broome	$79,807	$6,995	$91,203	$63,186	$34,402	$7,496	$283,089
Chenango	$1,552	$635	$5,722	$3,283	$1,332	$16,687	$29,210
Herkimer	$16,729	$3,737	$17,837	$14,016	$7,849	$31,908	$92,076
Madison	$12,338	$2,334	$27,145	$18,217	$3,083	$13,912	$77,029
Montgomery	$4,740	$516	$7,181	$3,479	$14,358	$2,057	$32,332
Oneida	$220,362	$370,816	$187,048	$273,361	$37,152	$18,196	$1,106,934
Otsego	$42,219	$7,237	$42,866	$34,415	$4,017	$22,407	$153,160
Schoharie	$14,940	$1,383	$9,308	$8,724	$64	$21,334	$55,753
Total	$392,687	$393,653	$388,309	$418,682	$102,256	$133,995	$1,829,583

Source: Empire State Development Corp.

Representative List of Annual Events and Attractions Drawing Visitors to Madison County

- Erie Canal
- Oneida lake
- Chittenango Falls State Park
- Verona State Park
- Lorenzo State Historic Site
- Madison-Bouckville Antique Show
- Ozstravaganza
- International Boxing Hall of Fame
- Earleville Opera House
- Many Unique B&Bs
- 130 miles of multi-use trails: hunting, cross-country skiing, hiking, fishing
- Turning Stone

Exhibit 64. Tourism Spending



Source: Empire State Development Corp.

Higher Education

In 2009 it was estimated there were 1,777 private sector education jobs in Madison County. A majority of these jobs were in higher education. Local colleges and universities can have a large positive impact on the economies of the communities that host them. Direct economic impact can stem from institutional spending on employment and capital projects and from spending by students and visitors. Additional indirect and induced spillover benefits result from this spending and the spending of the institution's employees. A recent study by the Center for Government Research estimated that statewide, NY's independent higher education sectors indirect and induced economic impact was nearly as large as the direct spending of the institutions, its students and visitors.

Colleges and universities are net wealth generators in that they draw income from sources outside the community. They are essentially selling the service of education to consumers from across the U.S. and in some cases from abroad. Much like manufacturers, this "export" product has a large multiplier effect on the local economy. Beyond this, there is the resource of the college itself that may be available to the community; they are participants in community activities, investors in community facilities and infrastructure, and providers of educational and research services to workforce and employers.

Madison County is unusual for a county of its size in having three institutions of higher learning. The three colleges have deep roots in the communities in which they are located. Cazenovia College and Colgate University were founded in the early nineteenth century and Morrisville State College was founded in 1908. All three institutions continue to exert distinct, positive influences on the County and on their host community as major employers, consumers, taxpayers, and investors in the community.

Cazenovia College

Cazenovia College is an undergraduate baccalaureate college located in the Village of Cazenovia, New York. The college was founded in 1824 and has operated at its original site for over 185 years. Cazenovia has approximately 1,000 degree seeking students with more than 800 living on campus. The college employs 150 faculty, 55 of whom are full-time and 95 part-time and 247 staff (170 full-time, 77 part-time). The college reports that there are 10,960 living, active alumni.

Academics

Programs of study at Cazenovia College include Accounting, Business, Communication Studies, Criminal Justice and Homeland Security Studies, Early Childhood Program Administration, Early Childhood Teacher Education, Inclusive Elementary Education, English, Environmental Studies, Equine Management, Fashion Design, Fashion Merchandising, Human Services, Interior Design, International Studies, Liberal Studies, Photography, Psychology, Social Science, Sport Management, Studio Art, Visual Communications

The college offers the following Baccalaureate Degrees:

- Bachelor of Arts
- Bachelor of Fine Arts
- Bachelor of Science
- Bachelor of Professional Studies

Cazenovia College also offers associate degrees in arts, applied sciences, and science through its Office of Extended Learning.

As noted in the Agriculture section, Cazenovia has an Equine Business Management specialization designed for students interested in the organizational, management, and commercial aspects of the equine industry as well as students interested in advanced horse care, breeding, and stable management. The program provides a variety of professional experiences

through a liberal internship program. This specialization is accredited by the International Assembly of Collegiate Business Education (IACBE). Cazenovia College currently owns a 243-acre horse farm located less than five miles from the main campus that is home to the Equine Business Management Studies program. It houses a herd of approximately 72 horses. Facilities include an indoor arena, multiple outdoor riding areas, a dressage arena, trails, and turnout paddocks.

Impact on the Community

Cazenovia College is also a significant employer and source of economic activity in the community. It is a major economic contributor through local expenditures associated with its payroll; operating expenses; students, parents, employees, alumni and visitors' spending; and capital projects. In the 2005–06 academic year, the College estimated its total direct economic impact at $24.7 million, the components of which are shown in *Exhibit 65*.

Exhibit 65. Cazenovia College Financial Impact

Gross Payroll & Benefits:	$11.2 million
Purchases in the Local Marketplace:	$4.0 million
Out-of-Pocket Expenditures: (students, parents, employees, alumni, visitors)	$3.5 million
Capital Projects:	$6.0 million
Direct Economic Impact (Subtotal):	$24.7 million

Source: Cazenovia College

Morrisville State College

Morrisville State College is part of the State University of New York (SUNY) system. The college is located in the Village of Morrisville and was established in 1908. The campus is comprised of over 48 buildings spread across an area of 150 acres. The college has 3,383 students, 2,953 of whom are full-time equivalent. Students in the college's agriculture programs alone total 600. The college employs approximately 450 faculty and staff.

The college offers 13 bachelor degrees and a wide variety of associate degrees and options from four separate schools:

- School of Agriculture & Natural Resources
- School of Business
- School of Liberal Arts
- School of Science & Technology

In the 2008–09 academic year, Morrisville awarded 453 Associate Degrees in 40 different programs and 132 Bachelor's Degrees in 8 different programs. As noted earlier, Morrisville offers a Bachelor of Technology Equine Science program that is designed to further the technical and business knowledge and skills of equine students at the upper division level. Courses ranging from Equine Business Management to Applied Equine Nutrition to Animal Genetics allow the student to advance academically and specialize in very specific areas of the horse industry.

Morrisville is a key educational resource for Madison County. Its Workforce Development & Community Education Department offers many non-credit classes (and other classes eligible for continuing education credit) each year on a wide variety of topics. The office also provides customized training programs for business and industry that meet the specific skills and knowledge needed in the competitive work environment. Specific training is done in management development, professional and career development, and computer skills. Courses can be customized to meet an individual company's specific needs.

Several grant programs are run through the Workforce Development & Community Education Department, including the Bridge program at Morrisville State College, a grant-funded program which helps low income families get the education and training they need to obtain employment.

Morrisville developed and supports Nelson Farms, an organization located in Nelson, NY, providing entrepreneurial agri-business opportunities for specialty food processors, farmers, growers, and producers. Opportunities include processing/co-packing, product development, dairy incubator, distribution, marketing and sales. Nelson Farms offers a state-of-the-art, one-stop processing facility for small scale food processors, farmers, growers, and producers that enables local farmers to add value to their products. Nelson Farms is licensed by the State of NY and adheres to FDA regulations.

Nelson Farms and Morrisville State College are establishing a state wide distribution system to assist the processor, farmer, grower, and producer in getting their products to the market place. This distribution system will provide opportunities for expansion into major markets in the northeast.

Colgate University

Colgate is a highly selective, nationally recognized undergraduate liberal arts college located in Hamilton, NY. The college was founded in 1819.

Some 2,800 undergraduates are enrolled in 51 programs, taking advantage of the university's award-winning curriculum, off-campus study program, and numerous research opportunities. Full-time faculty numbers 263, 98 percent of whom have a PhD or the highest degree in their field of study.

Colgate undergraduates have earned funding for research, and gained recognition through professional publication for more than 30 years. Annually more than 100 students engage in full-time, grant-funded original research in the sciences, humanities and social sciences.

Colgate has approximately 32,400 alumni, 8,100 of whom continue to live in New York State. Of these NY resident alumni, approximately 1,300 are in Central New York.

Colgate's relationship with the Village and Town of Hamilton is an excellent example of productive town/gown cooperation. With a population of 2,500, the Village is roughly the size of the student body and so the impact of Colgate on the community is considerable. Colgate is an active member in the Partnership for Community Development, which stimulates and supports local business through small business development and the revitalization of historic buildings. Colgate's bookstore, Schupf Studio Art Center, Hamilton Movie House, and Palace Theater are all located in the Village.

In an effort to improve the vitality of Hamilton, N.Y., supporters of Colgate University came forward to fund the Hamilton Initiative LLC in 2000. Hamilton Initiative is a for-profit limited liability company whose focus is real estate and economic development in downtown Hamilton. The initiative primarily focuses on the following three areas:

- Renovation of 8 key downtown buildings
- Attracting quality tenants
- Managing 4 business operations

The Hamilton Initiative has worked to improve the overall appearance of the community and has also benefited the economic climate of the area by spurring an active and diverse business center.

Colgate University has a significant financial impact in the community as demonstrated by the following summary of it direct expenditures during the 2009–2010 period, shown in *Exhibit 66*.

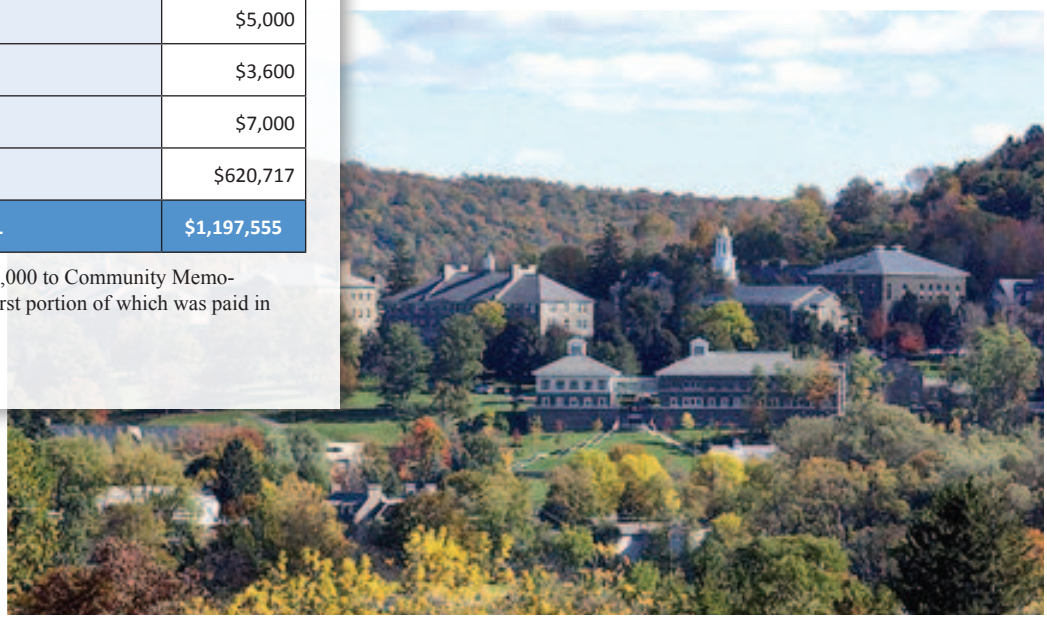
As was seen in the case of Cazenovia College, direct University expenditures in the community are amplified by other related direct spending (capital expenditures/students/visitors) and indirect or spillover spending. While figures are not available for these impacts, Colgate's relative size and its position as the County's largest employer ensure that these impacts are considerable.

Exhibit 66. Colgate University Financial Impact

Colgate University Taxes Paid (2009–2010)	
School	$171,607
Town	$99,491
Village	$87,908
TOTAL	$359,006
Hamilton Initiative LLC Taxes Paid (2009–2010)	
School	$71,128
Town	$40,548
Village	$44,410
TOTAL	$ 156,086
Voluntary Contributions (2009–2010)	
Hamilton Central Schools (general)	$192,787
Hamilton Central Schools (special project)	$ 20,000
Town of Hamilton	$80,865
Village of Hamilton	$132,704
Town of Lebanon	$3,082
Chenango Nursery School	$59,425
Community Memorial Hospital*	$50,000
Hamilton Fire Department (fire truck)	$18,000
Hamilton Fire Department (rescue truck)	$20,000
Partnership for Community Development (PCD)	$90,000
July 4th Fireworks	$5,000
"Save the Mural" campaign	$3,600
Syracuse Symphony Orchestra	$7,000
TOTAL	$620,717
GRAND TOTAL	**$1,197,555**

* The university committed $150,000 to Community Memorial Hospital in 2008–2009, the first portion of which was paid in 2009–2010.

Source: Colgate University



Community Resources and Services

Governance

The total number of public sector (federal, state, and local) jobs in Madison County in 2009 was estimated to equal 4,671, including 1,800 jobs in the public education K–12 school system. The New York State Constitution provides the basis for New York State law and the delineation of the powers and authority of local governments in New York State. Since its initial adoption in 1777, five (5) versions of the State Constitution (as later adopted in 1821, 1846, 1894, and 1938) have provided the legal framework for governance in New York State. The constitution as approved by the voters in 1938, as later amended by actions of the legislature and the voters under the provisions of Article XIX, Section 1, forms the legal basis for all current New York State Laws.

New York is a diverse state with a long history of home rule and local decision making in the establishment of its local government structure and organization. Article IX of the State Constitution establishes the "Bill of Rights for Local Governments" and delineates those powers granted to local government and those reserved to the State through the actions of the State legislature. Although local governments are granted certain powers and privileges in the Local Government Bill of Rights, their ability to govern is closely tied to actions by the State Legislature. The Statute of Local Governments enacted by the State Legislature grants additional authority to local governments as prescribed under the local government bill of rights subject to "… such purposes, standard, and procedures as the State

Exhibit 67. CNY County Benchmark Comparisons: County Revenues and Expenditures 2009

Category	Madison	Cayuga	Cortland	Oneida	Onondaga	Oswego
Full Value per Capita	$53,129	$51,517	$43,051	$42,817	$53,714	$40,904
NYS Rank (out of 57)	34	35	50	51	32	55
Effective Property Tax Rate	0.73%	0.80%	1.33%	0.60%	0.47%	0.77%
NYS Rank	20	12	2	30	37	15
Taxes per Capita	$706	$907	$1,094	$783	$1,037	$754
NYS Rank	51	29	6	44	11	46
Debt per Capita	$5	$636	$443	$589	$779	$27
NYS Rank	53	18	29	23	16	52
Total Revenues Per Capita	$1,469	$1,835	$2,257	$1,589	$2,271	$1,527
NYS Rank	52	29	8	48	7	51
Education Per Capita	$76	$64	$86	$96	$113	$98
NYS Rank	35	42	22	16	8	14
Public Safety Per Capita	$134	$142	$179	$141	$246	$121
NYS Rank	44	38	20	40	4	49
Transportation Per Capita	$220	$129	$292	$214	$104	$157
NYS Rank	17	38	5	18	45	32
Economic Development Per Capita	$10	$19	$16	$2	$47	$8
NYS Rank	35	21	26	52	5	40
Total Expenditures Per Capita	$1,491	$1,799	$2,336	$1,705	$2,446	$1,495
NYS Rank	53	35	13	39	9	52

Source: Office of NY State Comptroller & The Empire Center for NY State Policy

legislature may have heretofore prescribed or may hereafter prescribe."

New York State's 57 counties outside of the City of New York have generally adopted one of three methods of county organization; charter counties with elected executive or appointed administrative official; counties with an appointed manager or administrator organized under county law; and those operating under the administrative direction of elected legislative body. Madison County is governed by a legislative body.

- County Charters- 21 counties: 17 currently with county executives elected in county-wide general elections and four with appointed administrators or managers;
- Appointed Manager/Administrator- 22 counties have administrators and 9 have managers (not including the 2 administrators and 2 managers appointed by charter counties)
- Legislative Body- 9 counties provide oversight and administration through their board chair and/or committees that have jurisdiction over various departments.

Residents and businesses in Madison County are served by a network of local government units consisting of a county government and fifteen towns, ten villages, and one city. Madison County is governed by a board of supervisors consisting of 19 members and an appointed county administrator. The County provides a range of services to its residents through a formal department structure and by arrangements with authorized agencies and organizations of the County. Major County departments include the board of elections, county administrator, county attorney, county clerk, courts, district attorney, department of motor vehicles, emergency preparedness, employment and training, highway, industrial development agency, mental health, personnel, planning, public health, public safety/correctional facility, purchasing office, real property tax, sheriff's office, social services, solid waste and sanitation, and treasurer's office.

Madison County Property Classifications and Valuations

Madison County has nine major property classifications for tax assessment purposes. Nearly two-thirds of the County's properties are classified as residential. More than one-fifth of all properties are vacant land. Agricultural land is the third largest classification at nearly 6% of total.

As property taxes are a main source of revenue for any county, the composition and assessed valuation of the tax base are critical issues. Fully two-thirds of Madison County's assessed valuation comes from

Exhibit 68. Madison County Property by Property Class—2010

Property Class	Total by Property Class	%	Total Property Value by Class	%	Average Value
Agricultural	2,131	5.8%	$175,575,851	4.2%	$82,391
Residential	23,258	63.8%	2,760,919,266	66.8%	118,708
Vacant Land	8,180	22.4%	148,096,881	3.6%	18,105
Commercial	1,437	3.9%	374,855,804	9.1%	260,860
Recreation & Entertainment	137	0.4%	41,356,230	1.0%	301,870
Community Services	502	1.4%	495,987,700	12.0%	988,023
Industrial	68	0.2%	40,647,325	1.0%	597,755
Public Services	197	0.5%	54,247,290	1.3%	275,367
Wild, Forested, Conservation and Public Park	533	1.5%	41,908,600	1.0%	78,628
Total	36,443		$4,133,594,947		

Source: Madison County Planning Department

residential property. Agriculture provides slightly over 4% of the total assessed valuation while commercial properties, comprising nearly 4% of the total number of properties, provide over 9% of total valuation.

Public Safety

One of the most important responsibilities of federal, state, and local units of government is the protection of the public's safety. In Madison County this responsibility is addressed by the State Police, the County's Sheriff's Office (civil, correctional, and criminal divisions), and municipal law enforcement departments in the Villages of Canastota, Cazenovia, Chittenango, Hamilton, and the City of Oneida. Supplementing the services provided by the area's law enforcement personnel is the fire and ambulance rescue services provided by a full-time professional fire department maintained by the City of Oneida and numerous volunteer departments which are strategically located throughout the County. Working together, these communities have achieved an excellent track record in providing for the public welfare and have contributed significantly in helping to make Madison County one of the safest places to live in the United States *(Exhibit 69)*.

Infrastructure

A region's physical infrastructure encompasses existing transportation, communication, and utility networks that act as the support system for delivering goods and services. Infrastructure is built, maintained and, in some instances, rebuilt by government as well as private businesses, and its condition, reliability and comprehensiveness is a crucial component of an area's business climate. A mature infrastructure network requires long-term capacity and capital improvement planning on the part of the relevant operator to maintain the system's ability to service existing and potential users.

Madison County's location in the geographic center of the State allows it to capitalize on many infrastructure improvements that have been made to connect the various regions of New York State together and, in turn, to national and international destinations. From the Erie Canal to the NYS Thruway system, Madison County occupies a central location in the movement of people and goods across and through the State. Furthermore, its location between the Syracuse and Utica

Exhibit 70. Regional Infrastructure Components: Major Roads and Airports

Source: CNY RPDB

Exhibit 69. Crimes Reported, Madison County 2003 - 2007

Year/ Crime	All Crime	Violent Crime	Murder	Rape	Robbery	Agg, Assault	Property Crime	Burglary	Larceny	MV Theft
2003	1,266	82	0	15	12	55	1,184	262	892	30
2004	1,404	71	1	14	15	41	1,333	317	992	24
2005	1,298	83	1	22	11	49	1,215	257	939	19
2006	1,217	66	0	19	5	42	1,151	296	830	25
2007	1,373	67	2	12	7	46	1,306	306	971	29

Source: NYS Division of Criminal Justice Services

metropolitan areas also enables it to benefit from the proximity of services in those markets, such as airports and rail facilities.

Transportation Infrastructure

Air Access

Syracuse Hancock International Airport is located approximately 35 miles west of Madison County and provides direct air access to seventeen major destinations: Atlanta, Baltimore, Boston, Buffalo, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Hartford, Newark, New York City, Orlando, Philadelphia, Pittsburgh, Toronto and Washington, DC. There is also an executive airport in the Town of Hamilton.

Syracuse Hancock International Airport is served by the following major air carriers:

- Air Canada
- American Eagle
- Continental
- Delta
- JetBlue
- United Express
- U.S. Airways

Approximately 2.3 million passengers travel through the airport each year. The air cargo operations at Syracuse Hancock International Airport are located on 22.5 acres of land. The airport handles approximately 380 million tons of cargo per year.

Syracuse Hancock International Airport is well equipped to meet the increasing demand for air freight service. Air cargo activity includes the handling of air cargo and express and regular mail. A 100,000–square-foot cargo building with a parking apron allows direct aircraft access for quick and efficient cargo handling.

Highway Access

The New York State Thruway (I-90) bisects the northern section of the County and provides access to I-81 to the west for north-south travel. Three Thruway interchanges provide access to Madison County destinations, with one, Exit 34, lying within the County at Canastota. According to the NYS Department of Transportation, the number of vehicles transiting these interchanges on a daily basis is between 33,000 and 36,000. Travel distances to adjacent metro areas from Exit 33 include: Syracuse (35 miles), Rochester (100 miles), Buffalo (160 miles), Albany (100 miles) and New York City (260 miles).

Several other U.S. and State highways provide access to various parts of the County. The largest capacity roads are State Routes 5, 31, and U.S. Route 20 which provide east-west transit through the County and State Routes 12B, 13, and 46 which connect the northern and southern parts of the County.

Public Transit

Access to public transportation is an important consideration in determining the mobility of the County's workforce and its ability to reach centers of employment. The Madison County Transit System (MTS) is a public transportation service operated by Birnie Bus. The service is completely open to the public and offers both point-to-point and dial-a-ride service. The point-to-point service operates year round, Monday through Friday; Dial-A-Ride service operates weekdays from 6:00 a.m. to 1:00 p.m., with call ahead reservations required. MTS has a fleet of 9 vehicles, with typically 6 buses operating on a daily basis. Currently MTS operates a northern route, connecting Hamilton/Oneida/Canastota, a southern route,connecting Hamiltion/Morrisville/Canastota and a mini-fixed route servicing Stoneleigh Housing in Canastota and the Oneida Towers in Oneida. The routes are designed to provide service to the population centers in the County, major areas of employment, as well as some of the less populated areas.

Rail Access

A major CSX rail line traverses Madison County parallel to the NYS Thruway, but currently there are no sidings in Madison County nor are there any transhipment points. A major CSX rail yard, intermodal terminal and TRANSFLO terminal is located in Kirkville, NY, in the Town of Manlius, which abuts the western Madison County line. According to the 2009 New York State Rail Plan, this terminal primarily serves the central and northeastern portions of New York and is serviced by a network of 13 trains which reach intermodal terminals throughout the CSX system and beyond. The facility primarily handles double-stack container traffic. Containers destined for Upstate NY are layered on the top and are "filleted" from the top layer and transloaded for tractor-trailer distribution.

Telecommunications Network

Madison County is relatively well-served by most of the main telecommunications technologies. More sparsely populated areas lack high speed Internet access and wireless coverage. The map below depicts the structure of the County's telecommunications network as presented in the 2003 Central New York Telecommunications Study prepared by ECC Technologies Inc.

Telecommunications services are concentrated along the Route 5 and Route 20 corridors. Geographically, Frontier Communications is the largest incumbent telecommunications provider with coverage in the southern half of the County. Windstream Communications, Verizon and Time Warner provide services in the northern and central portions of the County.

Madison County is served by a number of major fiber optic routes. The major north/south routes include Route 46 and 12B from the City of Oneida south through the Village of Hamilton (Colgate University) and on into Chenango County. Another major route originates in Syracuse and travels along Route 92 though the Village of Manlius and into Cazenovia. The major east/west routes include the Route 20, Route 31, and NYS Thruway-Route 90 corridors. Each of these routes are continuous across the entire county. Major fiber providers in the County include Verizon, Frontier, Windstream and Time Warner.

Madison County is served by a network of 13 central offices (CO) which are well distributed throughout the County. Central offices are the facilities which house the equipment used to switch local and long distance telephone calls. Each CO is designated one or more 3-digit dialing codes (the exchange portion of a telephone number). There are also 41 cell tower locations in the County with a majority of these sites located in the northern and central portions of the County.

All prime development sites and localities in the County are located along one of the main fiber optic corridors. These areas are also served by a comprehensive array of modern telecommunications services. The development sites indicated include the main villages, all existing industrial/business parks, Colgate University and SUNY Morrisville.

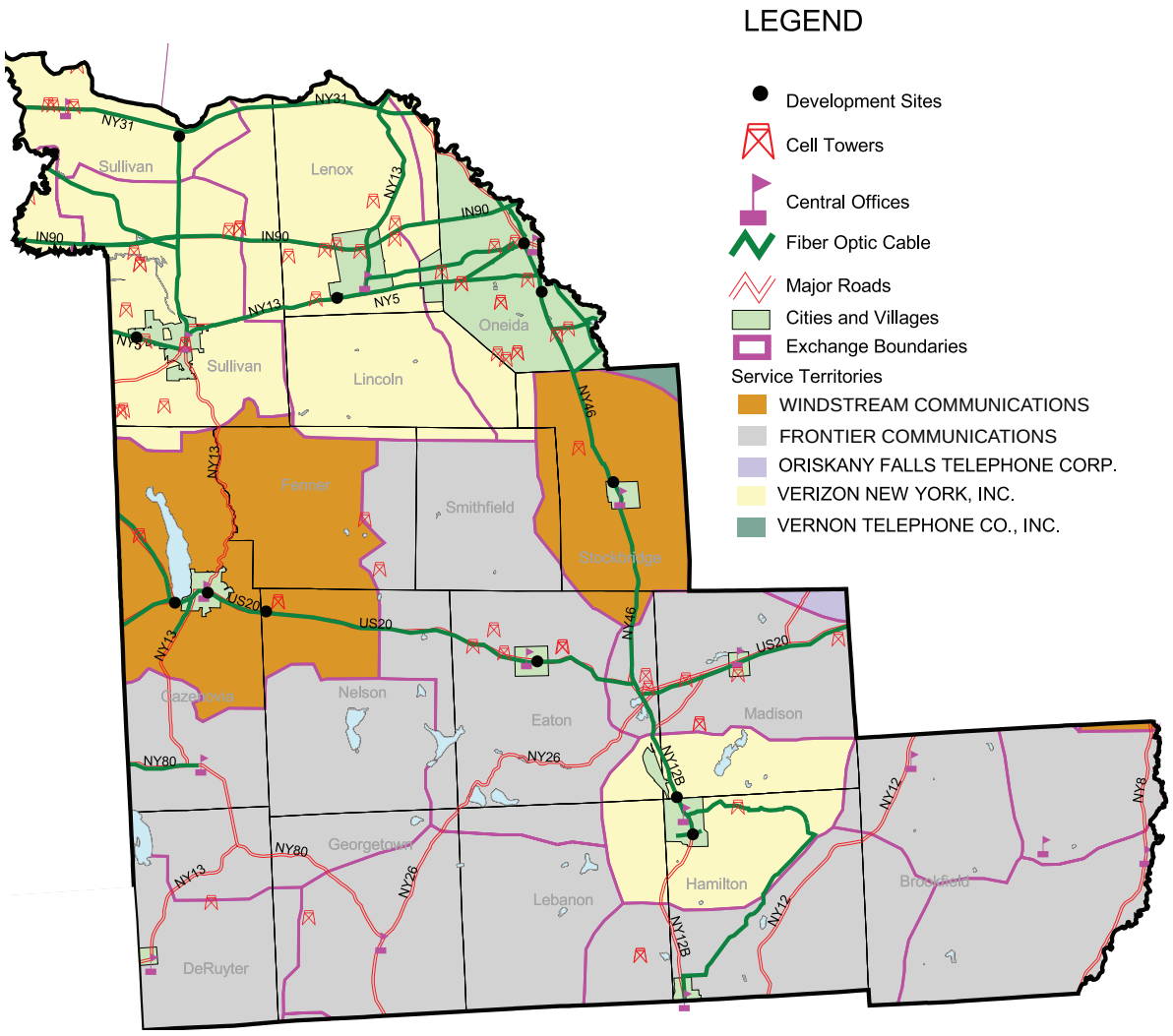
The map in *Exhibit 73* portrays the current State estimate of internet coverage in the County. Most of the populated sections of the County are serviced by either cable-modem or DSL-delivered Internet. There remain several pockets of non-service, primarily in the more rural southern portion of the County but there are also some notable non-covered areas close to population centers.

Electricity and Gas Delivery Networks

Madison County is located in the National Grid and NYS Electric and Gas service areas.

Electricity rates are based on the utility's C,D and E Load Zones pricing structure.

Exhibit 72. Madison County Telecommunication Resources, 2004



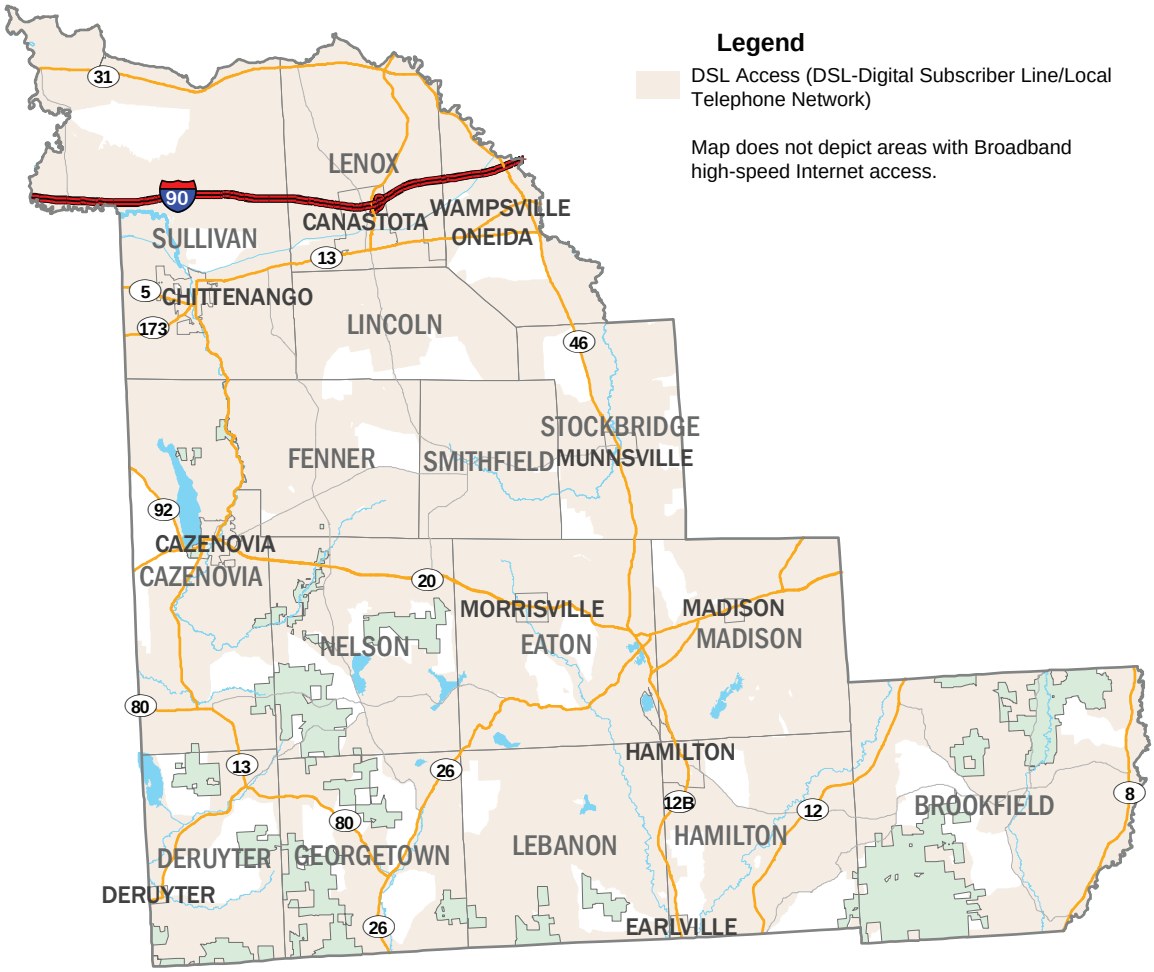
Source: CNY RPDB/ECC Technologies, Inc.

Exhibit 71. Public Water Supply Systems, Madison County, 2009

COMMUNITY PWS	CAPACITY	LIMITATION	PEAK AVG MONTHLY USAGE	EXCESS CAPACITY	% CAPACITY AVAILABLE
(V) CAZENOVIA PWS	1.152 MGD	TREATMENT	0.317 MGD	0.835 MGD	72.40%
(V) DERUYTER PWS	0.288 MGD	PUMP CAPACITY	0.051 MGD	0.237 MGD	82.20%
(V) EARLVILLE PWS	0.742 MGD	PUMP CAPACITY	0.068 MGD	0.674 MGD	90.80%
(V) ERIEVILLE PWS	SPRINGS, SUBJECT TO DROUGHT / GWUDI				
(V) GEORGETOWN	0.202 MGD	PUMP CAPACITY	0.017 MGD	0.185 MGD	91.50%
(V) HAMILTON PWS	3.17 MGD	SOURCE YIELD	0.499 MGD	2.671 MGD	84.20%
(V) MADISON PWS	0.173 MGD	PUMP CAPACITY	0.070 MGD	0.103 MGD	59.50%
(V) MORRISVILLE PWS	0.532 MGD	PUMP CAPACITY	0.112 MGD	0.420 MGD	78.90%
NEW WOODSTOCK PWS	0.461 MGD	PUMP CAPACITY	0.036 MGD	0.426 MGD	92.10%
MORRISVILLE COLLEGE PWS	0.389 MGD	TREATMENT	0.25 MGD	0.139 MGD	35.70%
CITY OF ONEIDA PWS	3.815 MGD	WSA PERMIT	2.411 MGD	1.404 MGD	36.80%

Source: Madison County Health Department

Exhibit 73. Madison County Internet Coverage Areas, 2011



Source: New York State

The Village of Hamilton's municipal utility and the Oneida Madison Energy Cooperative offer low cost electric service to residential and commercial customers in the southern portion of the County.

Water Supply

Municipal water systems serve 59% of the County's population through 12 municipal public water systems (PWS), the largest being the Onondaga County Water Authority (OCWA) service area in the northern portion of the County. The City of Oneida and many of the County's villages operate their own water systems. Approximately 41% of the County's population is served by privately-owned wells.

Exhibit 71 describes capacities and peak usage amounts for the various systems. For the most part, these systems display adequate capacities based on percentage of total capacity available. Specific demands would need to be matched against available supplies to determine whether a constraint exists. OCWA, which supplies the large service area in the northern part of the County that includes Chittenango and Canastota, has excess capacity and could provide considerably more water to service area customers from its Lake Ontario intake. Development that creates additional demand for water in the OCWA service area should not confront any capacity constraints.

Wastewater Treatment

Approximately 50% of the County's land area is served by privately-owned septic systems and another 25% is within a publicly operated municipal wastewater service area. The latter, as would be expected, lie within the populated centers of the County or, as in the case of Morrisville State College, are operated by a single large user.

Exhibit 74 describes the treatment capacities of the various municipal wastewater treatment systems in place in the County. With the exception of the Canastota facility, all facilities evidence some excess capacity. Again, as was the case with the municipal water systems, the adequacy of the systems would have to be measured against a specific new demand to gauge whether a constraint might exist to new development in the facility's service area.

Solid Waste Management

Madison County's integrated solid waste management system consists of one central sanitary landfill in the Town of Lincoln, three transfer stations (located in the Towns of Hamilton, Cazenovia, and Sullivan), a central materials recovery facility located adjacent to the landfill site, and four yards and recyclables drop-off locations (at the three transfer stations and the sanitary landfill). Madison County does not use general tax revenue to subsidize its waste management system. Revenues from landfill tipping fees and recyclables sales are used to operate, maintain, and pay off the debt service for all solid waste and recycling facilities. In order to ensure the continued operation of these facilities, the County adopted Local Law No. 4 for the year beginning 2001 to reinstate flow control for non-hazardous solid waste generated within Madison County.

Madison County has met the milestones outlined in their original Solid Waste Management Plan (SWMP—1991) including the permitting and development of a

Exhibit 74. Wastewater Treatment Facilities, Madison County

COMMUNITY PWS / WWTP	CAPACITY	LIMITATION	PEAK AVG MONTHLY USAGE	EXCESS CAPACITY	% CAPACITY AVAILABLE
(V) CAZ / MADISON CO WWTP	0.95 MGD	SPDES PERMIT	*0.853 MGD	0.10 MGD	10.50%
			**0.691 MGD	0.26 MGD	27.30%
(V) CANASTOTA WWTP	1.73 MGD	SPDES PERMIT	*1.84 MGD	[0.11MGD]	[6.30%]
			**1.55 MGD	0.18 MGD	10.40%
(V) HAMILTON WWTP	0.85 MGD	SPDES PERMIT	*0.75 MGD	0.10 MGD	11.70%
			**0.65 MGD	0.20 MGD	23.50%
(V) CHITTENANGO WWTP	1.30 MGD	SPDES PERMIT# AMENDED 8/09	0.65 MGD	0.65 MGD	50%
CITY OF ONEIDA WWTP	3.75 MGD	SPDES PERMIT	3.40 MGD	0.35 MGD	9.30%
Source: Madison County Health Department					

* PEAK WET WEATHER FLOW; MARCH
** 2ND HIGHEST MONTH, APRIL

Source: Madison County Department of Health

landfill expansion to allow for continued landfilling of wastes, as well as the continued operation of the materials recovery facility, waste yard composting facility, sharps collection program, and public recycling education program. Building on these accomplishments, Madison County has installed an active gas collection system for both the closed East Side Landfill and the active West Side Landfill. The system, which collects methane gas produced by the waste with vacuum pressure, is being utilized to fuel a landfill gas to energy project that was successfully completed in 2009 through a joint venture with Waste Management Renewable Energy, LLC. The energy facility is projected to generate approximately 1.3 megawatts of electricity—or approximately enough electricity to meet the needs of a village the size of Cazenovia. In April 2009, the County issued a request for proposals from companies that may be interested in utilizing the excess heat generated from the landfill gas to energy facility. In conjunction with this RFP, the County has been pursuing the development of an Agriculture and Renewable Energy (ARE) Park on portions of the County's landfill property.

Business and Industrial Parks

Several business and industrial parks have been or are in the process of being established throughout the County, as depicted in *Exhibit 75*.

The City of Oneida Business Park is a 38-acre site, currently home to businesses such as All-Seasonings Ingredients, Inc. and Office Environmental Consultants, Inc. Only 3 acres of this park are currently unoccupied.

The City of Oneida is also examining a proposed 412-acre business park boasting access to CSX main line. The site has undergone several of the key steps to make it shovel ready, including zoning changes and utilities infrastructure engineering feasibility, and is also within about six miles of two different I-90 interchanges.

The Canastota Business Park is a 224-acre business park located only 2 miles from Exit 34 on the New York State Thruway and a mere 25 miles from Syracuse Hancock International Airport. Presently 150 acres of this site are occupied.

