



**GREENABLE  
WOODBIDGE**

**Prosperity Plan**



Township of Woodbridge, Middlesex County  
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# SECTION I

## SUSTAINABILITY AND THE ECONOMY

It is a common misperception that sustainability and economic growth are unrelated, and even often achieve contradictory results. Yet as a consequence of a continuously developing population, pressure on the consumption of natural resources has introduced sustainability issues into the realm of economic expansion. Households, businesses, and regional governments are now finding key linkages between sustainability measures and economic development. Of significant importance is the influence of resource scarcity on innovation, new markets, and economic growth. A key component of this influence is potential energy savings from increased energy efficiency, which frees up valuable resources and increase an industry's regional competitiveness. These potential savings have also sparked a demand for alternative energy sources, spurring innovation in clean energy and green technology. As demand for alternative resources and clean technology builds, new market opportunities arise and innovation expands. With the formation of new markets follows the availability of employment opportunities. The effects are both economic growth and improved environmental quality.

Recent movements have begun to recognize that sustainability and environmental integrity can be built together with economic prosperity through the growth of a green economy. The green economy refers to a clean economy, one that is comprised of industrial sectors that limit their impact on the environment in terms of pollution and degradation. Sectors within the green economy produce goods and services beneficial to or improve the environment. While working to achieve this, through innovation, these industries form new markets and create job growth that can potentially outperform the growth of the regular economy. For example, as found in the detailed report by the Brookings Institute entitled Sizing the Clean Economy, the green technology industry experienced massive gains in employment in the past decade while also outperforming the larger economy during the last recession.

This report also highlights the potential of the green (or clean) economy to provide a new outlet for job

growth and improved wages. Median income within the national green economy was reported at 13 percent higher the larger national economy. This provides an attractive alternative to traditional job growth.

**Sustainability refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs.**

Source: World Commission on Environment and Development (WCED)

The Township of Woodbridge aims to use these above concepts and promote job growth through a green economy. The primary goal is to 'jump-start' demand for these new markets and back that demand with a local or regional supply base. The **Greenable Mission** is simply stated: **foster the creation of new market opportunities and local economic growth.** The formation of a strong green economy will in turn promote a healthy and livable community for Woodbridge residents and businesses. With an established commitment to increased sustainability and an already influential economic base, the Township is uniquely positioned as a regional leader in developing a robust green economy. The overarching **Goal** is to **increase economic activity, reduce environmental impact, and position the Township as regional leader.** The purpose of this plan is to define and create a means in which this goal can be achieved, and regulate its impact.

Sustainability objectives can advance savings, opportunities, and innovation that grow the local economy. Growth based on these principles is achieved through whole community support, green innovation in the private sector, and through the implementation of energy savings measures and sustainable operations practices. Participation from households, private companies, and public institutions is essential, and thus this plan aims to speak to and guide the Township as a whole while promoting collaboration between industry and civic leaders. It is well recognized that sustainable efforts must be collective, not individual, and this plan is a means to openly promote goals and strategies for developing a thriving social and economic community in Woodbridge Township.

# SECTION II

## GOALS AND OBJECTIVES

As mentioned in the first section, the mission of the Greenable Woodbridge Economic Prosperity Plan is to use sustainability as a means to create new market opportunities and to ‘jump-start’ the demand for green goods and services. Fulfilling this mission will require community input and support, innovation in green technologies, and the implementation of energy saving measures and sustainable practices. The following goals and specific objectives provide foundational principles upon which the green economy can develop in Woodbridge. Each objective focuses on achieving the respective overarching goal.



Photo 2.a

### PROMOTE ECONOMIC GROWTH

**OBJECTIVE 1:** Incentives should be provided to local businesses and residents to increase the demand for sustainable services, products, and operations.

### FOSTER AND SUSTAIN ENVIRONMENTAL, ECONOMIC, AND SOCIAL VITALITY

**OBJECTIVE 1:** A public outreach and education process should inform residents about the benefits of sustainable practices as well as the actions they can take to positively contribute to the movement.

**OBJECTIVE 2:** Community prosperity and harmony should be promoted through the creation of a coalition of businesses, manufacturers, public officials, and residents who are dedicated to supporting a thriving sustainable economy.

**OBJECTIVE 3:** A green business recognition program should be created to provide incentives for businesses to partake in sustainable practices as well as to acknowledge and reward those that already do.

**OBJECTIVE 4:** A buy local program should be implemented to reduce negative externalities generated by the shipping of goods and to strengthen the local community by directly investing into it.

**OBJECTIVE 5:** A living wage should be provided to all who work and/or reside within the Township to enhance quality of life and afford people the means to be self-sufficient.

### CREATE JOBS AND JOB TRAINING PROGRAMS

**OBJECTIVE 1:** The existing base of core jobs should be assimilated and incorporated into the changing structure of Woodbridge’s economy.

**OBJECTIVE 2:** Attract low-carbon industries to create jobs while minimizing the economic cost and environmental impact of operations.

OBJECTIVE 3: A green training program should be implemented to prepare the current workforce, as well as displaced workers and those who are unemployed, to have the skills needed to provide the essential services demanded in the green economy.

## ENCOURAGE AN EFFICIENT USE OF ENERGY AND RESOURCES

OBJECTIVE 1: Both residents and businesses should be informed about the payback periods of various investments in the green economy, as each has short-term and long-term implications and benefits.

OBJECTIVE 2: A municipal renewable energy standard should be created to encourage the transition toward an economy that is powered by an increasing percentage of renewable sources.

OBJECTIVE 3: Green building standards should be required for newly constructed buildings and building codes should be strictly enforced for existing structures to improve and maintain their efficiency, safety, quality, and value.

OBJECTIVE 4: Less waste should be produced through reduced use, increased reuse, and recycling.

OBJECTIVE 5: Residents and businesses should be encouraged to decrease their reliance on fossil fuels and other non-renewable resources through incentives and strategic programming.

## CULTIVATE INNOVATIVE IDEAS AND SOLUTIONS

OBJECTIVE 1: The proliferation of green ideas, designs, and innovations should be promoted through coordination and communication between a wide variety of professionals, institutions, and residents.



Photo 2.b

# SECTION III

## THE GREENABLE PROFILE

To many regions across the United States, as well as to the nation itself, the concept of a green economy is both new and ill defined. Generally, the green economy as defined above in Section I, includes industrial sectors that produce goods and services that benefit the environment. These industrial sectors are often further narrowed to strictly include low carbon industries, and thus the green economy is also often referred to as the clean economy. However, much work remains in identifying and quantifying these industrial sectors. This task is a challenge, in and of itself.

As stated by the Brookings Institute in their Sizing the Clean Economy report released in 2011, assessing and sizing the green economy is still a question mark. This is largely attributed to the fact that many green businesses and industries are intertwined with other sectors of the economy not defined as green or clean. Further, there is no comprehensive database or standardized information and definitions pertaining to businesses and industries contributing to regional and national green economies. Lack of standardized and geographic data has also made comparisons between regions extremely difficult. However, the U.S. Department of Labor Bureau of Labor Statistics (BLS) has recently initiated a study to measure the number of green jobs and their associated wages, as well as examine the distribu-

tion of green jobs across industries and regions. Much like this BLS study, this section aims to measure the green economy in Woodbridge. However, before businesses, industries, and sectors of the green economy are further defined and identified within the Township, it is important to gain a comprehensive understanding of all green and sustainable practices established throughout the Woodbridge community.