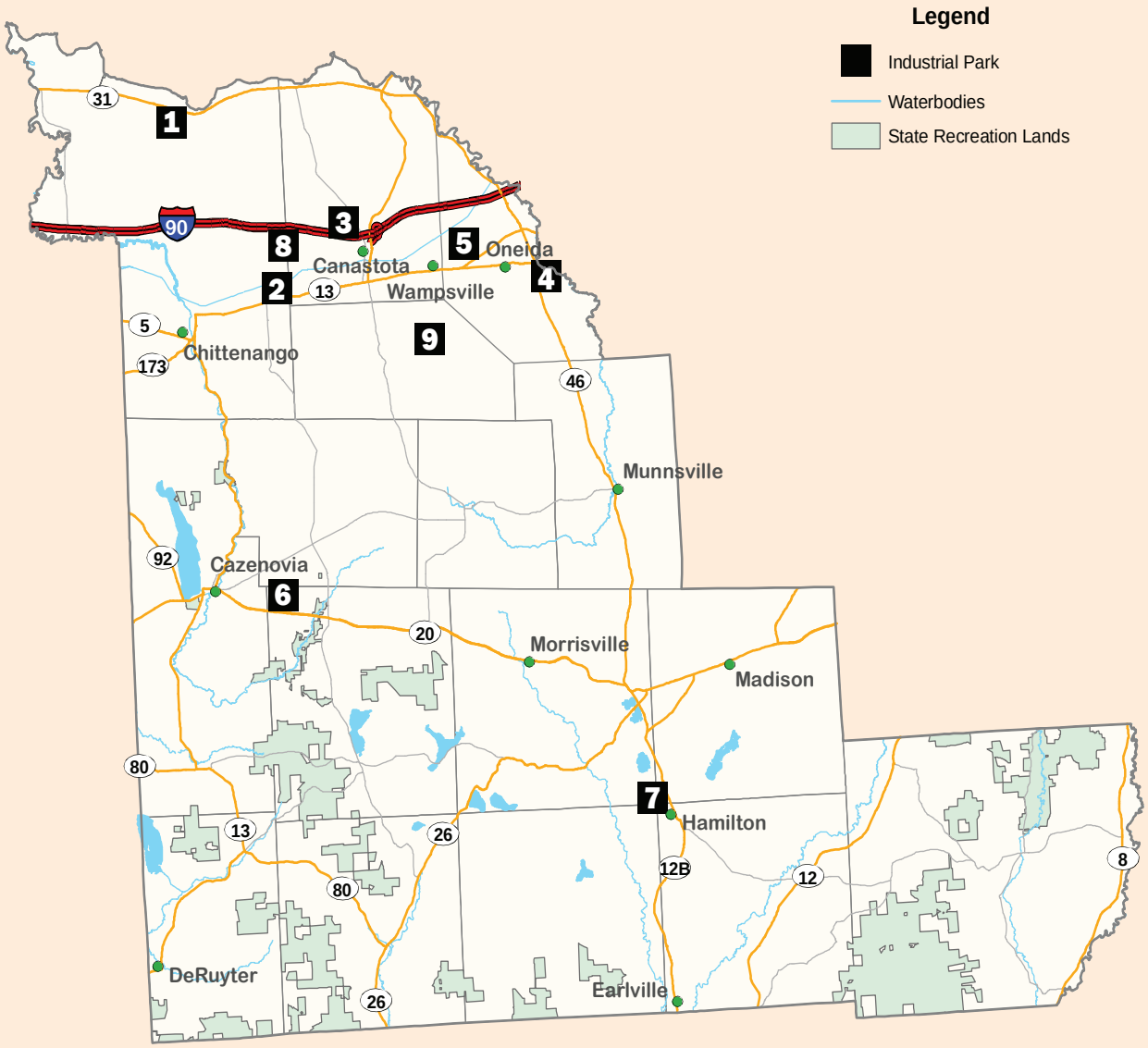
The Lakeport Business Park sits on both the north and south sides of New York State Route 31 at Lakeport Road. At 150 acres, this park is shovel-ready, and 26 acres are currently occupied.

The Hamilton Airpark is a 125-acre property adjacent to an airport with a 5,200-foot runway and is currently home to businesses like Brink Manufacturing Co., Vantine Studios, and Wendt University Inn, LLC. There are currently 50 acres available for development.

The Trush Park in Cazenovia offers easy access to the Village of Cazenovia and to State Route 20, an East-West highway. The site consists of 318 acres, 125 of which are presently occupied with companies like Marquardt Switches, GHD, Dielectric Laboratories, Pelco, Tronser, Community Memorial Hospital, and Cazenovia Children's Home.

The County is currently developing plans for an Agriculture and Renewable Energy (ARE) Park on 150 acres of County-owned land in the Town of Lincoln. The purpose of the proposed ARE Park is to provide an economically-stimulating, environmentally-sound, and shovel-ready development area that would be beneficial to the surrounding community and that

Exhibit 75. Business and Industrial Parks



Industrial Park	Description
1. Lakeport Business Park	150-acre mixed-use park currently in development stage
2. Canastota Business Park	224-acre mixed-use industrial park with education and warehousing operations
3. Canastota-Thruway Exit 34	116-acre zoned commercial
4. City of Oneida Business Park	38-acre mixed use site for light manufacturing and related operations
5. Oneida- Curtin Industrial Park	412-acre site with potential for industrial use and rail access
6. Trush Industrial Park	318-acre mixed-use technology park with day-care center
7. Hamilton/Mid-York Airpark	125-acre mixed-use business park located near Colgate University
8. CNY Agribusiness Development Site	1,100-acre site currently in the development stage
9. Madison County Agriculture and Renewable Energy Park	150-acre proposed business park

Source: MCIDA

would provide an opportunity for future industrial and commercial facilities to utilize green initiatives in their business plans. The marketing of these business parks and other available land and buildings is done in conjunction with the Madison County Center of Economic Development.

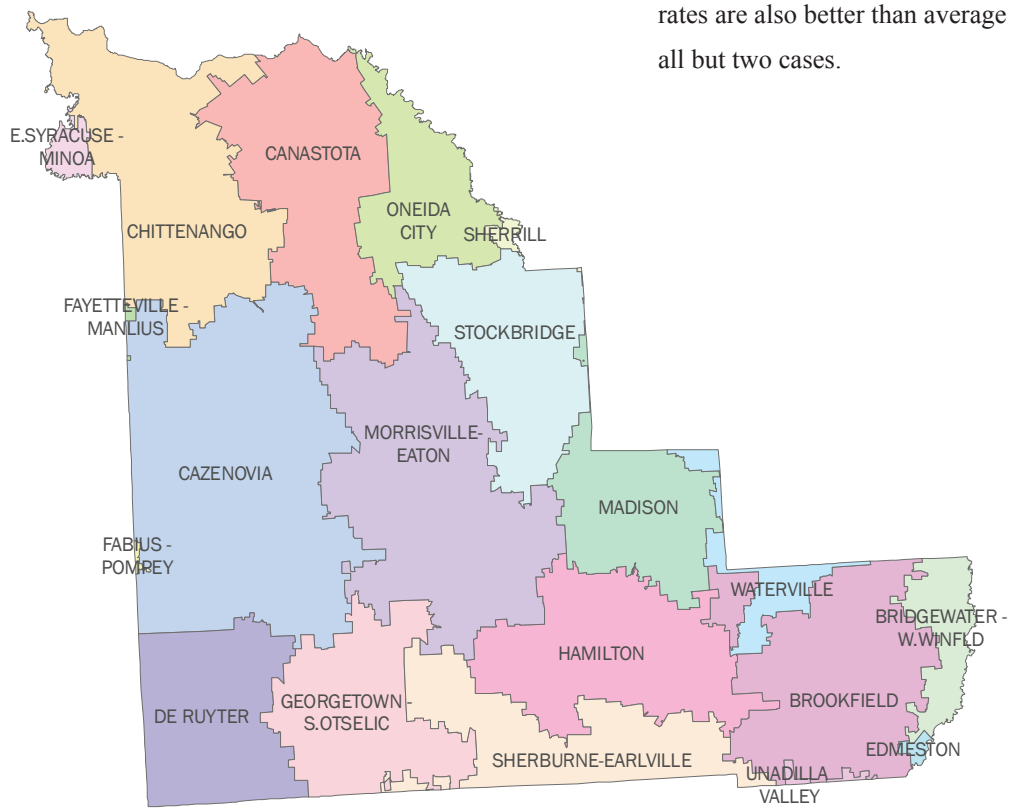
Education

The total number of jobs in the public education K–12 sector in Madison County was estimated to equal 1,800. The County is served by twenty school districts as indicated by the map depicted in *Exhibit 76*. Approximately 11,500 children are enrolled in these school districts, which graduated approximately 785 students. Madison County school districts do a very good job educating the County's children. Achievement levels on standardized testing and graduation rates are generally above State levels. Substantial majorities of graduating students in each district indicate an interest in pursuing further education and most of those who take the SAT's achieve average or better than average results.

Even adjusting for the impact of the smaller, more rural districts, more graduates in Madison County plan to enter the workforce upon graduation as compared with both the NYS average and neighboring school districts within the more urban Onondaga and Oneida counties. A similar trend seems to be present in the more rural Chenango county. It's not immediately evident why this trend exists—it may be due to the existence of small, family-owned businesses and family farming operations as employers in these communities or to individual economic limitations.

For a review of the educational results obtained, *Exhibit 77* compares Madison County districts with selected neighboring school districts. In summary, test scores compare favorably to those in other districts and are significantly higher than state averages. Graduation rates are also better than average and are above 85% in all but two cases.

Exhibit 76. School District Boundaries



Source: NYS Department of Education

Exhibit 77. School District Data for the 2006–07 School Year, Madison County School Districts and selected regional school districts

School District	No. of Students	Expend. Per Pupil	% Secondary Level Students Meeting State Standards		Grad Rate %	% Grads Planning to attend 2Yr./4Yr. College	% Grads Planning to Go to Work	Students taking SAT	SAT Math	SAT English
			Math	English						Critical Reading
Madison										
Brookfield	248	$14,873	78	83	88	58/29	8	13	497	475
Canastota	1,623	$12,820	72	71	86	35/44	13	68	477	496
Cazenovia	1,798	$12,130	95	92	93	11/74	8	124	540	530
Chittenango	2,394	$12,941	87	87	85	29/51	15	132	517	491
DeRuyter	497	$13,722	47	76	83	52/10	23	16	513	468
Hamilton	636	$11,860	89	84	88	19/64	9	50	530	528
Madison	471	$15,912	74	85	92	43/42	16	20	609	517
Morrisville-Eaton	850	$14,648	90	90	90	44/31	21	24	483	475
Oneida City	2,487	$12,244	77	74	78	37/38	9	91	523	499
Stockbridge Valley	538	$14,248	88	88	91	35/33	18	30	487	455
Onondaga										
Baldwinsville	5,998	$14,281	88	86	90	30/56	6	318	550	522
Fabius-Pompey	874	$14,953	90	85	87	37/52	8	52	560	508
Fayetteville-Manlius	4,738	$13,609	90	88	95	13/81	1	344	589	566
Liverpool	7,965	$14,570	82	79	84	34/47	0	472	525	513
West Genesee	5,172	$11,753	94	95	90	37/56	4	342	533	520
Oneida										
Camden Central	2,552	$12,258	77	74	88	46/33	13	112	496	496
New Hartford	2,654	$14,595	98	95	95	25/70	5	208	546	524
Rome City	5,444	$15,495	71	73	74	40/39	2	223	483	481
Whitesboro Central	3,659	$12,669	90	83	87	51/40	6	162	526	494
Chenango										
Bainbridge-Guilford	983	$13,440	82	79	89	41/33	11	60	502	490
Norwich	2,145	$13,227	77	76	82	26/39	14	107	500	491
Sherburne-Earlville	1,614	$13,872	77	73	86	36/33	21	78	517	521
NYS										
	2,741,258	$16,212	72	74	75	29/50	6			

Source: 2007 college-bound seniors average scores Math =515, English =502

Source: NYS Education Department

Health Care

The health care facilities available in Madison County are listed in *Exhibit 78*. To these must be added the facilities available in Syracuse and Utica, since the specialties and services available in those institutions would be considered to be part of the health care environment in Madison County.

Regarding the availability of health services in Madison County, the recently published Health Improvement Planning Report for Madison County (10/2009) found that there are several areas in which availability of health care services is not optimal and that shortages of health care professionals hamper delivery of needed services. The report stated:

"In rural areas such as Madison County, having 'breadth' and 'depth' of providers creates potential access issues. First, the breadth of specialists available to serve our residents (e.g., neurologists) is limited; and second, for those specialists that are available we lack "depth" or a redundancy of these types of providers. One specialty provider leaving the area could seriously affect our local health care system. Several areas, predominantly in the southern tier of the Madison County, are designated as Health Professional Shortage Areas. Shortage Areas exist for both Primary Medical Care and Mental Health Providers. Although Madison County is not designated a health professional shortage area for dental health, there are parts of the County that lay outside the normal dental coverage area specifically in the south central and southeastern sections of the County."

In addition to the lack of primary and specialized health care professionals, the County is further burdened by an overall healthcare worker shortage. In the 2008 CHFWCNY Survey of Providers in CNY, health care providers stated that one of the most significant barriers to addressing unmet health care needs was workforce recruitment and retention. Nursing, nursing assistant, and physician shortages were chief concerns especially in the areas of primary care providers and psychiatrists.

Exhibit 78. Health Care Facilities per Capita, 2010

Healthcare Facilities	Beds	Staff
Oneida Healthcare Center (Oneida)	101 Hospital, 160 SNF	874 (64 Physicians)
Community Memorial Hospital (Hamilton)	40 Hospital, 40 SNF	382 (52 Physicians)
Bassett Healthcare Network (Hamilton)	Outpatient (2 clinics)	15 Prof. Staff
Crouse Extended Care Facility (Morrisville)	120 SNF only	

Source: Madison County Department of Health

While this type of situation is not uncommon in rural areas and while the relatively nearby medical centers in Syracuse and Utica offer alternatives to Madison County residents, more "depth and breadth" in Madison County's health care resource would positively affect quality of life assessments by current and potential residents.

Housing

The amount, condition and value of Madison County's housing stock has been estimated by the U.S. Census Bureau. Slightly more than 75% of the occupied housing units in Madison County are owner-occupied. Nearly 40% of the housing stock was built before 1950 and only 17% has been built since 1990 evidencing the population stagnation of the past two decades. The bulk of Madison County's owner-occupied homes are valued under $150,000 and their estimated median value is $105,000, considerably less than the U.S. and NY median values ($185,400 and $300,600, respectively).

Despite some recent spikes and downturns in prices, the median selling price of a home in Madison County has steadily risen over the past several years. Compared to the housing market that prevails in most of the rest of the country at this point in time, the investment value of real estate in Madison County would appear to be extremely attractive.

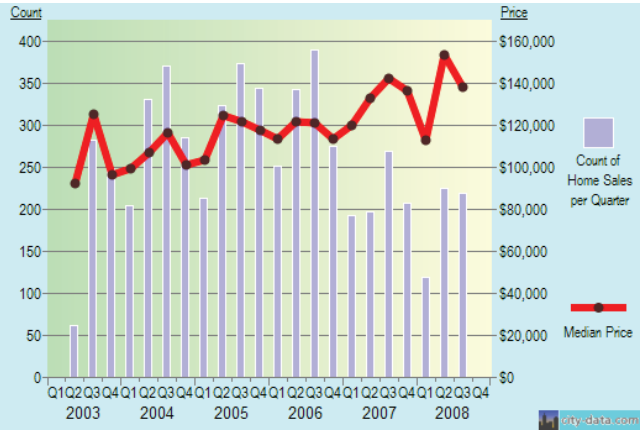
According to U.S. Census data, the cost of owning or renting a home is significantly lower in Madison County than in NY as a whole *(Exhibit 80)*. Even with relatively inexpensive housing, the median price of homes in Madison County has been gradually rising over the past several years, indicating that residential real estate is holding or increasing in value *(Exhibit 81)*.

Exhibit 80. Housing Costs, 2007

	NYS	Madison County
Housing Units (2007)	7,905,969	29,360
Median Value	$293,400	$98,500
Monthly Cost w/mort.	$1,820	$1,148
Monthly Cost w/rent	$898	$650

Source: U.S. Census, American Community Survey

Exhibit 81. Home Sales in Madison County



Source: City-Data.com

Exhibit 79. Housing Characteristics

	Estimate	%
Housing Occupancy:		
Total Housing Units	29,612	
Occupied	25,881	87.4%
Vacant	3,731	12.6%
Year Built:		
2000 or later	1,751	5.9%
1990 -1999	3,327	11.2%
1980 - 1989	3,759	12.7%
1970 - 79	3,398	11.5%
1960 -1969	2,613	8.8%
1950 - 1959	3,090	10.4%
1940 - 1949	1,599	5.4%
1939 or earlier	10,075	34.0%
Housing Tenure:		
Total Occupied Housing	25,881	
Owner-occupied	19,733	76.2%
Renter occupied	6,148	23.8%
Value		
Owner Occupied Units	19,733	
Less than $50,000	2,286	11.6%
$50,000 - $99,999	7,017	35.6%
$100,000 - $149,999	4,688	23.8%
$150,000 - $199,999	2,523	12.8%
$200,000 - $299,999	1,924	9.8%
$300,000 - $499,999	940	4.8%
$500,000 -$999,999	266	1.3%
$1,000,000 or more	89	0.5%
Median (dollars)	105,400	

Source: U.S. Census

Natural Resources

Madison County, the geographic center of New York State, has abundant natural resources, including productive soils, clean lakes and streams, healthy forests, and sustained winds, which offer a foundation for economic development as well as a desirable quality of life.

Soils

The landscape of Madison County encompasses two distinct physiographic regions, the generally flat Lake Ontario lowlands (also known as the Oneida Lake plain) to the north, and the Appalachian uplands to the south. The southern region of the County is characterized by rolling hills and broad valleys. These two regions differ in topography and soils, and thus suitability for agricultural production, and have experienced divergent settlement patterns as a result. The most fertile soils are found in the valleys and the lake plain, as discussed in the 2005 Madison County Agriculture and Farmland Protection Plan (MCAFPP).

The MCAFPP describes the results of a Natural Resources Conservation Service (NRCS) classification system ranking the ability of Madison County soil types to support agronomic uses. The ranking system considers the limitation of the soils for field crop production (e.g., corn and soybeans), the risk of degradation of soil quality when used for field crop production, and how well these soils will respond to management. The ranking considers factors such as erodibility, depth to water table, stoniness etc. Soils are ranked from Class I (fewest limitations) to Class VIII (most severe limitations).

The Class I soils in Madison County are generally found in the lake plain region and the broad valleys of the Appalachian uplands. Class II soils, supporting more limited crops and requiring additional conservation practices, are found throughout the County; most are in northern upland region. Class III soils, exhibiting severe limitations that reduce the choice of plants and/or require special conservation practices, extend throughout most of the southern regions outside of the river valleys. The muckland soils of northern Madison County are an exception. These Class VIII soils are extremely restricted in plant type and in need of major intervention for sustainable production. However, an extensive drainage system was established in the mid-20th century to mitigate seasonal flooding; this drainage system has allowed the muck soils to be highly productive.

The soil types have supported a long history of agricultural production in Madison County. As described in the MCAFPP, there have been three distinct, and somewhat overlapping, phases of agricultural production since the 1850s. The first phase was centered on production of grains and hops. Hop production peaked in the 1890s and declined throughout the first decades of the 20th century due to competition from western growers and blue mold infestation. The emerging popularity of craft brewers has contributed to a recent resurgence of interest in hops production in Madison County.

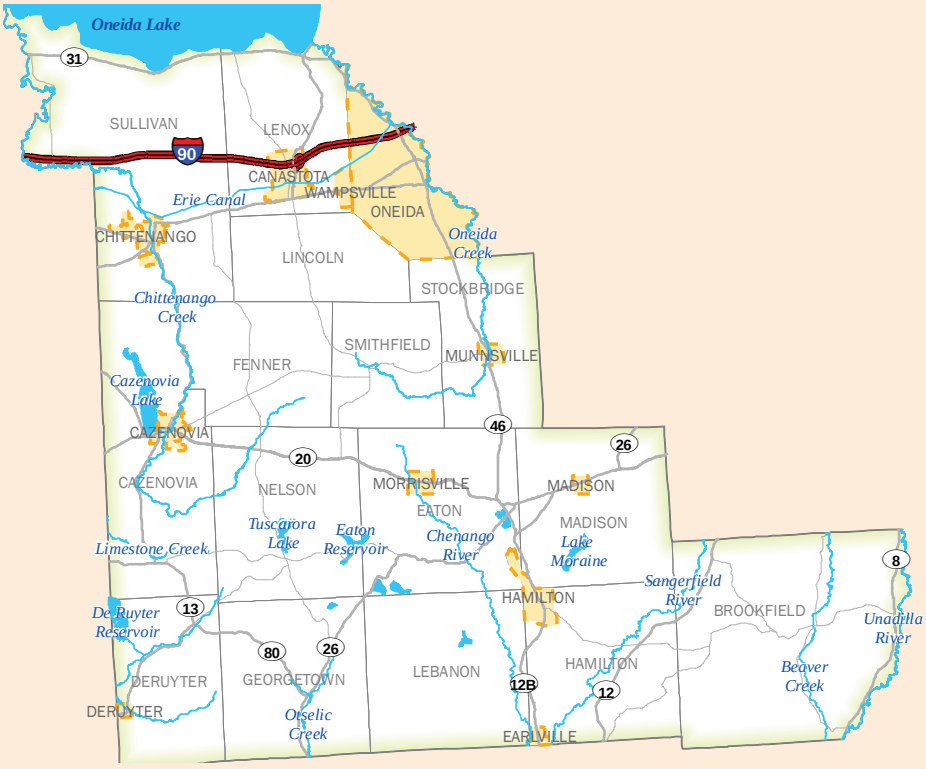
The second phase, which continues to be significant, is dairying. Milk and dairy products have long accounted for the majority of the County's sale of agricultural products. Many acres of farmland, notably in the Lake Plain and valleys of the Appalachian Upland, are cultivated for corn production. The rolling hillsides of the Appalachian Upland support pasture and small grain crops and the majority of the small dairy operations. Grass-fed livestock production is an emerging trend in Madison County. The third phase of agricultural production has been vegetable crops, including peas and beans in the southern towns and onions in the muck soils of Canastota. Potatoes are another large crop in the County. The fluctuations in agricultural crops are affected by a multitude of factors, including market demand, technology, government support and competition from other areas.

Exhibit 82. Madison County Lakes and Reservoirs

Lake	Town	Surface Area (acres)	Maximum Depth (ft)	Fish Community
Bradley Brook Reservoir	Eaton	137	27	Chain Pickerel, Pumpkinseed, Rock Bass, Northern Pike, Yellow Perch, Brown Bullhead, Common Carp
Canastota Reservoir	Lincoln	1.7	16	White Sucker, Brown Bullhead, Pumpkinseed, Yellow Perch
Cazenovia Lake	Cazenovia	1164	45	Black Crappie, Largemouth Bass, Rock Bass, Yellow Perch, Pumpkinseed, Bluegill
DeRuyter Reservoir	DeRuyter	575	50	Largemouth bass, Walleye, Black Crappie, Smallmouth Bass, Yellow Perch, White Sucker, Chain Pickerel, Rock Bass, Sunfish
Eaton Brook Reservoir	Eaton, Nelson	272	40	Largemouth Bass, Smallmouth Bass, Rainbow Trout, Chain Pickerel, Walleye, Yellow Perch, Bluegill, Rock Bass, Pumpkinseed, Black Crappie, Brown Bullhead, White Sucker
Hatch Lake	Eaton	133	63	Largemouth Bass, Northern Pike, Cisco, Pumpkinseed, Bluegill, Yellow Perch, White Sucker
Lebanon Reservoir	Lebanon	96	45	Largemouth Bass, Rainbow Trout, Black Crappie, Yellow Perch, Bluegill, Pumpkinseed, White Sucker, Brown Bullhead
Lower Leland Pond	Eaton	55	40	Largemouth Bass, Northern Pike, Rudd, Brown Bullhead, Bowfin, Black Crappie, White Perch, Pumpkinseed, Bluegill, Yellow Perch
Lake Moraine	Madison	251	45	Largemouth Bass, Smallmouth Bass, Chain Pickerel, Tiger Muskellunge, Black Crappie, Bluegill
Poolville Pond	Hamilton	37	40	Largemouth Bass, Yellow Perch, Chain Pickerel, Common carp
Stoney Pond	Nelson	28	12	Largemouth Bass, Chain Pickerel, Pumpkinseed, Bluegill
Torpy Pond	Georgetown	41	12	Chain Pickerel, Black Crappie, Pumpkinseed
Tuscarora Lake	Nelson	308	40	Largemouth Bass, Northern Pike, Walleye, Pumpkinseed, Bluegill, Yellow Perch, White Sucker
Upper Leland Pond	Eaton	46	50	Largemouth Bass, Brown Trout, Chain Pickerel, Tiger Muskellunge, Pumpkinseed, Redbreast Sunfish, Rock Bass, Yellow Perch, Black Crappie, Brown Bullhead, White Sucker, Bluegill

Source: NYS DEC

Exhibit 83. Madison County Lakes and Streams



Source: Madison County Planning Department

Surface Waters

Bordered by Oneida Lake, the largest lake entirely within New York State, Madison County has 14 other lakes, ponds and reservoirs large enough to be classified as state-owned waters *(Exhibit 82)*. Water quality and aquatic habitat conditions are generally very high. The lakes support year-round recreation and contribute to the beauty of the landscape. In addition, the lakes contribute to the tax base of their communities, since property values rise with proximity to surface waters.

The County's humid continental climate, with an annual average rainfall of more than 40 inches, creates a water surplus each year, which supports a network of surface streams and rivers and replenishes the surficial and deep aquifers. Three major watersheds converge in Madison County: the Susquehanna River Drainage Basin, the Seneca-Oneida-Oswego Rivers Drainage Basin, and the Mohawk River Drainage Basin. Over twelve hundred miles of streams, rivers and creeks are mapped in the County.

The County's topography and abundance of year-round streams provide the potential to generate micro-hydroelectric energy (micro-hydro). A white paper discussing the physical and institutional opportunities and challenges associated with developing this local renewable energy source (Jablonski and Hofmeyer 2010) concluded that more than 600 miles of streams within Madison County were suitable for micro-hydro based on flow and vertical drop. While educational and legislative barriers remain, there is an enormous opportunity to develop micro-hydro to benefit landowners, farmers, businesses, and communities throughout the County.

Forest Resources

The Madison County landscape is a mosaic of forested areas, open fields, working farms, and residential development. As summarized in *Exhibit 84*, forested areas and reverting fields (scrub shrubs) together account for almost half of the land cover, with agricultural fields and pastures representing another 40%. Much of the forest land is managed for multiple uses, including harvesting, recreational trails and access for hunting. Thousands of acres are held in public ownership *(Exhibit 85)*, with more than 20 public forests and parks within the County.

In addition to their intrinsic recreational and habitat value, the forests and woodlands are important to the economy of Madison County. Managed forests provide fuel and biomass along with raw material to manufacture furniture and other products. Madison County has a long history of excellent land stewardship, and the forests are managed for a sustainable yield as well as for multiple uses.

Wind Resources

Madison County is home to the State's first commercial-scale wind farm. At present, two wind farms with a total rating of 41.5 MW are producing electrical energy in Madison County, with a third under

Exhibit 84. Madison County Forest and Parklands

Forest or Parkland	Size (acres)
Beaver Creek State Forest	3,500
Brookfield Railroad State Forest	870
Charles Baker State Forest	9,400
Chittenango Falls State Park	190
DeRuyter State Forest	970
Earleville State Forest	630
Gorton Lake State Forest	500
Great Swamp Conservancy	60
Helen L. McNitt State Park	130
Lebanon State Forest	780
Mariposa State Forest	3,000
Morrow Mt. State Forest	1,290
Muller Hill State Forest	3,090
Nelson Swamp Unique Area	1,500
Nichols Pond County Park	45
Old Erie Canal State Park	36 mile linear park
Oxbow Falls County Park	100
Stoney Pond State Forest	1,470
Texas Hill State Park	700
Three Springs State Forest	800
Tioughnioga Wildlife Management Area	3,800

Source: Madison County Planning Department

development. The criteria for developing commercial-scale wind farms include sustained average wind speeds in the range of 15–17 mph or greater (Class 4 winds). The County's topography and setting on the boundary of the Appalachian Uplands and the Lake Plain create ideal conditions for sustained winds in this range. A recent map of wind classifications within Madison County is included as *Exhibit 86*. In addition, institutional factors such as proximity to demand centers, the high costs of electrical energy in the Northeast, federal tax incentives, and legislative mandates enhance the potential for developing this renewable resource.

Shale Gas

Portions of Madison County are underlain by the Marcellus Shale, which is a Middle Devonian-age black, low density, carbonaceous (organic rich) shale. Within the past decade, geologists have determined that a tremendous reservoir of natural gas is held in the Marcellus Shale- estimates of this gas reserve are as high as 500 trillion cubic feet. The formation is nearly a mile or more below the ground surface through much of its extent. Using horizontal drilling and hydraulic fracturing methods, perhaps 10% of that gas (50 trillion cubic feet) might be recoverable. That volume of natural gas would be enough to supply the entire United States for about two years and have a wellhead value of about one trillion dollars, according to Professor Terry Englander of Penn State University and other experts.

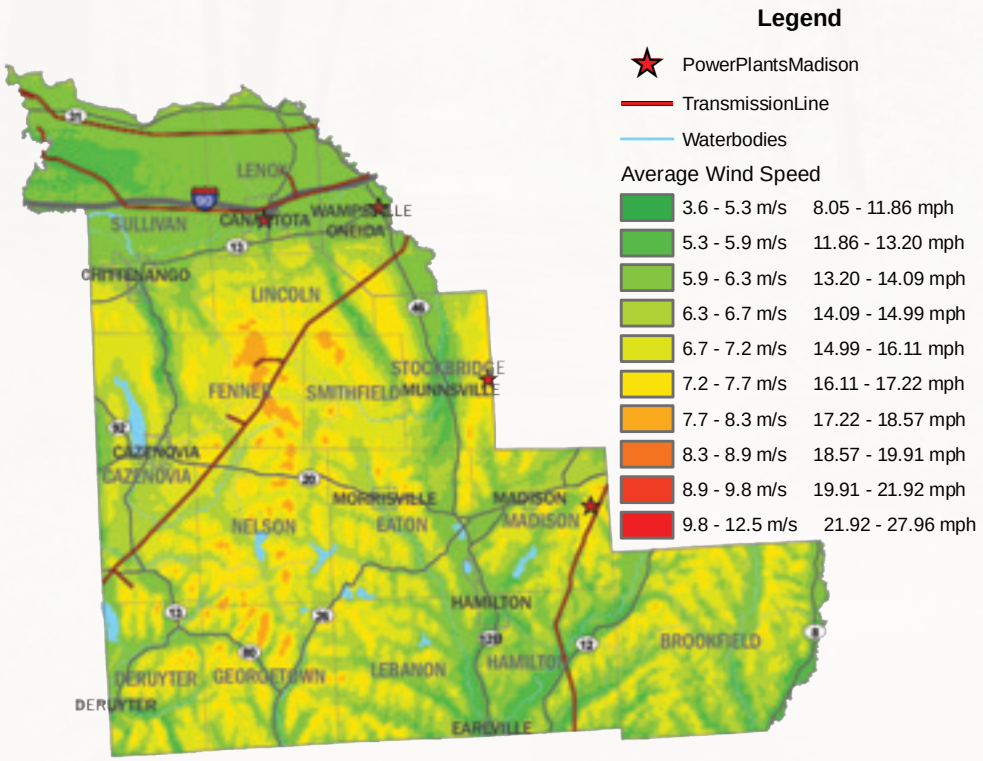
The presence of such a large volume of potentially recoverable gas in the eastern United States has a great economic significance. This will be some of the closest natural gas to the high population areas of New Jersey, New York and New England. This transportation advantage will give Marcellus gas a distinct advantage in the marketplace. Once developed, the Marcellus shale should have a positive impact on the stability of natural gas supply of the surrounding region for years, if the resource estimates are accurate.

Development of the Marcellus shale gas will affect the economy of Madison County. Leasing for mineral rights has been active since around 2006, and some landowners have negotiated lucrative agreements. Development of this new industry has the potential to bring new jobs and businesses to the region. Before hydraulic fracturing is undertaken, however, the New York State Department of Environmental Conservation (NYS DEC) must complete its environmental review and set forth permitting requirements. Action by NYS DEC is expected in 2012.

Exhibit 85. Forest land

Source: NYSDEC

Exhibit 86. Madison County Wind Resources



Source: AWS Truewind

Economic Development Resources and Major Initiatives

Business Development

The MCIDA is a professionally staffed organization with offices in Canastota, New York that was formed by Madison County for the purpose of fostering development throughout Madison County in order to generate and enhance the livelihood of area businesses, industries, communities, and citizens and to enrich the overall quality of life in the County. This is accomplished by facilitating the financing of construction or rehabilitating of facilities and equipping them to expand job opportunities within the area.

As a public benefit corporation, the MCIDA can provide access to taxable and tax-exempt bond financing, elimination of sales tax on material and equipment used for manufacturing, the establishment of payment in lieu of tax agreements for the management of real property taxes, and the elimination of mortgage recording tax. In addition to these statutory powers, the MCIDA provides a range of other economic development services including introducing company representatives to local government and community leaders, providing access to financial incentives and job training resources available at the federal, state, and local level, assisting businesses with the identification and development of real estate, and with various business recruitment initiatives.

To supplement the economic development resources in the County, the MCIDA has partnered with several organizations that operate on a federal, state, and local level. These organizations include the NYS Empire State Development Corporation, Center State CEO, Manufacturer's Association of Syracuse and Central New York, National Grid, Central New York Regional Planning and Development Board, the U.S. Small Business Administration, NYS Department of Labor, U.S. Department of Agriculture-World Development, NYS Department of Transportation, NYS Energy Research and Development Authority, and NY Power Authority.

Agribusiness

Through all the changes in farming, Madison County has recognized the primary role agriculture continues to play in the local economy, and has been proactive in providing support to this industry. The support is evident in the technical resources dedicated to supporting agricultural producers, land use and governance policies, and support to regional partnerships. Several examples of these economic development tools are summarized briefly.

There are currently 13 Agricultural Districts in the County encompassing more than 153,000 acres or about 36% of County lands. The agricultural districts provide both economic and regulatory incentives to remain in farming.

The Madison County Agriculture and Farmland Protection Plan was developed by the Madison County Farmland Protection Board in collaboration with the Planning Department, Board of Supervisors, Cornell Cooperative Extension, U.S. Environmental Protection Agency, and the NYS Department of Agriculture and Markets. The Plan seeks to ensure the economic viability of farming, to keep prime farmland in production, and to promote the industry's development in new and different ways.

Madison County supports an Agricultural Economic Development Specialist position; this has resulted in a range of innovative and effective programs designed to support existing producers as well as encourage new business models. Among the many initiatives of the AED program is a focus on 'Buy Local,' including a successful on-line market to bring local products to consumers. The AED program has improved local appreciation of the importance of agriculture to the

local economy, landscape and history by producing a self-guided farm map, open farm days, and an annual Fresh Gala to celebrate local foods.

A revolving loan fund to enhance marketing for agricultural products was capitalized through a federal USDA grant.

Morrisville State College offers training in agriculture-related professions, including business management and marketing. The College is also home to a Renewable Energy Training Center.

Nelson Farms, Morrisville State College's small-scale food processing center, serves local farmers, small business owners, and entrepreneurs in producing, packaging and marketing products. Currently, more than 250 clients produce 500+ products at the facility, with an average of 18,300 units produced per month. Clients' products are carried in more than 1,000 retail outlets.

Workforce Development

The Madison County Office of Workforce Development is responsible for providing workforce development services to both job seekers and businesses to help ensure job seekers gain meaningful employment and businesses develop a first-rate workforce.

Services for job seekers include: one-on-one career counseling; employment related workshops; free use of computers, fax, and phones for job search; and if available, financial assistance for training, both classroom and on-the-job.

Services for businesses include: post job openings; pre-screen job applicants; use of office space for recruitments and interviews; and if available, financial assistance for training costs for on-the-job training and customized training.

Madison County Office of Workforce Development is federally funded through the Workforce Investment Act (WIA).

Tourism

Madison County Tourism, Inc. is a membership based destination marketing organization. They promote the tourism industry in Madison County to potential visitors who reside in other parts of the northeast. Annually, they print a 56 page full color travel guide highlighting the things to do, places to stay, and places to eat among other points of interest. They also maintain a website offering the same information, a blog which is updated several times a week, and a strong social media presence promoting the happenings in the County.

Each year the board of directors and executive director create a marketing plan which utilizes print, digital and radio advertising to publicize the County's tourism industry. The funding for this media plan and many of the day to day operations is derived from the 4% occupancy tax charged to patrons of hotels, B&Bs, country inns, and campgrounds in the County. Madison County Tourism has been the County recognized tourism promotion agency for over 15 years.

Goal and Recommendations

A review of the information presented in this report shows that the preparation of the economic development strategy must be carefully calibrated to account for developments which are occurring on an international, national, and regional level.

As noted in recent years by the International Monetary Fund, the world economic recovery is proceeding broadly with most advanced and emerging economies still facing major adjustments, including the need to strengthen household balance sheets, stabilize and subsequently reduce high public debt, and repair and reform their financial sectors. Supplementing this information is a comprehensive overview on the current condition of the NYS economy as provided by the NYS Comptroller's office. These reports underscore the fact that New York is slowly recovering from the worst recession since the Great Depression but still faces significant challenges and risk with unemployment rates high and many upstate regions struggling.

On a regional level, data was presented which documented that the population base in Central New York has stabilized in recent years following a sharp decline estimated to have taken place from 1985–1995. In looking at these figures, it is important to note that the area's population is now at the highest level it has ever been in the history of this region. Other demographic factors show that the region's per capita income is comparable with similar sized metropolitan areas and has increased in recent years in a manner that is consistent with general trends across the State and nation. Education data clearly suggests the region is in a strong position to provide the educated workforce needed by employers today.

On the economic front information was presented that documents the diversity of the region's economy, which has proven to be a real benefit to the area as residents struggle with the nation's current economic recession. In reviewing this data, it is important to note that this economic diversity is consistent with similar patterns taking place in many parts of the country and is a reflection of a natural shift in the nation's economy and not the result of some major public policy initiatives which have been implemented at the federal, state, or local level. With regard to the CNY labor force, the region's labor force has remained very stable in recent years. Data shows that wage rates in the region are very competitive with labor cost across the country.

In addition to the economic development opportunities that can be gleaned from the data are the possibilities presented to communities who can capitalize on the presence of several major employers in CNY. Complementing these companies are the opportunities presented by the fact that there are several major employment clusters in Central New York. These clusters include biomedical, logistics and distribution, electronics, industrial machinery, materials processing, food precessing, education, and health care service.

Supporting the economic base of the area is a large network of transportation assets, public water and sanitary sewer systems, electric and natural gas supplies, telecommunication systems, public safety services, public education, and various recreational assets. Complementing these resources is an extensive professional business service and banking network that exists in Central New York. This network provides a very robust and competitive array of services and financial resources to support economic growth in the region.

Regarding governance, information was presented which demonstrates the challenges facing government

today to provide vitally needed public services and infrastructure while at the same time controlling costs. This situation presents a very challenging situation to the region's business community and often undermines efforts to attract and retain companies at the local level.

Putting all the data in perspective, regional benchmarking analysis shows that Central New York is in a fairly competitive position ranking 162 out of 366 metropolitan areas in the nation in one study and 80 out of 366 in another study. Each of these studies demonstrates that the regions' economy has improved fairly dramatically in recent years when compared to other communities across the nation. In addition, information presented in the CNY Regional Economic Development Council's *Strategic Economic Development Council Plan: 2012–2016* noted the opportunities associated with efforts focused on three priority goals including strengthening target industries, improved competitiveness in the world marketplace, and revitalizing the region's urban cores and main streets.

Looking more closely at county level data, it was revealed that Madison County population grew more that other counties in Central New York and currently stands at a total population base of 73,442, which is the highest level in history. Financially, the per capita income in the County is fairly competitive and is supported by a very diverse employment base with jobs distributed across a broad spectrum of industry classifications. In reviewing workforce data for Madison County, it is important to note that a large number of county residents currently commute for work outside of the County. Information regarding municipal governance and services suggest that Madison County is operating very efficiently with public employment at the local level declining over the past ten years.

Based upon the information and research presented above, the Steering Committee has established the following goal and recommendations for the Madison County Economic Development Strategy.

GOAL

Madison County will continue efforts to support the growth of a diverse economic base that will provide employment opportunities for a broad cross section of citizens across the entire community.

In keeping with this goal, the County will focus attention on several key areas including governance, business retention and expansion, business attraction, infrastructure and real estate development, manufacturing and the producer service industry, agriculture, retail and tourism, alternative energy development, and employee training and workforce development.

A. Governance

The nature of local governance is an important consideration when evaluating an area's economic development potential. As noted by national site location consultants, a critical evaluation of this area will include an analysis of responsibilities and effectiveness of state and local government agencies, the level of commitment to economic development demonstrated by the officials and staff of these agencies and by the community as a whole, and the type of resources that have been devoted to enhancing the region's opportunities for to growth.

Government is responsible for the maintenance and improvement of public systems that businesses and their employees depend on. Public services such as road improvements, law enforcement, education, water and sewer service are all critical to the ability of businesses to operate effectively. Government also regulates certain business activities through various laws and ordinances and can impose various business and real estate taxes. Affordable fees and taxes to maintain and expand services and the government's responsiveness to business needs in these areas are important economic development considerations.

The right combination of government support for business, effectiveness in carrying out public programs, and involvement in business activity as regulator can be a prime factor influencing the decision of a business to locate or stay in an area.

General Operations

Recommendation	Responsible	Timing	Status
Maintain a strong foundation for management and delivery of affordable government services at the County and local government level	Madison County Board of Supervisors (MC-BOS)	Immediate	Ongoing
Maintain appropriate county legislative committee system to provide proper oversight and support for planning and economic development efforts	MC-BOS	Immediate	Ongoing
Establish an Economic Development Leadership Council at the County level with representation from business, government, and higher education	MC-BOS	Short Term	To be planned
Maintain a strong array of affordable public services and infrastructure resources particularly in the areas of roads, water and sewer, public safety, solid waste management, public education, telecommunications, and workforce training	MC-BOS (along with federal, state, and local municipal partners)	Immediate	Ongoing
Support efforts to address concerns regarding the costs of State mandated services and energy costs in NYS	MC-BOS (along with regional and local partners; State legislative representatives)	Immediate	Ongoing

Economic Development

Recommendation	Responsible	Timing	Status
Maintain a county supported office of economic development with appropriate professional and support staff	MC-BOS and Madison County Industrial Development Agency (MC-IDA)	Immediate	Complete
Represent the Madison County Center for Economic Development	MC-IDA	Immediate	Complete
House a range of economic development initiatives in the office of the Madison County Center for Economic Development - including IDA, business retention and recruitment, agriculture, tourism, workforce development and main street redevelopment	MC-BOS and MC-IDA	Intermediate and long term action	To be planned
Build strong relationships with various regional/statewide / national service providers i.e. NYS Empire State Development Corporation, USDA, SBA, National Grid, NYS Economic Development Council, EDGE, CenterState CEO, CNY RPDB, etc.	Madison County Center for Economic Development (MC-CED)	Immediate	Ongoing

Recommendation	Responsible	Timing	Status
Establish strong working relationship with the Onondaga County Water Authority, Thruway Authority, CSX, Port Authority of Oswego, Verizon, Time Warner, NYS DOT, etc.	MC-CED	Immediate	Ongoing
Convene workshops of industry experts - develop a local "economic expert" roundtable to review economic status, resources and opportunities for economic development	MC-CED	Intermediate	To be planned
Prepare a comprehensive economic development strategy for the County	MC-CED	Immediate	To be completed by 12/31/12
Maintain a professional economic development website	MC-CED	Immediate	Complete
Develop a plan and allocation of staff resources to maintain the website	MC-CED	Immediate	Complete
Establish an institutional framework to identify organizational responsibility for completing various economic development projects	MC-BOS/MC-IDA	Immediate	Ongoing
Regularly evaluate IDA incentive programs and loan fund objectives to ensure they align with evolving economic development objectives, community needs, and competition in the marketplace	MC-IDA	Immediate	Ongoing
Convene annual meeting of the Office of economic development with invited guests and formal presentations, company recognitions, awards, etc.	MC-CED	Immediate	To be planned
Prepare annual report for leadership and public distribution	MC-CED	Immediate	To be planned
Conduct community leadership training program	MC-CED	Intermediate	To be planned
Maintain close contact with college/university presidents to integrate major development initiatives and programs into county economic development efforts	MC-CED	Intermediate	To be planned
Coordinate a formal outreach program and education initiative to area chambers of commerce	MC-CED	Short and Intermediate	Ongoing
Engage with media to provide positive economic development news	MC-CED	Immediate	Ongoing
Boost efforts to pursue relevant grant opportunities to support economic development projects in the County	MC-CED and regional partners	Immediate	Ongoing
Organize outreach meetings with municipal officials to familiarize these officials with the County's economic development programs economic development programs	MC-CED	Short term	To be planned
Secure leadership/corporate testimonials to post on website and marketing material	MC-CED	Intermediate	To be planned
Maintain strong relationships with industry experts and roundtable participants	MC-CED	Immediate	Ongoing

Planning

Recommendation	Responsible	Timing	Status
Conduct review of County/municipal codes, ordinances, rules and regulations with regard to their impact on economic development	Madison County Department of Planning (MC-DP)	Intermediate	To be planned
Develop one-stop shop for zoning and building permit information in the County	MC-DP	Intermediate	To be planned
Investigate opportunities to standardize County and municipal forms and applications for permitting, zoning and building code applications and for making these available on County website	MC-DP	Long-term	To be planned
Investigate the feasibility of establishing county/municipal on-line development application templates	MC-DP	Long-term	To be planned
Undertake a coordinated effort to use municipal controls to protect major development sites from encroachment of competing uses—i.e. residential and commercial	MC-DP	Long-term	To be planned
Maintain county-wide infrastructure resource data base	MC-DP	Short -term	Underway


Oneida Lake
31
SULLIVAN
LENOX
90
CANASTOTA
WAMPSVILLE
Erie Canal
ONEIDA
CHITTENANGO
Oneida Creek
LINCOLN
STOCKBRIDGE
Chittenango Creek
SMITHFIELD
FENNER
Cazenovia Lake
CAZENOVIA
46
26
20
CAZENOVIA
NELSON
MORRISVILLE
MADISON
EATON
Tuscarora Lake
Eaton Reservoir
Chenango River
MADISON
Lake Moraine
Limestone Creek
Sangerfi
River
HAMILTON
De Ruyter Reservoir
13
80
26
LEBANON
HAMILTON
DERUYTER
GEORGETOWN
12B
12
DERUYTER
Otselic Creek
EARLVILLE

B. Infrastructure and Real Estate Development

The provision of public infrastructure is one of the most vital services that can be provided to the business community in Madison County. The principal issues of concern to businesses in this area are access and proximity to markets and sources of supply, either physically through transportation networks or remotely through the telecommunications network, the cost, convenience and reliability of access, and the availability of sufficient land or built space to accommodate business needs at present and in the near future.

Madison County sits at the center of NYS and between the Syracuse and Utica metropolitan areas. It benefits from its position in several ways. The northern portion of the County is served by a major highway (I-90) and several other major state and county roads. A east-west CSX rail line traverses the County with a significant transhipment yard located nearby in Onondaga County. A large airport in Syracuse serves the region. Significant telecommunications assets are in place throughout the County providing cellular and internet communication.

The densest development is along this northern corridor connecting Syracuse with Utica. Most of the County's population is located in this area as are many of the main employers. The southern portions of the County are more rural in nature and offer fewer roads and less robust telecommunication services in general.

There is a significant amount of vacant land in the County. Approximately 22% of all properties in the County are listed as vacant. These vacant parcels are distributed throughout the County, many of which are located near developed commercial and industrial parcels. Additional development potential exists in the network of business and industrial parks. The County has developed or is partnering in the development of eight business parks comprising nearly 1,350 acres. Each of these parks has available space for business expansion.

The present availability and type of infrastructure and real estate will determine to a large degree the type of development that can take place within the County in the near term. Decisions regarding future infrastructure projects and developments will need to be pursued with a realistic and pragmatic approach that reflects the County's strengths and the needs of the marketplace.

"The provision of public infrastructure is one of the most vital services that can be provided to the business community in Madison County."

Source: William A. Fredrick, Wadley-Donovan Group

Recommendation	Responsible	Timing	Status
Develop a comprehensive inventory of public infrastructure and major real estate resources in the County, including an assessment of brownfield development opportunities	MC-DP and MC-CED	Short-term	Underway
Develop a coordinated capital improvement plan for major State, county and municipal infrastructure that supports economic growth in the County	MC-DP and MC-CED	Intermediate	To be planned
Expand the telecommunication system throughout the County with high speed connectivity capability	Central New York Regional Planning and Development Board (CNY RPDB) and local partners	Intermediate	To be planned
Complete development of a modern 911 emergency communication system that is coordinated with deployment of county-wide telecommunication system	MC-BOS	Immediate	Project currently under construction
Continue development and maintenance of county-based solid waste management system	MC-BOS	Immediate	ongoing
Continue efforts to develop the Madison County Agriculture and Renewable Energy Park	MC-CED and MC-BOS	Short term	underway
Undertake solar, wind, and micro-hydro demonstration projects at ARE park	MC-BOS and local partners	Intermediate	Project plans currently being investigated
Investigate the feasibility of establishing a county-based biodigester/central heat and power plant at the County campus in Wampsville to create demand for biomass resources in the County	MC-BOS, MC-CED, CNY RPDB and other local partners	Long-term	To be planned
Develop an inventory of major parcels of vacant land and former industrial sites in the County and perform regular assessment of development potential of these parcels	MC-CED, MC-DP and CNY RPDB	Short Term	To be planned
Prepare pre-development plans for major retail outlet and/or warehouse distribution center at Thruway Exit 34 in Canastota	MC-CED, Madison County Tourism, Inc (MC-T) and local partner	Intermediate	To be planned
Develop a comprehensive pre-development plan for a co-located hotel/conference center in combination with hops/culinary/equine institute	MC-CED, CNY RPDB, MC-T and Madison County Agriculture Economic Development Program (MC-AED)	Intermediate	To be planned
Develop virtual building concept plans and pre-permitting at key business park/development sites in the County	MC-CED	Intermediate	To be planned
Prepare concept plan for 200+ acre business park in county with Thruway access and rail service	MC-CED, CNY RPDB, and City of Oneida	Immediate	Complete
Investigate the feasibility of establishing a private senior retirement community at a key location in the County - seek developer	MC-CED	Long-term	To be planned

C. Business Retention, Expansion, and Entrepreneurial Development

Business retention, expansion, and entrepreneurial development initiatives must play a key role in any economic development strategy. The argument for a business retention/expansion program is strong. Businesses already located in a community have chosen to be there and are more likely to favor staying in place, working to make expansions happen, and to find workarounds for financial or regulatory problems because the cost and disruption of a relocation are so high. These companies should not be taken for granted. The importance of these businesses to a community's ability to maintain a sustainable pace of economic development is clear when one considers that 80% of all new jobs created in the U.S. come from existing businesses. A strong business retention program will be on the lookout for problems within the local business community and will be proactive in its response to business concerns, recognizing that it is far less expensive in the long run to retain a business already in place than to bring a new firm to the area.

Communities typically have three levels of employers in their economies—net wealth generators that derive revenues from selling their goods and services outside the community; support industries that provide goods and services for the net wealth generators; and local consumer oriented businesses that serve the needs of the community residents. The core businesses are in the net wealth generating segment which stimulates the support services sector and pays the wages of a large segment of local residents, directly or indirectly. Certain business services, however, need to be in place or need to quickly develop to satisfy and attract net wealth generating companies. A certain level of consumer services must also be present to provide convenient access to needed goods and services for these businesses' employees and families. Each of these business sectors can benefit from a targeted retention and expansion program.

Recommendation	Responsible	Timing	Status
Establish a formal business outreach program in the County that coordinates the delivery of services provided by various agencies to the small business community	MC-CED	Immediate	Ongoing
Establish a program to formally recognize and acknowledge existing businesses in the County	MC-BOS and MC-CED	Short-term	To be planned
Convene workshops of local "economic expert" to review issues, resources and opportunities for economic development	MC-CED	Short-term	To be planned
Conduct corporate site visits at headquarters locations—for companies with plant locations in Madison County	MC-CED	Intermediate	To be planned
Conduct formal outreach to various business service providers such as bankers, lawyers, and accountants to identify business development opportunities and needs in the County	MC-CED	Short- term	To be planned
Complete a detailed inventory and contact list for major development projects/business opportunities in Upstate New York—Fort Drum, Albany Nanotech, Global Foundries, Turning Stone—that represent business develop opportunities for local companies	CNY RPDB	Short-term	To be planned
Continue efforts to keep Nelson Farms and other county-based incubator facilities in operation	MC-CED	Immediate	Ongoing
Investigate the utility and possible establishment of a Foreign Trade zone or subzone in the County	MC-CED in partnership with Onondaga County IDA and CNY RPDB	Short -term	Underway
Establish entrepreneurial initiatives such as business plan competitions and networking forums at area colleges	MC-CED in partnership with CenterState CEO	Immediate	Underway
Establish a network of professional advisors to support development of start-up companies	MC-CED in partnership with CenterState CEO	Immediate	Underway
Develop formal relationships with venture capital providers and angel investors to support entrepreneurial development in the County	MC-CED in partnership with CenterState CEO	Immediate	Underway
Develop and maintain an aggressive business incentive and small business loan program on the County	MC-CED in partnership with MC-IDA	Immediate	Complete

"If a region does not make it through the initial site-selection screening, then no specific sites in a county will even be considered, which is why regional collaboration is so important. Most of the country is now organized economically by regions. As a county you are competing with regions across the entire nation for business attraction opportunities."

Source: Robert Price, Heron Consulting

D. Business Attraction

Business attraction strategies, particularly targeted strategies aimed at leveraging an area's existing assets and advantages, can amplify a community's inherent strengths and even work to improve the situation of the area's existing firms by providing them with new suppliers or customers. Moreover, new firms recruited to the area represent a significant source of new demand for land, labor, supplies, etc., that is unmatched by the more gradual growth of existing companies. A newly transplanted company can be a powerful shot in the arm for a local economy. Successfully attracting such companies, however, can be an expensive undertaking and the costs should be weighed carefully against the projected benefits. A strategy to attract new businesses to the area must have a comprehensive and balanced approach toward business. Otherwise economic development will be unsustainable and may stall or fail to achieve its potential owing to an overemphasis on one sector or an unjustifiable allocation of scarce economic development resources.

Recommendation	Responsible	Timing	Status
Develop a target industry business recruitment plan based in part on certain industry sectors and employment clusters that currently exist in CNY- including renewable energy, medical instruments, food processors, information/financial back office services, pharmaceuticals, warehouse/distribution	MC-CED in partnership with CenterState CEO, NYS ESD and CNY RPDB	Immediate	Underway
Capitalize on proximity to major food processors based in NYS to promote the County as a viable location for food processing facilities	MC-CED and Madison County Agriculture Economic Development Program (MC-AED)	Intermediate	To be planned
Pursue opportunities for back office operations looking to expand/relocate from major metropolitan in the Northeast	MC-CED in partnership with CenterState CEO	Immediate	Ongoing
Pursue foreign investment opportunities through existing industry contacts in the County	MC-CED in partnership with CenterState CEO	Immediate	Ongoing
Undertake a coordinated outreach campaign to college alumni through advertisements in alumni magazines	MC-CED	Intermediate	To be planned
Develop and maintain relationship with key site selectors that serve key industry sectors appropriate for growth in the County	MC-CED	Immediate	Ongoing
Prepare a report that inventories major companies with operating facilities in small town/rural locations in other parts of the country—target these companies for marketing	CNY RPDB	Intermediate	To be planned
Pursue major companies in the equine industry that can be attracted to the County	MC-CED, Madison County Tourism, Inc. and MC-AED	Intermediate	To be planned

"Site selection is a process of elimination. Site consultants are systematically finding reasons to eliminate potential locations. There is no utopia, so don't think that before you market your community you have to be perfect."

Source: Robert Ady, Ady International Company

E. Manufacturing and Producer Services

The County's business sector is fairly well diversified among the main industrial categories. The manufacturing sector is somewhat anomalous, accounting for only 5% of all the County's businesses yet providing over 10% of the jobs in the County. The manufacturing sector tends to pay better than average wages and the multiplying impact of its operations, which are essentially regional "exports", can be significant for a local economy to an extent that is hard to match in other sorts of business activities. These firms face unique competitive and workforce challenges that need to be addressed.

The importance of net wealth generating businesses, particularly manufacturers, and of the producer service firms that underpin them is a well accepted premise in economic development practice. Their relevance to the overall health of the Madison County economy cannot be overemphasized. Manufacturing firms retain a strong presence in the County despite a nationwide decline in manufacturing as a percentage of overall employment.

Madison County has a competitive advantage in manufacturing owing to the longstanding and ongoing presence of this sector locally and throughout the region. Management expertise, the presence of trained workforce, the availability of educational assets geared toward the sector, and a well-developed support network are all important assets that can be deployed in the support of existing manufacturing firms and the creation or evolution of new firms in the County.

Specific clusters of industries have been identified as particularly prevalent in the County and may be sources of further expansion. Some sectors, such as food processing, may be attracted to the area because of the proximity of producers, particularly in the dairy industry.

Manufacturing wages in Madison County are considerably lower than U.S. and state averages and lower than those in some neighboring counties. This may provide some incentive to local manufacturers to consider expansion of existing production and for entrepreneurs to consider starting up specialty manufacturing operations that derive from locally grown experience and talent.

Recommendation	Responsible	Timing	Status
Continue efforts to develop a meat processing facility in Madison County	MC-CED and MC-AED	Immediate	Ongoing
Capitalize on opportunities to develop relationships with major food processors	MC-CED and MC-AED	Short	To be planned
Identify supplier network opportunities to serve local manufacturing companies	CenterState CEO and regional partners	Long-term	To be planned
Maintain a detailed on-line inventory of major vocational and technical training programs available to serve area industry needs	Madison County Office of Workforce Development (MC-WD) and regional partners	Short -term	To be planned
Pursue relationship with plant managers —survey needs through formal outreach program	MC-CED	Immediate	Ongoing
Establish an internship outreach program with area companies—coordinate with existing internship program resources at Upstate Institute and CenterState CEO	CenterState CEO	Immediate	Ongoing

F. Agriculture

Agricultural activity is a relatively small part of the County's overall economy in terms of employment, wages, and the value of economic output. It is currently estimated there are 744 farm operators in the County and the average size farm is 253 acres. Approximately 188,820 acres are in farm production and the overall market value of agriculture products sold is $86 million. Agriculture employment in the County is estimated to be less than 1,000 jobs. However, the rural nature of Madison County forms an important part of the County's image and is a distinct consideration when assessing the quality of life in the County. Moreover, the potential for additional economic development stemming from new or expanding agricultural activities in the County offer some promising opportunities for agri-entrepreneurs. Beyond the basic production of agricultural products, there appear to be several value-added activities in this sector that have not been fully exploited but for which there is public and private support. These include SUNY Morrisville's Nelson Farms, the Hops Trail initiative, the growing equine sector, food processing activity, agritourism, organic food products, and buy-local preferences.

Recommendation	Responsible	Timing	Status
Maintain an Agriculture Economic Development staff position at the County level	MC-BOS	Immediate	Complete
Develop and maintain inventory of farms and agricultural land resources in the County	MC-CED and Madison County Agriculture Economic Development Specialist Program (MC-AED)	Immediate	Complete
Develop a detailed inventory of farm resources, products, and services and place on-line	MC-AED	Short	To be planned
Develop and maintain relationship with key agriculture resources providers—USDA, FSA, Cornell—Agriculture and Food Tech Park / Applied Economics and Management, Farm Service Bureau, Senator Gellibrand, NYS Agriculture and Markets.	MC-AED	Immediate	Ongoing
Investigate feasibility of establishing an institutional agriculture purchasing program—Colgate, Morrisville, Cazenovia College, Hamilton College, public schools	MC-AED	Intermediate	To be planned
Support efforts to promote CNY Bounty and buy local program. Assist farms with distribution and marketing of products	MC-AED	Immediate	Ongoing
Continue efforts to develop alternative agriculture crops such as hops	MC-AED	Immediate	Ongoing
Promote dairy grass organic farming and niche product for major markets such as NYC	MC-AED	Short	To be planned
Develop a plan to capitalize on equine business opportunities—associated with programs at Morrisville, Cazenovia, Cornell	MC-CED, MC-AED and MC-T	Intermediate	To be planned
Pursue advertising opportunities in equine trade publications	MC-CED, MC-AED and MC-T	Intermediate	To be planned
Highlight and promote attraction of Brookfield horse trails	Madison County Tourism Inc. (MC-T)	Short	To be planned
Inventory major agriculture initiatives and commercial enterprise developments on a regional basis to identify agriculture supply side opportunities in the County	MC-AED in partnership with CNY RPDB	Intermediate	To be planned
Complete a detailed inventory of natural resources and underutilized land inventory in the County as basis for alternative crop production	MC-DP	Short	Underway
Secure funds to support alternative crop / niche value-added product development	MC-AED	Immediate	Ongoing
Complete review and disseminate information regarding SUNY-ESF willow project and biomass study	SUNY College of Environmental Science and Forestry (SUNY-ESF) and MC-AED	Immediate	Underway
Pursue business development opportunities in major metro area food centers—NYC, with focus on niche agriculture products produced in the County	MC-AED in partnership with the NYS Department of Agriculture	Long-term	To be planned
Develop program to help capitalize on value of marginal land resources in the County	MC-AED in partnership with SUNY-ESF	Short	Underway
Review studies and pursue funds to support growth of alternative crops—willow, switchgrass	MC-AED in partnership with SUNY-ESF	Immediate	Underway

Recommendation	Responsible	Timing	Status
Investigate feasibility of agriculture /carbon trading program to increase farm income— growing of "wood crops" to sequester carbon	CNY RPDB	Intermediate	To be planned
Review track record on New York Wine and Culinary Institute. Approach some of the companies involved in project to partner in a Hops Institute in Madison County—Wegmans, Constellation	MC-CED in partnership with MC-AED, CNY RPDB and MC-T	Intermediate	To be planned
Develop a grower/food processor supply program—"All Seasonings"	MC-CED in partnership with MC-AED	Intermediate	To be planned
Operate a micro-enterprise loan fund for alternative crop and niche product development	MC-CED, MC-AED and CNY RPDB	Immediate	Complete

"Agriculture is a relatively small part of the County's overall economy; however, a potential for additional economic growth stemming from new or expanding agricultural activities offers some promising opportunities for the agri-entrepreneur."

Source: Chuck Hassebrook, Nebraska Center for Rural Affairs

G. Retail and Tourism

While the retail sector is not known for creating high paying jobs generally, it is a major source of entry level and part-time job opportunities. The retail sector can also play a large role in improving the quality of life in communities as part of a revival of main streets in smaller towns and cities and by the improvement in the convenience of needed products and services in more rural areas.

In 2009, it was estimated that approximately 2,600 jobs were based in the retail sector in Madison County. These jobs account for 12% of the total employment base and approximately 8% of the total payroll in the County.

In reviewing these figures, it is important to note that Madison County experiences a significant amount of retail leakage each year; these are resident purchases that occur outside the County, estimated to total $43 million annually. These lost sales not only represent lost retail job opportunities and other local economic benefits but also lost sales tax revenue. If the retail opportunities represented by this outflow of dollars were retained within the County, the additional retail establishments would enhance residents' experiences and could also serve to attract shoppers from outside Madison County, stimulating jobs and sales tax revenue.

Tourism acts much like a net wealth generating industry by attracting dollars from outside the County and stimulating associated retail and service businesses (e.g., lodging, restaurants, gas stations, etc.). Madison County has numerous attractions and events that can be leveraged to draw in visitors from outside the County and there is a dedicated organization with staff that works to guide and promote these opportunities. Tourism also has ramifications for the County's agriculture sector through the development of agritourism. Agritourism has the potential to supplement farm incomes and draw more attention to the agricultural products the County has to offer.

"As a unique economic development tool, the Main Street Four-Point Approach is the foundation for local initiatives to revitalize their business districts by leveraging local assets—from cultural or architectural heritage to local enterprises and community pride."

Source: Robert Camoin, Camoin Associates

Recommendation	Responsible	Timing	Status
Continue operation and funding for the County's Tourism Development Office	MC-BOS	Immediate	Ongoing
Complete a comprehensive inventory of major tourist attractions and resources in the County with data measuring levels of activity, attendance, and impact—i.e. Turning Stone, Bouckville Antique Festival, Woodsman Field Days, college graduation/sporting events, Brookfield Forests Trails	Madison County Tourism, Inc (MC-T)	Short	To be planned
Closely integrate various marketing initiatives such as Erie Canal National Heritage Corridor, Rt. 20 Scenic By-Way, and Equine Alley into county tourism initiatives	MC-T	Intermediate	To be planned
Develop a strategic plan for the effective promotion/funding of cultural heritage sites in the County	MC-T	Intermediate	To be planned
Investigate ways to enhance image, attendance at Madison County Fair, possibly though increased participation of agricultural community, new location.	MC-T	Intermediate	To be planned
Develop a capital improvement plan for major tourism assets and resources in the County with priorities identified	MC-T in partnership with MC-DP	Intermediate	To be planned
Improve appearance and maintenance of gateways to County	MC-BOS	Long-term	To be planned
Investigate the feasibility of establishing a major discount outlet center at Thruway exit 34 in Canastota	MC-CED and MC-T	Long-term	To be planned
Pursue strategically located and coordinated development of hotel/conference center with possible association with a hops/culinary/equine institute	MC-CED in partnership with CNY RPDB and MC-T	Long-term	To be planned
Investigate the economic impact and opportunities for attracting a destination retail center to the County—i.e. Bass Pro /Cabela's	MC-CED in partnership with the CNY RPDB	Long-term	To be planned
Establish micro-lending program to support tourism development and niche market retail opportunities in selected community centers /main streets	MC-CED in partnership with CNY RPDB	Immediate	Complete
Investigate the feasibility of establishing an office of "Main Street" coordinator to support retail development in selected villages and hamlets in the County	MC-BOS in partnership with MC-CED and MC-T	Short -term	To be planned
Inventory resources available from the National Main Street program and market to county	MC-DP, MC-ED and MC-T	Short	To be planned
Undertake a coordinated "Main Street" initiative in the County—investigate other revitalization programs that bring funding—e.g., Active Living By Design	MC-DP in partnership with "to be formed" Madison County Main Street Program (MC-MSP)	Intermediate	To be planned
Complete a detailed "Buxton" study of retail leakage and opportunities in major retail centers in the County—City of Oneida and villages across the County	MC-CED in partnership with MC-DP	Intermediate	To be planned
Identify key under-utilized and vacant property/buildings in retail centers across the County and target for redevelopment	MC-DP and MC-CED	intermediate	To be planned
Coordinate main street activities with various college and university initiatives and development opportunities	MC-MSP	Long-term	To be planned

H. Energy

Madison County has been at the forefront of renewable energy development in recent years. At present two commercially-based wind farms with a total rating of 41.5 MW are producing electrical energy in the County. In addition, the County has successfully partnered with the private sector to develop a methane gas-to-energy co-generation facility at the Madison County Landfill in the Town of Lincoln. At the same location the County has developed a small-scale solar installation.

An analysis of the County's natural resources also suggests there are opportunities associated with capitalizing on the County's agriculture and forest land as potential feedstock for biomass-based energy generation. Consideration must also be given to studies which have recently been completed in the County suggesting there is potential for the development of localized micro-hydro power throughout the County. While controversial, further development of the two major natural gas fields which run partially beneath land in the southern portion of Madison County is also receiving considerable attention. Taken together, development of resources presents an opportunity to improve the long term energy situation in Madison County while providing job opportunities for area residents.

The development of alternative fuel sources whose costs are less volatile and impacts on the environment less intrusive can be a spur to economic development. Many firms seek to involve themselves in alternative energy use to achieve status as a "green" company. Others simply seek a stable and efficient form of energy to power their operations. Greenfield developments can be undertaken with alternative energy as part of the infrastructure, in turn leading to a less expensive development proposition.

Recommendation	Responsible	Timing	Status
Identify and market the availability of low cost electric power supplies through Village of Hamilton municipal electric system, Madison County Municipal Power Authority, OMEC	MC-CED in partnership with the CNY RPDB	Intermediate	To be planned
Undertake a coordinated municipal and institutional central heat and power plant initiative to create market for biomass resources	MC-BOS in partnership with MC-CED and CNY RPDB	Long-term	To be planned
Undertake community-based alternative energy initiatives at ARE Park—i.e. wind farm, central heat and power plant, micro-hydro, and solar	MC-BOS in partnership with MC-CED and CNY RPDB	Intermediate	Underway
Monitor research and demonstration projects promoted by organizations such as SUNY-ESF, U.S. DOE National Renewable Energy Laboratory, Biomass Energy Research Center, Morrisville College (renewable energy center) and Colgate (willow biomass) for development opportunities in the County	CNY RPDB in partnership with MC-CED and MC-BOS	Immediate	Ongoing
Inventory State forest and under-utilized land resources in County as basis for development of energy resources and crops (GIS-map)	MC-DP	Short-term	Complete
Obtain detailed guidance regarding access to State forest resources as basis for biomass energy initiative	CNY RPDB	Short-term	To be planned
Develop inventory of County waterways and dams to assess micro-hydro potential (GIS-map).	MC-DP in partnership with SUNY Morrisville	Intermediate	Complete
Seek federal and state funds to support biomass crop assistance program	SUNY-ESF in partnership with CNY RPDB and other	Immediate	Underway – SUNY-ESF has secured a $4 million USDA grant
Approach college/university presidents for participation in alternative energy market crop initiatives	SUNY-ESF in partnership with CNY RPDB	Intermediate	To be planned
Initiate and maintain contact with natural gas companies exploring the Marcellus and Utica Shales	MC-DP and MC-CED	Immediate	Underway

"Biomass energy, harvested from the lands and forest, has the potential to provide an important source of renewable energy for the County and jobs for local residents."

Source: Chris Recchia, Executive Director, Biomass Energy Resource ...

I. Education and Workforce Training

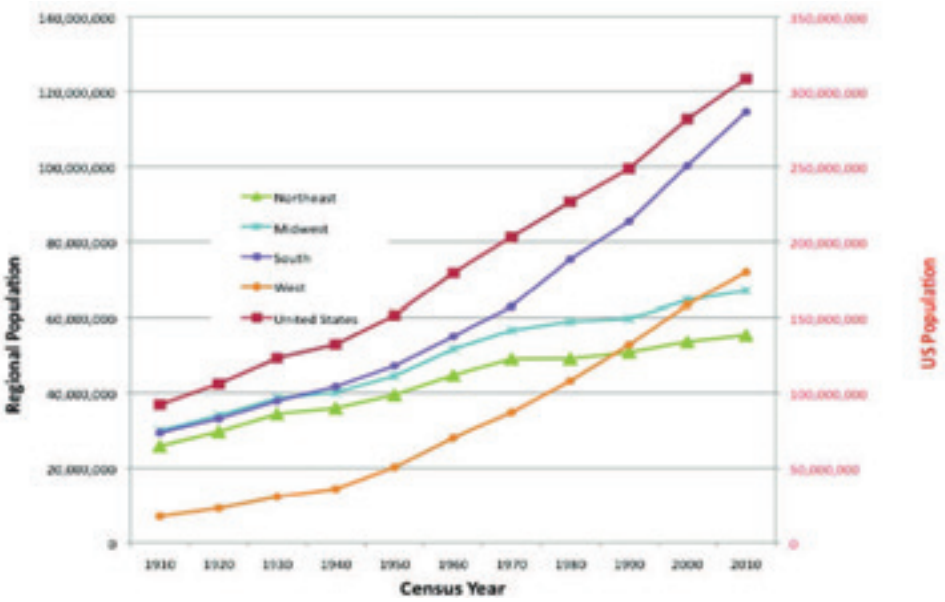
The availability of a trained workforce is one of the most crucial ingredients in any decision by today's businesses to expand or relocate. The development of specialized skills is an expensive undertaking for any company and the availability of a pool of workers ready to be productive is a major attraction for local and relocating firms alike. Having such a workforce is key to Madison County's ability to participate in the dynamic and highly competitive regional, national, and international economies of today.

The school systems that serve Madison County do an excellent job of educating the County's children and rank among the best in the region. A good educational system is a major asset for any community seeking to develop a skilled workforce. While only a small percentage of high school graduates indicate an interest in going directly to work, most plan on attending at least a 2 year college after graduation.

The presence of several universities that play a part in training and supplying the workforce as well as in research and development is a tremendous asset that many communities lack. Programs specific to Madison County needs have been developed at these institutions and may serve as an impetus for growth in the future.

Recommendation	Responsible	Timing	Status
Maintain an office of workforce development and employee training in the County	MS-BOS	Immediate	Complete
Incorporate representatives from K–12, BOCES, and colleges/ universities on County Economic Development Leadership Council	MC-BOS	Short	To be planned
Carefully inventory vocational and technology education programs on a county and regional basis as information resource to area employers and site location consultants	MC-WD in partnership with CenterState CEO and CNY RPDB	Intermediate	To be planned
Disseminate information about available job training resources and case study projects to area employers	MC-WD	Short	To be planned
Capitalize a small business loan/grant program to support employee training program	MC-CED	Intermediate	To be planned
Develop an internship program for high school graduates and college level students with major area employers—public and private	CenterState CEO	Immediate	Complete
Investigate the merit of establishing additional specialized training programs to address economic development opportunities in the marketplace—see what other community colleges are doing across the country	MC-CED in partnership with MC-WD, CenterState CEO, and CNY RPDB	Long-term	To be planned
Develop formal career outreach program to area K–12 schools	CenterState CEO	Intermediate	To be planned
Maintain contact with colleges and universities regarding specific training needs of area employers	MC-CED and MC-WD	Long-term	To be planned

Table 1. Historical U.S. and Regional Population Trends, 1910–2010

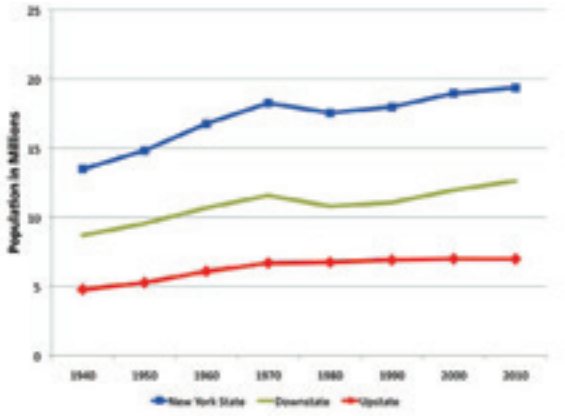


Source: U.S. Census Bureau

Table 2. New York State Population estimates and projections, 1990–2035

Source: Cornell Program of Applied Demographics

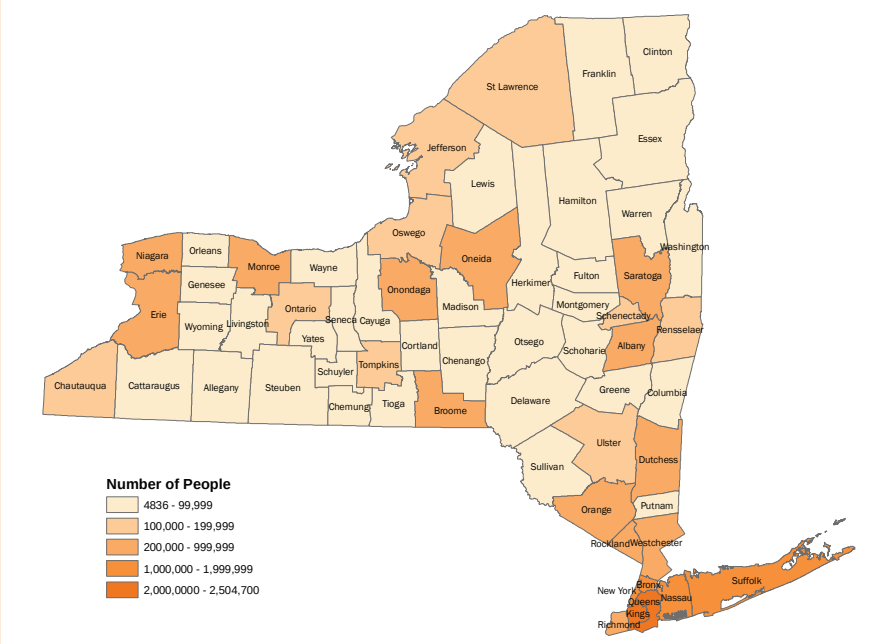
Table 3. New York State, Downstate and Upstate Historical Population Trends, 1940 - 2010



Source: U.S. Population Census

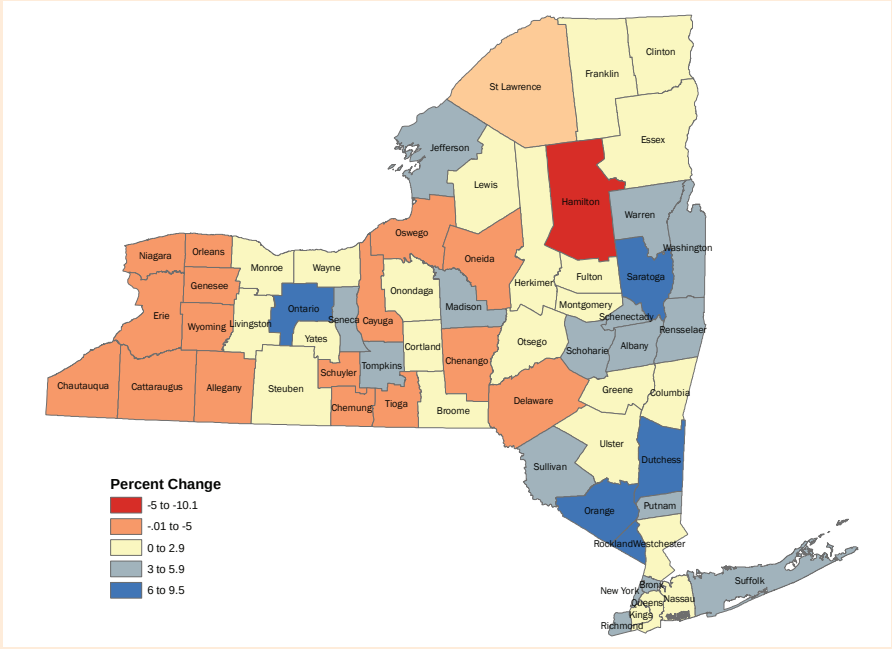
Demographics

Table 4. Total Population by County, New York State, Census 2010



Source: U.S. Census Bureau

Table 5. Percent Change in Population by County, 2000 to 2010, New York State



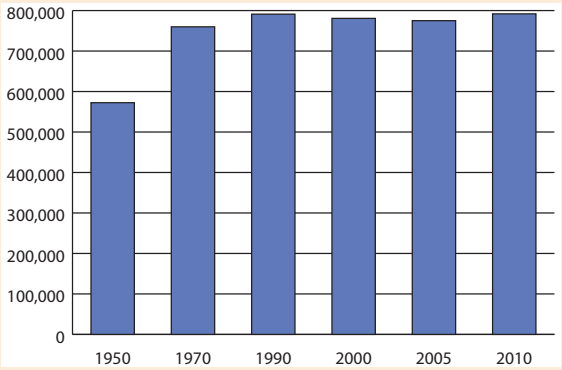
Source: U.S. Census Bureau

Table 6. Upstate New York Population Estimates

	1950	1970	% Change '50 - '70	1990	% Change '70 - '90	2000	% Change '90 - '00	2010	% Change '00-'10
Cayuga	70,136	77,439	10.4%	82,313	6.3%	81,963	-0.4%	80,026	-2.4%
Cortland	37,158	45,894	23.5%	48,963	6.7%	48,599	-0.7%	49,336	1.5%
Madison	46,214	62,864	36.0%	69,120	10.0%	69,441	0.5%	73,442	5.8%
Onondaga	341,719	472,835	38.4%	468,973	-0.8%	458,336	-2.3%	467,026	1.9%
Oswego	77,181	100,897	30.7%	121,771	20.7%	122,377	0.5%	122,109	-0.2%
CNY Region	572,408	759,929	32.8%	791,140	4.1%	780,716	-1.3%	791,939	1.4%
Albany/Schenect-ady/Troy MSA						825,875		870,716	5.4%
Binghamton MSA						252,320		251,725	>-0.1%
Buffalo/Niagara MSA						1,170,111		1,135,509	-0.3%
Rochester MSA						1,037,831		1,054,323	1.6%
Syracuse MSA						650,154		662,577	1.9%
Utica/Rome MSA						299,896		299,397	>-0.1%
NYS	14,830,192	18,242,584	23.0%			18,976,457	5.5%	19,378,102	2.1%