### WHAT IS GREEN IN WOODBRIDGE TOWNSHIP?

Since approximately 2009, Woodbridge Township has made significant progress in implementing successful, community-wide sustainable practices and was the winner of the Sustainable Jersey competition for the past three consecutive years. Sustainability efforts can be seen in the following fields (as defined in the Woodbridge Sustainable Community and Climate Action Plan of 2010): Transportation and Circulation, Energy Conservation and Green Building, Water Management and Open Space, Resource Management, and Community Development. Below is a list of achievements in these sectors:

#### TRANSPORTATION AND CIRCULATION

- Purchased hybrid vehicles and established an alternate fuel station for municipal vehicles
- Enrolled the Township in the NJHMFA “Live Where You Work Program”
- Completed asset mapping of walking routes to schools
- Adopted an anti-idling ordinance and implemented an anti-idling education program
- Included pedestrian friendly streets in new, mixed use Redevelopment Plans
- Joined clean cities
- Implemented an anti-idling plan
- Implemented aggressive police enforcement at pedestrian right of ways
- Installed new bus shelters and upgraded old ones
- Included capital money in the municipal budget to build sidewalks
- Installed lighted LED pedestrian crossings and signage in high pedestrian traffic areas
- Participated in annual “Walk Your Child to School Day”
- Purchased mobile laptops for Housing, Health and Police Departments (over 100 laptops) that saves time, provides instant access and less transportation between office and locations yielding savings in fuel costs
- Installed Public Works Routing Software for all garbage / special picks ups; snow removal and street sweeping, allowing the most efficient routes to save fuel, time and wear and tear on Public Works vehicles
- Increased online services at the libraries which allows residents access to library services without driving to

- the library
- Implemented web technologies (Intranet/Internet) for instant access from home to reduce the need to travel to various government locations and shopping
- Created a transportation committee to address needs & concerns of existing and future public transportation, bicycle and pedestrian users
- Deployed mobile computing enabling more inspectors and government officials to access applications and to print from vehicles
- Met with various vendors to help promote mobile technologies and web enabled applications for access anywhere

#### ENERGY CONSERVATION AND GREEN BUILDING

- Council passed a Green Design resolution
- Council adopted a sustainable land use pledge
- Created a Green Scorecard for applicants to complete describing the sustainability of the project and detailing proposed green energy and water conservation measures
- Trained planners, engineers, building inspectors, and zoning, planning, and redevelopment officials in green building
- Encouraged LEED certification and/or sustainable practices in new construction
- Installed solar panels on 6 municipal buildings
- Completed an Environmental Resource Inventory
- Applied for grants offered for L.E.D. energy efficient street lights
- Consolidated 30 servers into 6 at the Municipal Data Center
- Participated in CleanPower community partners program
- Purchased the nation's first green emergency management command vehicle
- Completed a municipal carbon footprint
- Replaced building systems in our library facilities to improve energy efficiency and to eliminate hazardous compounds
- Replaced two chiller units in libraries with more efficient non-CFC systems
- Replaced all light fixtures in one library building with compact fluorescent lamps and replaced most of the fixtures in a second building
- Replaced public use desktop computers with thin clients that consume less electricity
- Replaced incandescent lamps with compact fluorescent
- Conducted a municipal buildings energy audit
- Developed an updated sustainability element to the Master Plan
- Installed solar panels on 4 municipal buildings
- Formed a Township Energy Consortium to evaluate, select and coordinate new energy technologies to be constructed in the Keasbey Eco-Park Redevelopment Zones
- Installed server virtualization to reduce cost, complexity and CO2 emissions
- Created a Day Forward program in digitizing all government documents reducing paper and savings trees
- Incorporated more forms on-line; paying by web and more e-mailing of information to our citizens instead of mailings
- Implemented smaller workstations, laptops and networking shared printing throughout the workforce for energy/footprint savings
- Made going green/paperless as an on-going line item in the budget, day forward process as a part of our government workflow

#### WATER MANAGEMENT AND OPEN SPACE

- A joint project between the Army Corp of Engineers, the NY/NJ Port Authority, NOAA, the NJDEP and the Township remediated 23 acres of wetlands along the Woodbridge River
- Built a pilot rain garden at the Health Center

- Held a rain garden workshop
- Passed a tree ordinance
- Completed a Community Forestry Plan
- Received and planted 300 trees from U.S. Forestry Program
- Developed a tree canopy policy and program
- Encouraged and educated the public on building rain gardens and using rain barrels
- Planted a Rain Garden at Colonia High School

## RESOURCE MANAGEMENT

- Purchased recycled paper
- Purchased alternate fuel for some municipal vehicles
- Purchased some green cleaning products
- Established an environmentally preferable purchasing policy
- Created a paperless environment for over 2 million pieces of paper and maps which are available electronically
- Worked with the YMCA at the Woodbridge Community Center to educate members and guests about single stream recycling
- Established a recycling drop off center at public works
- Implemented single stream recycling
- Held regular used book sales at the Woodbridge Libraries, which leads to the reuse of approximately 12,000 books a year
- Updated library information technology management which reduces the use of paper
- Recycled computers and other equipment
- Diverted 60% of waste from landfills through recycling programs
- Established Township wide free special pickup days
- Established permit-free garage sales the weekend before the special pick-ups
- Passed a construction and debris ordinance
- Distributed educational recycling calendars annually to all residents
- Implemented Town Hall recycling education program and placed recycling cans throughout Town Hall
- Implemented a voluntary “Cut it and Leave It” program for grass clipping
- Supported BayShore Recycling and their leadership in seeking green, recycling innovative programs
- Added a link to the Woodbridge website to the MCIU Reuse Brochure
- Provided an excellent library system - the 452,000 items currently held in the library have been borrowed over 6,300,000 times since 1996 when we began tracking our residents high use of the library has played a large part in the fight against deforestation
- Instituted single stream recycling program, which has increased the amount our residents recycle and lowered the amount of waste going to the landfill

## COMMUNITY DEVELOPMENT

- Designated by the League of Municipalities as a Healthy Community
- Created a strong partnership with the Woodbridge School System and work cooperative to educate and inform students and their families about good green practice
- Strengthened the role of the Environmental Commission to play a leadership role in community outreach
- Distributed free compact fluorescent light bulbs (CFLs) & materials at farmers market, St. James Street Fair & at the train station
- Established a Sustainable Woodbridge link to the Township website
- Compiled our first special edition of the Green Woodbridge news
- Boy Scout and Girl Scout Jamboree – Theme: Greenable Woodbridge
- Included “Global Learning Curriculum” in our schools
- Held special events around Sustainability at the Farmers Market

## WHAT IS GREEN IN THE WOODBRIDGE ECONOMY?

As mentioned above, the green economy remains a challenge to define and quantify, and identifying a means in which it can grow may be even more difficult.

Despite these challenges, Woodbridge Township has already pursued the following actions (as similarly outlined in the Sustainable Community and Climate Action Plan) to inspire sustainable business practices and the provision and production of environmentally beneficial goods and services:

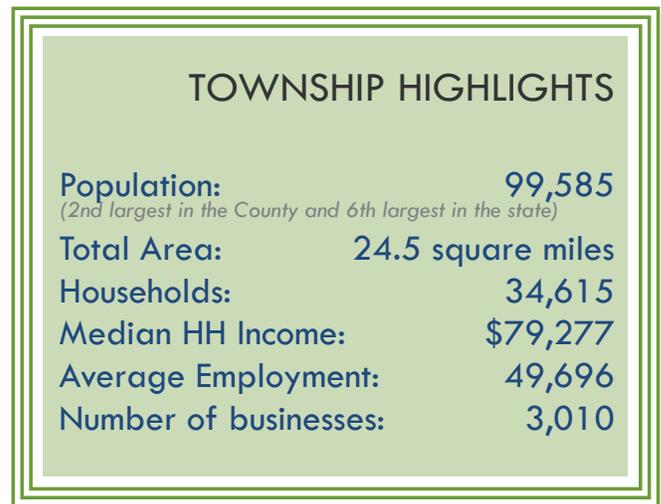


Figure 1 - Township Highlights

### BUSINESS OUTREACH

- Created the Penval Road/Green Technology Park Redevelopment Plan which envisions a Green Technology Incubator and Green manufacturing; this project can create hundreds of new green jobs
- Started a Farmers Market
- Reached out to new and existing businesses to educate them on how they can do business with the Municipal Government
- Supported local businesses through WEDCO, the Chamber of Commerce and the downtown SID's Distributed the Green Challenge through the schools and at community events
- Held an annual Earth Day Green Fair
- Created a Buy Local program and encourage residents to patronize local businesses
- Established a link to the Township website for local businesses
- Established a link to a directory of local businesses that supply green products and services
- Placed Buy Local banners on all retail streets in the Township
- Promoted the "Buy Local Challenge" – "Restaurant Week"
- Started a new program on Channel 35 that will spotlight successful sustainable businesses to share best practices and citizens who have made sustainable changes in their lifestyles
- Implemented a Green Business Recognition Program
- 10,000 Buy Local counter cards printed and distributed to retail outlets throughout the Township during August, 2009, following a Mayoral Press Conference
- Buy Local letters sent to 2,300 Woodbridge Township merchants in July, 2009, informing them of the campaign and suggesting ways in which they might participate
- Buy Local Campaign received 2 full pages in the Woodbridge Green News publication disseminated to every mailing address in the Township during July, 2009
- PSA announcements have been issued on the Township's TV-35/36 channels
- Printing costs subsidized by sponsors: Bayshore Recycling, HSBC Bank, READ Foundation

These initiatives aim promote the development of the green economy and create an environment in which there is a demand for green goods and services. Although these steps are vital and greatly contribute to the development of the green economy, further analysis is still needed to define the green economy in Wood-

bridge and to help shape its future development. The Township Profiles below investigate key characteristics of Woodbridge and address how green businesses are defined and identified.