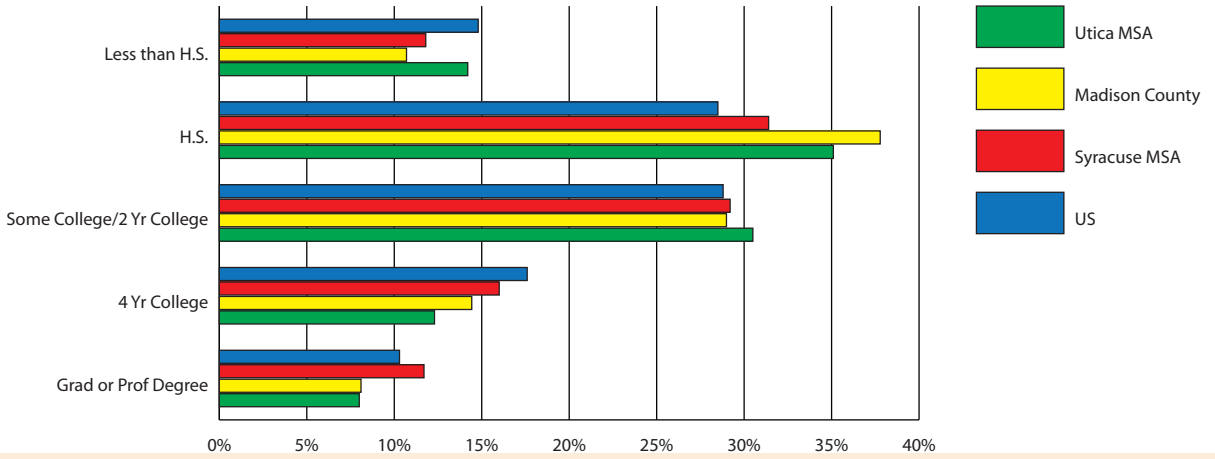
Source: U.S. Census Bureau:

Table 7. Central New York Population, 1950–2010



Source: U.S. Census Bureau:

Table 8. Education Attainment



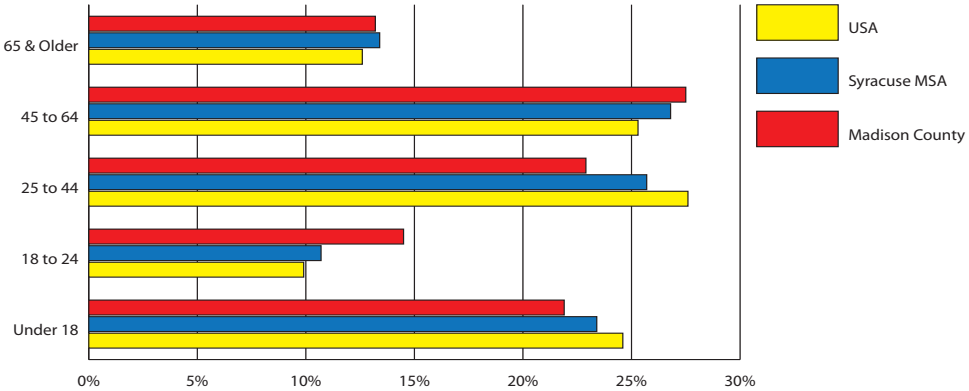
Source: -U.S. Census

Table 9. Per Capita Income

	1990	2000	2005	2009	%Change: 2000–2009
Syracuse MSA	$18,798.00	$26,844.00	$31,474.00	$36,833.00	37.2%
Albany MSA	$20,347.00	$30,374.00	$36,239.00	$42,206.00	39.0%
Binghamton MSA	$18,092.00	$24,939.00	$28,257.00	$34,360.00	37.8%
Buffalo MSA	$18,799.00	$27,074.00	$31,801.00	$37,469.00	38.4%
NYC MSA	$26,453.00	$39,797.00	$45,942.00	$52,037.00	30.8%
Rochester MSA	$20,747.00	$29,094.00	$34,114.00	$39,036.00	34.2%
Utica/Rome MSA	$16,366.00	$23,563.00	$27,972.00	$33,269.00	41.2%
New York State	$23,710.00	$34,630.00	$40,690.00	$46,516.00	34.3%
U.S.	$19,354.00	$30,318.00	$35,424.00	$39,635.00	30.7%
NYS	14,830,192	18,242,584	23.0%		

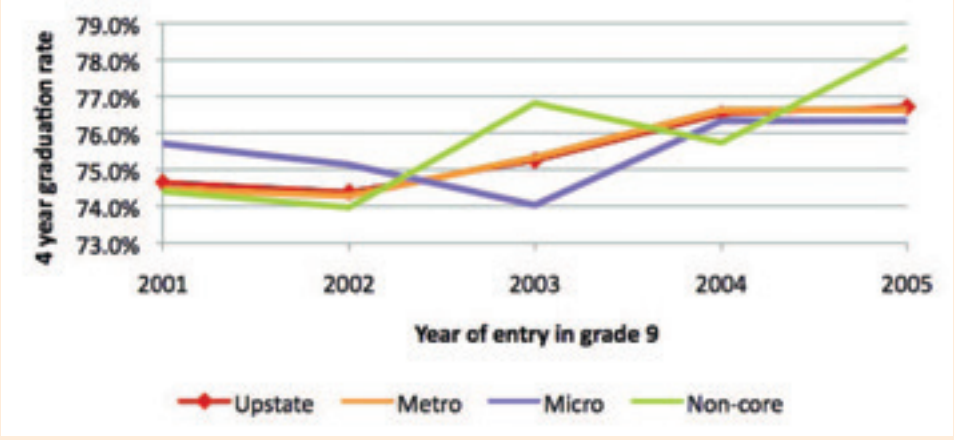
Source: -U.S. Census

Table 10. Age Distribution of Residents as Percentage of Total Population, 2009



Source: U.S. Census. American Community Survey

Table 11. 4-year Graduation Rates by Upstate NY County Type, by 9th grade cohort year 2001–2005 (cohorts graduating 2005–2009)



Source: NYS Education Department, Graduation Rate Data

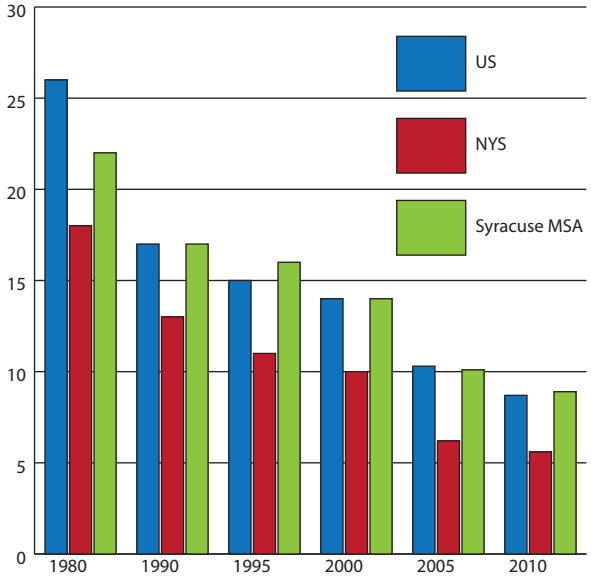
Economy

Table 12. Employment by Industry, Syracuse MSA 1990–2010, '000s

	1990	1995	2000	2005	Dec 2010
Total Non-Farm	317.8	307.8	325.4	320.8	320.1
Total Private	264.2	252.9	269.0	263.5	262.7
Goods Producing	61.2	53.0	57.3	45.5	40.0
Service Producing	256.6	254.8	268.1	275.4	280.1
Nat. Resources, Mining, Construction	15.6	11.7	12.9	12.3	12.0
Manufacturing	45.6	41.3	44.5	33.2	28.0
Wholesale Trade	20.1	15.8	15.8	15.6	14.1
Retail Trade	38.3	37.3	38.1	36.9	36.1
Utilities	6.4	4.8	4.8	4.0	3.4
Transportation/ Warehousing	9.5	9.4	9.2	9.4	9.2
Information	7.7	6.3	7.7	6.6	4.8
Financial Activities	20.6	18.0	17.7	17.6	17.0
Professional/Business Services	27.8	29.0	30.2	34.3	34.6
Educational Services	11.8	13.7	15.2	16.7	21.4
Health Care and Social Assistance	26.9	31.9	34.4	38.0	42.2
Hospitals	8.9	9.3	9.1	8.9	9.4
Leisure/Hospitality	24.1	22.8	25.2	26.6	27.5
Accommodation and Food Services	21.6	20.1	22.0	22.6	22.7
Other Services	9.8	11.1	13.3	12.5	12.4
Government	53.7	54.9	56.4	57.4	57.4
Federal	4.6	4.6	5.1	4.4	4.4
State	13.0	13.5	13.8	13.9	13.7
Education	6.0	6.6	7.4	8.2	8.3
Local	36.1	36.8	37.5	39.1	39.3
Education	20.3	21.9	23.0	23.6	25.8

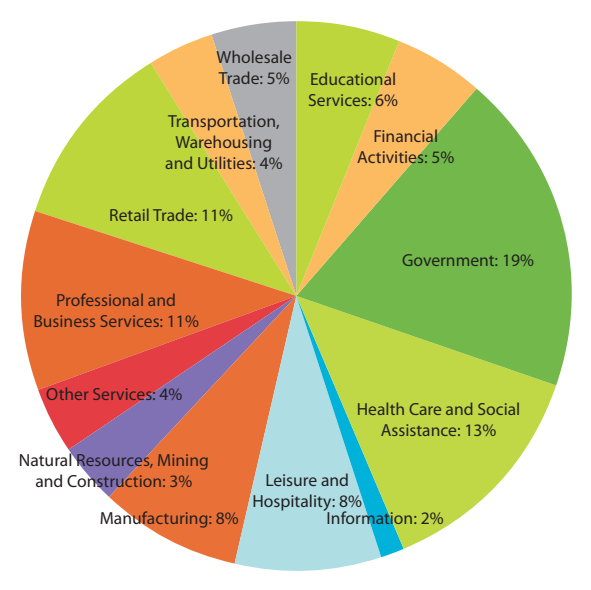
Source: NYSDOL and BLS

Table 13. Total Manufacturing Jobs as Percentage of Total Employment



Source: NYSDOL and BLS

Table 14. Syracuse MSA Employment by Industry, 2009



Source: NYSDOL and BLS

Table 15. Syracuse MSA Employment by Industry, 2009

Industry	Number of Employees	Syracuse MSA % of Total	U.S. % of Total
Total, All Industries	296,805		
Agriculture, Forestry, Fishing Hunting	1,031	> 0.1%	0.3%
Construction	11,638	3.9%	5.0%
Manufacturing	28,009	9.4%	9.5%
Wholesale Trade	13,992	4.7%	4.4%
Retail Trade	34,280	11.5%	11.5%
Transportation and Warehousing	8,958	3.0%	3.9%
Information	4,959	1.7%	2.2%
Finance and Insurance	13,152	4.4%	4.4%
Real Estate and Rental and Leasing	3,857	1.3%	1.5%
Professional and Technical Services	14,442	4.9%	5.8%
Management of Companies and Enterprises	3,874	1.3%	1.5%
Administrative and Waste Services	14,186	4.8%	5.8%
Educational Services	10,515	3.5%	9.8%
Health Care and Social Assistance	38,745	13.1%	12.9%
Arts, Entertainment, and Recreation	4,073	1.4%	1.5%
Accommodation and Food Services	22,719	7.7%	8.6%
Other Services	9,918	3.3%	2.9%
Total, All Government	54,566	18.4%	7.6%

Source: NYSDOL and BLS

Table 16. CSX Rail System Maps

Source: CSX

Table 17. Number of Companies by Industry Sector, Syracuse MSA, 2009

	Syracuse MSA			United States			
	A	B	C	D	E	F	
Industry	Number of Companies	% of companies in an Industry Segment as a % of Total Companies in MSA	Paid Employees	Number of Companies	% of companies in an Industry Segment as a % of Total Companies in U.S.A	Paid Employees	Ratio (B/E)
Estimated Total Number of Companies in MSA (includes Market Segments not shown below)	13,568	100.00%		6,417,035	100.00%		
Manufacturing	787	5.8%	44,756	363,753	5.7%	16,888,016	1.02
Food	67	0.5%	2,240	26,361	0.4%	1,471,050	1.19
Apparel	4	0.0%	500	17,065	0.3%	719,269	0.11
Wood & Paper	62	0.5%	2,848	23,307	0.4%	1,151,346	1.25
Chemical	28	0.2%	1,278	13,513	0.2%	884,321	0.97
Plastics/Rubber	38	0.3%	2,414	16,876	0.3%	1,029,976	1.06
Fabricated Metals	150	1.1%	4,467	62,501	1.0%	1,774,874	1.13
Machinery	74	0.5%	4,403	30,665	0.5%	1,421,820	1.13
Computer & electronic products	53	0.4%	5,771	17,465	0.3%	1,698,529	1.43
Electrical equipment & appliances	26	0.2%	3,030	6,946	0.1%	594,914	1.76
Furniture	21	0.2%	1,255	20,758	0.3%	604,845	0.48
Misc	67	0.2%	1	31,554	0.5%	735,337	1
Wholesale Trade	1,206	8.8%	15,611	453,470	7.1%	5,796,557	1.25
Retail Trade	2,895	21.2%	40,997	1,118,447	17.7%	13,991,103	1.22
Transportation & Warehousing	353	2.6%	10,954	178,025	2.8%	2,920,777	0.93
Truck Transportation	200	1.5%	3,967	103,978	1.6%	1,293,790	0.9
Warehousing & Storage	22	0.2%	394	6,497	0.1%	109,760	1.59
Finance & Insurance	941	6.9%	15,679	395,203	6.2%	5,835,214	1.12
Credit Intermediation & Related Services	334	2.4%	5,007	166,882	2.6%	2,744,910	0.94
Securities Intermediation & Related Services	88	0.6%	764	54,491	0.8%	706,053	0.76
Insurance Carriers & Related Activities	519	3.8%	9,908	172,299	2.7%	2,327,306	1.42
Professional, Scientific & Technical Services	1,362	10.0%	13,000	621,129	9.7%	5,361,210	1.03
Administrative & Support Services	528	3.9%	16,548	260,025	4.1%	7,066,658	0.95
Art, Entertainment and Recreation	289	2.1%	1,964	99,099	1.5%	1,587,660	1.37

Source: U.S. Census; DeLoitte & Touche

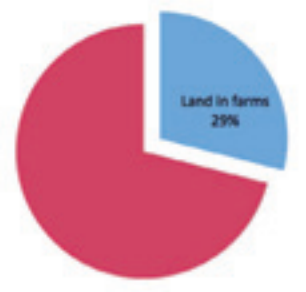
Table 18. Syracuse MSA, Major Employers, 2009

Company	Scope of Operation	Location	Employ-ment
Syracuse University	Academic institution	Syracuse	5,765
SUNY - Upstate Medical University	Academic institution	Syracuse	5,700
Wegmans	Regional grocery retailer	Throughout region	4,070
Oneida Nation Enterprises	Casino resort, camping facilities, fuel services and misc. retail	Oneida City	4,000
New Process Gear Division of New Venture gear	Mfr. Of transmissions & gear boxes	Syracuse	3,700
Carrier Corporation	Mfr. Of air conditioning equipment	Syracuse	2,780
P&C Food Markets	Regional grocery retailer	Throughout region	2,500
Lockheed Martin	Sonar and radar systems	Syracuse	2,300
Niagara Mohawk - A National Grid Co.	Public Utility	Syracuse	2,100
AT&T	Telecommunications	Syracuse	1,400
Fleet Bank & Financial Group	Banking and investments	Syracuse/Utica	1,300
Constellation Energy Group	Public Utility	Syracuse/Oswego City	1,300
L &JG Stickley	Mfr. Of Furniture	Syracuse	1,280
United Parcel Service	Shipping services	Syracuse	1,200
Oneida, LTD	Mfr. Of flatware, china and glassware	Oneida	1,200
Hartford Financial Group	Insurance and financial services	Syracuse/New Hartford	1,200
Welch Allyn	Mfr. Medical and other electrical equipment	Skaneateles	1,160
Verizon	Telecommunications services	Syracuse	1,100
Bank of New York	Banking	Oriskany/Syracuse	1,125
ACS/AFSA Data	Student loan processing	Utica	1,100
Walmart	Retail stores/distribution center	Throughout region/Marcy	1,700
Excellus (BC-BS of Central NY)	Insurance and healthcare	Syracuse	995
Anheuser Bush Companies	Mfr. Of beer and related beverages	Syracuse	960
Utica National Mutual Insurance Co.	Insurance	New Hartford/Utica	850+
Air Force Research Lab	Military research operations	Rome	825
SUNY College - Cortland	Academic institution	Cortland	800+
Entergy Nuclear Northeast	Power generation utility	Oswego City	800
Cooper Crouse - Hinds	Mfr. Of electrical devices	Syracuse	780
Colgate University	Academic institution	Hamilton	775
Bristol Meyers Squibb	Mfr. Of pharmaceuticals	Syracuse	770
Alcan Aluminum Corporation	Aluminum products	Oswego City	700
Pall Trinity Micro Corporation	Mfr. Of filters and related equipment	Cortland	750
MONY Group	Financial services and insurance	Syracuse	700
Marietta Industries	Mfr. Of personal care amenities for the hospital industry	Cortland	650
Hamilton College	Academic institution	Clinton	600
Huhtamaki Consumer Packaging	Mfr. Of packaging	Oswego City	600
HSBC	Banking	Syracuse	600
Mohawk Valley Community College	Academic institution	Utica	600
Community Bank NA	Banking	Syracuse	560
Metropolitan Life	Insurance claims processing	Oriskany	550
Orion Bus Industries	Mfr. Transportation equipment	Utica	550
APAC Teleservices	Telemarketing operation	Utica	525
Key Bank NA	Banking and financial services	Syracuse	500
M&T Bank	Banking and financial services	Syracuse	500

Source: Moran, Stahl & Boyer, LLC

Agriculture

Table 19. Farmland as Percentage of All Privately Owned Land in NYS



Source: U.S.DA Agricultural Census, 2002

Table 20. New York State Farmland Characteristics, 1997, 2002, 2007

	1997	2002	2007
Approximate total land area (acres)	30,196,361	30,216,824	30,162,489
Total farmland (acres)	7,788,241	7,660,969	7,174,743
Percent of total land area	25.8	25.4	23.8
Cropland (acres)	4,961,538	4,841,367	4,314,954
Percent of total farmland	63.7	63.2	60.1
Percent in pasture	13.8	10.6	6.5
Percent irrigated	1.4	1.4	1.5
Harvested Cropland (acres)	3,855,732	3,846,368	3,651,278
Woodland (acres)	1,655,185	1,649,585	1,559,522
Percent of total farmland	21.3	21.5	21.7
Percent in pasture	14.7	14.3	10.6
Pastureland (acres)	520,150	550,225	714,615
Percent of total farmland	6.7	7.2	10.0
Land in house lots, ponds, roads, wasteland, etc. (acres)	651,368	619,792	585,652
Percent of total farmland	8.4	8.1	8.2
Conservation practices			
Farmland in conservation or wetlands reserve programs (acres	97,617	211,996	115,546
Average farm size (acres)	204	206	197

Source: Census of Agriculture, 1997, 2002, 2007

Table 21. NYS top 5 agriculture commodities, 2009

	Value of receipts thousand $	Percent of state total farm receipts	Percent of U.S. value
1. Dairy product	1,685,312	45.9	6.9
2. Greenhouse/nursery	355,438	9.7	2.2
3. Corn	266,853	7.3	0.6
4. Apples	226,059	6.2	11.4
5. Cattle and calves		3.3	0.3
All commodities	3,675,505		1.3

Source: U.S.DA National Agricultural Statistics Service

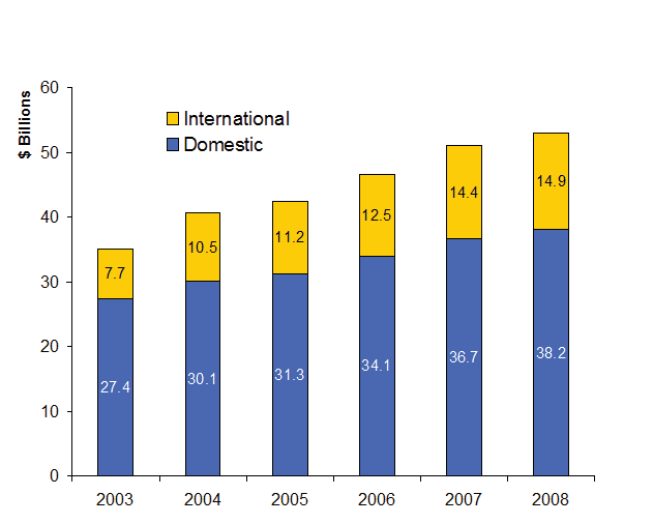
Table 22. Top 5 NYS counties in agricultural sales, 2007

	Percent of state total receipts	Thousands $
1. Suffolk County	5.5	242,933
2. Wyoming County	5.2	229,943
3. Cayuga County	4.9	214,403
4. Genesee County	4.0	177,810
5. Wayne County	3.8	168,963
State total		4,418,634

Source: National Agriculture Statistics Service 1997, 2002 and 2007

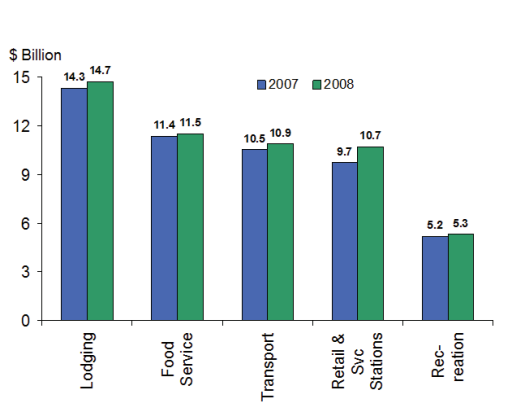
Tourism

Table 23. Visitor Spending by Market in New York State



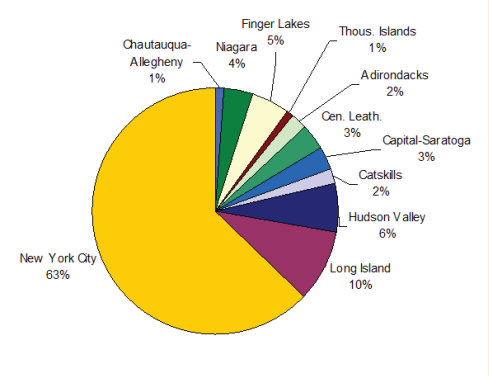
Source: *The Economic Impact of Tourism in New York State*, August 2008, prepared by Tourism Economics

Table 24. Visitor Spending by Sector in New York State



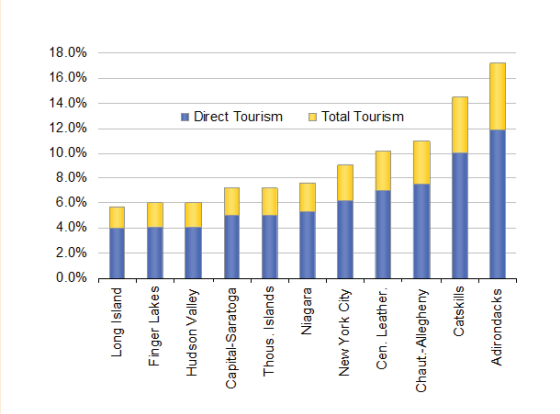
Source: *The Economic Impact of Tourism in New York State*, August 2008, prepared by Tourism Economics

Table 25. Visitor Spending by Region in New York State



Source: *The Economic Impact of Tourism in New York State*, August 2008, prepared by Tourism Economics

Table 26. Tourism Employment in New York State



Source: *The Economic Impact of Tourism in New York State*, August 2008, prepared by Tourism Economics

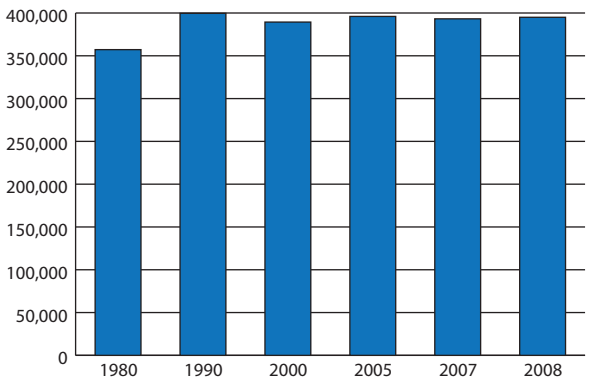
Table 27. Tourism Spending in New York State

Visitor Spend '000s	2007	2008	% Change
Chautauqua-Allegany	$499,915	$510,676	2.2%
Greater Niagara	$2,004,536	$2,118,638	5.7%
Finger Lakes	$2,606,467	$2,671,391	2.5%
Thousand Islands	$418,652	$433,056	3.4%
Adirondacks	$1,128,235	$1,194,114	5.8%
Central Leatherstocking	$1,699,578	$1,760,230	3.6%
Capital-Saratoga	$1,628,554	$1,679,103	3.1%
Catskills	$988,514	$1,027,978	4.0%
Hudson Valley	$3,113,656	$3,089,709	-0.8%
Long Island	$4,962,128	$5,136,334	3.5%
New York City	$31,849,810	$33,485,671	5.1%
TOTAL	$50,900,045	$53,106,900	4.3%

Source: *The Economic Impact of Tourism in New York State*, August 2008, prepared by Tourism Economics

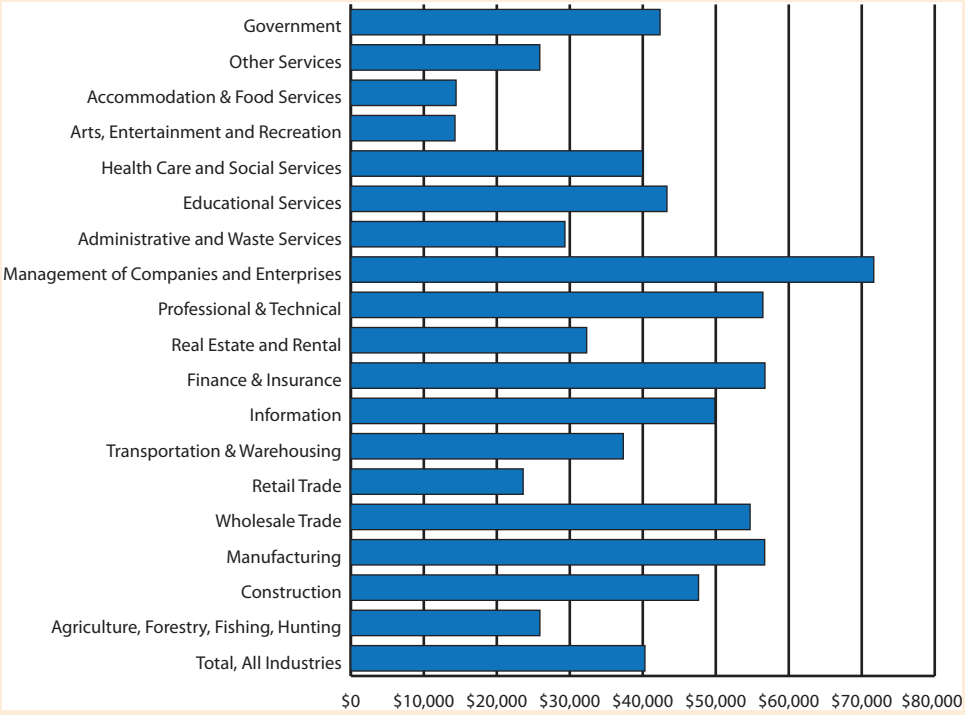
Labor Force

Table 28. Central New York Labor Force 1980 - 2010



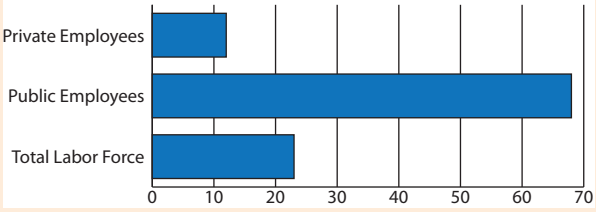
Source: NYSDOL

Table 29. Average Annual Wages by Industry Sector, Central New York, 2009



Source: NYSDOL

Table 30. Unionization of Labor Force in Central New York

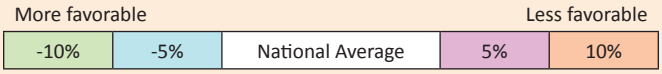


Source: -NYSDOL

Table 31. Comparison of Labor Cost Index and Mean Annual Salary for Selected Positions

Location	Labor Cost Index (1)	Mechanical Engineer (2)	Electronics Engineer (2)	Insurance Underwriter (2)	Loan Officer (2)	Customer Service Rep. (2)	Systems Analyst (2)	Computer Programmer (2)
U.S. Average	100	65,170	71,600	50,940	52,160	28,240	64,890	63,690
Albany	101.4	62,620	73,740	53,320	50,010	30,920	66,720	58,490
Boston	110.5	73,910	80,330	61,100	63,400	33,690	63,240	70,490
Buffalo	101.7	61,170	60,970	46,800	45,500	26,330	55,090	52,520
Hartford	110.1	61,670	64,710	51,760	68,010	30,770	65,890	66,550
New York City	116.2	72,850	74,280	67,180	77,380	36,820	72,820	73,010
Philadelphia	109	66,040	69,540	56,780	47,070	29,060	66,690	63,410
Rochester	103.3	66,940	68,280	45,280	58,480	28,970	61,120	61,370
CNY	101.2	61,100	68,600	43,880	45,210	29,950	59,930	53,800

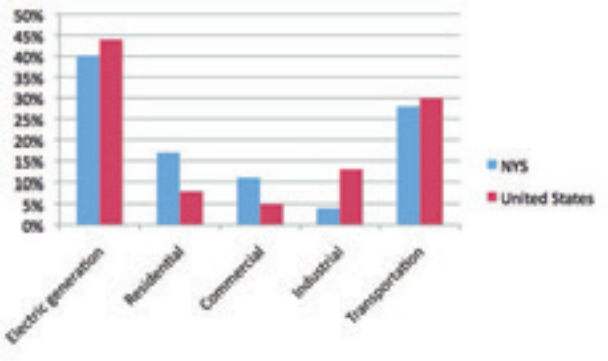
Source: 1. Economic Research Institute (10/03) Based on salary level of $50,000
2. U.S. Bureau of Labor Statistics (2002)



Source: Economic Research Institute (10/2003), based on salary-level of $50,000; U.S. Bureau of Labor Statistics (2002)

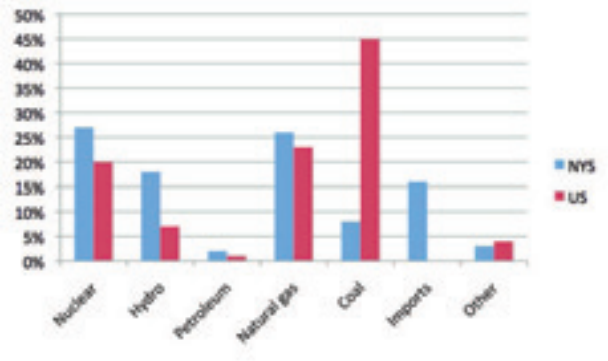
Energy

Table 32. Primary Consumption by Sector, 2009



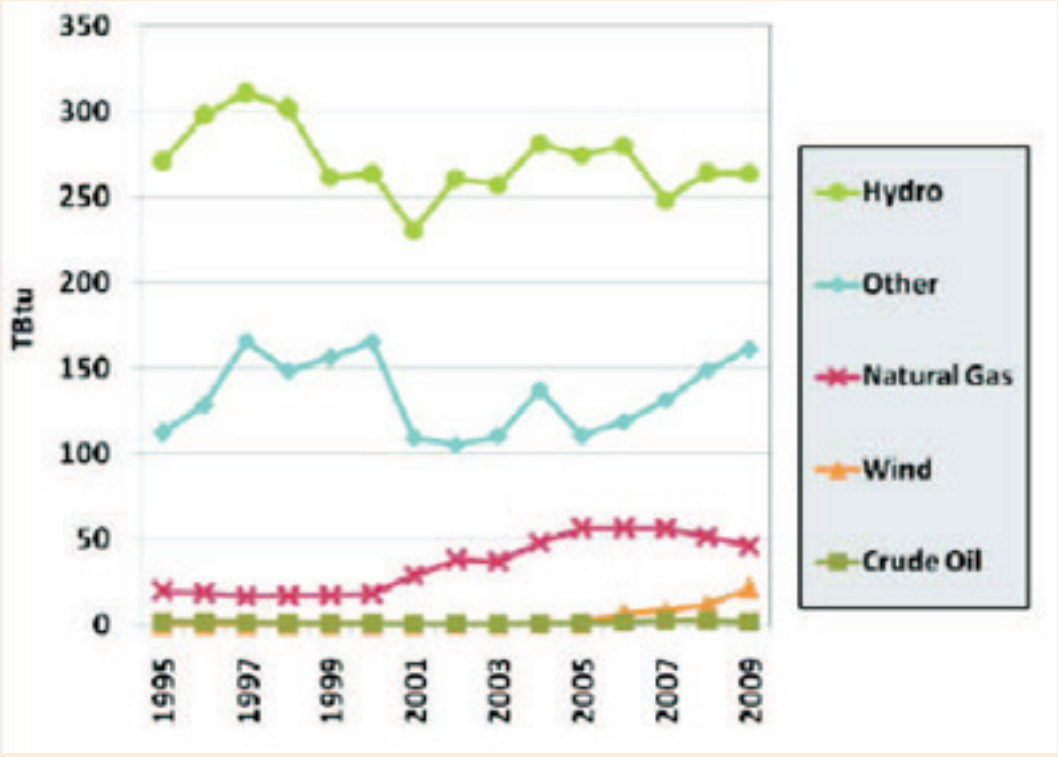
Source: NYSERDA, 2011

Table 33. Electricity Generation by Fuel Type, NYS and U.S. 2009



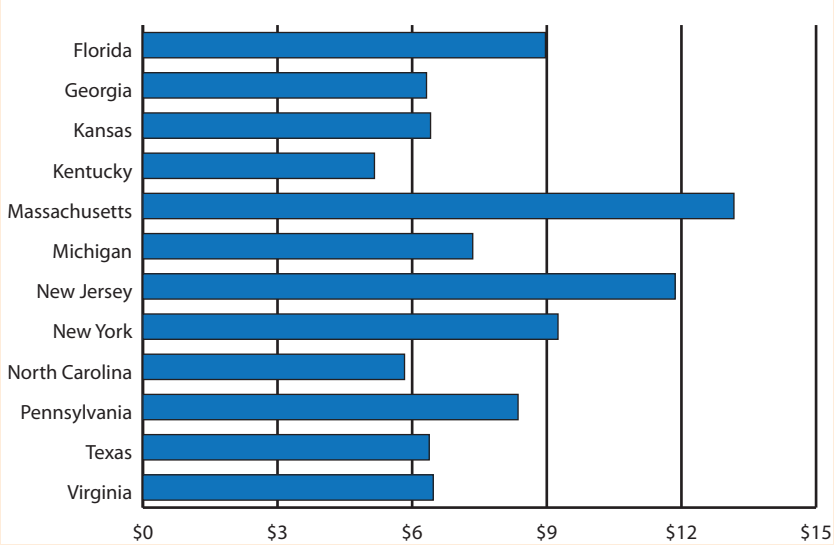
Source: NYSERDA, 2011

Table 34. NYS Primary Energy Production by Fuel Type, 1995–2009



Source: NYSERDA, 2011

Table 35. Average Cost of Energy for Industrial Markets (February 2011 Estimates)



Source: NYSDOL

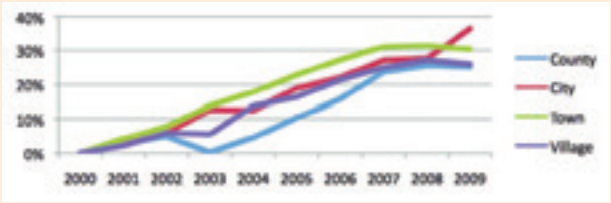
Table 36. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, February 2011

	Residential	Commercial	Industrial	Transportation	All Sectors
Florida	11.67	10.11	8.97	9.34	10.83
Georgia	10.15	9.64	6.32	7.38	9.09
Kansas	9.74	8.27	6.41	--	8.3
Kentucky	8.74	8.44	5.16	--	6.98
Massachusetts	14.6	13.92	13.17	7.2	13.93
Michigan	12.47	10.14	7.35	9.38	10.18
New Jersey	16.7	13.43	11.86	10.87	14.47
New York	17.45	15.22	9.25	14.09	15.48
North Carolina	10.12	8.06	5.83	6.94	8.61
Pennsylvania	12.72	9.77	8.36	9.6	10.54
Texas	10.94	9.11	6.38	9.93	9.2
Virginia	9.84	7.61	6.47	7.63	8.46

Source: NYSDOL

Governance

Table 37. Change in total Revenues from 2000 levels, Upstate New York, 2000–2009

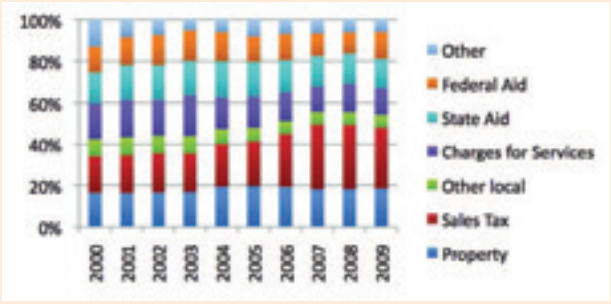


Source: New York State Comptroller Local Government Data, 2000–2009

Table 38. Change in total Expenditures from 2000 levels, Upstate New York, 2000–2009