## TOWNSHIP PROFILE

As shown in Figure 2, Woodbridge Township is located in the Northeast corner of Middlesex County, which is centrally located in New Jersey. According to the 2010 U.S. Census, Woodbridge Township is the 6th largest municipality in New Jersey and the 2nd largest in Middlesex County with a population of 99,585, an increase of 2.5% from 2000. In the same year, Woodbridge ranked 13th out of the 25 municipalities in the county in terms of median household income, which was \$79,277. Woodbridge also had the 2nd highest average employment (49,696) and total number of businesses (3,010) in the County in 2010, trailing only Edison Township (NJDOJ). This employment figure accounts for 13% of all employment within the county and 1.6% of total statewide employment, illustrating Woodbridge's economic strength. Although there was an increase in the total number of firms by 0.7% since 2005, there was a decline in the total number of jobs by approximately 4.4%. This drop can be partially attributed to the economic recession beginning in 2008. Despite the decrease in total employment, however, the average annual wage increased by \$7,069 or 13.7%.

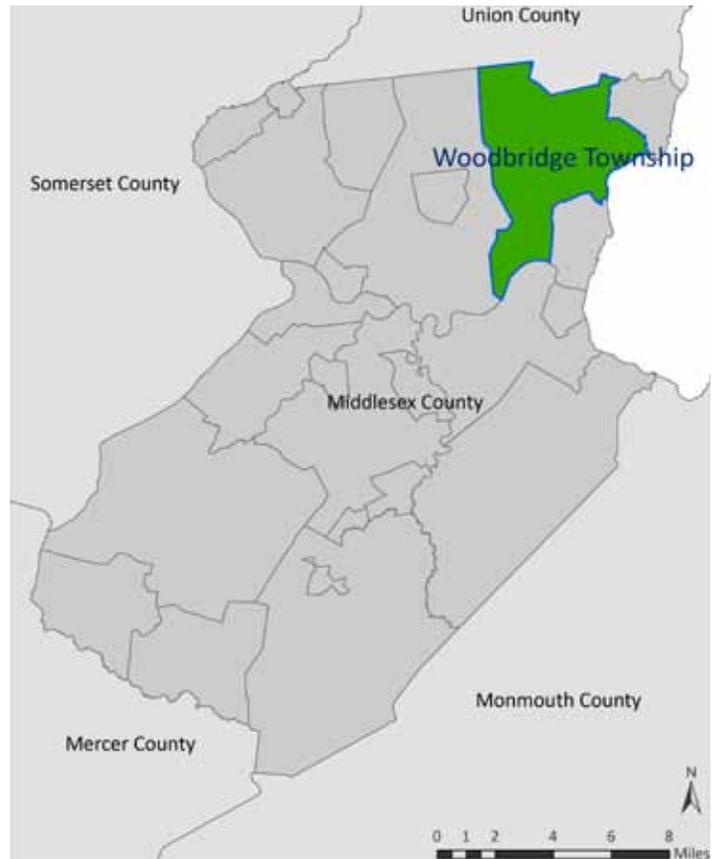


Figure 2 - Regional Context of Woodbridge Township

## THE GREENABLE PROFILE

In order to define the green economy in Woodbridge, methods and definitions employed by the BLS were first examined. To develop a definition that was both objective and measurable the BLS consulted with a variety of stakeholders, including Federal agencies and industry groups, and reviewed studies on the topic of the green economy. They were then able to use this definition to aid in data collection.

The final definition the BLS developed encompasses two approaches to measuring green jobs:

**(1) an output approach** identifies firms that produce green goods or services

**(2) a process approach** identifies firms that have sustainable or green production processes or business practices.

This two-pronged approach, however, is not entirely unique to BLS methodology. A similar concept to identify the green economy was envisioned by the Climate Prosperity Project, which states that a green economy is comprised of two separate components, a core economy and an adaptive economy. Essentially, the

core economy produces goods and services with environmental benefits while businesses within the adaptive economy adhere to sustainable operations practices, but do not necessarily produce a final product that benefits the environment. The output approach identifies with the core economy, while the process approach indicates an adaptive economy. This concept of a two-part green economy was applied when compiling the inventory of green businesses in Woodbridge Township. Businesses in the Township were first categorized as either output or process businesses.

In order to complete this inventory, every business within the Township was carefully evaluated to determine its potential to produce green outputs or to comply with sustainable processes. Multiple sources were referenced when compiling the initial list. Those that were most influential included the municipal business directory (Woodbridge Business Directory) and a database of employers covered by New Jersey's Unemployment Insurance Law provided by the Department of Labor and Workforce Development. Additionally, businesses who participated in Woodbridge's Green Business Recognition Program were added to the appropriate list. These resources were also crosschecked with web and news searches, as well as local job postings. Once verified, businesses were placed in either

the output or process section of the list. Also important to note is the additional collection of business that comply and put forth efforts in green building practices. Much of this information came from inventories compiled by the New Jersey's Clean Energy Program, as well as various planning board applications wherein businesses were asked to identify green building practices. Three separate lists, therefore, comprise the Woodbridge green business inventory.

In addition to collecting information to determine the extent of a business's involvement in the green economy, employment data for all qualified companies was also collected. Because there is no standardized database that compiles this information, employment statistics were pulled from various sources such as company websites and business profiles. Lack of availability of standardized employment information may be seen as a limitation of the data collected. Furthermore, even if a green business is identified, it is difficult to determine the portion of green jobs within that firm. Some jobs may be supportive to a business's sustainable objectives whereas others may be completely unrelated. When possible, the percentage of a firm's products or services that related to the green economy was used to estimate the number of green jobs within that firm. For other businesses, such as retail, employment statistics were excluded from our estimates due to complications estimating their percentage of green jobs. In terms of collecting total municipal employment and the total number of firms in the Township, it must also be noted that major discrepancies were found between various national and state data sources, such as the US Census and the NJ State Department of Labor. It can thus be said that defining general employment is a challenge, even before considering the green element.

The next step of the process was to understand what types of industries comprise the green economy. Information regarding each company, specifically those defined through the output process, was collected

from various sources and businesses were placed into five green industry categories. Placement primarily depended on the type of good or service produced. Based on a review of literature and various regional and national green economic profiles the following five industry categories were formed to accurately describe the composition in Woodbridge.

### Energy Efficiency and Renewable Energy

Businesses that utilize, provide or develop technologies, practices, products, or services that promote the efficient use of energy or the generation of energy from renewable energy sources such as wind, biomass, geothermal, solar, hydropower, and solid waste. This category also includes green building construction and consulting services.

### Recycling Technologies

Businesses that utilize, provide, or develop technologies, practices, products or services that reduce waste through reuse, repurposing, recycling, and composting.

### Environmental Services

Businesses that utilize, provide, or develop technologies, practices, products, or services that reduce or eliminate the release and existence of pollutants, hazardous waste, and toxic compounds in the environment.

### Environmental Compliance

Businesses that utilize, provide or develop technologies, practices, products, or services that enforce environmental regulations and provide education on environmental issues and training for green jobs.

### Retail Centers

Businesses that sell products or services that are environmentally friendly or provide and environmental benefit, but do not directly manufacture these products.