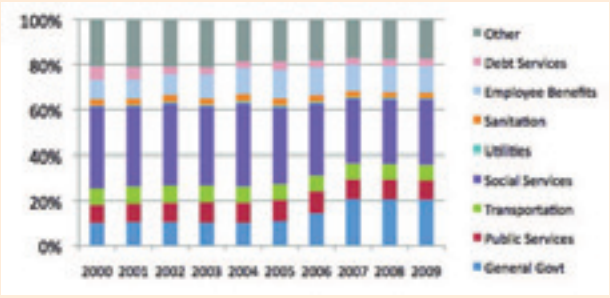
Source: New York State Comptroller Local Government Data, 2000–2009

Table 39. Average County Revenues, by source, Upstate New York, 2000–2009



Source: New York State Comptroller Local Government Data, 2000–2009

Table 40. Average County Expenditures, by source, Upstate New York, 2000–2009



Source: New York State Comptroller Local Government Data, 2000–2009

Table 41. Major Components of the State Business Tax Climate Index, FY 2011

State	Overall Rank	Corporate Tax Index Rank	Individual Income Tax Index Rank	Sales Tax Index Rank	Unemployment Insurance Tax Index Rank	Property Tax Index Rank
Alabama	28	24	18	40	10	9
Alaska	2	26	1	5	31	12
Arizona	34	22	23	48	2	6
Arkansas	39	40	33	41	18	21
California	49	33	48	49	14	16
Colorado	15	12	16	29	17	15
Connecticut	47	18	47	26	30	49
Delaware	8	49	34	2	8	8
Florida	5	15	1	30	3	28
Georgia	25	8	30	23	22	38
Hawaii	22	10	41	10	23	14
Idaho	18	17	29	12	48	2
Illinois	23	27	9	39	41	39
Indiana	10	21	11	20	12	4
Iowa	45	47	42	31	33	34
Kansas	35	35	21	32	7	41
Kentucky	19	42	32	7	34	20
Louisiana	36	19	26	46	5	22
Maine	31	43	37	6	44	26
Maryland	44	14	49	11	47	40
Massachusetts	32	36	15	24	49	43
Michigan	17	48	12	9	45	32
Minnesota	43	44	38	38	39	18
Mississippi	21	13	19	33	4	31
Missouri	16	5	25	15	9	11
Montana	6	16	22	3	19	10
Nebraska	29	34	31	17	13	24
Nevada	4	3	6	43	40	17
New Hampshire	7	50	10	1	38	35
New Jersey	48	41	45	36	27	48
New Mexico	33	31	20	45	16	1
New York	50	20	50	34	46	42
North Carolina	41	25	36	44	6	33
North Dakota	20	30	28	18	20	7
Ohio	46	39	44	35	11	45
Oklahoma	30	7	24	42	1	27
Oregon	14	45	46	4	37	5
Pennsylvania	26	38	14	28	42	44
Rhode Island	42	37	35	14	50	47
South Carolina	24	9	27	22	43	23
South Dakota	1	1	1	25	36	13
Tennessee	27	11	8	47	35	50
Texas	13	46	7	37	15	29
Utah	9	6	13	27	24	3
Vermont	38	28	40	16	21	36
Virginia	12	4	17	8	29	25
Washington	11	32	1	50	25	19
West Virginia	37	23	39	21	32	37
Wisconsin	40	29	43	19	26	30
Wyoming	3	1	1	13	28	46

Source: Tax Foundation

Education

Table 42. Education and Training Resources

No.	College/University	Location	Students	Programs of Study
1	Cornell University	Ithaca	20,000	Agriculture, Architecture, Arts & Sciences, Engineering, Hotel Administration, Human Ecology, Industrial and Labor Relations, Veterinary Medicine
3	Syracuse University	Syracuse	17,000	Biological Science, Business, Communications & the Arts, Computer & Physical Science, Education, Engineering, Environmental Science, Health Professions and Social Science.
8	Onondaga Community College* (OCC)	Syracuse	8,000	Biological Science, Business, Computer & Physical Science, Education, Engineering Technology, Health and Social Sciences
2	SUNY - Oswego	Oswego	6,400	Biological Science, Business, Communications & the Arts, Computer & Physical Science, Education, Technology Management and Social Science.
4	SUNY - Cortland	Cortland	6,300	Arts & Sciences, Education, Professional Studies
6	Ithaca College	Ithaca	6,300	Business, Communications, Health Sciences and Human Performance, Humanities and Sciences, Music
14	Mohawk Valley Community College*	Utica	5,300	Aircraft Mechanics, Biological Science, Business, Computer & Physical Science, Education, Engineering Technology, Environmental Science, Health and Social Sciences
11	SUNY - Morrisville*	Morrisville	2,800	Agriculture, Biological Science, Business, Computer & Physical Science, Education, Engineering Technology, Environmental Science, Social Science
12	Colgate University	Hamilton	2,800	Biological Science, Communications & the Arts, Computer & Physical Science, Education, Environmental Science, Social Science
9	Cayuga Community College*	Auburn	2,700	Business, Computer Science, Education, Engineering Technology and Health Sciences
5	SUNY - College of Env. Science & Forestry	Syracuse	2,300	Agriculture (Forestry) and Environmental Science
7	LeMoyne College	Syracuse	2,150	Biological Science, Business, Communications & the Arts, Computer & Physical Science, Education, Health Professions and Social Science.
16	SUNY - IT	Rome	2,100	Business, Engineering Technology, Computer Science, Health Services Management and Health Professions
13	Utica College of Syracuse University	Utica	1,800	Biological Science, Business, Communications & the Arts, Computer & Physical Science, Education, Construction Management, Health Professions and Social Science
17	Hamilton College	Clinton	1,700	Biological Science, Communications & the Arts, Computer & Physical Science and Social Science
10	Cazenovia College	Cazenovia	750	Communications and the Arts, Education, Environmental Design and Social Science
15	Utica School of Commerce*	Utica	550	Business and Computer Science

* Two-year college programs

Source: MCIDA

Cost/Comparative Indexes

Table 43. ACCRA Cost of Living Index (2008 Annual Average)

	Composite Index*	Grocery	Housing
Buffalo, NY	96.4	100.8	90.5
Glens Falls, NY	110.2	100.3	104.3
Ithaca, NY	104.6	104.2	103.2
New York, (Manhattan) NY	219.8	142.4	409.6
Rochester, NY	104.1	95.0	92.3
Syracuse, NY	99.7	99.6	85.6

Source: *Composite includes six categories

Source: Council for Community and Economic Research

Table 44. Quality of Life Ranking by Category

	Syracuse	New York	Albany	Rochester	Buffalo
Cost of Living	220	354	265	255	208
Transportation	41	3	62	64	50
Jobs	162	206	167	134	174
Education	21	20	3	6	27
Climate	291	105	323	233	286
Crime	60	352	93	102	213
Arts	67	1	73	60	24
Health Care	78	29	81	95	66
Recreation	17	28	80	7	38
Overall Rank	32	65	78	30	59

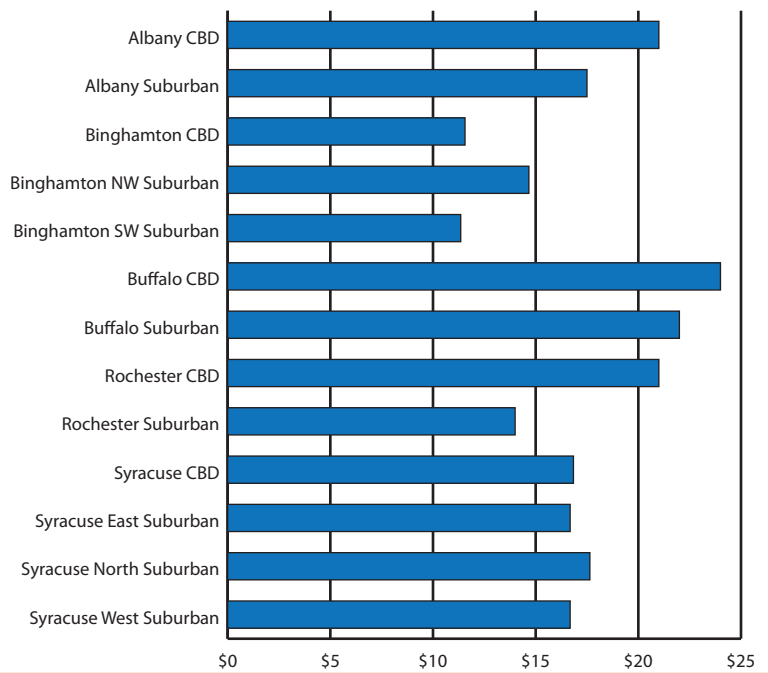
Source: Places Rated Almanac

Table 45. Comparison of Cost of Living of Selected Cities

MSA	Total	Food	Housing	Utilities	Transportation	Health	Misc. Goods/Services
Rochester, NY	101.9	94.0	87.6	131.4	106.4	100.5	106.7
Cleveland, OH	99.6	105.9	90.7	113.1	104.6	101.7	98.8
Buffalo, NY	99.5	103.5	89.8	130.5	103.7	94.1	96.3
Syracuse, NY	98.8	98.5	82.6	122.5	100.8	93.4	105.1
Grand Rapids, MI	98.1	99.4	99.5	111.5	101.3	88.9	92.8
Erie, PA	96.5	99.2	83.6	127.8	99.8	96.3	95.9
Pittsburgh, PA	94.2	97.6	87.0	107.6	101.7	85.9	93.6
South Bend, IN	93.4	93.1	82.4	98.2	102.0	95.1	98.2
Akron, OH	93.3	96.6	80.9	101.1	106.9	90.9	96.3
Rockford, IL	92.8	89.8	77.7	96.3	109.1	104.0	99.0
Dayton, OH	91.9	88.9	75.2	100.2	107.1	94.1	99.3
Muncie, IN	91.1	98.0	77.3	86.8	103.4	93.6	96.9
Charleston, WV	91.0	85.2	85.7	93.9	98.8	95.5	93.8
Youngstown/Warren, OH	89.6	96.9	76.2	107.8	95.2	86.9	91.0
Fort Wayne, IN	89.0	90.6	84.5	93.8	105.2	95.2	85.3

Source: Council for Community and Economic Research

Table 46. Average Gross Cost for Class A Office Space, $/sf



Source: Pyramid Brokerage

Table 47. Average Class A Gross Rental Rate, Northeast, , psf/yr

Philadelphia Downtown	26.75
Philadelphia Suburbs	26.32
Buffalo City CBD	21
Buffalo City Other	16
Buffalo N	20.5
Buffalo A	19.5
Buffalo E	20.5
Albany CBD	21.56
Albany Suburban	16.4
Hartford City CBD	20.56
Hartford Suburban	17.81
Boston CBD	45.69
Boston Suburban	19.69
Manhattan Midtown	55.42
Manhattan Downtown	38.58

Source: Pyramid Brokerage

Table 48. Direct Weighted Average, Class A Gross Rental Rate, Upstate New York, psf/yr

Albany CBD	21
Albany Suburban	17.5
Binghamton CBD	11.56
Binghamton NW Suburban	14.67
Binghamton SW Suburban	11.35
Buffalo CBD	24
Buffalo Suburban	22
Rochester CBD	21
Rochester Suburban	14
Syracuse CBD	16.84
Syracuse East Suburban	16.68
Syracuse North Suburban	17.64
Syracuse West Suburban	16.68

Source: Pyramid Brokerage

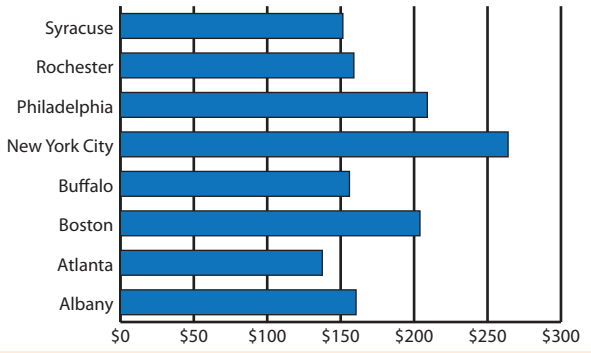
Table 49. Business Travel Cost Comparison, 2011

	Boston		Chicago		New York City		Philadelphia		Atlanta	
Destination	**Cost**	**Time**	**Cost**	**Time**	**Cost**	**Time**	**Cost**	**Time**	**Cost**	**Time**
Albany	$286	70 min	$375	130 min	$257	60 min	$648	75 min	$937	140
Buffalo	$188	80 min	$238	100 min	$148	80 min	$648	80 min	$322	120
Rochester	$292	70 min	$1,202	105 min	$127	75 min	$457	80 min	$312	120
Syracuse	$397	105 min	$1,222	120 min	$158	70 min	$648	60 min	$470	140

Very favorable
Average/moderate
Less Favorable
Unfavorable rates

Source: Published rates from Orbitz web site for flights with a 30 + day advanced time period away from holidays and the round trips began on Tuesday and returned on a Thursday. All flights were for non-stop flights departing on July 5th and returning on July 7th. Prices were lowest listed without any taxes or fees applied.

Table 50. Business Travel cost, hotels, 2011



Source: Published online rates for Marriott (Courtyard) and Hilton (Hampton Inn) for each location and the average value was compared as an index with Syracuse equaling 100.

Recent Developments

After suffering a major setback during 2011, global prospects are gradually strengthening again, but downside risks remain elevated. Through the third quarter, growth was broadly in line with the estimates in the September 2011 *World Economic Outlook* (WEO). Real GDP in many emerging and developing economies was somewhat weaker than expected, but growth surprised on the upside in the advanced economies. However, activity took a sharp turn for the worse during the fourth quarter, mainly in the euro area (Figure 1.1, panels 1 and 2).

- The future of the Economic and Monetary Union (EMU) became clouded by uncertainty, as the sovereign debt crisis caused sharp increases in key government bond rates (Figure 1.2, panels 2 and 3). Plummeting confidence and escalating financial stress were major factors in the 1.3 percent (annualized) contraction of the euro area economy. Real GDP also contracted in Japan, reflecting supply disruptions related to floods in Thailand and weaker global demand. In the United States, by contrast, activity accelerated, as consumption and inventory investment strengthened. Credit and the labor market also began to show signs of life.
- Activity softened in emerging and developing economies, with factors unrelated to the euro area crisis also playing an important role, but remained relatively strong (Figure 1.1, panel 3). In emerging Asia and in Latin America, trade and production slowed noticeably, owing partly to cyclical factors, including recent policy tightening. In the Middle East and North Africa (MENA), activity remained subdued amid social unrest and geopolitical uncertainty. In sub-Saharan Africa (SSA), growth has continued largely unabated, helped by favorable commodity prices. In emerging Europe, weak growth in the euro area had a larger impact than elsewhere. However, concerns about a potentially sharp slowdown in Turkey and a weakened policy framework in Hungary also detracted from activity.

Although the recovery was always expected to be weak and vulnerable because of the legacy of the financial crisis, other factors have played important roles. In the euro area, these include EMU design flaws; in the United States, an acrimonious debate on fiscal consolidation, which undermined confidence within financial markets; and elsewhere, natural disasters as well as high oil prices because of supply-side disruptions. Thus, past and present WEO projections for only modest growth have their origins in various developments and regions (Figure 1.1, panel 4). Some of these developments are now unwinding, which will support a reacceleration of activity.

High-frequency indicators point to somewhat stronger growth. Manufacturing purchasing managers' index indicators for advanced and emerging market economies have edged up in the most recent quarter (Figure 1.3, panel 1). The disruptive effects on supply chains caused by the Thai floods appear to be receding, leading to stronger industrial production and trade in various Asian economies. In addition, reconstruction is continuing to boost output in Japan. Global financial conditions have improved: data have come in stronger than expected by markets, and fears of an imminent banking or sovereign crisis in the euro area have diminished. Recent improvements in the ability of major economies on the periphery to roll over sovereign debt, narrower sovereign and interbank spreads relative to December highs, and a partial reopening of bank funding markets have helped reduce these fears, but concerns linger (Figure 1.2, panels 2 and 3). More generally, market volatility has declined and flows to emerging market economies have rebounded (Figure 1.4, panels 1 and 2). Appreciating currencies have prompted renewed exchange rate intervention (for example, in Brazil and Colombia).

Policy has played an important role in recent improvements, but various fundamental problems remain unresolved. The European Central

Table 1.1. Overview of the *World Economic Outlook* Projections

(Percent change unless noted otherwise)

	Year over Year						Q4 over Q4		
			Projections		Difference from January 2012 WEO Projections		Estimates	Projections	
	2010	2011	2012	2013	2012	2013	2011	2012	2013
World Output[1]	**5.3**	**3.9**	**3.5**	**4.1**	**0.2**	**0.1**	**3.2**	**3.7**	**4.1**
Advanced Economies	**3.2**	**1.6**	**1.4**	**2.0**	**0.2**	**0.1**	**1.2**	**1.6**	**2.2**
United States	3.0	1.7	2.1	2.4	0.3	0.2	1.6	2.0	2.6
Euro Area	1.9	1.4	–0.3	0.9	0.2	0.1	0.7	–0.2	1.4
Germany	3.6	3.1	0.6	1.5	0.3	0.0	2.0	0.9	1.6
France	1.4	1.7	0.5	1.0	0.3	0.0	1.3	0.5	1.4
Italy	1.8	0.4	–1.9	–0.3	0.2	0.3	–0.4	–2.0	0.7
Spain	–0.1	0.7	–1.8	0.1	–0.2	0.4	0.3	–2.5	1.3
Japan	4.4	–0.7	2.0	1.7	0.4	0.1	–0.6	2.0	1.8
United Kingdom	2.1	0.7	0.8	2.0	0.2	0.0	0.5	1.5	2.3
Canada	3.2	2.5	2.1	2.2	0.3	0.2	2.2	2.0	2.3
Other Advanced Economies[2]	5.8	3.2	2.6	3.5	0.0	0.1	2.5	3.6	2.9
Newly Industrialized Asian Economies	8.5	4.0	3.4	4.2	0.1	0.1	3.1	4.8	3.1
Emerging and Developing Economies[3]	**7.5**	**6.2**	**5.7**	**6.0**	**0.2**	**0.1**	**5.8**	**6.3**	**6.4**
Central and Eastern Europe	4.5	5.3	1.9	2.9	0.8	0.5	3.8	1.6	3.6
Commonwealth of Independent States	4.8	4.9	4.2	4.1	0.5	0.3	3.7	3.8	4.0
Russia	4.3	4.3	4.0	3.9	0.7	0.4	3.7	3.9	4.1
Excluding Russia	6.0	6.2	4.6	4.6	0.2	–0.1	. . .	. . .	. . .
Developing Asia	9.7	7.8	7.3	7.9	0.0	0.1	7.2	8.1	7.7
China	10.4	9.2	8.2	8.8	0.1	0.0	8.9	8.4	8.4
India	10.6	7.2	6.9	7.3	–0.1	0.0	6.1	6.9	7.2
ASEAN-5[4]	7.0	4.5	5.4	6.2	0.2	0.6	2.5	8.5	5.5
Latin America and the Caribbean	6.2	4.5	3.7	4.1	0.2	0.1	3.6	3.9	4.8
Brazil	7.5	2.7	3.0	4.1	0.1	0.1	1.4	4.7	3.4
Mexico	5.5	4.0	3.6	3.7	0.1	0.2	3.7	3.6	3.8
Middle East and North Africa (MENA)	4.9	3.5	4.2	3.7	0.6	–0.2	. . .	. . .	. . .
Sub-Saharan Africa	5.3	5.1	5.4	5.3	–0.1	0.0	. . .	. . .	. . .
South Africa	2.9	3.1	2.7	3.4	0.1	0.0	2.6	3.0	3.7
Memorandum									
European Union	2.0	1.6	0.0	1.3	0.1	0.1	0.9	0.2	1.7
World Growth Based on Market Exchange Rates	4.2	2.8	2.7	3.3	0.3	0.1	2.3	2.7	3.4
World Trade Volume (goods and services)	**12.9**	**5.8**	**4.0**	**5.6**	**0.2**	**0.2**	**. . .**	**. . .**	**. . .**
Imports									
Advanced Economies	11.5	4.3	1.8	4.1	–0.2	0.2	. . .	. . .	. . .
Emerging and Developing Economies	15.3	8.8	8.4	8.1	1.3	0.4	. . .	. . .	. . .
Exports									
Advanced Economies	12.2	5.3	2.3	4.7	–0.1	0.0	. . .	. . .	. . .
Emerging and Developing Economies	14.7	6.7	6.6	7.2	0.5	0.2	. . .	. . .	. . .
Commodity Prices (U.S. dollars)									
Oil[5]	27.9	31.6	10.3	–4.1	15.2	–0.5	20.8	10.8	–6.2
Nonfuel (average based on world commodity export weights)	26.3	17.8	–10.3	–2.1	3.7	–0.4	–6.4	0.1	–2.4
Consumer Prices									
Advanced Economies	1.5	2.7	1.9	1.7	0.3	0.4	2.8	1.7	1.6
Emerging and Developing Economies[3]	6.1	7.1	6.2	5.6	0.0	0.1	6.5	5.5	4.5
London Interbank Offered Rate (percent)[6]									
On U.S. Dollar Deposits	0.5	0.5	0.7	0.8	–0.2	–0.1	. . .	. . .	. . .
On Euro Deposits	0.8	1.4	0.8	0.8	–0.3	–0.4	. . .	. . .	. . .
On Japanese Yen Deposits	0.4	0.3	0.6	0.1	0.0	–0.1	. . .	. . .	. . .

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during February 13–March 12, 2012. When economies are not listed alphabetically, they are ordered on the basis of economic size. The aggregated quarterly data are seasonally adjusted.

[1]The quarterly estimates and projections account for 90 percent of the world purchasing-power-parity weights.

[2]Excludes the G7 (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and Euro Area countries.

[3]The quarterly estimates and projections account for approximately 80 percent of the emerging and developing economies.

[4]Indonesia, Malaysia, Philippines, Thailand, and Vietnam.

[5]Simple average of prices of U.K. Brent, Dubai, and West Texas Intermediate crude oil. The average price of oil in U.S. dollars a barrel was $104.01 in 2011; the assumed price based on futures markets is $114.71 in 2012 and $110.00 in 2013.

[6]Six-month rate for the United States and Japan. Three-month rate for the euro area.

Bank's (ECB's) three-year longer-term refinancing operations (LTROs) have forestalled an imminent liquidity squeeze that could have led to a banking crisis. Together with the recent commitment to increase the euro area firewall as well as fiscal and structural reforms (notably in Italy and Spain), this lowered sovereign risk premiums, notwithstanding some widening again lately. The recent extension of payroll tax relief and unemployment benefits has averted excessive fiscal tightening that would have harmed the U.S. economy. Nonetheless, markets are still very concerned about prospects in the euro area's weaker economies. Moreover, the challenges posed by risk sharing and governance in the euro area and by medium-term fiscal consolidation in the United States and Japan demand further action.

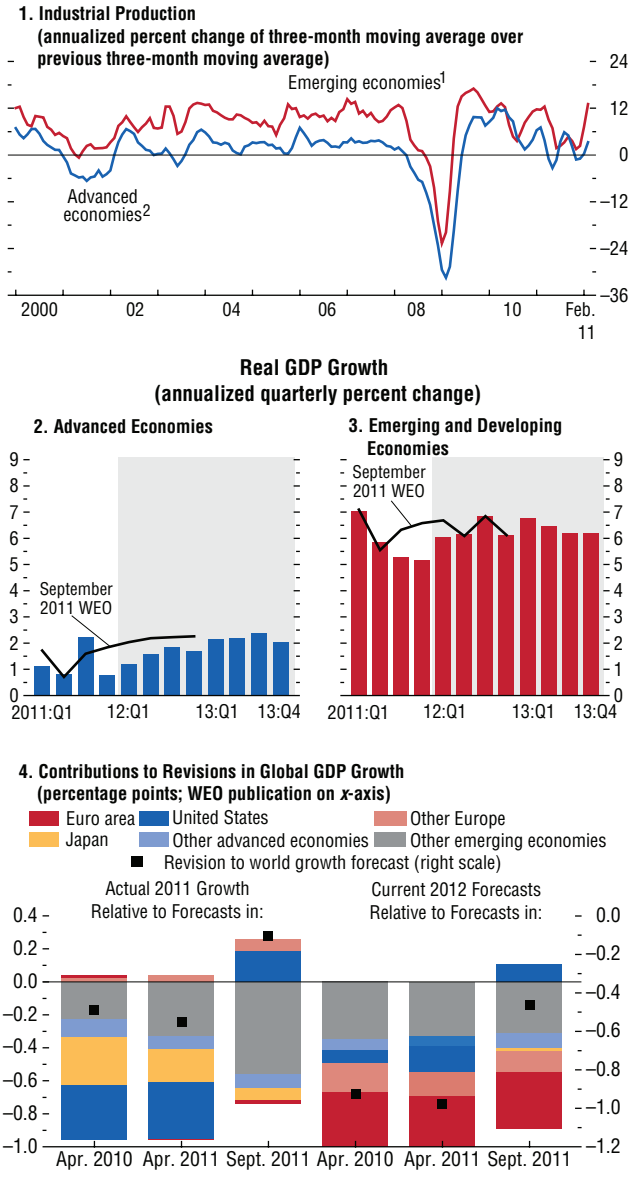
What Went Wrong in the Euro Area?

The euro area crisis is the product of the interaction among several underlying forces. As in other advanced economies, these forces include mispriced risk, macroeconomic policy misbehavior over many years, and weak prudential policies and frameworks. These interacted with EMU-specific flaws, accelerating the buildup of excessive public and private sector imbalances in several euro area economies, which were exposed in the aftermath of the Great Recession. The resulting crisis has had drastic consequences.

While the overall public and external debt levels of the euro area are lower than those of the United States and Japan, the crisis has exposed flaws in EMU governance. The Stability and Growth Pact was devised to bring about fiscal discipline but failed to forestall bad fiscal policies. Markets became increasingly integrated, with enormous cross-border bank lending, but supervision and regulation remained at a national level. The ECB was explicitly *not* allowed to be a lender of last resort, yet markets operated under the assumption that the authorities—governments and central banks—would be ready with a safety net if things went wrong. The perception that economies or banking systems were too big or too complex to fail underlay the idea that their liabilities had implicit guarantees. Under these circumstances, market forces did not function properly: sovereign and credit risks

Figure 1.1. Global Indicators

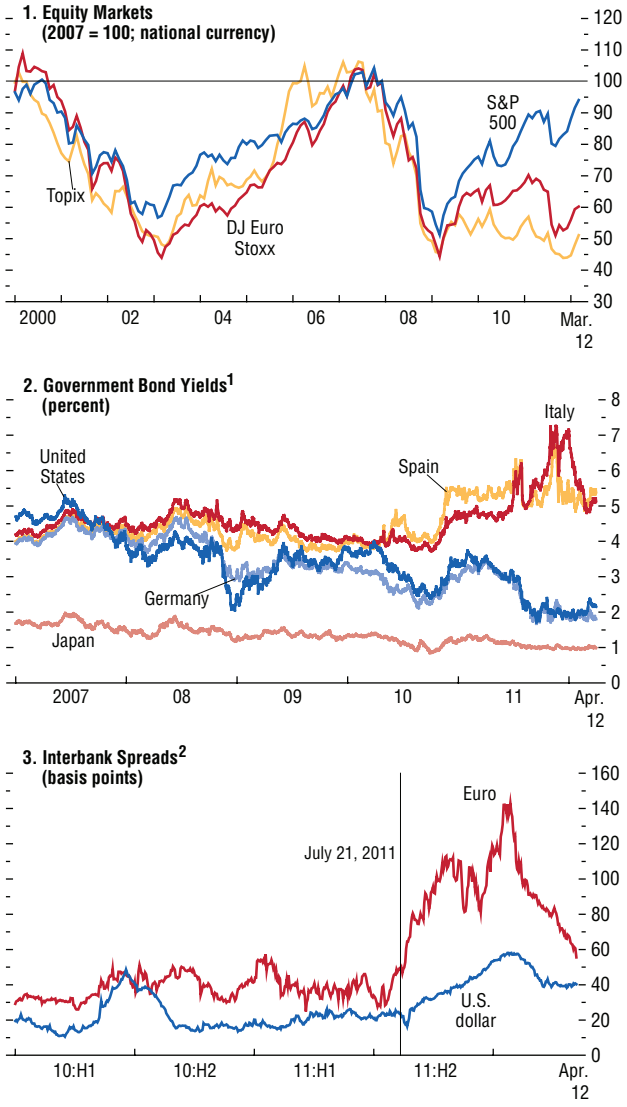
Indicators of global trade and production retreated during the second half of 2011. The forecast is for a reacceleration of activity starting in the second quarter of 2012. Disappointments relative to past projections are related to developments in the United States and Japan in 2011 and in Europe, notably the euro area, in 2012.



Source: IMF staff estimates.
[1]Argentina, Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Latvia, Lithuania, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Romania, Russia, South Africa, Thailand, Turkey, Ukraine, and Venezuela.
[2]Australia, Canada, Czech Republic, Denmark, euro area, Hong Kong SAR, Israel, Japan, Korea, New Zealand, Norway, Singapore, Sweden, Switzerland, Taiwan Province of China, United Kingdom, and United States.

Figure 1.2. Recent Financial Market Developments

Financial conditions worsened appreciably in the fall of 2011 but have since improved. Economic data have surprised on the upside, most notably in the United States, and policy actions have brought down sovereign and bank risk premiums in the euro area.



Sources: Bank of America/Merrill Lynch; Bloomberg Financial Markets; Citigroup; and IMF staff calculations.
[1]Ten-year government bonds.
[2]Three-month London interbank offered rate minus three-month government bill rate.

were underestimated and mispriced, resulting in large cross-country divergences in fiscal and external current account balances.

Since the crisis hit, the euro area has had to develop new mechanisms of support to heavily indebted members while implementing severe fiscal restraint. Concerns about bailing out investors and burdening public budgets prompted euro area members to entertain sovereign debt restructuring for Greece. The Greek crisis then escalated over the summer as negotiations continued concerning private sector involvement, raising concern in markets that other sovereigns could consider debt restructuring as a partial alternative to strong fiscal restraint and support from their euro area peers. Markets reassessed the riskiness of Italian bonds in particular: corporate, bank, and government securities were marked down. Following European Banking Authority (EBA) stress tests, the euro area initially had neither a clear road map nor visibly available resources to recapitalize banks found to be in need of more capital.

Policy efforts to fix the problems are ongoing. Since September, progress has accelerated. Steps include the recent decision to combine the European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF), the introduction of three-year LTROs by the ECB, the publication of bank recapitalization plans by the EBA, the December summit decision to advance the implementation of the ESM treaty to mid-2012 and to improve fiscal governance and policy coordination, and national measures to strengthen fiscal balances and introduce structural reforms, including in Spain and Italy. The risk of a crisis has also been reduced as a result of the progress achieved in Greece, although the problems there and in other economies on the euro area periphery will likely persist for a long time.

Prospects

The outlook for the global economy is slowly improving again but is still very fragile. Real GDP growth should pick up gradually during 2012–13 from the trough reached during the first quarter of 2012 (Table 1.1; Figure 1.1, panels 2 and 3). Improved financial conditions, accommodative monetary policies, a similar pace of fiscal tightening as in 2011, and

special factors (reconstruction in Japan and Thailand) will drive the reacceleration. However, the recovery will remain vulnerable to several major downside risks. Regarding risks from Europe, the WEO projections assume that policymakers will prevent a Greek-style downward spiral from taking hold of another economy on the euro area periphery. However, it is assumed that additional support will be forthcoming only in the event of reintensified market turmoil. Thus, sovereign spreads and euro area banking system stress are expected to remain volatile and come down only gradually.

Tighter Financial Conditions, Mainly in the Euro Area

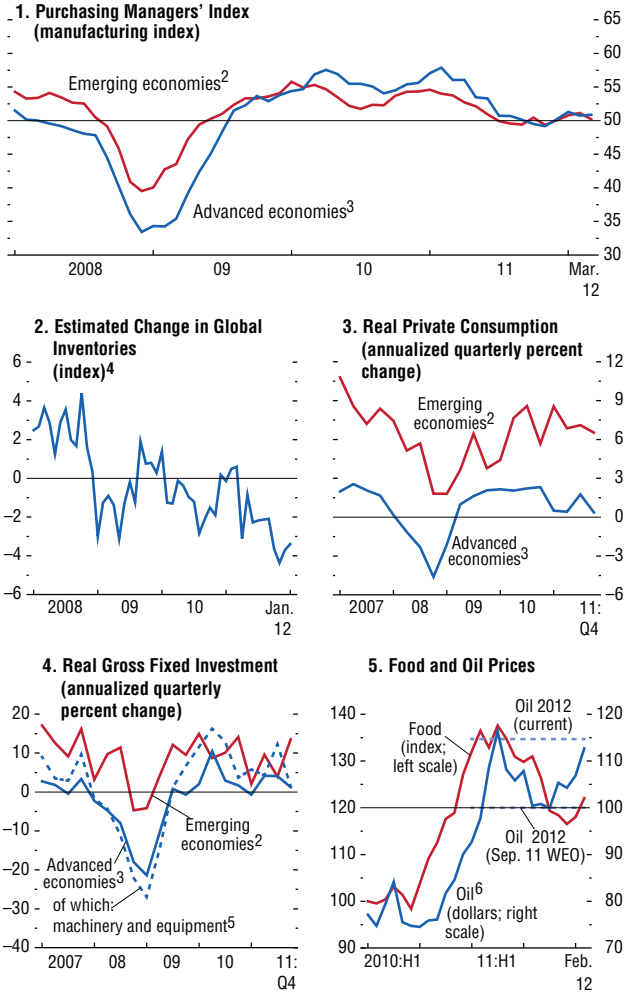
Financial conditions are projected to ease but stay tighter than those assumed in the September 2011 *World Economic Outlook*. The April 2012 *Global Financial Stability Report* underscores the continued high risks to financial stability relative to six months ago, despite policy steps to contain the euro area debt and banking crisis. In the euro area, sovereigns and banks face significant refinancing requirements for 2012, estimated at 23 percent of GDP. Deleveraging pressures are also likely to stay elevated, as banks undergo $2.6 trillion in balance sheet reduction over the next two years. Although these pressures are likely to affect mainly economies in the euro area periphery and in emerging Europe, they will be a drag on growth in core economies that could worsen if funding conditions deteriorate.

The ECB's LTROs have averted a liquidity-driven crisis by replacing private funding with official financing, but fundamental weaknesses remain. The recent EBA assessment of banks' capital plans suggests that, in aggregate, capital measures will adequately address the shortfalls, which will limit the negative impact on lending to the real economy. The LTROs also have helped boost demand for sovereign paper (including by banks), contributing to lower risk spreads. Lower spreads have supported a recovery of equity prices and mitigated pressures for rapid deleveraging by banks. In addition, the LTROs may have been interpreted by markets as signaling greater ECB resolve to do what it takes to stabilize financial conditions.

Nonetheless, stress in sovereign funding markets remains and will likely recede only slowly from pres-

Figure 1.3 Current and Forward-Looking Growth Indicators[1]

Leading indicators suggest that activity is bottoming out. Global output may be boosted by inventory rebuilding and investment as supply-side disruptions from the earthquake and tsunami in Japan and the floods in Thailand continue to unwind. Oil prices are projected to rise much less than in 2011, which will give some support to consumption growth.



Sources: Haver Analytics; and IMF staff calculations.

[1]Not all economies are included in the regional aggregations. For some economies, monthly data are interpolated from quarterly series.

[2]Argentina, Brazil, Bulgaria, Chile, China, Colombia, Hungary, India, Indonesia, Latvia, Lithuania, Malaysia, Mexico, Peru, Philippines, Poland, Romania, Russia, South Africa, Thailand, Turkey, Ukraine, and Venezuela.

[3]Australia, Canada, Czech Republic, Denmark, euro area, Hong Kong SAR, Israel, Japan, Korea, New Zealand, Norway, Singapore, Sweden, Switzerland, Taiwan Province of China, United Kingdom, and United States.

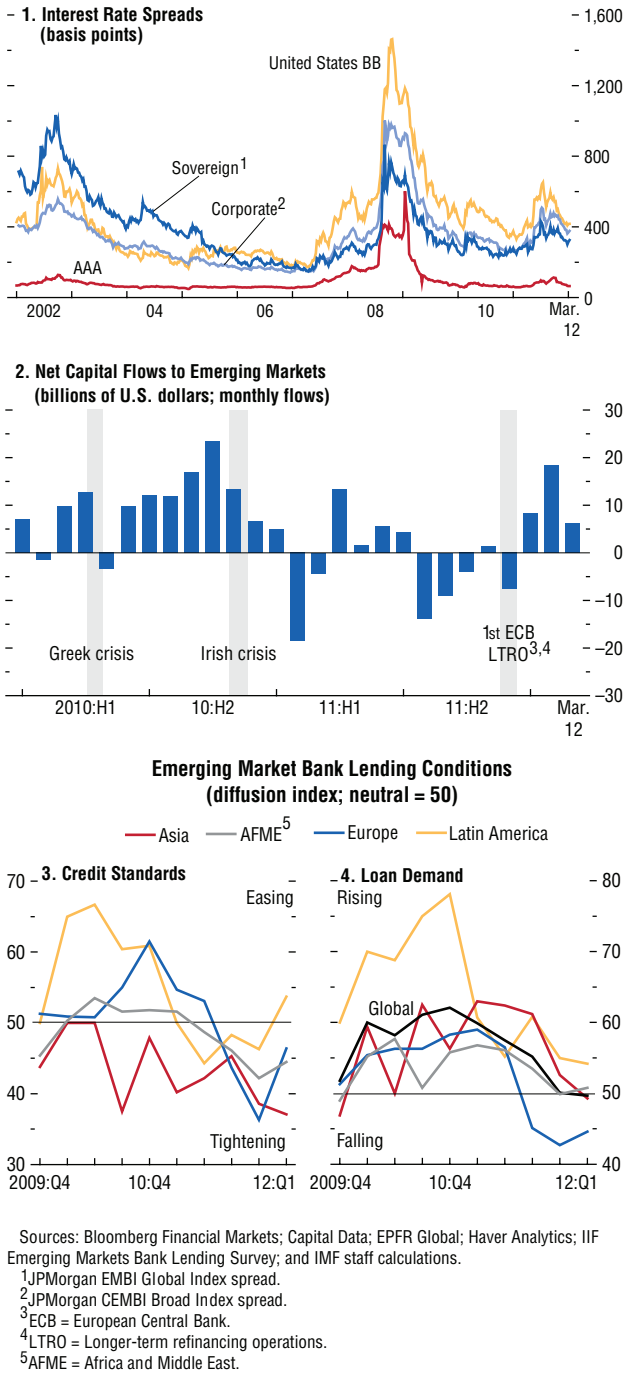
[4]Based on deviations from an estimated (cointegral) relationship between global industrial production and retail sales.

[5]Purchasing-power-parity-weighted averages of metal products and machinery for the euro area, plants and equipment for Japan, plants and machinery for the United Kingdom, and equipment and software for the United States.

[6]U.S. dollars a barrel: simple average of spot prices of U.K. Brent, Dubai Fateh, and West Texas Intermediate crude oil.

Figure 1.4. Emerging Market Conditions

Financial conditions in emerging markets began to tighten during the fall of 2011. Amid a general flight from risk, interest rate spreads rose. Funding conditions worsened for banks, contributing to a tightening of lending standards, and capital inflows diminished. However, these flows are now returning with new vigor, and risk spreads have come down again.