A total of 61 firms were identified using the output process and were organized into the five above categories. These firms are identified geographically in Figure 4. Based on the number of firms, it was found that 34% of these 61 businesses pertain to Energy Efficiency and Renewable Energy, 23% are Retail Centers, 21% identify with Recycling Technologies, 16% involve Environmental Services, and 5% identify with Environmental Compliance. This breakdown is further illustrated in Figure 4. Considering the share of the categories in the green economy based on total employment shows a similar perspective. Retail Centers, however, were excluded from the estimates due to complications estimating the number of green jobs within each business. Based on number of employees it was found that En-

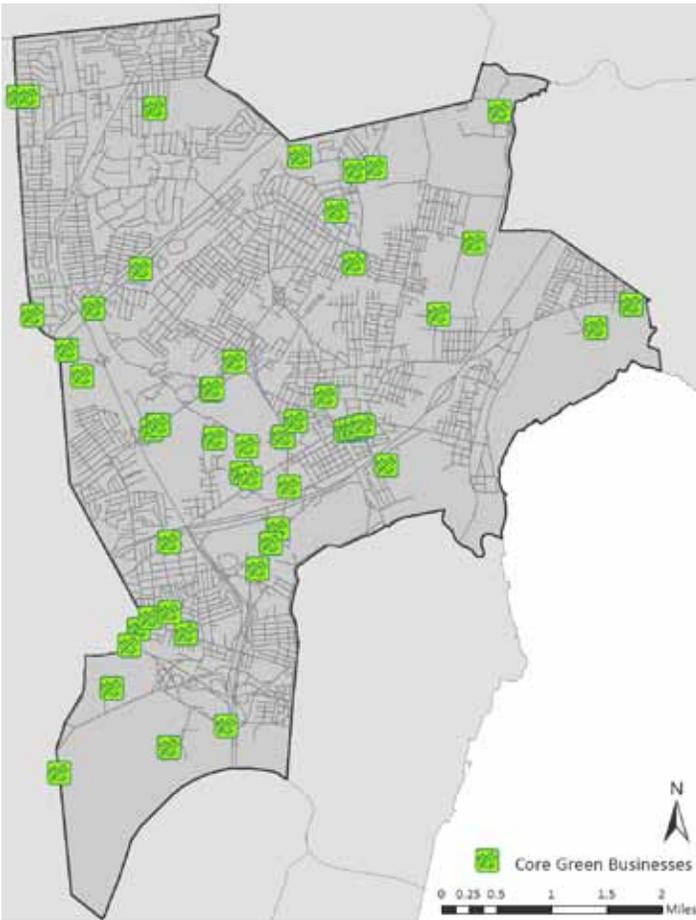


Figure 3 - Core Green Businesses Located in Woodbridge Township

ergy Efficiency and Renewable Energy comprised 31% of the green 'core' economy, Recycling Technology contributes 48%, Environmental Services also contributes 14%, Environmental Compliance contributes 7%. Retail Centers were excluded from these estimates due to complications estimating the number of green jobs within each business. To better understand the significance of this composition, it is important to first understand the dynamics of the greater municipal economy.

According to the New Jersey Department of Labor in 2010, there were 3,010 firms in Woodbridge Township, including both public and private sectors. In the same year, there were 49,969 jobs in the Township. These figures are significant when evaluated from a regional perspective as Woodbridge contains approximately 14% of all firms in Middlesex County and roughly 14% of total county wages. To further examine these firms, using employment data obtained from the NJ Department of Labor from 2010, the basic industries in Woodbridge Township were identified by 2-digit NAICS industry sectors. Basic industries are defined as those with a location quotient greater than 1. Woodbridge Township was found to have 9 basic industries, which are as follows: Utilities; Wholesale Trade; Retail Trade; Trans-

portation and Warehousing; Finance and Insurance; Real Estate, Rental and Leasing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; and Administration, Support, Waste Management, Remediation Services. The Professional, Scientific, and Technical Services and Transportation and Warehousing industries were the most prominent of the 9, with location quotients greater than 2. Further, it should be noted that between 2003 and 2010, the Transportation and Warehousing industry experienced a growth of roughly 21% (Urbanomics).

Of the 9 basic industries, 4 have significant potential in the green core economy. In 2009 the BLS identified 333 possible green industries by in depth 6-digit NAICS codes. These industries were aggregated by their 2-digit codes to illustrate the distribution of businesses within each sector. Included in these potential green industries, and those that are basic in Woodbridge, are Utilities, Wholesale Trade, Transportation and Warehousing, and Professional Services. This could indicate a potential opportunity for Woodbridge to influence the overall county or state green economy.

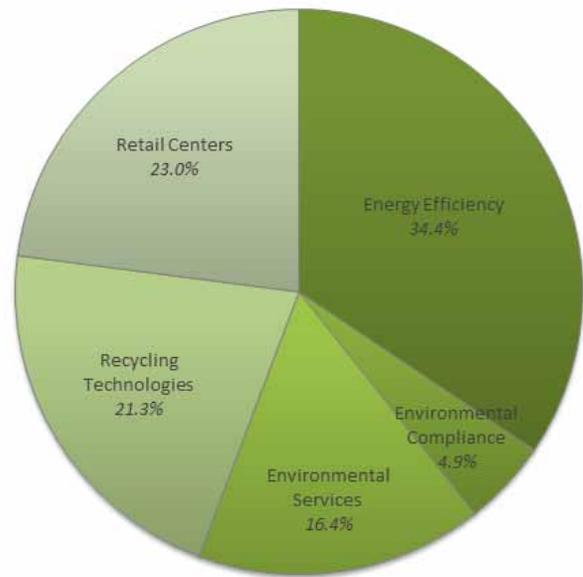


Figure 4 - Core Green Businesses by Green Industry Categories

Middlesex County employs approximately 10% of the state's workforce. Within Middlesex County, approximately 18,000 jobs and 2,000 firms are considered 'potentially green' (Urbanomics). These green firms are estimated to be as much as 10% of all businesses in the county while employing 5% of the workforce. Of significant importance is the prominence of firms categorized under Energy Efficiency, which is 55% of state-

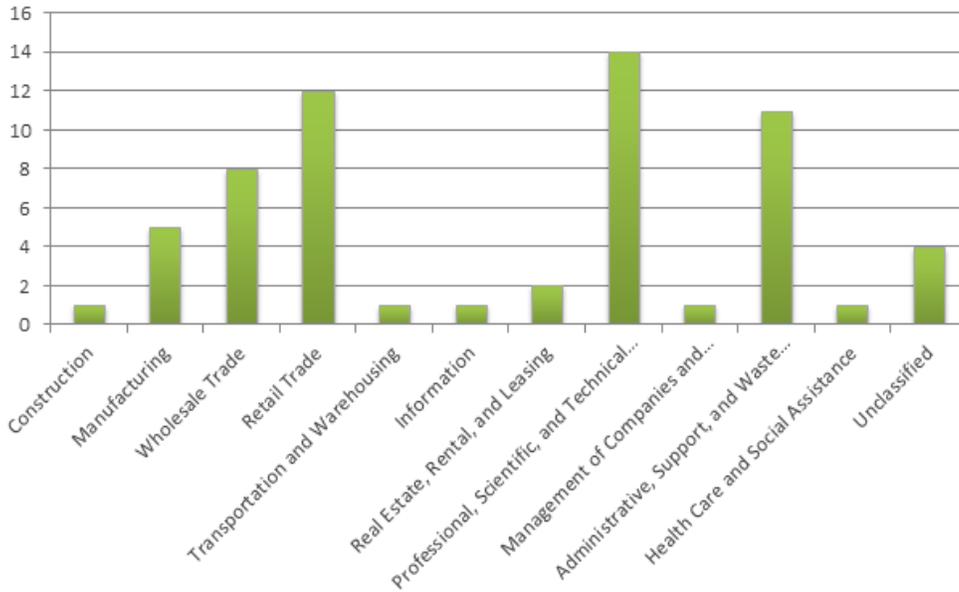


Figure 5 - Core Green Businesses by NAICS 2-Digit Industry Sectors

wide green employment (NJDOLE). Middlesex County represents 9% of this statewide activity. This figure is reflected in the data collected and summarized above. Of the 61 identified core green businesses in Woodbridge, 34% were categorized under Energy Efficiency and Renewable Energy. Thus, this is an area of potential strength for Woodbridge and Middlesex County, and is an area that affects operations in both the core and the adaptive green economy.

Through the data collection described above, it was found that 61 businesses comprise Woodbridge's core green economy and thus, approximately 1.6% of Woodbridge's total employment (excluding core employment from Retail Centers) and 2% of all businesses belong to the green core economy. With respect to NAICS sectors, Professional, Scientific, and Technical Services has the largest share of core green firms (23%) followed by Retail Trade (20%), Administrative, Support, and Waste Management (18%), and Wholesale Trade (13%). Manufacturing also had a notable share (8%) of the core green economy. Figure 5 shows the entire breakdown of core green firms by NAICS 2-digit sectors. Administrative, Support, and Waste Management employed roughly 44% of workers in the core green economy, which was the largest share of any sector in Woodbridge, followed by Professional, Scientific, and Technical Services, which contained approximately 22% of green jobs. In terms of Energy Efficiency, which as mentioned above is significant to both the region and the state, the majority of firms (38%) are also within the Professional, Scientific, and Technical Services sector. Further, the 'green portion' of several

sectors was substantial in relation to the entire sector. For instance, green businesses categorized in the Administrative, Support, and Waste Management industry comprised 8% of the entire sector while green Manufacturing composed 6% of its sector. Thus, the 4 above-mentioned industries in Woodbridge Township have illustrated considerable strength in the provision of green services and products.

Woodbridge's adaptive economy is comprised of 79 businesses, which is nearly 2.6% of all firms. There are more firms within the adaptive economy the core green

economy in Woodbridge, the adaptive firms tend to employ a larger number of workers. This is a potential opportunity for employees of these firms to understand and become familiar with green practices, which may influence their consumer behavior and household habits. Thus, these firms also provide indirect benefits to the green economy through the education of their workforce. Additionally, although counted separately from businesses with green practices in the adaptive economy, it was important to note the number of firms that promote sustainability through green building. It was found that there are 12 businesses that operate out of green buildings within the township, comprising 0.4% of all firms located within the municipality.

Woodbridge is not only a pioneer in promoting the green economy in New Jersey, but also a statewide leader. These employment statistics become even more significant when comparing them to the rest of the state. There were approximately 25,397 clean jobs in New Jersey in 2007, which was 0.5% of all jobs in the state (Pew Charitable Trusts). In 2012, it was found that 1.6% of all jobs are green within Woodbridge Township.

While the above section has provided a unique and in-depth look at the current green economy in Woodbridge, it describes little about its future and growth opportunities. The most essential part of an economic development plan is to determine where the economy can grow in the future. Opportunities for growth and potential constraints are explored in the next Section.

## SECTION IV

# STRENGTHS, CONSTRAINTS, AND OPPORTUNITIES

Sustained economic growth is the ultimate goal of any economic development plan. In the case of this plan, growth specifically in the green sector of the economy is the underlying objective. Finding a means to promote and sustain growth, however, cannot be considered without understanding the local area's strengths and constraints. Before exploring these, it is first important to understand the general state of the green economy nationally.

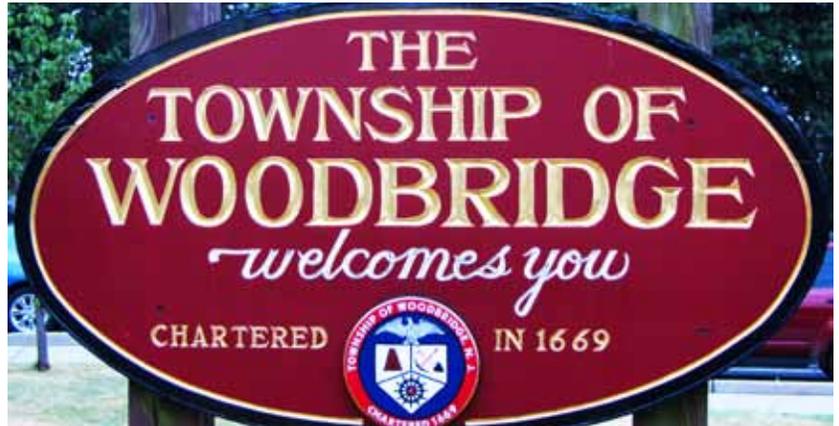


Photo 4.a

According to the Brookings Institute in the report entitled *Sizing the Clean Economy*, from the period between 2003 and 2010 the overall green economy grew at approximately 3.4% annually, less than that of the larger national economy. Growth specifically within the green technology sector, however, exploded with the continued growing acceptance of wind and solar energy. As reported by the Pew Charitable Trusts, jobs within the clean energy sector grew by 9.1%, compared to overall economic growth of 3.7% from 1998 to 2007. The clean energy sector is thus a leader in both the green and national economy, as jobs in the sector grew at more than twice the speed of jobs throughout the rest of the economy during that ten-year period. However, as the rest of the green economy lags behind the national, there are still opportunities for further enhancement.

These figures provide essential background insight, but as mentioned above, the goal of this section is to identify opportunities to effectively stimulate growth in the local economy of **Woodbridge Township**. These opportunities, however, often also include regional efforts. Based on the data collected while developing the green economic profile in the section above, local and regional strengths were identified. Much of the previous research referenced for this plan, however, pertains either strictly to the state or to the regional economy. Therefore, industry data from the larger geographic regions was compared with the identified green 'core' industries and other basic industries in Woodbridge to determine possible strengths and possible constraints. Local characteristics and demographic data were also considered.

## STRENGTHS

### New Jersey

In 2007, the Pew Charitable Trust released a detailed state-by-state report on the status of the green economy. This report ranked New Jersey 9th for total green jobs and 8th for total green businesses. Further, New Jersey was ranked 7th for its efforts (and jobs) in conservation and pollution mitigation. In addition to these rankings, this report identified strengths of innovation and investment in New Jersey. Specifically, New Jersey ranked 10th for the number of clean technology patents and 7th in venture capital investments for clean companies and clean energy, totaling in \$283 million between 2006 and 2008.

In December 2011, the New Jersey Department of Labor and Workforce Development identified key industry clusters within the state. These industry clusters were as follows: Bio/Pharmaceuticals and Life Sciences (3.9% of states employment); Transportation, Logistics, Distribution (11.3%); Finance (5.9%); Advanced Manufacturing (n/a); Healthcare (11.3%); Technology (10%); and Leisure, Hospitality, and Retail (24.5%). Of particular importance to Woodbridge are the Transportation and Technology industry clusters, which together contribute roughly 20% of the state's employment.

Transportation and Warehousing was identified in the previous section as a basic industry in the Township, meaning that the sector exports goods and services from the region while bringing in revenue from the outside. The industry contributed \$48.6 billion to

the state's Gross Domestic Product (GDP) in 2009. New Jersey can partially attribute its regional strength in the transportation sector to its strategic geographic location. Located between New York City and Philadelphia, 2 of the country's 5 largest cities, New Jersey is within a day's drive of 40% of the US population who purchase \$2 trillion in merchandise yearly. Additionally, the Port of New York and New Jersey is the busiest port on the east coast and the third busiest in the country. New Jersey is uniquely positioned to leverage this regional asset by seeking opportunities within it to expand the green economic efforts.

The technology industry is primarily comprised of four industry sectors: utilities (3.8%), manufacturing (27%), information (16.4%), and professional, scientific and technical services (51.7%). Thus, growth in the industry has the potential to benefit multiple sectors of the economy. Furthermore, residents will benefit from the cluster's high-paying jobs. In 2010, the annual average wage for the technology cluster was \$100,074, or 180 percent of the statewide average (\$55,742) for all industries. Employers in the industry paid over \$31 billion in wages, or almost 18 percent of the wages paid in all industries. The technology cluster is supported by the strength of New Jersey's highly educated work-force as over 63 percent of New Jersey citizens within this cluster hold a Bachelor's degree or higher.

## Middlesex County

Based on 2010 employment figures, Middlesex County has 5 basic industries according to 2-digit NAICS sectors: Wholesale Trade; Transportation and Warehousing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; and Administration, Support, Waste Management, and Remediation Services. All of these industries were also defined as basic sectors within the Woodbridge economy, and 3 of which are considered to have significant potential within the green economy of Woodbridge. Considering basic employment in these 5 sectors, it was determined that the basic employment multiplier for the county is 5. This suggests that 1 job generated in a basic sector will result in an additional 4 jobs in non-basic sectors.