Sources: Bloomberg Financial Markets; Capital Data; EPFR Global; Haver Analytics; IIF Emerging Markets Bank Lending Survey; and IMF staff calculations.
[1]JPMorgan EMBI Global Index spread.
[2]JPMorgan CEMBI Broad Index spread.
[3]ECB = European Central Bank.
[4]LTRO = Longer-term refinancing operations.
[5]AFME = Africa and Middle East.

ent levels, as governments gradually regain the trust of investors through successful consolidation and structural reform. Together with weaker activity, this stress will continue to affect corporate funding markets. In the meantime, the risk of a renewed flare-up will continue to weigh on financial conditions.

Under these circumstances, bank lending in the crisis-hit economies of the euro area, which has already dropped sharply, is likely to stay very low (Figure 1.5, panel 1) as banks seek to strengthen their balance sheets with a view to staving off public intervention or resolution and to regain access to market funding.[1] In the core economies, financial conditions will likely remain much less tight than in the economies on the periphery. Nonetheless, even if subject to a considerable amount of uncertainty, it appears from the April 2012 *Global Financial Stability Report* calculations for a "current policies" scenario that balance sheet deleveraging could result in an appreciable drop in lending for the euro area as a whole, with the bulk of the reduction falling on economies on the periphery.

Outside Europe, spillovers from the euro area are likely to have limited effects on economic activity for as long as the euro area crisis is contained, as is assumed in the projections. The key channels are lower confidence, less trade, and greater financial tension (Figure 1.6). These are discussed in more depth in Chapter 2 and in the Spillover Feature in Chapter 2.

- The bond markets of Germany, Japan, Switzerland, the United Kingdom, and the United States have experienced safe haven inflows, which has lowered long-term government bond rates (see Figure 1.2, panel 2). This has offset the effects of rising risk aversion on the cost of corporate funding in some of these markets. In Japan and Switzerland, the inflows have led to significant exchange rate volatility, prompting official intervention.
- Contagion from the turbulence in the euro area caused a significant drop in capital inflows to many emerging market economies, resulting in higher interest spreads and lower asset prices. However, the recent easing of strains has already

[1]However, reduced lending is expected to contribute only modestly to raising core Tier 1 capital ratios to the 9 percent level recommended by the EBA, according to banks' plans (see also the April 2012 *Global Financial Stability Report*).

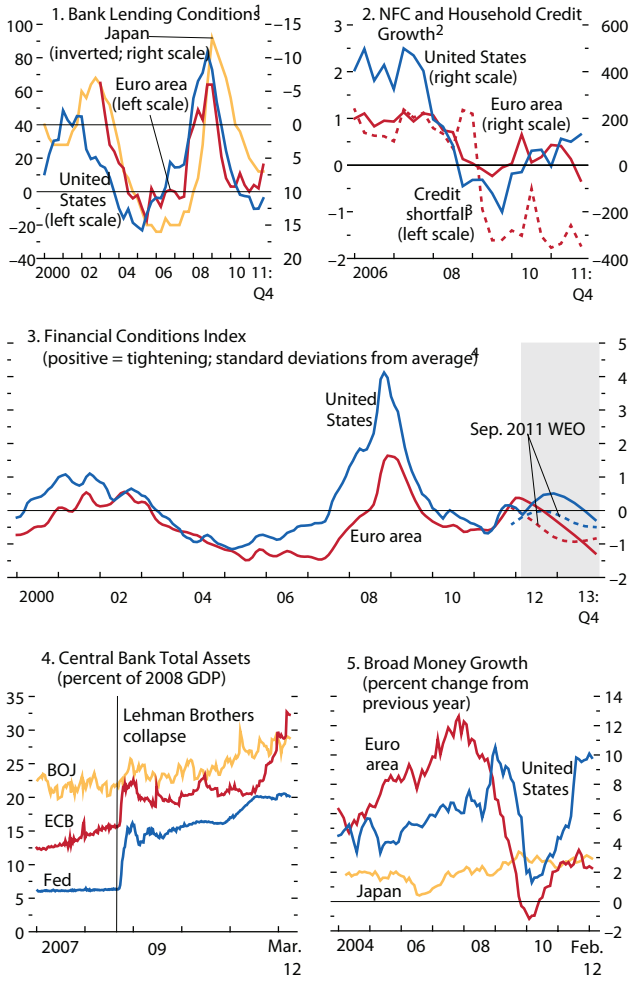
caused a sharp reversal in flows (see Figure 1.4, panel 2). The real effects of the outflows were small in most regions, not least because they helped bring down overvalued currencies and lower pressure on overheating sectors. Capital flows are likely to stay volatile, complicating policymaking. As noted in the April 2012 *Global Financial Stability Report*, with many emerging market economies at a later stage in the credit cycle, there is now less room to ease credit policies if capital flows deteriorate.

Spillovers from bank deleveraging are being felt more strongly, mainly in Europe (Figure 1.6, panel 2). Central and eastern European (CEE) and various Commonwealth of Independent States (CIS) economies are most vulnerable and already saw appreciable deleveraging during the third quarter of 2011; this likely continued at a more rapid pace during the fourth quarter. However, some of the larger economies are continuing to see significant portfolio inflows. In other emerging market economies, exposure to European bank deleveraging either is more limited or local institutions have the capacity to step in—albeit at higher cost. However, if disruptions in the euro area worsen, access to funding is very likely to tighten everywhere.

Domestic developments generally point to modest financial tightening elsewhere in the world, except in the United States. U.S. bank lending behavior and recent surveys suggest gradually easing conditions, but from very tight levels. Lending by midsize and small banks may be constrained for some time by market funding issues and weak real-estate-related portfolios. In many emerging markets, lending surveys suggest tightening conditions as a result of more difficult access to local and international funding (Figure 1.4, panels 3 and 4). Bank loan growth has slowed in China and India amid concerns about deteriorating loan quality. Continued elevated or accelerated loan growth is, to varying degrees, raising concern in Argentina, Brazil, Colombia, Indonesia, and Turkey.

Figure 1.5. Credit Market Conditions

Lending conditions tightened noticeably in the euro area recently, and credit growth slumped in late 2011. Developments were more positive in the United States and Japan. Looking ahead, conditions can be expected to ease somewhat. While the central bank balance sheet has expanded noticeably in the United States and the euro area, it has not done so in Japan. Broad money growth has remained very subdued in the euro area and Japan but has picked up in the United States, consistent with improving activity.



Sources: Bank of Japan (BOJ); Bloomberg Financial Markets; European Central Bank (ECB); Federal Reserve (Fed); Haver Analytics; and IMF staff estimates.

[1]Percent of respondents describing lending standards as tightening "considerably" or "somewhat" minus those indicating standards as easing "considerably" or "somewhat" over the previous three months. Survey of changes to credit standards for loans or lines of credit to firms for the euro area; average of surveys on changes in credit standards for commercial/industrial and commercial real estate lending for the United States; diffusion index of "accommodative" minus "severe," Tankan survey of lending attitude of financial institutions for Japan.

[2]NFC: nonfinancial corporation. Level change in amounts outstanding in billions of local currency units.

[3]Credit shortfall is the residual from a regression of real private sector credit growth on real GDP growth for the euro area.

[4]Historical data are monthly, and forecasts are quarterly.

APPENDIX C

Economic Trends in New York State

DRAFT—NOVEMBER 14, 2012

Highlights

- **Growth in New York's Gross State Product slowed from 5.1 percent in 2010 to an estimated 3.8 percent in 2011, and is expected to slow further in 2012.**
- **New York State has recovered nearly 95 percent of the jobs lost during the recession, which ranked 5th best among the 50 states.**
- **New York has added more private sector jobs during the recovery than it lost during the recession, but these gains have been offset by job losses in the government sector.**
- **The unemployment rate in New York was 8.5 percent in April 2012, compared to 8 percent one year earlier.**
- **In April 2012, the unemployment rate exceeded the statewide rate in more than half of New York's counties (33 of 62), including 8 counties in which the rate was 10 percent or greater.**
- **The securities industry in New York City had recovered only 41 percent of the 28,100 jobs lost during the financial crisis before the industry began losing jobs again, shedding 1,400 since October 2011.**
- **Wall Street got off to a strong start in 2011, earning $12.6 billion in the first half, but then lost $4.9 billion in the second half.**
- **New York State's consumer confidence has recovered more than half the decline experienced during the recession.**
- **New York's per capita income reached $50,500 in 2011, which ranked 5th among the 50 states.**
- **Median home sales prices are slowly rising in most upstate metropolitan areas, but prices in the downstate regions remain weak.**
- **According to the Empire State Manufacturing Survey, current hiring activity was at its highest level in a year, but expectations of future hiring slipped.**

New York added more jobs in the past two years than previously reported, according to revised data from the New York State Department of Labor. As of April 2012, New York had regained nearly 95 percent of the jobs lost in the recession, more than twice the national share.

While New York has reported impressive job gains, not all regions of the State have benefited equally. New York City, which accounts for 44 percent of the jobs in New York State, regained 129 percent of the jobs lost during the recession. While the City's suburbs have reported moderate gains, several upstate cities have regained only a small portion of the jobs lost during the recession, and some have continued to lose jobs.

The unemployment rate in New York is below its recessionary peak, but the rate has risen over the past year and now exceeds the national rate. Many counties have double-digit unemployment rates, and 45 percent of unemployed people in the State have been without a job for more than six months. Also, many of the jobs added during the recovery were in industries that pay less, on average, than those which lost jobs during the recession.

The securities industry, one of the State's economic engines, continues to face uncertainties as it works through the fallout from the financial crisis. The industry reported large operating losses in the second half of 2011, which contributed to an estimated 14 percent decline in cash bonuses and renewed job losses. Recently announced trading losses at JPMorgan Chase could be a harbinger of weak profitability for the industry in 2012.

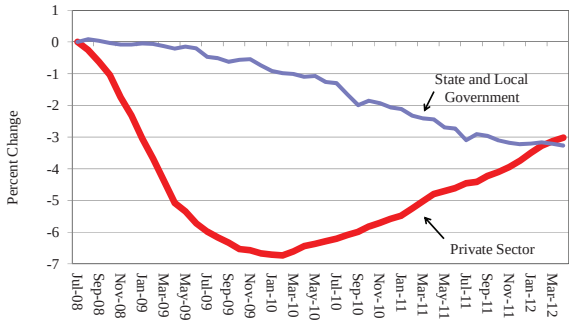
New York is slowly recovering from the worst recession since the Great Depression, but still faces significant challenges and risks. The unemployment rate remains high and many upstate regions are struggling. The national economy appears to be slowing, which could affect business conditions in New York. Certain potential responses to the federal budget deficit could weaken New York's recovery, and the sovereign debt crisis in Europe remains an ongoing concern.

Office of the State Comptroller, May 2012

National Economic Overview

Since job growth resumed in February 2010, the nation has regained 3.7 million jobs, or 43 percent of the jobs lost in the recession, as of April 2012. The private sector has regained 4.2 million jobs, but government has shed 502,000 jobs, virtually all at the state and local levels (see Figure 1).

Figure 1
Cumulative Change in National Employment



Note: Data are seasonally adjusted. Federal government employment has been excluded because of the distortion of employment levels by temporary hiring for the 2010 Census.
Source: U.S. Bureau of Labor Statistics

During the first quarter of 2012, GDP growth slowed to 2.2 percent from 3 percent in the fourth quarter of 2011, as modest growth in consumer spending was offset by a slowing of business investment and continued declines in government spending. IHS Global Insight forecasts growth of 2 percent in the second quarter. Other economic data, including unemployment insurance claims and home sales and prices, also point to slow growth.

The national economy faces many risks that could further hamper growth. Consumers continue to experience uncertain labor markets, high energy prices, limited wage growth and continued weakness in home values. In addition, the ongoing European sovereign debt crisis has led to a recession there that could dampen global economic growth.

Moreover, fiscal policy actions to stimulate the economy are unlikely given the current political climate, and the Federal Reserve Chairman has indicated that with interest rates at historic lows, there are limited options to counteract the short-term adverse impact of the scheduled expiration of payroll and income tax cuts on the economy.

New York Gross State Product

New York's Gross State Product (GSP) rebounded strongly after the recession, with the rate of growth exceeding the nationwide increase and ranking second among the 50 states in both 2010 and 2011. However, New York's rate of growth eased from 5.1 percent in 2010 to an estimated 3.8 percent in 2011, and IHS Global Insight forecasts that the State's GSP will slow to 2.6 percent in 2012.

Manufacturing Activity

The Empire State Manufacturing Survey, conducted by the Federal Reserve Bank of New York, examines business conditions across New York State. The May 2012 survey shows continued slow growth in current economic activity, as well as an expectation for weaker activity in the next six months. Current hiring activity was at its highest level in a year, but expectations of future hiring slipped.

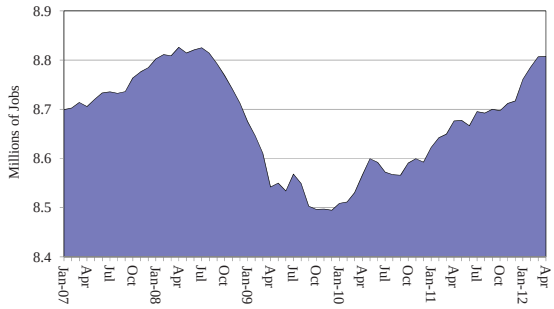
Consumer Confidence

After rising for five consecutive months in New York, consumer confidence fell slightly in April 2012 as a result of higher gasoline prices. Despite the easing, consumer confidence has recovered more than half of the decline experienced during the recession.

Employment

Between December 2009 (when employment reached its recessionary low) and April 2012, New York regained 312,700 jobs (see Figure 2), equal to nearly 95 percent of the jobs lost during the recession (more than twice the share recovered by the nation). The private sector has created more jobs since the end of the recession (335,900) than were lost during the recession (311,100). These gains have been partially offset, however, by the loss of 23,200 government jobs. An expected slowdown in economic growth could limit job gains during the rest of 2012.

Figure 2
Total Employment in New York State



Note: Data have been seasonally adjusted.
Source: NYS Department of Labor

As shown in Figure 3, educational and health services was the only sector to add jobs during the recession (50,500), and it continued to add jobs during the recovery (81,300). Tourism-related employment (i.e., leisure and hospitality) declined the least during the recession, and has shown strong growth since then, adding 67,600 jobs. The business services sector has added more jobs than any other sector (103,600 jobs), and employment in this sector now exceeds the prerecession level.

Figure 3
Employment Changes by Sector in New York State
(Thousands of Jobs)

	Jul. 2008 - Dec. 2009 Change	Dec. 2009 - Apr. 2012 Change	Net Change	Net Percent Change
Leisure & Hospitality	(2.8)	67.6	64.8	9.0%
Educational & Health Services	50.5	81.3	131.8	8.1%
Business Services	(77.3)	103.6	26.3	2.3%
Other Services	(4.3)	6.6	2.3	0.6%
Trade, Transportation &Utilities	(76.6)	55.6	(21.0)	-1.4%
Government	(19.3)	(23.2)	(42.5)	-2.8%
Financial Activities	(58.2)	30.4	(27.8)	-3.8%
Information	(16.6)	(1.1)	(17.7)	-6.6%
Manufacturing	(74.5)	0.6	(73.9)	-13.8%
Construction	(51.3)	(8.7)	(60.0)	-16.3%
Total	**(330.4)**	**312.7**	**(17.7)**	**-0.2%**

Source: NYS Department of Labor

The trade, transportation and utilities sector has regained two-thirds of the jobs lost during the recession, with retail trade accounting for nearly all of these gains. The financial activities sector added 30,400 jobs statewide during the recovery (half of the jobs lost), including 19,800 jobs in New York City. Within the financial sector, the securities industry in New York City added 10,100 jobs, but the industry has lost 1,400 jobs since October 2011, and further reductions are expected.

Manufacturing added 5,100 jobs during the first four months of 2012, an encouraging development, but the sector still has 13.8 percent fewer jobs than before the recession. Employment has continued to decline in both construction and information.

Figure 4
Employment Changes by Metropolitan Area
As of April 2012

	Total Employment (Thousands of Jobs)			
	Recession (Jobs Lost)	Recovery (Jobs Gained)	Net Change	Share Recovered
Glens Falls	-2.7	3.7	1.0	**137.0%**
New York City	-140.1	180.8	40.7	**129.1%**
New York State	**-330.4**	**312.7**	**-17.7**	**94.6%**
Rochester	-19.0	15.9	-3.1	**83.7%**
Utica/Rome	-4.3	2.9	-1.4	**67.4%**
Kingston	-3.1	2.0	-1.1	**64.5%**
Buffalo	-21.0	11.9	-9.1	**56.7%**
Mid-Hudson Valley	-9.7	5.4	-4.3	**55.7%**
Lower Hudson Valley	-32.2	16.7	-15.5	**51.9%**
Syracuse	-13.7	6.9	-6.8	**50.4%**
Long Island	-53.7	25.4	-28.3	**47.3%**
Albany	-15.5	3.9	-11.6	**25.2%**
Binghamton	-6.3	1.3	-5.0	**20.6%**
Elmira	-2.7	-0.1	-2.8	**NA**
Ithaca	-1.2	-1.9	-3.1	**NA**

Notes: Recessionary and recovery periods are determined by peak and trough levels of employment, which vary by region. For the State, employment peaked in July 2008 and reached its low in December 2009. Data have been seasonally adjusted.
Source: NYS Department of Labor

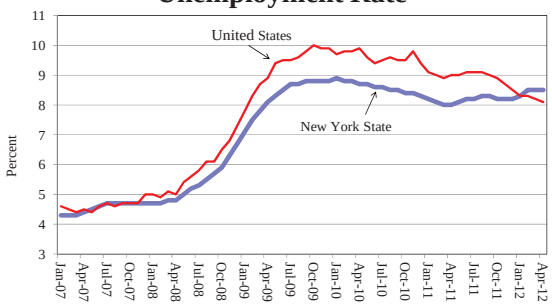
While New York has regained nearly all of the jobs lost during the recession, job growth has been uneven across the State. In addition, many of the jobs added during the recovery were in industries that, on average, pay less ($48,300) than those which lost jobs during the recession ($64,000).

New York City and Glens Falls have added more jobs during the recovery than they lost during the recession, but the State's other 12 metropolitan areas regained less than the statewide share (see Figure 4). Although Rochester has had strong job growth, Long Island, Albany and Binghamton each recovered less than half of their job losses from the recession, and Elmira and Ithaca have continued to lose jobs.

Unemployment

New York's unemployment rate declined from its recessionary peak of 8.9 percent in January 2010 to 8 percent in April 2011 (see Figure 5). Over the past year, however, the rate has risen to 8.5 percent (higher than the national rate of 8.1 percent) as more people have re-entered the labor market. New York had the 12th-highest unemployment rate among the 50 states in April 2012.

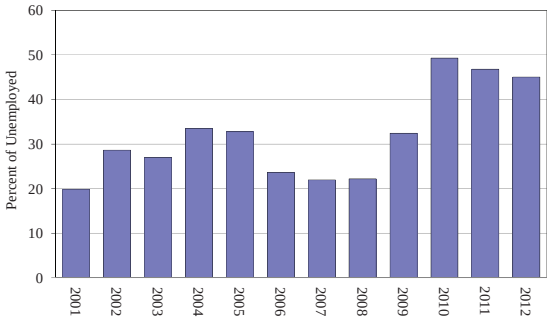
Figure 5
Unemployment Rate



Sources: U.S. Bureau of Labor Statistics; NYS Department of Labor

Residents with college degrees had a lower unemployment rate (5.1 percent in April 2012) than those with only some college (8.8 percent), with only a high school diploma (9.4 percent), or without a high school diploma (13.9 percent). In April 2012, nearly 345,000 State residents were considered long-term unemployed (i.e., they had been without a job for at least 27 weeks). They accounted for 45 percent of the unemployed, down 1.8 percentage points from their share one year earlier (see Figure 6).

Figure 6
Long-Term Unemployed in New York State

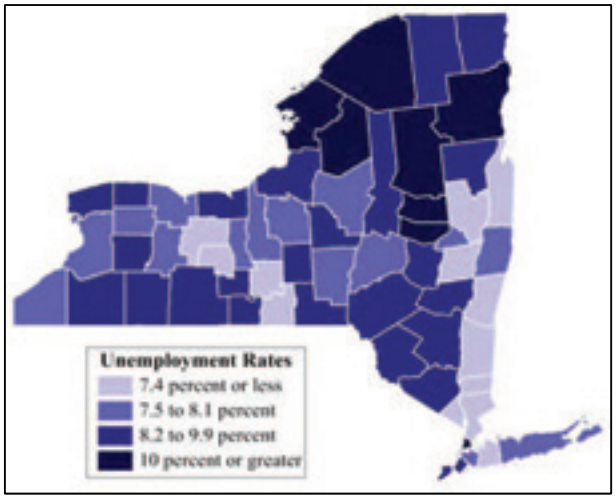


Note: Long-term unemployed are people who have been unemployed at least 27 weeks as of April of each year.
Sources: U.S. Census Bureau; OSC analysis

New York City's unemployment rate has risen over the past year from 8.8 percent to 9.5 percent, approaching the recessionary peak of 10 percent. Among the nation's 50 largest cities, New York City had the 18th-highest unemployment rate in March 2012 (April data are not yet available).

Figure 7 shows the unemployment rate for the 62 counties in New York State. The unemployment rate exceeded the statewide average in 33 counties, including eight where the unemployment rate was 10 percent or greater (the Bronx had the highest rate, at 12 percent). There were 14 counties where the unemployment rate was less than 7.5 percent, with the lowest rate in Tompkins County (5.7 percent).

Figure 7
Unemployment Rates by County
April 2012



Source: NYS Department of Labor

Personal Income

In 2009, personal income in New York declined by 4.8 percent, the first decline since World War II. During 2010 and 2011, personal income rose at an average annual rate of 4.3 percent, which was slightly less than the national rate and ranked 20th among the states. In 2011, personal income in New York reached a record $983.9 billion, as job growth, salary increases and a rebound in nonwage income (such as interest and dividends) raised personal income above its prerecession level.

In 2011, per capita income in New York State surpassed its prerecessionary level and reached a record $50,500. New York's per capita income exceeded the national average ($41,700) and ranked 5th among the 50 states, behind Connecticut ($56,900), Massachusetts ($53,600), New Jersey ($53,200), and Maryland ($51,000).

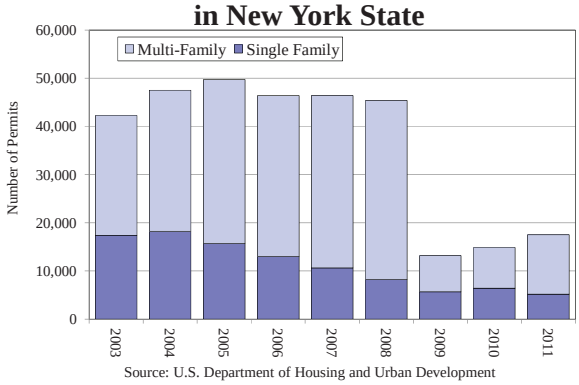
Real Estate

Using data from the National Association of Realtors, Moody's Analytics estimates that the median home sale price in New York has fallen by 23.9 percent from its prerecession peak through the fourth quarter of 2011. Across the nation, there were 18 states that had more severe declines in home values, including those at the heart of the housing and foreclosure crisis (e.g., Nevada, Arizona, Florida and California).

Data from the National Association of Realtors show that median sales prices for homes in Albany, Buffalo, Ithaca, Rochester, Syracuse, and Utica-Rome declined by less than 10 percent during the 2007-2010 period, far less than in the downstate region where prices declined by as much as 27 percent. Home values continued to fall downstate during 2011, while home values rose in most upstate areas.

In accordance with the weakness in home values, new home construction has been depressed. The number of new residential building permits in the State peaked at 49,726 in 2005. Although permit issuances have begun to rise, the number of permits issued in 2011 (17,531) remained 65 percent below the peak (see Figure 8).

Figure 8
Residential Building Permits in New York State



Source: U.S. Department of Housing and Urban Development

Ask the Experts

In addition to reviewing data trends at the international, national, regional, and local level, the Task Force sought input from a range of industry experts to guide their efforts to prepare goals and recommendations for the Madison County Strategic Economic Development Strategy.

As part of this effort, a two-day workshop was organized in December 2009 in Cazenovia, New York. During this workshop, a number of industry experts were asked to make presentations to a group of local officials and community business leaders on topics chosen for discussion by the Task Force. These topics included manufacturing, producer services/back office operations, warehouse/logistics, retail/tourism, agriculture, and alternative energy/biomass.

Each consultant prepared a 30–45 minute presentation on the past, present, and future of a specific industry sector(s), the type of environment necessary to cultivate that sector, and actions the County must consider too position itself as a competitive location for new private investment. Each presentation focused on industry trends, associated opportunities and threats, the qualities and characteristics a region must have to be competitive in the sector, and the barriers Madison County must overcome to improve its position within the regional, national, and global economy.

As part of the presentations and discussion, consultants provided their observations of the County's strengths and weaknesses within each sector relative to other regions of the country that are also attempting to support and attract these industries. In addition, each consultant offered initiatives or recommendations they believe the County should consider for inclusion in their Comprehensive Economic Development Strategy.

At the conclusion of the formal presentations, the consultant team participated in an informal discussion on the current theory and practice of economic development based on their experiences in communities across the country. The purpose of this discussion was to educate local leaders on how they can influence private investment decision making through policy, regulation, and programming. This discussion helped attendees understand the factors leading to the economic decline of the region, the economic and fiscal impact that private investment can have on a community, and how counties across the country have made themselves ideal locations for investment. This discussion also offered information on best practices, as well as ineffective tools, that are often used by communities so that the participants could gain a comprehensive understanding of what works and is most likely to lead to an improved economic climate. Upon completion of each presentation, the forum was opened to questions and facilitated discussion between the consultants and attendees.

In addition to the focused roundtable discussion, the Task Force consulted with other industry experts and completed a detailed literature review to gain a better understanding of certain topics of particular interest to the committee regarding economic development at the community level. In this regard, specific attention was focused on the opportunities associated with the development of community "main streets", the current state of business location strategies and requirements for specific target growth industries, and remarks provided during a series of focus group interviews that were conducted by a site location consultant with various community and business leaders in Madison County several years ago.

A summary of the information provided during the roundtable discussion and supplementary research completed by the committee is presented in this section of the plan.

Global Stress Factors

Site selection issues—you see operational and strategic issues but as a community there are many issues you wouldn't see—global stress factors—because they come up before a company decides to look for a site within the U.S.

It is important to help the prospective business see how your community can help them meet their tactical needs, while also alleviating those global stress factors.

Skilled labor in particular is always an issue; many companies need help with training. In three years, they will be even more concerned about this.

Businesses see their markets and suppliers being global at this point and expanding at an accelerated rate in this direction. The universe of competitors is getting bigger by the day and it's not only China.

New Realities

Increasingly seeing the "leaning" out of internal manufacturing, as companies cut out manufacturing of components internally and instead outsource that production to other firms that can do it more efficiently. The company then imports the components for final assembly.

New and different skills and technologies are needed in today's manufacturing sector.

Growth Regions

Why has New England lost so many manufacturing jobs compared to the rest of the country? Partly it had most of the manufacturing to lose but there are lots of other issues at play.

Workforce Growth/Replacement Needs

The number of production workers is not really growing but there will be turnover and workers with different skills will be needed as turnover occurs.

Skilled Workers

- 45% increase in need for skilled workers since 1983–2003
- Decline in mid and low skilled manufacturing workers
- Renewable energy production—needs different kind of worker than before
- High growth industries—unfortunately high growth is in everything BUT manufacturing and almost all declining sectors are manufacturing

- Manufacturing is not going away but it is NOT counted among those industries that will grow fastest in this country

Food Manufacturing

New Technologies—the workforce requirement is not going to expand dramatically but the new technologies and needs that they will generate will create demand for new sites. A lot of the demand here is in logistics but that will be outsourced. Wages are not that high and these companies tend to hire less skilled workforce. Other types of food production that are more technology-oriented might provide higher-skill, higher wage jobs.

Niche products—if it's for a specific ethnic market, the company may be looking for a small facility close to that market. If it's a national product, they may only want one site in the middle of the country.

Food security—diversify supply lines to manage risk in case one supplier is contaminated or doesn't meet new standards

Age awareness—not producing anything new but changing the way food is presented to the buyer. Packaging smaller quantities, labeling to show how it's healthy—this is called value added agriculture. This applies to other consumer awareness issues. Can occur almost anywhere but will have to tie into the larger supply chain issue for food producers.

Food producers diversify supply chain to ensure their supply is secure.

10% of the nation's top food producers are already located in NY. Working with Cornell and the Geneva Station you can make your case to these companies.

Warehouse & Logistics

14.8% growth over 10 years is not that much but it's solid.

Projects have been developed—NYS is on list of Top 10 of projects where distribution facility was developed as part of the project. NY doesn't lead the pack but it is on the radar screen. Growth tends to be more toward the center of the country. Florida is a surprise, Virginia too. That's where the ports are located and this is driving a lot of the growth in logistics. Containerized cargo. Jacksonville, Savannah, Charleston, Newport News, NYC/NJ are therefore all seeing growth in this sector. Wages are reasonably high compared to all other manufacturing sectors. Trucking is higher than average for the sector. Warehouse component is lower.

Energy Sustainability

Big chunk of this is increasing the efficiency of consumer products, vehicles. Renewables is another big one. Represents growth sector for manufacturing employment. So while it may not even exist or be growing today, it will be tomorrow.

Other Potential High-Growth Industries

Other key 21st century growth industries—have "enhanced" status in qualifying for federal stimulus funding. Herron works to review federal grant applications and we're seeing a lot of federal funded ED work coming down the pipe. A lot of it designed originally to support homeland security, now being used for ED. Advanced energy technologies money is also being used for ED.

Local Economy Sectors

Medical equipment seems to have a good base for growth.

Manufacturing wages are competitive here and would be attractive to many employers. Wages compared to Onondaga County are very competitive so you can draw from that activity by being less costly.

Location Quotient (LQ) is important—it is high for all manufacturing, especially food. LQ is important

because it tells potential employers that there may be a local support network focused on this industry. They often start out looking at the LQ and then explore further from there. So while food processing base is nominally small here, it is well represented. Utica MSA has a really high food processing LQ.

Potential Challenges: Logistics

Rail

Trackage is going down but usage of remaining trackage is increasing. Railroads are very concerned about keeping existing lines moving and operating, not slowing down. Very hard to get them to switch to an industrial park unless there will be heavy usage to make it worth their while. Future rail capacity map—nightmare scenario. Railroads need to invest to avoid that nightmare scenario. $150 billion in upgrades needed through 2035. Where will that money come from? Has to come out of operating revenue, so if their revenues trend down they won't be able to fund that. Right now, it's down because economy is in the tank. Really need funding to address this.

Highways

The Thruway and I-81 are your major highway transportation asset.

Local Assets to Build On

- Organization, leadership, plans—those are key to getting consultants' attention. We will literally run when we see there is disagreement on key issues.
- Population—yellow flag. Do have some concerns. Looked at population pyramids age/gender calculations yield some issues for you in the future.
- Quality of Life—would help to have some testimonials from companies on-line so it's easier to see that you've done the interviews and legwork.
- Infrastructure—hard to tell how connected things are from the info you have available.
- The website could reflect a lot more of these pieces.
- Much of the good feeling comes from the region, not from Madison County specifically. What he knows about the region in general is good, has good marketability. Regional programs need to be developed that cause communities to think about investing in something outside city or county boundaries. Northern KY, Bowling Green KY—those are two good examples. Look at putting money into regional facilities.

Q&A

What metrics do you use to measure community cohesion?

"Community leader interview schedule"—We used to use that for large projects like Army Corps of Engineers projects. Explores questions like, "Will your project adversely affect community cohesion?" Today we use a shortened version of that. Big projects need a lot of support because of the potential environmental impacts, traffic, etc.

How important is local supply for niche food product?

Not at all for the most part. Niche market refers to the user, not the supply. So they want to be close to their market. Some are starting to look at local suppliers but that is still in infancy. Most look at bottom line which is logistics and overall cost of product. Whole Foods has shown that you can source locally and still make a profit.

Dairy producers moving back to NYS to serve a regional ethnic market. A project serving Boston and NYC market didn't look west of Albany (Perrier).

When thinking of technology and workforce, I think of the region, not of Madison County itself because it probably doesn't have the resources to train the technology workers you would need to staff a major

technology project, but you can find those workers in the region.

Are old industrial buildings a resource or do they really not meet the needs of a modern day manufacturer?

Most would not. Ceiling height and column spacing were different. Buildings today must be big enough to get trucks in there and must have transportation access to get the trucks in and out of the site as needed?

Half of all searches begin with "do you have an available building?" It may not end up being the building they go with but it gets them interested in a community.

One of the drivers on the corporate side is risk minimization, so if there is an available building they can touch, feel, look at and an indigenous workforce that has the skills that they want, if there is some kind of financial assistance, etc. So when you think about prospects, think about how you can minimize all those risks, including the community's ability to work together. If I look at a community and I feel tension, then I'm out of there because I don't want to put my client in a situation where he has to choose sides—Syracuse vs. Utica? I don't need that, my client doesn't need that. Regional approach makes life easier for the consultant and the company.

Some Client "Global Stress Factors" Leading To Site Selection Programs

- Excess capacity: Falling prices/consolidation
- Deflation: Customers pay less/ want more
- Uncertain energy supplies and rising costs
- Sustainability issues (greenhouse gases)
- Mergers/acquisitions
- Globalization, Supply chain optimization
- Consolidations, closures
- Knowledge management
- Redesigning business processes

New Realities

- Fewer site selection projects
- More emphasis on "lean" manufacturing
- Most corporate investment in new facilities is business expansion—it occurs at existing sites
- *Skills*, however, are in short supply, gaps will be more pronounced in the future, particularly in life sciences and medical services, energy and aerospace/defense, and skilled manufacturing

Challenge Or Opportunity?

Site selection decision makers are highly **risk averse.** They seek relationships partners in the host community who will proactively identify risk, and suggest remedies, help navigate changing environmental landscape, and work to improve the business environment and commercial infrastructure.

Local Assets to Build On

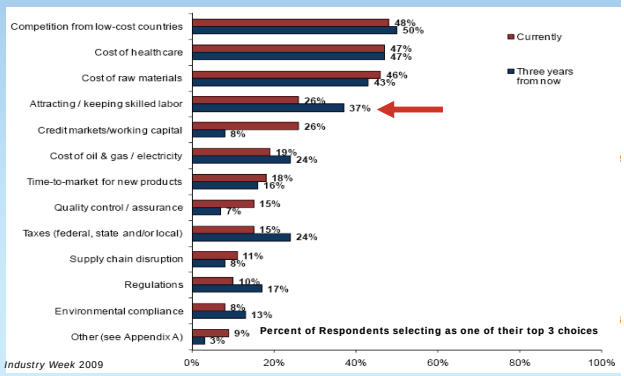
- Organized for success
- Effective leadership
- Economic development strategies
- Informed, involved community leaders
- Performing education system
- Higher education, relevant research programs
- Low crime rate, low cost of living, QOL
- Sustainable, growing population & workforce
- Reasonable manufacturing building costs
- Available industrial land choices
- Available developed industrial, business parks
- Airpark sites
- Industrial infrastructure at sites
- Significant incentives programs
- Regional manufacturing base
- New economy employers
- Expedited training for industry
- Interstate highway access near sites
- Rail served sites
- Deepwater port
- Workforce quality
- Community cohesion
- Financial structures

Manufacturer's Site Selection Objectives

Client's Are Looking For Places To Achieve Corporate Facility Location Program Results

Manufacturers Expect Pressures To Continue

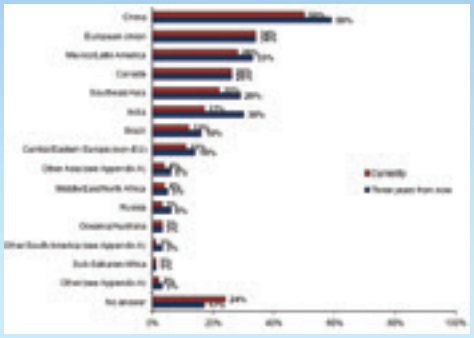
Manufacturers anticipate continued pressure from:



Industry Week 2009

Global Market Sourcing

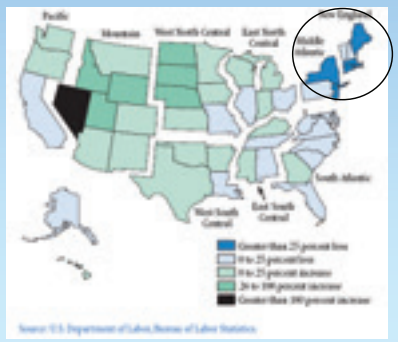
Manufacturers plan significantly increased sourcing from: China, India, S America and SE Asia



Industry Week 2009

Manufacturing Growth Regions

Manufacturing Employment Growth (Decline) By Region 1983-2002



Potential High-Growth Industries

Obama administration has identified several targeted growth industries, key to 21st century global competitiveness

- Advanced manufacturing
- Aerospace
- Automotive & transportation technology
- Biotechnology
- Information Tech.
- Recycling
- Renewable or alternative energy

Conway Data 2009

Employment Opportunities for Selected Industry Sectors

Industry	Employees 2006	Employees 2016	% Change
Pharmaceutical & Medical Instrument Manufacturing	292,000	361,204	23.7
Aerospace Manufacturing	472,000	497,488	5.4
Food Manufacturing	1,484,000	1,488,452	0.3
Warehouse & Logistics	2,074,000	2,380,952	14.8

US Bureau of Labor Statistics 2007

Opportunity: Pharmaceutical / Medical Instrument Manufacturing

Pharmaceutical manufacturing – not a leader in job creation but a solid opportunity for economic growth

	2006 Employees 1,000 Jobs	% Change 2006 - 2016 Percent
All Occupations	292	100	23.7
Management	47	15.9	26.5
Professional	81	27.8	26.4
Sales	9	3.0	25.5
Administrative	37	12.5	19.8
Installation, maint., repair	14	4.8	31.0
Production Occupations	84	26.8	21.9
Material moving, packers	16	5.3	11.5

US Bureau of Labor Statistics 2007
Columns may not add due to omission of occupations with small employment

Industrial Location Quotients

Location Quotients* relative to the USA

Base: USA	Manufacturing	Food Production
Ohio	1.39	0.92
Vermont	1.18	1.22
Pennsylvania	1.10	1.06
Connecticut	1.10	0.37
Massachusetts	0.86	0.62
New Jersey	0.76	0.68
Virginia	0.75	0.78
New York State	0.63	0.53

Base: USA	Manufacturing	Food Production
Madison County	1.31	1.15
Utica MSA	1.12	1.02
Binghamton MSA	1.71	1.01
Buffalo MSA	1.11	0.97
Rochester MSA	1.41	0.89
Syracuse MSA	1.06	0.56
Albany MSA	0.58	0.42

Food Manufacturing Challenges

- Price competition from offshore producers offering choices
- New facilities will stem from innovation and changing tastes
- More niche products – single producers will be centrally located or near unique market (i.e. Chicago, NYC, LA)
- "Food security" – growing concern requires new investment
- "Age awareness" and calorie intake control – new labeling and packaging, opportunity for value added agriculture
- Low-cost labor availability – always a driver for some – becomes more difficult as migrant labor pool dwindles
- Lack of financing – creates pressure to expand at existing sites to meet capacity needs

New York Companies Among The Nation's Top 100 Food Processors

PepsiCo Inc.
700 Anderson Hill Rd,
Purchase, NY 10577-1444
Phone: 914- 253-2000; Fax: 914-253-2070
Beverages, snack foods

Rich Products Corp.
1150 Niagara St., Buffalo, NY 14213
Phone: 716-878-8000; Fax: 716-878-8765
Toppings, deserts, pizza

Colgate-Palmolive Co.
300 Park Ave., New York, NY 10022
Phone: 212-310-2000; Fax: 212-310-340 Pet food

ContiGroup Cos., Inc.
277 Park Ave., New York, NY 10172
Phone: 212-207-5100; Fax: 212-207-2910
Meat

Seneca Foods Corp.
3736 S. Main St., Marion, NY 14505
Phone: 315-926-8100; Fax: 315-926-8300
Frozen, canned vegetables & fruit

National Grape Cooperative Asso. Inc.
2 S. Portage St., Westfield, NY 14787
Phone: 716-326-5200; Fax: 716-336-5494
Canned, frozen beverages, fruit juice

Birds Eye Foods Inc.
90 Linden Oaks, Rochester, NY 14625
Phone: 585-383-1850; Fax: 585-383-1281
Meat/poultry frozen & canned, snacks, misc

The Dannon Co. Inc.
120 White Plains Road
Tarrytown, NY 10591-5536
Phone: 914-366-9700; Fax: 914-366-2805
Dairy foods

Lactalis America Group
950 Third Ave., 22nd Floor, NY 10022
Cheese

The Hain Celestial Group Inc.
58 S. Service Rd., Melville, NY 11747
Phone: 631-730-2200; Fax: 631-730-2550
Natural food, bev., snacks, tea

Warehouse / Logistics Projects

Number of Corporate Projects With A Distribution Facility Component Jan '07 - Feb '09

State	Projects
Illinois	139
Ohio	115
Texas	68
Tennessee	47
Florida	42
Indiana	38
Minnesota	37
Pennsylvania	33
Virginia	32
New York	29

Potential Challenge: Logistics

- Outsourcing to 3PLs will continue, independent of manufacturing locations
- Growth near urban markets, growth centers, ports
- Rail and highway assets are fast becoming constraints to economic growth
  - Insufficient Capacity
  - Physical Deterioration
- Railroads' drive for efficiency will continue to increase local development costs
- States and communities must invest in "fixes"

INDUSTRY EXPERT ROUNDTABLE

Site Selection Process
Customer Support Center

December 2, 2009

Robert M. Ady, President
ADY INTERNATIONAL COMPANY
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Mount Prospect, Illinois 60056
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Site Selection

Misconception: white collar projects (call centers) don't always have a pristine reputation. Sort of like warehouses. People's perception was that it was dirty and grungy and dangerous. Today, modern warehouses are highly automated, the workers are skilled. Same with these white collar/back office projects.