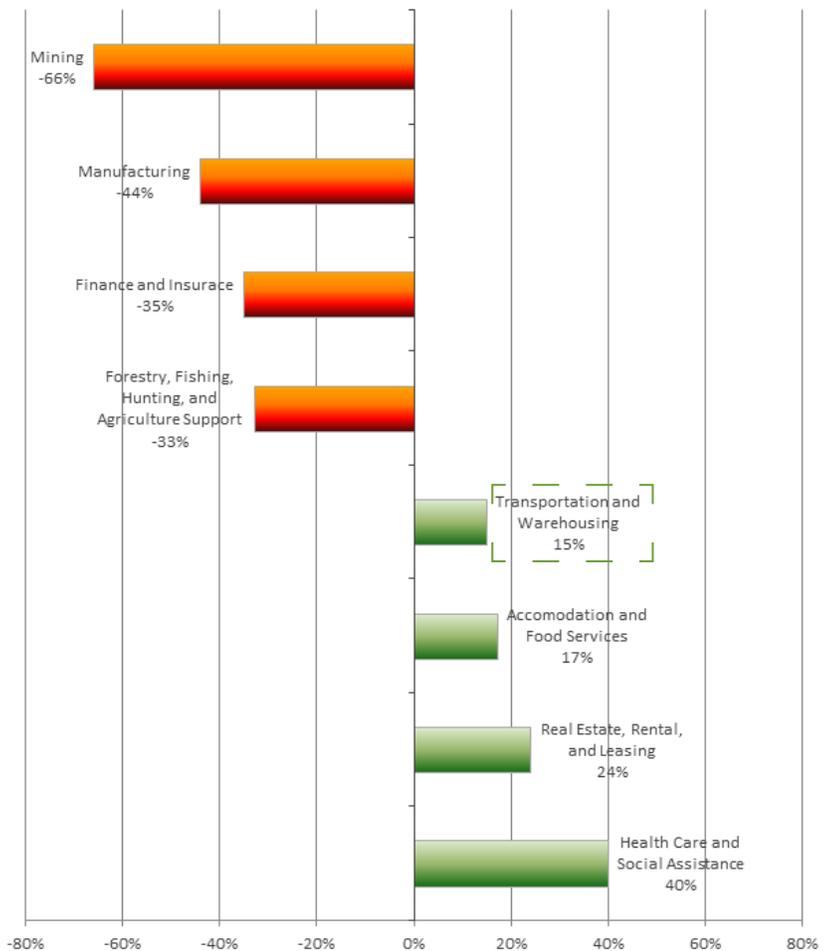


Figure 6 - Industrial Growth and Decline, Middlesex County, NJ (2000-2010)

Using data from 2000 and 2010, the growth and decline of industries within the county was examined, the results of which are depicted in Figure 6 above. Health Care and Social Assistance was the most successful industry, in terms of total growth, during this period as it grew by nearly 40%. The following industries also prospered during the first decade of the 21st century: Real Estate, Rental, and Leasing (24% growth); Accommodation and Food Services (17% growth); Transportation and Warehousing (15% growth); and Educational Services (15% growth). These growing industries represent potential strengths within the county. Of particular interest is the Transportation and Warehousing industry, which was defined as basic and identified to have great green potential in Woodbridge.

Further, using a shift share analysis, other regional strengths were identified. Industries that witnessed employment growth due to local factors within Middlesex County were Utilities; Wholesale Trade; Transportation and Warehousing; Real Estate, Rental, and Leasing; Health Care and Social Assistance; and Accommodation and Food Services. These industries were

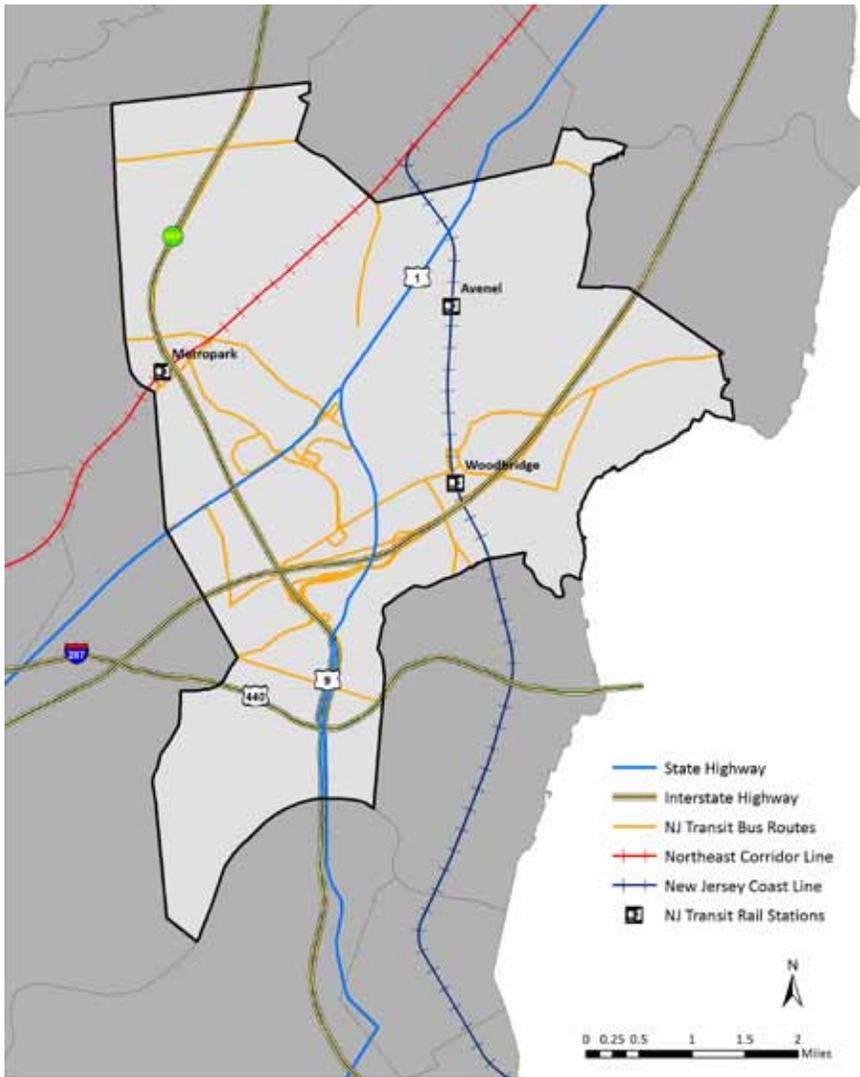


Figure 7 - Transportation Infrastructure in Woodbridge Township

key to the region’s overall economic competitiveness during this 10-year period. Although it is important to reflect on past experiences with realized data, it is also important to use this data to predict the future.

The New Jersey Department of Labor and Workforce Development has projected total industry employment for 2018 at the county level. Projected employment figures were compared with 2008 employment to determine what sectors are predicted to grow, remain stable, or decline. The industries with the greatest predicted growth in Middlesex County, at over 20%, were Mining and Health and Education Services. However, among those industries with approximately 10% predicted growth were Construction, Transportation and Warehousing, and Administration, Support and Waste Management. Closely following at 6% growth was Professional and Business Services. All 4 of these industries, with predicted 6 to 10% growth, have great potential in the green economy, and have been identified as key components of the Woodbridge economy.

## Woodbridge

As it pertains to Woodbridge, based on the data collected above and the municipality’s basic industries, it was determined that possible sectors of strength include the following: Wholesale Trade; Transportation and Warehousing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; and Administration, Support, and Waste Management. Not only do these industries have a sufficient percentage of green employment, they are also basic industries in both Woodbridge Township and Middlesex County. Thus, these industries are competitive on both a regional and local level and are sectors in which both the core green economies could continue to grow.

Also, unique to Woodbridge is the availability of public transportation and access to infrastructure, as depicted in Figure 7. NJ Transit’s Northeast Corridor line and the North Jersey Coast Line serve three different train stations within the township. Eight local NJ Transit bus routes serve the municipality and include services to Newark and Port Authority in Midtown Manhattan. Woodbridge also features sufficient infrastructure for trucks and automobiles. U.S. Route 1 intersects with U.S. Route 9 in the township and other major highways, such as the New Jersey Turnpike (Interstate 95), the Garden State Parkway, and Interstate 287, are accessible from within the municipality. Furthermore, several bike paths and greenways provide safe access for a non-motorized means of transportation. These crucial infrastructure elements support Woodbridge’s economy by providing a means for goods and services to be exchanged, allowing workers from throughout the state to access the municipality through varying modes of transportation, and creating jobs through the operation, maintenance, and improvement of these services.