The fact of the matter is that back office/customer support services are driving a lot of our economy. Why? Cost containment. Also as the overseas environment becomes saturated in terms of the number of indigenous populations' ability to speak comprehensible English, there is now a movement to bring those jobs back here. The ones that are moving back tend to be the least skilled because the other countries still have us trumped on skilled workers (engineers, technicians etc) so what's coming back are operations like United Airlines. They initially shipped customer service to India and over time the overall quality of that service declined as competition for English speaking customer service reps grew, so now they've had to move that work back to the U.S.

Site consultants are systematically finding reasons to eliminate potential locations. There is no utopia so don't think that before you go out and market your area, you have to be perfect.

Step 1: Formulating Objectives

Three keys:

1. We have to formulate the parameters: number of employees, power usage, workforce skills, etc. Define exactly what they need.

2. Strategic objectives—improving customer sensitivity, sometimes you need a new location to start over and be more sensitive to customers' needs. So this is a big reason within this sector.

3. Subjective factors—labor quality is at the top of the list, attitudes of workforce

Personal taxes and quality of life are really important if you are going to transfer people, otherwise not as important. One of the things a lot of groups don't ask about is how many transferees are there.

Trade-offs are hard to judge—what is $40K in savings in operating costs if you have difficulty with your telecommunications?

Skilled labor—even though most of the jobs may be unskilled, we focus on looking for the skilled folks.

Tax costs are important if the company is already here—if those costs go up you lose people. Less important for new businesses looking for a new location. The point for outsiders looking for new location is that taxes have to be reasonably competitive. Most of our clients never even use the incentives—too complicated, they don't really need them, etc. They'll take whatever is offered but it's not a make or break thing.

Communities are often scared to ask companies questions—you should persist to help answer their questions. Worst that can happen is they don't answer you, but that is not going to eliminate you.

If the region doesn't make it through the initial screen, then no specific sites within the County would even be considered, which is why regional collaboration is so important.

Lots of projects say right off the bat, do not consider sites in NYS, NJ or CA—subjectively they have a problem with those states because of their high cost reputation.

Training—there is always a disconnect here because most of the money available is for re-training dislocated workers, not necessarily for a new employer to ready the local workforce. Also, most training is not for soft skills (people skills, how to get along with coworkers, etc) which is sorely needed. Training money is usually available for hard skills training.

Loss of Empire Zone will be a problem. Local funding assistance from revolving loan funds isn't really going to have much of an impact. Revenue bonds are being reinvented and are coming back.

A lot of projects actually have a population cut off—1 million or 500,000 is as low as they'll go. 500,000 is a very typical cut off, which is why it's important to market the MSA or region.

Step 2: Defining the Area of Search

In step 2, focus is on websites for gathering info. The basics: the data on your site has to be current. You have to give us info we can't get from our own data sources. The website has to look professional. If you can't provide those three things, you'll be eliminated before you even knew they were looking at you.

Most of the country is now organized by regions. As a county you are competing with REGIONS in the country so you are not going to have the same offerings. A regional orientation also indicates that the groups are getting along.

Has to be geographic—Central New York—great name. We are geographically oriented.

We love maps. The information has to be presented in a highly visual way—no one reads anymore.

Website should be fast and easy to use—we don't want bouncing bubbles or graphics that slow the site down. We want a lot of content that is easy to find. 7 clicks or less.

Back office projects are looking for available space and there is not a lot of that here.

If you don't have a building to market, have your engineer put up a mock plan of a park with buildings and get it pre-permitted or conceptually approved so it would only take them 120 days to build. Show these drawings and maps—again, must be visual.

Examples of good websites:

Columbus, GA

Radius, IN

Sterling, IL overview profile of locational characteristics and criteria that are important to your target industry

Step 3: Evaluating Locations

No supplemental notes on this section—see slides.

Step 4: Field Visits

Field visits—this phase is fraught with danger because now the client will be exposed to the local actors, local politics, local gossip. Be careful who you involve.

Local employers are your best salespeople—they will talk to your existing businesses so keep your local biz happy—they are your #1 salespeople. Most communities that are up on this are inventorying their local businesses to see what their workforce needs will be in 3–5 years.

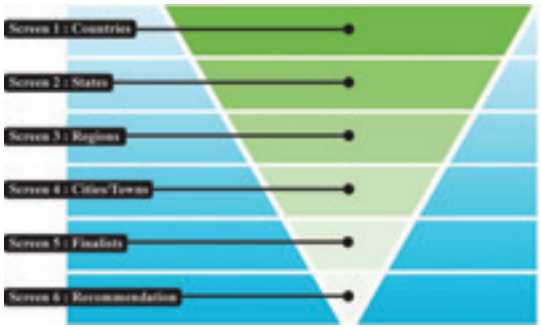
Maintain relationships with corporate HQ of existing employers because plant manager is going to be the last person to know they will be closing. Go visit corporate. Thank them. Talk to them about their plans/needs. They may never have even been to the location.

Once a company decides they are leaving, they are gone. Keep them happy so they don't leave.

You are on display during a field visit. It's ok to be quiet sometimes. Make the visit productive. Do a dry run. Have local incentive package ironed out beforehand so you can present it.

Companies want to be wanted and you have to show them that. The final selection is mostly subjective, based on the executives' visit and their impressions.

Site selection is a Process of Elimination



Steps in the Site Selection Process

Step 1: Identify Company Objectives

Step 2: Defining the Area of Search

Step 3: Evaluating Locations

Step 4: Field Visitations

Step 5: Recommendations

Step 6: Implementation

Step 1: Company Objectives

- Strategy:
  - serve new market
  - equalize competition
  - minimize operating costs
  - introduce new operating program
  - improve operating efficiency; etc.
- Definition of the facility:
  - labor requirements, utility requirements, occupancy requirements
- Subjective factors:
  - labor availability, QOL, accessibility

- **Implications for Madison County**

  ---No direct contact with the state or the county

  ---Length of time to develop standards

  ---Criteria will probably change during the course of the project

Step 1: Formulating Objectives Locational Criteria for Customer Support Centers

Criteria	Critical Importance	Very Important	Important
Operating Costs			
	Wages/ Salaries	Telecommunications	Personal Taxes
	Occupancy	Electric Power	
	Incentives	Cost of Living	
Operating Conditions			
	Telecommunications Capabilities	Unskilled Labor Availability	Electric Power Dependability
	Skilled Labor Availability	Employee Training	Quality of Life
	Building Availability	Air Service	Housing Cost & Availability
	College/University		

Step 1: Formulating Objectives

- **Support Center Specifications (Typical example)**
  ---Purpose: Inbound call center offering technical support and sales for insurance services with emphasis on IT
  ---Labor: 175
  5 managerial
  10 administrative support
  20 technical support
  10 customer service supervisors
  80 customer service representatives
  20 help desk representatives
  30 data entry operators
  --- Utilities: Electric Power 100 Kw; 50,000 Kwh per month
  Telecommunications: Fiber optics and electronic switching providing high capacity capabilities
  --- Building: 30,000 square feet; Class B office space

- Relative Importance of Operating Costs for Customer Support Centers

Labor Costs	72%
Transportation Costs	0
Utility Costs	8%
Occupancy Costs	15%
Tax Costs	5%
Total Costs	100%

Step 2: Defining the Area of Search

- Evaluation of state characteristics:
  – Taxes; training; incentives
- Preliminary evaluation of larger areas and/or regions:
  – Population, growth, unemployment, etc.
- Transportation factors:
  – Air service
- Subjective factors:
  – Colleges and vocational schools, interstate highway, etc.

Implications for Madison County

- No direct contact with individual communities within the county, but detailed review of web sites
- Review state business climate, taxes, training programs and incentives
- Multiple states under consideration
- Regional comparisons undertaken
- Area may be eliminated at this stage without ever contacting state or regional/local representatives

Key Screening Criteria

- **State Taxes (New York)**
  --- Ranking:49; Personal Taxes: 8.97% (Maximum)
- **Training (New York)**
  --- Funding up to 50% of training program
- **Incentives (Madison County Development Zone)**
  --- Significant: Tax Credits; Investment Credits; Real Property Tax Credits; Local Funding Assistance; Others
- **Population (Madison County)**
  --- Population 2000: 739,014; 2008: 732,762
- **Population Growth (Madison County)**
- **---** Percent Change 2000-2008: -0.85
- **Unemployment (Madison County)**
  --- Percent: 7.3; Number: 2,600

Step 3: Evaluating Locations

Implications for Madison County

- First direct contact with specific communities
- Discuss topics not covered on web site
- Discuss local incentives
- Review available buildings and sites meeting timeframe
- Project preliminary operating costs by location factor and aggregate
- Gather information on labor cost, availability, and quality
- Review quality of life considerations
- Rapid response to all information requests mandatory

Step 3: Evaluating Locations-Key Location Criteria

	Syracuse MSA	New York City	Difference
Wages and Salaries (with fringes)	$42,612	$49,389	$1,185,975
Occupancy (per sq. ft.)	$12.00	$50.00	$1,140,000
Incentives	Same	Same	Same
Airport Activity	Small Hub	Large Hub	
Culture Index	81.31	100.00	
Air Quality	Attainment	Non-attainment	
Education(% College Graduates)	27.7	34.9	
Violent Crime (1Best-10)	1	3	
Space Availability (B)	Limited	Unlimited	

Step 4: Field Visitations

Local Visit

- Interviews with local employers
- Service representative interviews
- Community leadership discussions (local incentives)
- Inspect available buildings and/or sites for appropriateness and readiness

Implications for Madison County

- Direct contact with state and county communities
- Make every minute of the visit productive
- Answer every question and respond to even the most casual comment
- Have key resources on standby
- Have incentive policy agreed upon locally

Step 5: Recommendations

Client Meetings

- Identify two or three final candidate locations
- Balance operating costs, potential incentives, and operating conditions with quality of life features

Implications for Madison County

- Expect visit by company executives
- Maintain professionalism and polished tour/image of location
- Make executives feel welcome
- Stress quality of life and employee recruitment/transfer features
- Convey high level of commitment to new investment: mayor, area executives, college president
- Make final incentive commitments

Step 6: Implementation

Final Steps

- Perform detailed engineering/legal analysis
- Secure options
- Secure approvals and purchase or lease
- Secure permitting

Implications for Madison County

- Perform final negotiations: land, infrastructure, training assistance, tax abatements, employee relocation costs, etc.
- Fulfill all commitments, but expect business commitment in return
- Collaborate between governmental entities, work force providers, service providers, and others

CENTER for RURAL AFFAIRS

INDUSTRY EXPERT ROUNDTABLE

Agriculture Development

December 2, 2009

Chuck Hassebrook, Executive Director

Center for Rural Affairs

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It's important to understand the context for agriculture in Madison County. You are a lot closer to the affluent NYC food market, people are focused on flavor and regional distinctions, healthy food is huge. This is where food demand seems to be driving. Today we don't have a mass market, as much as a lot of niche markets. You see more people here willing to pay a premium for food produced in a way they support.

I think you have some comparative advantages here in Madison County which is critical when thinking about where you want to go in the competitive economy.

1. Proximity to NYC metro area market—concentration of affluent consumers. This is key because it's expensive to ship milk and milk products, foodies want "local" products and you can be local food source to 15 million people.

2. You have some decent productive land—you can grow corn and decent forages here.

3. You have human capital in agriculture—there are a lot of folks who know dairy, you have vets.

4. You have institutional capital in Cornell.

Those attributes give you some options in agriculture.

One way you could go is to be a player in the conventional dairy industry. Operations of 1,000 cows or more, not really owner-operated, rely heavily on low-wage labor. So you could go this direction and be successful but go with your eyes open. Our experience with industrialization of hog production was a lot of conflict and not a great outcome in terms of quality of life, employment opportunities, loss of other employers as situation declines.

Or you can use your advantages to develop a different type of agriculture that is going to do a lot more for your economy and do more good to create genuine opportunity for rural people.

Suggest making a statement that Madison County will be a leader in developing grass-based dairy systems. Dairy produced in this way can have even more of a public health impact than grass fed beef. Omega 3s from grass fed cows are 2x regular and have 1/3 of the bad fats that are found in conventional dairy. This is going to be a big thing in this country because of health concerns.

You have lots of good forage (grass) and you are close to those affluent consumers who want to buy this type of product. Also lends itself to specialty farmstead cheeses that draw big premium prices.

When you go to grass-based dairy you move away from industrial model toward family farm model. Grass based systems do not require a big up front capital investment for small farms (100 cows or so). These

grass based systems are seasonal so processors are not going to invest in the processing facility that doesn't operate year round but you could produce organic grain fed milk in the winter. Easy to grow grains and store for winter.

Issue is that dairy farmers are not really into marketing their products—they like that the milk truck comes and picks it up and sells it. Also U.S.DA has not defined what a grass based dairy is to facilitate marketing.

Processors will eventually have to pay a premium as demand for grass based dairy products increases but it has to start somewhere. Key is to find some small entrepreneurs on the processing side who will want to start small and grow with the demand. Cornell has a small farm program—perhaps they could assist in the endeavor.

This could be a branding opportunity for the County. It could be known as the place where healthy, family produced milk is produced. That pastoral, natural, healthy image would be a great brand. In France, the place that food is produced is important. Flavor and attributes of food from specific regions plays a large part in marketing and price.

Also contributes to agritourism. Family farms can turn into ranches or resorts. A good example is Bruce Switzer's ranch in Nebraska. They built a lot of ancillary activities to supplement the income from ranching. High-dollar bird watchers paid to watch prairie chickens.

Potential for wineries? Wine industry in Nebraska has exploded. Why? Because people want to experience what a local Nebraska wine is like. Again, the key is to have the entrepreneurs who will learn the business and take the risks to try to make it work.

Energy. Lots of growth across the country in alternative energy. Legislation in Congress to mandate % of electricity that comes from wind. There will also be opportunities from biomass. To the extent you can do sustainable harvesting of your woodlands (don't use land you could produce high quality forage on) that could be successful.

Pay grass based dairy and biomass producers for carbon sequestration.

Are there things you can do to support microenterprises? Will a large business contract with a network of micro-businesses?

Meat processing? Try to find some intermediate scale due to cost.

Summary

1. Support entrepreneurship. Set up a microenterprise program through a non-profit organization. U.S.DA has funding for that. New farm bill created grants for setting up farms—beginning farmers programs. Link beginning farmers with retiring farmers.

2. Help agricultural community—everyone involved in ag—examine alternatives to the way farming has always been done to educate the players of their options (grass based, carbon sequestration, organic farming, etc). The opportunities in agriculture now are different than a generation ago.

3. Support value-added agricultural ventures. Processing but also producing things in ways that make them worth more to consumers and then marketing in a way that captures that value. Program at U.S.DA called value added producer grants program for market studies for launching new market ventures. The key is that someone has to initiate the ideas and put together a grant proposal—that is a role the County could play.

4. Look around to figure out who you can work with to do these things—Cornell b/c you need research capacity to back you up; your congressional delegation to help get federal grants.

2007 CENSUS OF AGRICULTURE

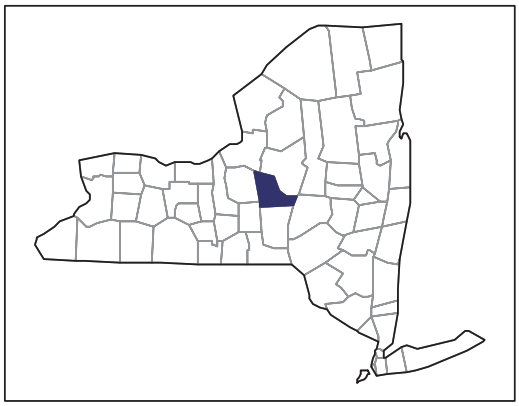
Farm Numbers • Demographics • Economics

	UNIT	ALL FARMS	CORN FARMS	SORGHUM FARMS	SOYBEAN FARMS	WHEAT FARMS
FARM NUMBERS						
Total Farms	#	2,204,792	347,760	26,242	279,110	160,818
Percent of All Farms	%	100	16	1	13	7
Land in Farms	Acres	922,095,840	259,065,885	47,503,738	203,926,989	236,040,324
Average Size of Farm	Acres	418	745	1,810	731	1,468
Average Land in Principal Crop	Acres		248	258	229	317
New Farms (began since 2003)	#	291,329	21,564	1,539	15,430	8,737
Percent of All Farms	%	13	6	6	6	5
Land in Farms	Acres	58,431,799	8,060,864	1,555,018	6,199,822	7,464,398
Average Size of Farm	Acres	201	374	1,010	402	854
Farm Typology						
Residential/Lifestyle Farms	%	36	10	7	11	10
Retirement Farms	%	21	20	14	20	18
Large/Very Large Family Farms	%	9	30	38	31	35
DEMOGRAPHICS						
Male Principal Operator	%	86	96	96	96	96
Female Principal Operator	%	14	4	4	4	4
Average Age of Principal Operator	Years	57	55	56	56	56
Farms with Internet Access	%	57	63	66	65	66
Farms with High-Speed Internet	%	33	38	45	38	41
Primary Occupation = Farming	%	45	72	80	73	78
Worked Off-Farm ≥ 200 Days	%	40	29	24	28	25
ECONOMICS						
Average Market Value of Products Sold	$	134,807	335,767	450,207	322,157	412,171
Average Farm Related Income	$	15,133	16,395	27,467	16,196	22,605
Average Production Expenses	$	109,359	247,690	332,503	235,914	312,645
Household Income From Farming	%	23	50	56	51	54
Government Payments Received	$	7,983,922,000	3,981,325,519	661,056,814	3,473,757,749	2,790,124,526
Farms Receiving Government Payments	#	838,391	299,243	23,834	253,067	144,767
Farms Receiving Government Payments	%	38	86	91	91	90
Average Government Payment Per Farm	$	9,523	13,305	27,736	13,727	19,273

www.agcensus.usda.gov

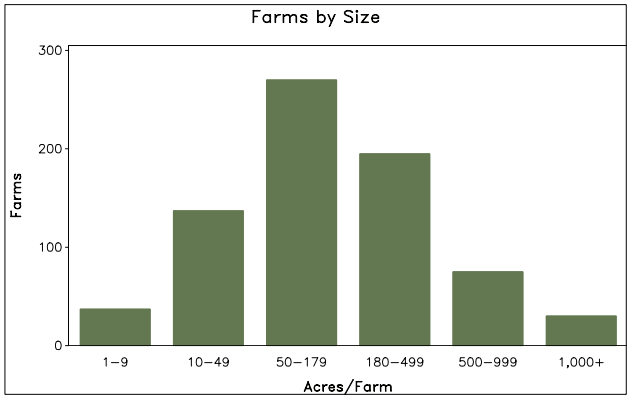
2007 CENSUS OF AGRICULTURE

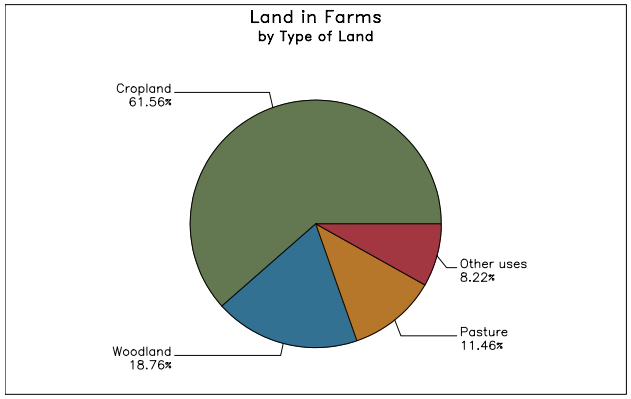
County Profile



Madison County
New York

	2007	2002	% change
Number of Farms	744	734	+ 1
Land in Farms	188,320 acres	168,264 acres	+ 12
Average Size of Farm	253 acres	229 acres	+ 10
Market Value of Products Sold	$86,331,000	$61,604,000	+ 40
Crop Sales $16,124,000 (19 percent) Livestock Sales $70,207,000 (81 percent)			
Average Per Farm	$116,036	$83,929	+ 38
Government Payments	$1,629,000	$3,469,000	- 53
Average Per Farm Receiving Payments	$6,733	$13,876	- 51





United States Department of Agriculture
National Agricultural Statistics Service

www.agcensus.usda.gov

2007 CENSUS OF AGRICULTURE

County Profile

Madison County – New York

Ranked items among the 62 state counties and 3,079 U.S. counties, 2007

Item	Quantity	State Rank	Universe [1]	U.S. Rank	Universe [1]
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)					
Total value of agricultural products sold	86,331	21	61	1,023	3,076
Value of crops including nursery and greenhouse	16,124	25	61	1,590	3,072
Value of livestock, poultry, and their products	70,207	15	58	589	3,069
VALUE OF SALES BY COMMODITY GROUP ($1,000)					
Grains, oilseeds, dry beans, and dry peas	6,573	16	54	1,393	2,933
Tobacco	-	-	-	-	437
Cotton and cottonseed	-	-	-	-	626
Vegetables, melons, potatoes, and sweet potatoes	1,946	31	59	598	2,796
Fruits, tree nuts, and berries	275	40	58	940	2,659
Nursery, greenhouse, floriculture, and sod	3,758	22	61	567	2,703
Cut Christmas trees and short rotation woody crops	227	16	54	216	1,710
Other crops and hay	3,345	16	55	495	3,054
Poultry and eggs	56	44	57	1,631	3,020
Cattle and calves	6,992	17	54	1,478	3,054
Milk and other dairy products from cows	62,337	14	54	116	2,493
Hogs and pigs	28	45	55	1,815	2,922
Sheep, goats, and their products	130	23	55	899	2,998
Horses, ponies, mules, burros, and donkeys	443	26	57	547	3,024
Aquaculture	72	19	40	721	1,498
Other animals and other animal products	149	31	57	818	2,875
TOP CROP ITEMS (acres)					
Forage - land used for all hay and haylage, grass silage, and greenchop	59,392	6	54	177	3,060
Corn for grain	16,680	14	53	995	2,634
Corn for silage	14,684	11	52	73	2,263
Soybeans for beans	3,456	14	46	1,272	2,039
Oats for grain	1,548	14	51	253	1,957
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	43,115	12	55	719	3,060
Layers	2,451	38	57	1,031	3,024
Horses and ponies	1,802	15	58	672	3,066
Sheep and lambs	1,684	14	55	584	2,891
Colonies of bees	1,627	9	54	346	2,640

Other County Highlights

Economic Characteristics	Quantity
Farms by value of sales:	
Less than $1,000	180
$1,000 to $2,499	49
$2,500 to $4,999	62
$5,000 to $9,999	76
$10,000 to $19,999	69
$20,000 to $24,999	20
$25,000 to $39,999	55
$40,000 to $49,999	18
$50,000 to $99,999	30
$100,000 to $249,999	87
$250,000 to $499,999	59
$500,000 or more	39
Total farm production expenses ($1,000)	67,875
Average per farm ($)	91,230
Net cash farm income of operation ($1,000)	24,685
Average per farm ($)	33,179

Operator Characteristics	Quantity
Principal operators by primary occupation:	
Farming	414
Other	330
Principal operators by sex:	
Male	612
Female	132
Average age of principal operator (years)	55.7
All operators by race [2]:	
American Indian or Alaska Native	6
Asian	2
Black or African American	5
Native Hawaiian or Other Pacific Islander	-
White	1,230
More than one race	-
All operators of Spanish, Hispanic, or Latino Origin [2]	10

See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes, explanations, definitions, and methodology.
(D) Cannot be disclosed. (Z) Less than half of the unit shown.
[1] Universe is number of counties in state or U.S. with item. [2] Data were collected for a maximum of three operators per farm.

National Consumer & Retail Trends:

The new normal—people are spending less and indications are this will last beyond the recession. "Discount Destinations" are the new concept in the developer community to replace "Lifestyle Centers." Recent college grads unable to find work are especially affected in terms of change in lifestyle and spending patterns.

Tourism marketing—understand the distinct generational groups, what they like to do, how to reach them. Monitor blogs, communicate using social media, develop relationships with these markets.

Local Travel Resources—have lots of interesting things to see and do but the County lacks a major draw/attraction.

Retail Market Analysis

There is some leakage, but it is difficult to recapture due to proximity to Syracuse/Utica-Rome retail offerings.

Recommendations

Retail

- Some leakage
- Difficulty competing with retail centers and online stores
- Think discounter destination
- Employment impact minimal, but County sales tax significant
- Build program that addresses leakage and builds on surplus
- Local retailers need to compete online where possible
- Mixed use retail development

Tourism

- No significant attraction/destination
- Competing with the Finger Lakes, Adirondacks,
- Cooperstown and Niagara Falls for regional travelers
- Conduct County visitor survey to learn more
- Tourism attraction requires retail to have impact
- New hotel development - explore with caution
- Improve online tourism marketing campaign
    - Must be targeted
    - Social media and networking
- Identify assets and build on
- Eventually, China and India travelers

NATIONAL RETAIL TRENDS

- Declining year over year b/t 2004 and 2009
- Showing signs of recovery
- October retail sales up 1.4% over September

- Discounters have done well
- Department store segment - modest decline
- Large chain retailers - down-sizing and closing unprofitable or lower margin locations
- Motor vehicle demand rose 2.6% for October from prior year. First increase since Nov 07
- Retail leases are being renegotiated

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NATIONAL CONSUMER MARKET TRENDS

- Top restaurateurs report – customer focusing on value
- Chefs and restaurateurs report - increased demand for healthier kids' menus, smaller portions, organic and locally grown.
- 75% of customers surveyed - would patronize a full-service restaurant more frequently if the restaurant offered frequent- or mid-week dining discounts.
- Other draws: Smaller portions for a lower price; discounts for dining at off-peak times; and food and drink specials during happy hours

IMPACT OF THE RECESSION ON SPENDING

- 5.7 million jobs lost nationally
- 16% reduction in pay for American workers
- New normal? – Will consumers continue buying store brands?
- People are reconsidering what they "need to have"
- Millennial Generation (recent college grads) - taking a more cautious approach to spending
- Home equity and inability of consumers to leverage
- Creditors more cautious

NATIONAL TRAVEL MARKET TRENDS

- Search engines
  - ✓ Internet - primary means to gather travel info.
  - ✓ Online booking
  - ✓ Want high quality, easily accessible information
- Three generational groups to consider:
  - Junior Matures (55-64) – more trips, longer stay, more $
  - Gen-Xers – (1965 - 1976) – getting larger
  - Millennials – (1977 - 1995) – ethnically diverse
- Cultural events and festivals
- Outdoor recreation - top activities for U.S. travelers
  - One-half of U.S. adults have taken an adventure trip in the past five years
- Increased international travelers to National Parks – decreased domestic travelers

NATIONAL TRAVEL MARKET TRENDS

- Long weekend trips – staying closer to home
- B&Bs catering to men
- Wide variety of groups utilizing packaged tours:
  - Students
  - Baby Boomers
  - Independent travelers looking for specific activities
- 72% increase in packaged *agricultural tours* 2007 to 2008
- Growth in the Chinese visitor market
  - Tour operators saw a two-fold increase in Chinese groups in first half of 2009 as compared to 2008.

LOCAL TRAVEL RESOURCES/ATTRACTIONS

- Erie Canal
- Oneida Lake
- Chittenango Falls State Park
- Lorenzo State Historic Site in Cazenovia
- Madison-Bouckville antique show and sale
- Ozstravaganza
- International Boxing Hall of Fame
- Earlville Opera House
- Many unique B&B's
- 130 miles of multi-use trails, hunting, cross-country skiing, hiking, fishing
- Colgate and other colleges (6,500 students total)

SPENDING POTENTIAL INDEX

Madison County Spending Potential Index			
	SPI	Average Spent	Total
Prescription Drugs	103	$567	$14,963,785
Health Care	98	$3,702	$97,760,607
Utilities, Fuels, Public Services	95	$4,275	$112,886,463
Property Taxes	92	$2,024	$53,443,908
Entertainment and Recreation	92	$2,989	$78,925,626
Food at Home	91	$4,159	$109,817,182
Vehicle Purchases	90	$4,317	$114,011,301
Food Away from Home	89	$2,967	$78,338,241
Education	85	$1,061	$28,017,053
Rent	66	$2,137	$56,440,446
Total Expenditures	88	$59,755	$1,577,959,189

Data Note: The Spending Potential Index (SPI) is household-based, and represents the amount spent for a product or service relative to a national average of 100.

Source: ESRI Forecasts 2009 and 2014, Camoin Associates

RETAIL SURPLUS

Industries Experiencing Surplus				
Industry Group	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Surplus Factor
Automobile Dealers	$119,813,619	$152,513,939	-$32,700,320	-12.0
Motor Vehicle & Parts Dealers	$138,907,087	$166,371,020	-$27,463,933	-9.0
Limited-Service Eating Places	$18,120,829	$42,735,117	-$24,614,288	-40.4
Other General Merchandise Stores	$11,403,948	$29,318,617	-$17,914,669	-44.0
Health & Personal Care Stores	$28,566,277	$39,887,428	-$11,321,151	-16.5
Food & Beverage Stores	$100,914,309	$106,958,566	-$6,044,257	-2.9
Specialty Food Stores	$2,610,851	$7,475,736	-$4,864,885	-48.2
Sporting Goods/Hobby/Musical Instrument Stores	$4,492,651	$7,761,506	-$3,268,855	-26.7
Special Food Services	$487,764	$2,455,292	-$1,967,528	-66.9
Sporting Goods, Hobby, Book, and Music Stores	$6,479,508	$8,332,728	-$1,853,220	-12.5
Used Merchandise Stores	$1,137,323	$2,476,987	-$1,339,664	-37.1
Building Material and Supplies Dealers	$19,720,869	$20,959,013	-$1,238,144	-3.0

Total Annual Retail Sales Surplus = $135 million

RETAIL LEAKAGE

Industries Experiencing Leakage				
Industry Group	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage Factor
Full-Service Restaurants	$73,485,440	$35,520,750	$37,964,690	34.8
Department Stores Excluding Leased Depts.	$36,962,177	$7,719,235	$29,242,942	65.4
Clothing and Clothing Accessories Stores	$18,743,559	$3,466,602	$15,276,957	68.8
Food Services & Drinking Places	$96,798,314	$82,886,635	$13,911,679	7.7
Furniture & Home Furnishings Stores	$20,504,188	$7,884,386	$12,619,802	44.5
General Merchandise Stores	$48,366,125	$37,037,852	$11,328,273	13.3
Clothing Stores	$13,805,736	$2,725,499	$11,080,237	67.0
Furniture Stores	$15,415,083	$5,447,514	$9,967,569	47.8
Electronics & Appliance Stores	$13,185,909	$4,997,616	$8,188,293	45.0
Other Motor Vehicle Dealers	$12,635,250	$8,138,378	$4,496,872	21.6
Miscellaneous Store Retailers	$10,841,726	$7,692,923	$3,148,803	17.0
Other Miscellaneous Store Retailers	$6,002,993	$3,206,678	$2,796,315	30.4
Home Furnishings Stores	$5,089,105	$2,436,872	$2,652,233	35.2
Drinking Places - Alcoholic Beverages	$4,704,281	$2,175,476	$2,528,805	36.8
Jewelry, Luggage, and Leather Goods Stores	$2,629,737	$482,738	$2,146,999	69.0
Shoe Stores	$2,308,086	$258,365	$2,049,721	79.9
Lawn and Garden Equipment and Supplies Stores	$3,062,938	$1,100,823	$1,962,115	47.1
Gasoline Stations	$83,095,900	$81,274,744	$1,821,156	1.1
Book, Periodical, and Music Stores	$1,986,857	$571,222	$1,415,635	55.3
Office Supplies, Stationery, and Gift Stores	$2,725,087	$1,379,210	$1,345,877	32.8
Auto Parts, Accessories, and Tire Stores	$6,458,218	$5,718,703	$739,515	6.1
Bldg Materials, Garden Equip. & Supply Stores	$22,783,807	$22,059,836	$723,971	1.6
Florists	$976,323	$630,048	$346,275	21.6

Total Annual Retail Sales Leakage = $178 million
NET Sales Leakage/Surplus = $ - 43 million

Lost County Sales Tax Revenue
50% Recapture = $3.5 million ; 20% Recapture = $1.4 million ; **10% Recapture = $711,000**

RETAIL POTENTIAL

Retail Opportunities					
Industry Group	National Average Sales	Trade Area Retail Gap	10% Recapture Rate- Retail Potential	20% Recapture Rate - Retail Potential	50% Recapture Rate - Retail Potential
Furniture & Home Furnishings Stores	$ 833,640	$12,619,802	1.51	3.03	7.6
Electronics & Appliance Stores	$ 685,129	$8,188,293	1.20	2.39	6.0
Bldg Materials, Garden Equip. & Supply Stores	$ 704,416	$723,971	0.10	0.21	0.5
Gasoline Stations	$ 4,032,667	$1,821,156	0.05	0.09	0.2
Clothing and Clothing Accessories Stores	$ 542,667	$15,276,957	2.82	5.63	14.1
General Merchandise Stores	$ 5,038,999	$11,328,273	0.22	0.45	1.1
Miscellaneous Store Retailers	$ 190,583	$3,148,803	1.65	3.30	8.3
Food Services & Drinking Places	$ 665,427	$13,911,679	2.09	4.18	10.5

- **National Sales Average:** average US sales per store
- **Retail Gap:** sales leakage
- **% recapture rate:** amount of retail gap recaptured in the County
- **Retail potential:** # of establishments possible, based on national average sales

Multipliers			
Industry	Sales	Jobs	Earnings
Convenience Stores	1.40	1.20	1.45
Shoe Stores	1.40	1.20	1.45
Home Centers	1.40	1.40	1.45
Supermarkets	1.38	1.29	1.43
Furniture Stores	1.40	1.43	1.45
Electronic Stores	1.40	1.23	1.45
Full Service Restaurant	1.39	1.21	1.47
Limited Service Restaurant	1.39	1.19	1.47

INDUSTRY EXPERT ROUNDTABLE

Boimass Energy Resources

December 2, 2009

Chris Recchia

Biomass Energy Resource Center
43 State Street, Suite 1
PO Box 1611
Montpelier, Vermont 05601-1611
(802) 223-7770

biomasscenter.org

Efficiency, scale and sustainability are key issues when considering biomass.

Northern forest is the largest contiguous forest east of the Rockies. New paradigm for the forestry industry that will make it a more sustainable industry.

Community biomass systems prefer paper grade chips. Power plants like the whole tree chips.

Combined heat & power: you produce a lot more heat than electricity. So you design a system for a building for the heat load and you get whatever electricity you can out of it on top of that.

Cellulosic ethanol concept—lots of investment in this technology but it's not very efficient, just a substitute for oil in the petroleum-based paradigm.

Community biomass systems are more efficient because direct heat with the wood is more efficient than making liquid fuel and because it's used where it comes from so you don't lose the energy transporting it.

Capital intensive—wood boilers are a lot more expensive than oil—almost 7 times more expensive?

Industrial parks have to have water & sewer—what about a biomass heating plant where eat is another public utility so no one has to produce their own on-site.

Taking heat units out of residences and businesses would improve indoor air quality and reduce insurance costs.

Within a 25 mile radius the energy loss from transportation is low enough to keep it sustainable.

The soil conditions have to be able to reproduce the carbon growth to match what you took out. So you have to be careful to manage the forest well to maintain or improve soil quality.

Value of the low-value wood can get landowners to go in and do the thinning that otherwise would be a sunk cost into the saw log, which is not worth a lot in a down housing market.

PO Box 1611, Montpelier, Vermont 05601 • ph 802-223-7770 • Fax 802-223-7772 • www.biomasscenter.org

BERC
Renewable • Reliable • Resourceful
Biomass Energy Resource Center

BIOMASS ENERGY:
Efficiency, Scale, and Sustainability

Energy supply and use is a national priority and a major focus of national, state, and local policy makers across the United States. The impacts of climate change and the need to increase energy efficiency, reduce reliance on foreign oil, and address related international security threats are some of the issues driving the need for a new national energy policy and practice.

Biomass energy, harvested from the nation's lands and forests, has the potential to provide an important source of renewable, sustainable energy for the country. To develop this important energy sector successfully, however, public policy can play a critical role in addressing issues of scale, efficiency, biomass supply, environmental impacts, local economics, harvesting capability, and investment and financing. Using biomass for energy in ways that sustain the health of the nation's lands and forests and creates robust and resilient energy economies depends on several critical factors:

Efficiency. Used for heat or heat-led combined heat and power (CHP), biomass energy is approximately 75-80 percent efficient, while generation of electricity is only 20-25 percent efficient, and conversion to liquid fuels for transportation applications are even less efficient overall. This is true regardless of the type of fuel used—be it biomass, coal, or oil—but is a critically important factor when considering the sustainability of using biomass for fuel. Nevertheless, to date, national renewable energy policies have ignored thermal energy and focused on directing biomass energy into electric generation and transportation fuels, a direction that has the potential to overtax the energy potential of our country's wood resource, while diminishing its potential benefit, and raising issues of sustainable supply.

Scale. Biomass is a diffuse resource, growing over dispersed areas. Use in large central facilities requires consolidation and transportation of fuel over greater distances that can reduce the overall efficiency of the resource. The most energy efficient use for biomass in general is thermal energy at the community scale, where local wood resources are produced and used to provide local energy, fueling the local economy, and at heat-led CHP operations of a scale that can be accommodated by the resource. Directing biomass into appropriately scaled applications such as heat (or CHP) for schools, hospitals, office buildings, college campuses, and district heating systems is essential for creating a wood-energy economy that is flexible and resilient over time. Biomass also has the potential for high efficiency use at industrial applications that are large heat and electricity users. Producing biomass through an array of appropriately scaled and local chip and pellet plants is also a critical component of a wood-energy supply chain and a dynamic and resilient local wood-energy economy.

Sustainability. Sustainability of the biomass resource depends on wood and agricultural supplies on a macro level as well as harvesting methods and infrastructure. It also must be advanced in the context of air quality and climate change objectives:

- **Wood Supply.** Sustainable development of the country's biomass resource for energy depends on understanding the capacity of our forests and agricultural lands to supply biomass while preventing over-harvesting and associated ecological and economic consequences. It is essential to provide an accurate and ongoing assessment of the amount of low-quality woody biomass available from forests for energy on a sustainable basis that supports long-term forest health, soil productivity, water quality, wildlife habitat, and biodiversity.
- **Sustainable Harvesting.** In many instances, previously developed best management practices did not anticipate the increased removal of biomass associated with the expanded biomass energy industry and offer mixed guidance on the amount of removal that is consistent with long- term forest health and productivity. What are the long-term

nutrient cycle and soil productivity implications of expanded biomass harvesting? What types of forest and agricultural "biomass" will emerging markets prefer? Will biomass energy markets compete for traditional timber products or will they target previously unmerchantable forest biomass such as tops, branches, and even stumps? A review and update of harvesting standards is important to ensure sufficient post-harvest retention of fine and course crop and woody debris, standing and down dead wood for wildlife, biodiversity, and site productivity. In addition to harvesting standards, biomass fuel procurement guidelines for public and private facilities are important to ensure a sustainable supply chain.

- **Harvesting Infrastructure and Capacity.** While there are concerns about the ecological sustainability of biomass harvesting, there are also concerns about the sustainability of the harvesting infrastructure and workforce that will be needed to reliably supply wood fuels to markets. Strong, reliable, and local markets for low-grade wood such as wood fuel are essential to help keep a reliable supply chain intact.
- **Emissions.** Energy derived from biomass energy must minimize emissions and meet or surpass stringent public health and air-quality standards. Biomass energy projects should implement efficient combustion technologies and best management practices for emission control technologies, fuel quality, and operating conditions.
- **Climate Change.** Use of biomass for energy-efficient and appropriately scaled applications has tremendous potential to displace fossil fuels and, over the long term, lower atmospheric CO_2 emissions. Biomass energy used in this manner is a "low-carbon fuel," and, integrated with the sustainable fuel supply, has the potential to be a net carbon sequestering option, even when considering the fossil fuels used in production and transportation of wood fuel and agricultural production. The degree to which biomass energy systems can reduce carbon emissions compared to fossil fuels is directly related to establishment and management of harvesting regimes, forest types, fuel transport, and efficiency. National carbon sequestration and reduction policies such as carbon cap and trade regulations and voluntary carbon standards will also have an impact on forest management and agricultural decisions regarding carbon storage, forest adaptation, production of biomass for energy, and harvesting of traditional wood products. Policies must be put in place that optimize carbon storage, adaptation potential, biomass used for energy, and the harvest of traditional products.

Public Policy Recommendations for Efficient Biomass Energy

1. Develop a **National Thermal Energy Policy** that includes the following elements:
   - A Renewable Thermal Standard (comparable to the existing Renewable Fuels Standard and proposed Renewable Electricity Standard)
   - National and state carbon policies and greenhouse gas emissions programs that support the most efficient thermal uses of biomass
   - Federal and state incentives, grants, and loans to advance the utilization of high efficiency biomass thermal systems
   - Renewable Portfolio Standards that include thermal energy, provision of renewable energy credits for thermal applications and that promote efficient use of biomass
2. Fund and conduct accurate and ongoing assessments of sustainable biomass energy supply
3. Support biomass harvesting standards, sustainable forest management, and procurement guidelines to ensure a sustainable supply chain for timber and other biomass harvesting activities
4. Support harvesting and management infrastructure—including policies that encourage and promote the long-term economic viability of the supply chain to ensure forestry and logging capacity—and sound land stewardship and management practices necessary to ensure low-grade wood resource availability for sustained biomass energy use over the long term
5. Establish consistent federal and state air emission standards and regulations for biomass energy to minimize emissions and meet stringent public health and air-quality standards
6. To support the ability of biomass energy to help reduce climate change, support forest conservation efforts, provide offset credits and other incentives for increased carbon sequestration and storage, and address forest adaptation due to changing climate

Adopted by the BERC board of directors on August 14, 2009.

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BERC
Renewable • Reliable • Resourceful
Biomass Energy Resource Center

BIOMASS COMMUNITY DISTRICT ENERGY SYSTEMS

WHAT IS DISTRICT ENERGY?

District energy systems use one or more central plants to provide thermal energy to multiple buildings. This approach replaces the need for individual, building-based boilers, furnaces, and cooling systems.

Underground pipelines from the heating (or cooling) plant to each of the connected buildings distribute thermal energy in the form of hot water, steam, or chilled water. Energy is then extracted at the buildings and the water is brought back to the plant, through return pipes, to be heated or cooled again.

DISTRICT ENERGY IN HISTORY

The concept of district energy dates back to ancient Rome, where hot water was used to heat public baths and other buildings. Urban steam systems first became common about 100 years ago (the first North American system was built in 1877 in Lockport, New York), and modern hot water systems have been used extensively in Europe since the 1970s. Today, as modern district energy rapidly gains acceptance, systems are being built in increasing numbers in cities and communities across North America.

APPLICATIONS FOR DISTRICT ENERGY

District heating systems can provide space heating and domestic hot water for large office buildings, schools, college campuses, hotels, hospitals, apartment complexes, and other municipal, institutional, and commercial buildings. Systems can also be used to heat neighborhoods and single-family residences.

Municipalities can incorporate district energy into the infrastructure of their downtown business districts or encourage its use in such new developments as office building complexes and industrial parks. When local biomass fuels, such as woodchips, are used instead of oil or gas, the benefits of renewable energy can be brought to many buildings.

COMBINING HEAT & POWER

District energy plants can be designed to produce not only heating and cooling, but also electrical power. This is called cogeneration or combined heat and power (CHP). CHP plants are able to get more usable energy out of the input fuel than one producing electricity only.

ADVANTAGES OF DISTRICT ENERGY

A district energy system—particularly one that increases the use of indigenous biomass—has the following advantages for both system customers and the surrounding community:

Low, Predictable Energy Costs

Higher fuel usage provides access to the lower costs associated with bulk purchasing. The use of locally grown biomass as a portion of the fuel mix further enhances the cost stabilizing benefit of district energy.

The price of wood fuel is not linked to world energy markets or unstable regions, but instead determined by local economic forces. For this reason, biomass systems do not experience the price instability of conventional fuel systems.

Fuel-Type Flexibility

Because a central heating plant can have boilers that burn different fuels, the option exists to use whichever fuel is the most economical at any given time.

over

Illustration courtesy of Prince Edward Island Department of Economy, Development & Tourism.

Better Air Quality

Air quality improves—as does community livability—when emissions from a single, well-managed plant replace uncontrolled stack emissions from boiler plants in many individual buildings. The result is magnified when district energy systems, as they often do, replace multiple systems that use conventional fossil fuels.

If the central system uses wood fuel, the emissions of sulfur dioxide (which contribute heavily to acid rain) will decrease, while emissions of particulates and certain toxic air contaminants will increase. The emissions increases, however, do not result in a higher concentration in the air because of changes in the location of the emissions and the improved dispersion of pollutants resulting from a single tall stack.

Yet another advantage in improving air quality with district heating is the ability to install best available technology emissions control equipment, which may not be affordable in individual building heating plants.

More Local Jobs

Conventional energy systems require labor in fuel extraction, processing, delivery, operation, and maintenance as well as in system construction and installation. Fossil fuel supply is based on energy resources outside the community, thus, all jobs associated with extraction and processing are outside the local and regional economies. By contrast, jobs and most of the raw materials associated with wood fuel extraction, reforestation, and fuel transport are within the local and regional economies.

Dollars Remain in the Local Economy

Unlike fossil fuels, which come from outside the northern New England region, wood fuel is a local and regional resource. The businesses associated with wood supply (logging operations, trucking companies, and sawmills) tend to be locally owned, so that profits are retained in the regional economy. These activities contribute to the state and local tax base. Conversely, the use of fossil fuels creates a net economic drain on a community and state. The Vermont Job Gap Study found that Vermonters spend more than $1 billion annually for fuel and energy imported from outside the state.

Revitalized Communities

District energy infrastructure and stable rates improve a community's business climate, make local businesses more competitive, help to revitalize downtowns and urban core areas so they can better compete with suburban sprawl, and, using biomass as the fuel source, help build a sustainable infrastructure.

Reliable Equipment

District energy systems have an unparalleled record of reliable service. They achieve this by well-managed central plant operation, by using multiple fuels, by having backup boilers in one or more locations, and by having standby power at the central plant.

Use of a Plentiful & Renewable Resource

Biomass is a renewable resource that can continue to replenish itself when managed and harvested sustainably. Wood-fired heating systems provide a market for lower-grade wood not suitable for furniture or other high-profit products. These markets can be especially critical for restoring commercial and biological quality to harvested forests. In addition, the use of waste wood for energy can reduce the need for and costs of disposal.

Reduced Environmental Risks

District energy systems can help to mitigate environmental risks by consolidating fuel storage to one or a very few locations compared to numerous onsite storage tanks that serve individual buildings. Conventional onsite fuel storage includes underground and aboveground storage tanks. Aboveground tanks can pose fire hazards as well as the risk of dislodging in the event of a flood. Failing underground tanks can pose a threat to ground and surface waters.

A Meaningul Way to Address Global Climate Change

Carbon dioxide (CO_2) is the major greenhouse gas implicated in global warming. When fossil fuels are burned, carbon that was sequestered underground (as oil, gas, or coal) is converted to CO_2 and released into the atmosphere. While CO_2 is a major component of the combustion emissions of both fossil and biomass fuels, burning biomass for energy adds no net CO_2 to the atmosphere.

For biomass energy to be an effective climate change mitigation strategy, however, the biomass must be harvested in a fashion that sustains the forest resource and increases its vitality and productivity over time. If a forest is clear cut and does not regenerate, there will be no trees to sequester, and carbon and CO_2 levels in the atmosphere will increase. A study by the Oak Ridge National Laboratory found that "using part of the forest harvest residue for district heating in Vermont has a positive impact on reducing the amount of carbon discharged to the atmosphere."

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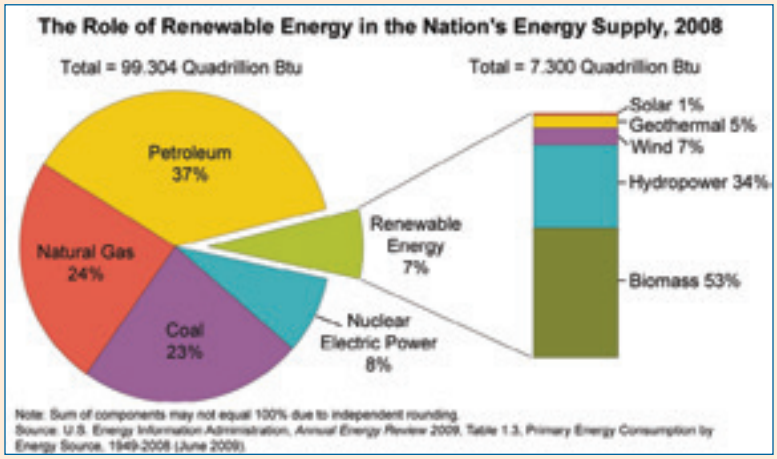
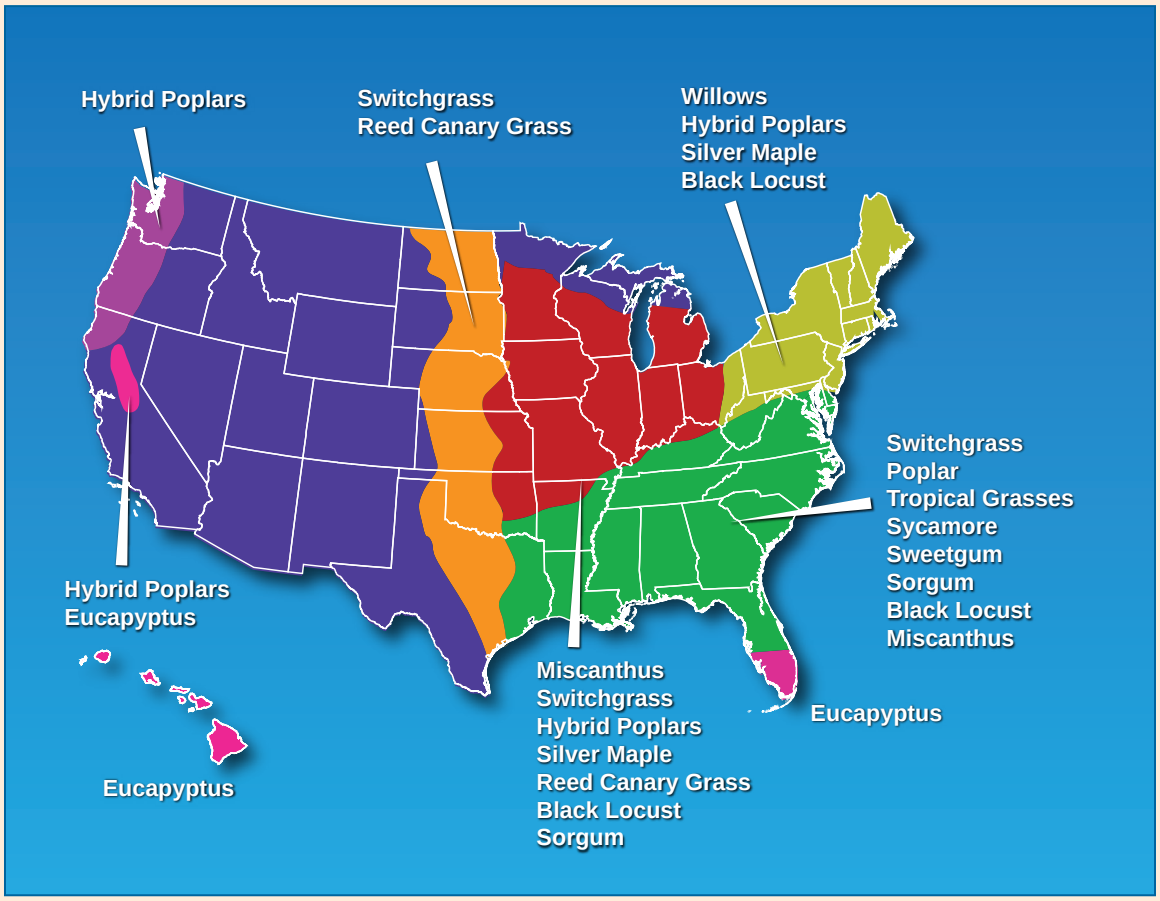

The Role of Renewable Energy in the Nation's Energy Supply, 2008
Total = 99.304 Quadrillion Btu
Total = 7.300 Quadrillion Btu
Petroleum 37%
Natural Gas 24%
Coal 23%
Nuclear Electric Power 8%
Renewable Energy 7%
Solar 1%
Geothermal 5%
Wind 7%
Hydropower 34%
Biomass 53%
Note: Sum of components may not equal 100% due to independent rounding.
Source: U.S. Energy Information Administration, Annual Energy Review 2008, Table 1.3, Primary Energy Consumption by Energy Source, 1949-2008 (June 2009).


Hybrid Poplars
Switchgrass
Reed Canary Grass
Willows
Hybrid Poplars
Silver Maple
Black Locust
Switchgrass
Poplar
Tropical Grasses
Sycamore
Sweetgum
Sorgum
Black Locust
Miscanthus
Hybrid Poplars
Eucapyptus
Miscanthus
Switchgrass
Hybrid Poplars
Silver Maple
Reed Canary Grass
Black Locust
Sorgum
Eucapyptus
Eucapyptus

INDUSTRY EXPERT ROUNDTABLE

Community Evaluation and Report Card

December 2, 2009

William A Fredrick, President
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This evaluation extends beyond the County to the region and is based on information available on-line and through existing contacts. Most site consultants would look at data on the MSA level and would also benchmark that region to the State and the U.S. as a whole—this type of comparison is key for them.

Madison County Employment Distribution (jobs located in Madison County)

Surprised by the high concentration in education services.

Administrative and Waste Management and Transportation and Warehousing are much lower than U.S. percentage.

Bureau of Labor Statistics is not providing data for a number of your manufacturing subsectors due to a small number of firms in each subsector (for confidentiality) and this hurts you. You should try to fill that information gap and put the data on your website so all your sectors are represented and site consultants can see the whole picture.

Changes 2003–2008 in Madison County Employment

For All Manufacturing you grew slightly while the U.S. declined.

The decline in professional, scientific and technical services is troubling. You should see growth due to the high concentration of post-secondary educational institutions here.

Comment from the audience that the educational services numbers can't be right—if they are not, you should be aware of this and report the correct numbers on your own website, make it clear you have looked into and can provide accurate data for site consultant to compare you to U.S. and state.

Assets

Overall, you don't have really high incomes but you do have high labor force participation. This is a good sign of a hard-working labor force.

Electric rates—site consultants use the Edison Electrical Institute book. For this area, they do not seem to report on delivery charges. Again, you should clarify this in the data you present on your own website to fill out the picture for the site consultants.

Concerns over municipal power—companies want to know what their capacity is, what their spikes are, what the reliability is. You would drill down to this after the initial screening is complete for those locations that made the first cut.

Discussion of website and other issues related to Assets

DO NOT provide links to other websites for the user to find the data they are looking for. You want all info they need on your own site so you can keep them there and not find a better location in your area by looking at other websites. Often times it is difficult for the user to then sift through another site to find the data.

Your site should have a Community Profile to display demographics. You should have a good menu on the home page with 7 to 10 menu items (sites, utilities, incentives, community profile). You don't want the site consultant to have to click too many times to find what they are looking for.

Re: wood biomass for heat: if you had an industrial park where that was provided and there is no complication or risk in using it that would be the ideal situation. Most companies are not going to worry about alternative energy—they typically have a pretty tight turnaround to get project up and running. But if it is already installed and will not impact their time frame, then that would make it easier for them to use it.

Diversity: this could pose a problem for you. Many companies are sensitive to diversity and have minority employees they would have to transfer. This might not be an ideal location from their point of view due to lack of diversity in the local population base.

Median age: skews older and this affects future labor availability. Important to get young families back, especially college-educated professionals.

Couldn't find any info on technical training programs in the County so that needs to be communicated on your website as well if it's something you have. Would be great to show the technical training programs on a map with your labor sheds.

Also recommends putting written testimonials from local employers on your site (no video clips).

You have high manufacturing employment concentration and stable pay, which means that you probably have a lot of people about to retire. Are existing employers going to lose their high-skilled workers? Need to address this question because site consultants will see that.

You need to have ONE economic development website for the County, linked to a regional site. If cities, towns and villages want to have their sites as links on the County site, that's ok. In many cases, it's best to avoid using the Chamber of Commerce as your main ED site because they often discuss issues that you might not want the site consultant to see up front.

Use maps, provide site data. Consider a company like Location One to provide searchable site database.

Assets

- Excellent market access
- Stable county population
  - County growth (0.5%) higher than the MSA
- County has higher ratio of 18-34 age group than U.S., NY
  - 2009, 2014

Median household income above U.S., MSA medians
- County growth higher than U.S., State, MSA 2009-2014

County income distribution is in the middle, not bi-modal

Educational attainment levels
- Higher than U.S. average in 12-15 years of education
- Higher than U.S. average in16+ years of education

Unemployment rate is higher than normal, but below U.S., NY, MSA averages

- Labor participation slightly above U.S. in county,
- Growing labor force in county and labor sheds
- Expanding employment and establishments among Madison employers
  - Greatest numeric gains in education
  - Slight manufacturing had employment gains, vs. U.S., NY and MSA declines
  - Higher than MSA average

- Three 4-year, post-secondary institutions in the county, nine in the MSA
  - Colgate University
  - Syracuse university
  - Degree offerings in engineering and engineering tech, business, IT, sciences
- Nine other post-secondary institutions
- Syracuse Hancock Airport
- CSX rail service
- Interstate service

- Good quality of life
  - Low to moderate housing costs
  - Low crime rate
  - Diverse recreational and sports
  - Cultural events
  - Healthcare
- Five existing, one proposed with EZ status business parks
  - Some rail
  - Fiber
  - One airpark
  - Zoned
  - Utilities

- Two non-EZ parks
- Low electric rates
- Very good to excellent incentives in Empire Zones
- Competitive regulatory environment for the Northeast
- Long manufacturing history, familiarity
- Base of long-term manufacturing companies

Growthtech
3

Challenges

- Slow-growing population
- Modest racial/ethnic diversity
- Median age is slightly above the U.S. median
- Loss of employment in professional/scientific/technical services
- Greatest numeric employment gains in education and accommodation
- Modest education levels for high-knowledge-based activities
  - Good for current base
- There are no post-secondary technical training programs in the county, and modest ones in the region
- Low employment ratio in some high-knowledge-based occupations
- An estimated 10,750 residents commute out of the county
- There are roughly 4,400 more workers commuting out of the county than in
- Unknown impact of Baby-Boomer retirements among manufacturers
- Declining 0-17-year-old age cohort 2009-2014
- Website needs attention
- There is no vocational/technical program in the county: need to go to Utica or Onondaga County
- More information and up-to-date information is needed on sites

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Conclusions

- The county offers different locational opportunities by section of county
- The county appears solid and stable economically, for now
- Challenges include location within an MSA showing signs of stagnation
- Best short and mid-term development is in
  - Diversified manufacturing
  - Healthcare
  - Education (not a primary target)
- Diversification into other business sectors is needed
  - Employing knowledge-based skills
  - Small to mid-size employers
- Attractive indicators for small to mid-sized manufacturers
  - Advanced operations
  - Employment/labor base
  - Potential sites
  - Operating costs
  - Market access
- Small to mid-sized back-office operations offer potential
- Diversification into distribution/logistics may offer potentials
  - Land is an issue
  - Northern part of the county best
- Value of Colgate and Syracuse Universities for attracting industry needs to be clarified
- An improved website in needed, with Location One type of site information
- An analysis of the Boomer retirement issue needs to be clarified; replacement & retention strategies developed
- Improved vocational-technical training, co-op, apprenticeship programs need investigation
  - Boomer replacement
  - Service to industry
  - Training of the emerging workforce
  - Developing employment opportunities for non-college-bound youth

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Main Street
NATIONAL TRUST FOR HISTORIC PRESERVATION

INDUSTRY EXPERT ROUNDTABLE

The Main Street Four-Point Approach®

January 28, 2010

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www.mainstreet.org

As a unique economic development tool, the Main Street Four-Point Approach® is the foundation for local initiatives to revitalize their districts by leveraging local assets-from cultural or architectural heritage to local enterprises and community pride.

The four points of the Main Street approach work together to build a sustainable and complete community revitalization effort.

Also read: The Eight Guiding Principles

Organization

Involves getting everyone working towards the same goal and assembling the appropriate human and financial resources to implement a Main Street revitalization program. A governing board and standing committees make up the fundamental organizational structure of the volunteer-driven program. Volunteers are coordinated and supported by a paid program director as well. This structure not only divides the workload and clearly delineates responsibilities, but also builds consensus and cooperation among the various stakeholders.

Promotion

Sell a positive image of the commercial district and encourages consumers and investors to live, work, shop, play and invest in the Main Street district. By marketing a district's unique characteristics to residents, investors, business owners, and visitors, an effective promotional strategy forces a positive image through advertising, retail promotional activity, special events, and marketing campaigns carried out by local volunteers. These activities improve consumer and investor confidence in the district and encourage commercial activity and investment in the area.

Design

Means getting Main Street into top physical shape. Capitalizing on its best assets—such as historical buildings and pedestrian-oriented streets—is just part of the story. An inviting atmosphere, created through attractive window displays, parking areas, building improvements, street furniture, signs, sidewalks, street lights, and landscaping, conveys a positive visual message about the commercial district and what it has to offer. Design activities also include instilling good maintenance practices in the commercial district, enhancing the physical appearance of the commercial district by rehabilitating historic buildings,

encouraging appropriate new construction, developing sensitive design management systems, and long-term planning.

Economic Restructuring

Strengthens a community's existing economic assets while expanding and diversifying its economic base. The Main Street program helps sharpen the competitiveness of existing business owners and recruits compatible new businesses and new economic uses to build a commercial district that responds to today's consumers' needs. Converting unused or underused commercial space into economically productive property also helps boost the profitability of the district.

The Eight Principles

The National Trust Main Street Center's experience in helping communities bring their commercial corridors back to life has shown time and again that the Main Street Four-Point Approach succeeds. That success is guided by the following eight principles, which set the Main Street Methodology apart from other redevelopment strategies. For a Main Street program to be successful, it must whole-heartedly embrace the following time-tested Eight Principles.

- **Comprehensive:** No single focus—lavish public improvements, name-brand business recruitment, or endless promotional events—can revitalize Main Street. For successful, sustainable, long-term revitalization, a comprehensive approach, including activity in each of Main Street's Four Point, is essential.
- **Incremental**: Baby Steps come before walking. Successful revitalization programs begin with basic, simple activities that demonstrate that "new things are happening" in the commercial district. As public confidence in the Main Street district grows and participants' understanding of the revitalization process becomes more sophisticated, Main Street is able to tackle increasingly complex problems and more ambitious projects. This incremental change leads to much longer-lasting and dramatic positive change in the Main Street area.
- **Self-help**: No one else will save your Main Street. Local lenders must have the will and desire to mobilize local resources and talent. That mean convincing residents and business owners of the rewards they'll reap by investing time and money in Main Street—the heart of their community. Only local leadership can produce long-term success by fostering and demonstrating community involvement and commitment to the revitalization effort.
- **Partnerships**: Both the public and private sectors have a vital interest in the district and must work together to achieve common goals of Main Street's revitalization. Each sector has a role to play and each must understand the other's strengths and limitations in order to forge an effective partnership.
- **Identifying and capitalizing on existing assets**: Business districts must capitalize on the assets that make them unique. Every district has unique qualities like distinctive buildings and human scale that give people a sense of belonging. These local assets must serve as the foundation for all aspects of the revitalization program.
- **Quality**: Emphasize quality in every aspect of the revitalization program. This applies to all elements of the process—from storefront designs to promotional campaigns to educational programs. Shoestring budgets and "cut and paste" efforts reinforce a negative image of the commercial district. Instead, concentrate on quality projects over quantity.
- **Change**: Skeptics turn into believers and attitudes on Main Street turn around. At first, almost no one believes Main Street can really turn around. Changes in attitude and practice are slow but definite—public support for change will build as

the Main Street program grows and consistently meets its goals. Change also means engaging in better business practices, altering ways of thinking, and improving the physical appearance of the commercial districts. A carefully planned Main Street program will help shift public perceptions and practices to support and sustain the revitalization process.

- **Implementation**: To succeed, Main Street must show visible results that can only come from completing projects. Frequent, visible changes are a reminder that the revitalization effort is under way and succeeding. Small projects at the beginning of the program pave the way for larger ones as the revitalization effort matures, and that constant revitalization activity creates confidence in the Main Street program and ever-greater levels of participation.

National Main Street Community Criteria

- Broad-based public and private support
- Vision and mission statements
- Comprehensive work plan
- Historic preservation ethic
- Active board and committees
- Adequate operating budget
- Paid, professional program director
- On-going training for staff & volunteers
- Reporting of key statistics
- Current member of National Main Street Network

Main Street's Four Points

- Organization
- Design
- Promotion
- Economic Restructuring

Main Street's Eight Principles

- Comprehensive
- Incremental
- Community-driven
- Public-Private effort
- Builds on existing assets
- Quality
- Change
- Implementation-Oriented

Main Street's Results

- $48.8 billion in physical improvements
- 87,850 new businesses (net)
- 391,050 new jobs (net)
- 206,600 building rehabilitation projects
- $25 to $1.00 reinvestment ratio
- *(through December 31, 2008—based on more than 2,200 communities)*

INDUSTRY EXPERT ROUNDTABLE
Business Location Strategies

December 2, 2009

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Strategic Value of Location

- As a company evolves through its life cycles, *location* often plays a critical role in gaining access to certain resources and market opportunities. Based on over forty years of experience working with companies, Moran, Stahl & Boyer's (MS&B) has helped many clients use location to their advantage in a variety of ways including:
- Attracting and maintaining top talent.
- Gain access to emerging markets.
- Reduce operating risks and costs.
- Improve product development.
- Better serve internal and external customers.
- Enhance their image in the marketplace.

Since no two companies are exactly alike, there is no single "ideal location" that meets everyone's needs. Location success factors change over each life cycle stage of the company and are influenced by the type of operation and industry it is involved in. Variances could include different needs for labor, industry presence, geographic locations, and access to business partners such as universities, alliance companies and strategic service providers.

In the figure noted below, the evolution of a typical company is charted out. In Stage 1, the young company is located where it was founded either in proximity to the university from which it gains its R&D support from, near a company it has spun-off from, or simply in a place favored by the company's founder. If the company is funded by an investment group or is acquired by a larger firm, it may be required to relocate. By Stage 2 the company has grown into a self-sufficient entity with most of the business still found in one location.

Further growth into Stage 3 reflects a major corporation that begins to redeploy individual functions to locations that are better suited for their unique needs —headquarters to cities that have the resources attract top talent and access more markets; back offices and manufacturing to low cost areas; and R&D nearer to technology partners. Stage 4 is similar to Stage 3 but on a larger scale.

Location Requirements by Operation

Each type of operation has specific resources and situation requirements to make it successful. A summary of location criteria is outlined below and illustrates the similarities and differences found among various business functions.

When a company seeks to place more than one type of operation in the same location, it is important to review how well the local resources and situation meet the needs of each specific operation.

Figure 1 – Evolution of Company Structure and Location Deployment

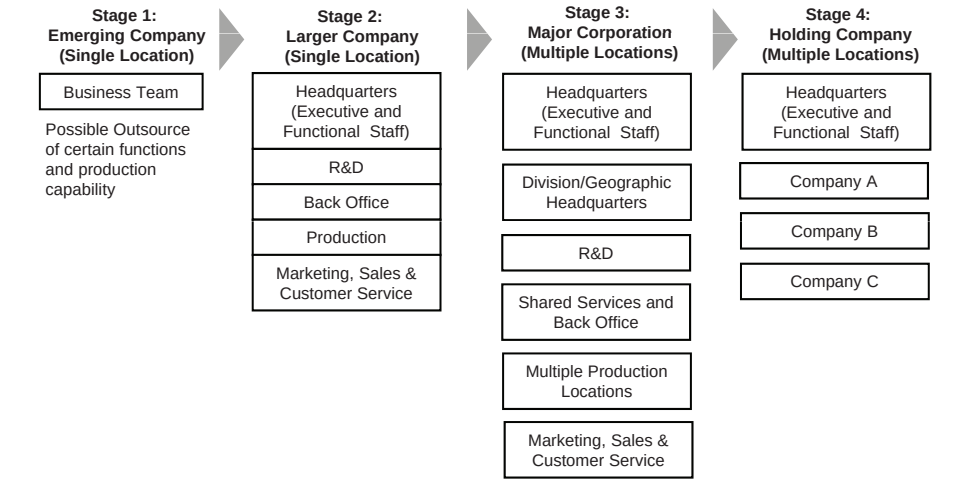

Figure 2 – Location Criteria by Type of Operation

Type of Operation		Typical Location Criteria/Characteristics
Headquarters • Company • Division • Corporate • Holding Company		• Air access to key markets and internal operations. • Quality of life that attracts top talent. • Local access to functional talent and industry-specific resources. • Favorable business environment. • Projects the appropriate image of the company. • Costs in-line with company needs.
Back Office • Shared Service Center • IT Service Center • Accounting Center • Other functional groups		• Local access to favorable supply of qualified labor. • Low operating costs (real estate, labor, taxes, air travel (for operations that require significant travel) • Moderate competition for labor. • Facilities available to minimize start-up time.
Research & Development Center • Basic research • Applied research • Product development • Product prototyping and pilot operations		• Access to other R&D operations as needed (university, commercial partners, R&D service companies, etc.). • Local access to high quality R&D talent. • Ability to attract talent to the area. • Low to moderate operating costs. • Moderate competition for labor. • Facilities available to minimize start-up time.
Manufacturing • Single location • Geographically dispersed		• Local access to favorable supply of qualified labor. • Low operating costs (real estate, labor, taxes, utilities) • Moderate competition for labor. • Facilities available for smaller operations and **Shovel Ready** sites for larger/specialized operations. • Utility capacity that meets specific needs. • Geographic positioning to reach key markets.
Distribution and Warehousing • National • Regional		• Local access to favorable supply of qualified labor. • Low operating costs (real estate, labor, taxes and utilities) • Moderate competition for labor. • Existing Building or **Shovel Ready** sites available to minimize start-up time. • Geographic positioning to reach key markets.

For each of the Target Growth Segments, the key resources are identified from the perspective of a company seeking a location to place a facility. The resource categories have been packaged (by color) with related resources to aid in the identification and assessment of resources.

A. Traditional Manufacturing (Food processing, chemical manufacturing, fabricated metal products, machinery, and medical/specialty equipment

Labor	• High school graduates with a good work ethic, drug free, ability to work in teams and an interest in working in a factory environment within the work schedule requirements. • Technicians to maintain automation equipment • Functional professionals with admin support staff
Industry Presence	• Having enough local industry in type and size to sustain a manufacturing culture and with the specific skill sets for a particular operation.
Real Estate Options	• 5–100 acres with reasonable buffer zone and opportunities for expansion • Located within existing industrial park or industrial zoned stand-alone property with complementary adjacent land use (commercial or industrial operations)
Transportation Access	• Located within a few miles of a limited access/interstate highway (not "down Main Street") • Rail access important for large plastics molding operations, chemical manufacturing and other operations receiving bulk chemicals and materials or shipping chemicals and other large volume and size items
Utilities/Infrastructure	• Each site needs access to power (some require two sources), gas (for plastics molding and other operations), telecom, water and sewer. Large volume of water and wastewater requirements for certain food and other process operations.
Operating Costs	• Cost of labor, real estate, utilities and transportation are critical
Other Business Needs and Incentives	• Incentives to offset startup/initial construction costs and the cost of initial and on-going training.
Quality of Life	• Not usually a major issue since only a small group of core staff will be relocating to the area.

B. New Technology Manufacturing (Biotechnology, new materials fabrication, new generation electronic components, product derivatives of new materials, etc.)

Labor	• Some high school graduates with a good work ethic, drug free and ability to work in teams • Technicians to operate more technical process equipment and procedures • Engineers and some highly educated scientists (within 30–40 minute commute) • Small staff of functional professionals with admin support staff (may hire contract services for non-core functional support (accounting, legal, HR, IT, etc.)
Industry Presence	• Having other local R&D and small high-tech production operations
Real Estate Options	• Low cost wet and dry space depending on operation (mixed lab/production and offices) • Lease of space located in industrial or office park • Initial space requirements will vary from 2,500–25,000 SF
Transportation Access	• Direct access to limited access/interstate highway for commuting professional staff • Within one hour of major airport
Utilities/Infrastructure	• Need access to power, gas (optional), telecom, water and sewer
Operating Costs	• Cost of real estate is critical. Labor cost is less of an issue initially if performance is high.
Other Business Needs and Incentives	• Incentives to offset startup/initial costs and access to low interest loans. Limited number of employees will minimize traditional government incentives and there is a program for high-tech startups • Have access to university research that applies to specific fields of discipline and process development are critical to growth and success of small high-tech businesses
Quality of Life	• Cost of living and housing, recreation/culture and quality of local education are important for attracting companies. Also having access to advanced engineering, science and business schools with MS, MBA and PhD programs

C. Financial Services and Other Back Office/Call Center Operations

Labor	• Some high school graduates with a good work ethic, drug free and ability to work in teams • Certain transactions are requiring college graduates • Functional professionals with admin support staff • Access to local colleges/universities, military spouses and retirees as labor sources is a plus
Industry Presence	• Having other local back office operations is important as a labor pool. Companies determine their positioning in the local labor attraction "food chain"
Real Estate Options	• Low cost open space within office park or former shopping center with substantial parking (these offices are high density with parking requirements of 5–6 spaces per 1,000 usable SF) • Having facilities built and at a high level of readiness can be an advantage for some companies to reduce their startup time
Transportation Access	• Direct access to limited access/interstate highway for commuting staff • Within one hour of major airport
Utilities/Infrastructure	• Need access to power, telecom for high volume use, water and sewer
Operating Costs	• Cost of real estate and labor are critical
Other Business Needs and Incentives	• Incentives to offset startup/initial construction/build-out and training costs
Quality of Life	• Not a major issue if majority of staff are hired locally. Some companies will look at cost of living and housing, quality of schools and other attributes if there are plans to recruit into the area

D. Professional Services Firms (Engineering, Architectural, Accounting, Legal, Business Consulting, IT, etc.)

Labor	• Primarily hiring college level professionals and some technical (e.g., paralegal) staff • May hire contract services for non-core functional support (accounting, legal, HR, IT, etc.)
Industry Presence	• Having other similar operations is important as a labor pool
Real Estate Options	• Small office space (2,000 -10,000 SF) in a downtown or office suite complex
Transportation Access	• Some firms will select location based on drive-time to regional client base
Utilities/Infrastructure	• Need access to typical office support utilities . . . particularly high speed Internet
Operating Costs	• Cost of real estate and labor are not highly critical for established firms.
Other Business Needs and Incentives	• Incentives to offset startup/initial construction/build-out are a plus but not normally expected
Quality of Life	• Cost of living and housing, recreation and culture, and quality of local education are important for attracting professionals. Also having access to advanced engineering and business schools with MS and MBA programs

E. Information Firms (primarily publishing firms

Labor	• High school graduates with a good work ethic, drug free and ability to work in teams • College graduates for editing, IT and other technical roles • Small functional staff
Industry Presence	• Having other similar operations is important as a labor pool
Real Estate Options	• Office and warehouse space (10,000–50,000 SF) in an office/light industrial park
Transportation Access	• Within 1–3 miles of interstate/limited-access highway (similar to warehouse operation)
Utilities/Infrastructure	• Need access to typical office support utilities . . . particularly high speed Internet
Operating Costs	• Cost of real estate and labor are important
Other Business Needs and Incentives	• Incentives to offset startup/initial construction/build-out
Quality of Life	• May be a factor in recruiting special skills into the area

F. Warehousing Operations (mid-size operations: 150,000 to 500,000 SF)

Labor	• High school graduates with a good work ethic, drug free, ability to work in teams and an interest in working in a warehouse environment within the work schedule requirements. • Technicians to maintain automation equipment • A few functional professionals with admin support staff
Industry Presence	• Having other warehousing operations to leverage skill presence
Real Estate Options	• 10–100 acres with reasonable buffer zone and opportunities for expansion • Located within existing industrial park or industrial zoned stand-alone property with complementary adjacent land use (commercial or industrial operations)
Transportation Access	• Located within a few miles of a limited access/interstate highway with access away from sensitive areas (schools, daycare, hospitals, high density residential, high density retail, etc.)
Utilities/Infrastructure	• Each site needs access to power, telecom, water and sewer.
Operating Costs	• Cost of labor, real estate, utilities and transportation (logistics) are critical
Other Business Needs and Incentives	• Incentives to offset startup/initial construction costs and the cost of initial and ongoing training.
Quality of Life	• Not usually a major issue since only the plant manager and a few specialists will be relocating to the area.