In addition to the strength in several economic sectors and phenomenal access to infrastructure, Woodbridge is also very diverse in terms of its population and housing stock. According to the 2010 US Census, 50.7% of Woodbridge’s population is White alone while 22.3% is Asian alone, 15.6% is Hispanic or Latino, and 9.1%

is Black alone. Furthermore, the housing stock in the township is 69% owner-occupied and 31% renter-occupied. This varied composition of housing allows Woodbridge to house both long-term and short-term residents of varying income levels, the median of which was \$79,277 (household). As of 2010, nearly 28% of the Woodbridge households earned less than \$50,000 and 59% between \$50,000 and \$150,000. This demographic composition suggests that the township is home to people with different knowledge, skills, talents, and perspectives, each of which can be valued in some sector of the economy. This type of variability greatly caters to the composition of employment opportunities offered in the green economy. Specifically, there are opportunities for low, middle, and highly skilled workers at varying levels of income. Further, according to the report *Sizing the Clean Economy*, those green jobs offered to low and middle skilled workers generally pay better; median wages were 13% higher in the green economy.

## CHALLENGES

One of the greatest challenges Woodbridge Township will face while transforming and developing their green economy pertains to the behavior of its citizens. Businesses, as well as citizens, still have much to discover in terms of the “benefits of living, working, and thinking green” (Portland). When businesses and households realize true triple bottom line benefits of green policies and practices, demand for such products and service is sure to grow. This is not to definitively say Woodbridge is without ‘green thinkers.’ In fact, numerous residents and businesses have implemented such energy efficiency measures as solar panels. However, the total number of businesses with solar projects, and other green building practices, amounts to less than 1 percent. This challenge is also synonymous with a challenge of developing a robust base of demand for green products and services.

A further impediment to growth in Woodbridge, as is the case for local and regional entities throughout the US, is access to financial capital. Although, as mentioned above, New Jersey was one of the national leaders in venture capital investments in 2007, much has changed in the lending market since the credit crisis. There will be a clear challenge in securing funds for developing new technologies and supporting business expansion. But with this challenge comes possible opportunities for new financing mechanisms that can potentially create new markets, demand, and future

jobs. For example, many new financing mechanisms have been employed for such green practices as energy efficiency retrofits on existing buildings. Further, much legal work and economic analysis will be needed to support new financing activities.

Another potential challenge that Woodbridge faces is to reignite growth in the industries that were once regionally strong yet have experienced decline during the past decade. In Middlesex County, Manufacturing experienced a 44% decrease in the number of jobs while Finance and Insurance witnessed a loss of 35%. Although these two industries still employ a significant share of the population, the economy will suffer if both sectors experience similar declines in employment through the next decade. Determining strategies to promote these industries and relocating those who were once employed in these sectors will be challenges for both the Township and county. However, the growth of a green economy could significantly help alleviate these challenges.

## OPPORTUNITIES

As mentioned above, opportunities should build on existing strengths while also addressing and overcoming challenges. Opportunities to expand and sustain the green economy in Woodbridge are as follows:

### Promote Energy Efficiency

After the recent recession, there was marked shift in national trends towards greater energy efficiency efforts, thus spurring energy savings and job creation. Expansion into this trend was likely the result of a practical effort to reduce operational costs. As the appeal to reduce these costs increases, so will demand for energy efficient products and services. This growing demand can spur innovation and investment. Promoting energy efficiency has the potential to create jobs, reduce costs, and grow the economy; a seeming ‘win’ for numerous parties. Woodbridge Township should continue to promote the use of energy efficiency practices in households, businesses, and government institutions.

### Advance the Woodbridge Green Technology Park and Incubator

As reported by the Climate Prosperity Project in 2011, investment in the clean energy sector grew over 73% annually worldwide since 2006, totaling to \$243 billion.



Figure 8 - Pennal Redevelopment Site Plan (Heyer, Gruel, & Associates)

This figure is predicted to continually expand through 2018. Thus, pursuing a redevelopment strategy that would provide the Township with a Green Technology Park focused on renewable energy and energy efficiency would be a significant opportunity to promote economic growth. The growth in jobs would also benefit the Township, as the economic and financial analysis of the concept plan estimates that between 1,150 and 1,300 long-term jobs and 2,250 and 2,600 short-term construction jobs would be created from the construction of the park.

## Pursue a Green Main Street

Developing a Main Street with primarily green businesses would provide a supply of green products and services, as well as local products, and could be a key factor in building and sustaining demand. Demand could potentially be sparked by a progressive 'buy-local' campaign geared towards Main Street. The addition of new green businesses, Green Main Street signage, and increased pedestrian traffic from buy-local efforts will help to create a sense of place and green identity while fostering walkability and social activity.

## Actively Engage the Private Sector

Private companies, especially those already significantly influencing the economy, have tremendous potential in emerging green markets. Nationally, many larger companies are realizing these growth opportunities and are leading efforts and becoming key stakeholders in the green economy. Woodbridge is home to numerous large, private businesses including Hess, Bayshore, Cisco, etc. These businesses, and many others, are ideally positioned in industries with great potential for green innovation and investment. The potential for these organizations to expand the local, and regional, green economy is great and policies should cater and foster their efforts. In order for these private businesses to become leaders, the government must support development while creating attractive investment opportunities.

## Capitalize Regional Strengths

According to the Brookings Institute, green economic centers are generally located within larger metropolitan centers. These centers, or clusters, are essential to substantial growth and influence in the green economy. This logic is largely true for traditional economic centers as well. These types of business clusters are generally referred to as agglomeration economies, or economies of scale and scope. When firms cluster, they attract more suppliers and customers than they would alone. By forming economies of agglomeration, businesses benefit from the ability to share innovative ideas as well as decreased costs of production due to the proximity to suppliers and customers. For these reasons, it is essential for Woodbridge to engage the greater region, or even the state, in pursuing growth opportunities in the green economy.

The above section defines key opportunities for the Township to expand the green economy. These opportunities, however, are generalized ideas intended to help shape a more specific plan of action. The next section describes key steps that Woodbridge should consider to take advantage of opportunities that expand its green economy.



Photo 4.b

# SECTION V

## PLAN OF ACTION

In order to achieve the previously defined goals to advance the development of the green economy, five basic steps, or actions, should be taken. These following actions are intended to focus on both economic and environmental goals. Additionally, they address both the supply and demand for green goods and services, as inspired by the efforts of the Climate Prosperity Project. As clarified in their report Towards a New Prosperity, demand side efforts should focus on creating a market for green goods and services while the supply side encompasses attracting more green businesses and industries. To more specifically address how these actions could be carried out, possible implementation strategies are also explored below.

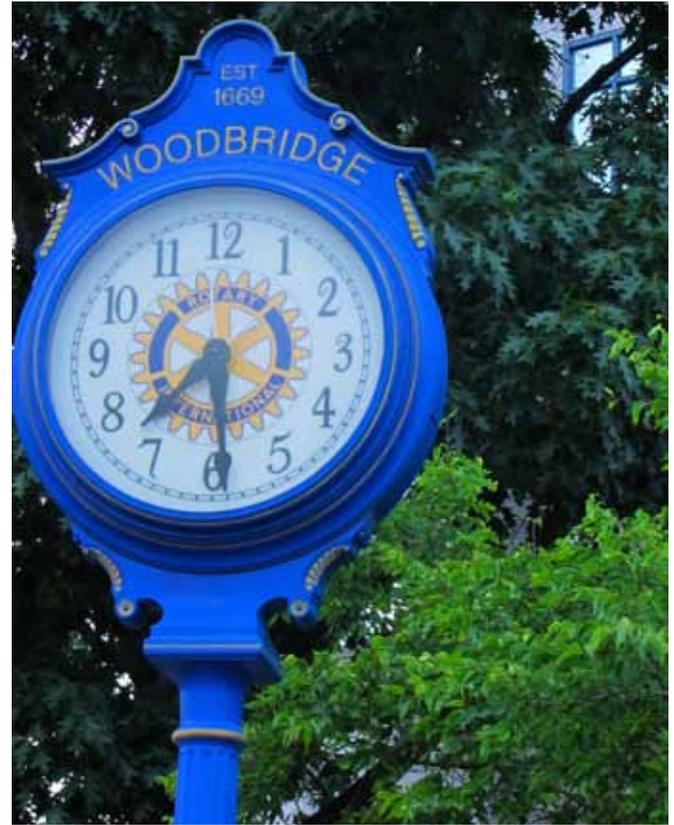


Photo 5.a

### ACTIONS

## 1. Promote Widespread Education (Demand)

The biggest challenge to fostering a green economy is finding a way for residents and workers to realize the advantages of sustainable lifestyles. To successfully carry out this action, Woodbridge must convey the economic, environmental, and social benefits in an engaging manner. The demand for green goods and services should increase if these advantages are effectively communicated. A challenge here, however, exists in bridging the gap between the short-term and long-term benefits of sustainable actions. Some of these benefits may occur within just a few years, while others could take decades to be realized, although these long-term benefits may have even more significant outcomes. Communicating the importance of actions with long-term benefits could be a key aspect of public education. Several ways to promote education include:

- Create educational sustainability displays in municipal buildings
- Create a database of successful projects and sustainable initiatives that provide and set examples for residents and business, an example of such a project could be an energy-efficiency retrofit on a residential home that illustrates both long-term and short-term benefits
- Offer green building workshops to local contractors and encourage energy and water audits for homeowners
- Create and distribute a guide to energy efficient retrofits to both residents and businesses
- Educate the public about energy conservation, renewable energy, water conservation, and recycling through informational brochures distributed with utility bills and at the town recycling center
- Implement programs at public schools that educate children and teenagers about the benefits of sustainable practices and products
- Create neighborhood sustainability groups and promote green neighborhood competitions
- Create a community garden that provides education about green landscaping practices
- Organize community bike rides/walks to various destinations within the township to promote alternate modes of transportation

## 2. Expand Cleaner Transportation and Green Infrastructure (Demand)

Alternative modes of transportation are not only cheaper than the personal automobile, but their increased use is also an effective means to conserve natural resources while simultaneously reducing green house gas emissions. Additionally, continued use and expansion of these modes can help protect against volatile fuels prices and future price increases of fossil fuel sources. The expansion of existing infrastructure can also incorporate green aspects that mitigate the effects of stormwater, provide cooling benefits, create habitat for plant and animal species, and make the transportation network more attractive. Potential steps to expand cleaner transportation alternatives are:

- Implement a Complete Streets Policy to expand the pedestrian and bicycle network to make all parts of the Township safe to access through all modes of transportation
- Install more bike racks downtown, at train stations, and other public meeting places
- Work with NJ Transit to expand and improve the reliability of the Metroloop bus services
- Use LED bulbs in street lights and traffic signals to reduce energy costs
- Implement permeable green surfaces in right of ways, medians, and other public places

## 3. Rethink and Engage Business (Supply)

Attracting new green businesses is an important component of expanding the green economy and can create a beneficial cluster of innovative firms. However, businesses currently located within the Township should equally be encouraged to expand their research and development efforts to foster green innovation. Expanded local businesses are apt for creating a base to which other businesses will be attracted. Both newly located businesses and current existing businesses contribute to developing a competitive industrial cluster and enhancing the green value chain. These clusters benefit from physical proximity through “input sharing, laboring pooling, labor matching, and knowledge spillovers,” leading to increased productivity (O’Sullivan). Also important to consider is encouraging existing businesses to rethink their business policies and practices to support environmental objectives. Businesses should be encouraged to implement sustainable practices as well as give back to their communities to improve the social and physical environment. Ideally, shared value should be fostered between the businesses and the Township which would further social and economic progress. Actions to expand the supply of green businesses and to rethink practices include:

- Identify financial mechanisms/institutions that provide incentives for businesses to expand R&D efforts and implement sustainable business practices
- Connect local business with possible venture capital sources to facilitate expansion
- Grow the green value chain through facilitating the connection of existing buyers with suppliers and similar companies in the industry
- Foster ‘Shared Value’ between businesses and the Township to connect social and economic progress
- Use the branding of Greenable Woodbridge to market and emphasize the benefits of locating in the Township to businesses
- Implement/expand the Buy Local program for downtown businesses
- Hold regular green competitions to encourage businesses to go green

## 4. Bolster the Green Workforce (Supply)

As new green companies locate to Woodbridge and existing businesses rethink their practices, there will be a growth in jobs throughout the Township. Having a workforce with the essential skills and knowledge to meet the needs of employers to fill these positions is vital. Not only is training a crucial component of this action, but it is also necessary to know the needs of the workforce and of employers. As green jobs have varying salaries and required a broad spectrum of skills, it will be essential to know these needs to better match jobs and residents. Ways to prepare the workforce for the green economy are:

- Forecast future workforce needs
- Encourage the creation of a green collar workforce training center (USGBC)
- Create green job training programs for residents of the Township who could then provide energy efficiency audits and retrofits to other residents
- Develop relationships with local schools to create green volunteer programs for students who are interested in science and the outdoors
- Create Workforce Investment Boards to match green employers with education and job training providers and to better match jobs to residents
- Create a 'Green Talent Strategy' to create an essential link between employers and the workforce
- Ensure that firms provide a living wage for workers in green jobs, as the quality of each job is as important as the total quantity

## 5. Provide Support through Policy (Supply & Demand)

According to the Climate Prosperity Project, public policy can often determine if and how a place can stimulate innovation and support the development of green markets. If a municipality is able to provide incentives, such as streamlining permitting processes or lowering other cost barriers, they may have a chance to get ahead of the competition in terms of growing their green economy. Additionally, public policy is a way in which a municipality can pioneer new industry standards and regulations. Thus, public policy can be one of the most effective tools to build a market for green goods and services as well as expand the base of green businesses. Some ways in which public policy can do this include:

- Strategically invest in new green technologies to spur demand and continued innovation
- Streamline the permitting process for projects with an environmental or economic benefit to help decrease project costs
- Create Public-Private Partnerships to help achieve municipal goals relative to the green economy
- Encourage new businesses to locate within the Township through tax incentives/abatements, special subsidies, or expedited permitting processes
- Create Greenable Woodbridge Prosperity Council consisting of stakeholders who will be at the forefront of green initiatives



# SECTION VI

## MEASURING PERFORMANCE

The previous section outlined specific actions key for Woodbridge to reach its defined goals and objectives within the green economy. What remains, however, is developing a structured framework for monitoring the progress and success of these actions in meeting those goals. To measure and evaluate the process, a clear set of indicators was developed. These indicators also serve to inform public policy and initiatives by illustrating the relative success or failure of programs and policy decisions.

Measuring success encompasses far more than measuring the creation of 'green' jobs, especially with respect to the monitoring of a green economy. Woodbridge must consider economic targets, as well as environmental indicators to truly communicate success. A wide range of metrics, considering multiple aspects of sustainability, must be utilized to address the 'green' within the Woodbridge economy.

A list of indicators was derived from performance measures defined in Woodbridge's Sustainable Community and Climate Action Plan as well as from the Climate Prosperity Project's Towards a New Prosperity to evaluate progress towards achieving a green economy. Each indicator was then paired with one of the 5 above-mentioned goals (Section II) that it would monitor. This method enables the measurement and evaluation of progress relative to the overarching goals of this plan. Performance measure data should be collected annually and compared with that compiled from previous years, as well as a baseline year.

### GOAL 1

#### Promote Economic Growth

- Growth in the total number of core green businesses
- Growth in the total number of adaptive green businesses
- Growth of all green businesses relative to total economy

### GOAL 2

#### Foster and Sustain Environmental, Economic, and Social Vitality

- Number of residences taking advantage of green remodeling incentive programs
- Number of residents that participate in green competitions/challenges
- Number of information sessions on sustainability
- Number of annual visits to Greenable Woodbridge website
- Number of correspondences regarding Greenable Woodbridge (via the email address)
- Number of training workshops about sustainable business practices and local purchasing
- Annual increase in the number of businesses enrolled in the Buy Local Program
- Annual increase in the number of business enrolled in the Green Business Recognition program
- Business sales increases attributed to the Buy Local and Green Business Recognition program
- Percent of the population commuting to work by modes other than a personal automobile (carpool, train, bus, walk, bike)
- Annual decrease in Vehicle Miles Traveled (VMT) per capita
- Annual boarding on bus and rail routes
- Annual registrations of alternative fuel & hybrid vehicles

### GOAL 3

#### Create Jobs and Job Training Programs

- Number of green job training programs
- Job growth in core green businesses
- Job growth in adaptive green businesses
- Job retention in green businesses

## GOAL 4

### Encourage an Efficient Use of Energy and Resources

- Alternative energy production
- Alternative energy use relative to total energy use
- Annual energy consumption town-wide relative to economic growth over the course of time
- Annual municipal building energy consumption
- Number of LEED certified buildings in municipality
- Number of brownfield lots remediated annually
- Solid Waste recycled annually
- Percent of municipal materials budget spent on goods from the municipal environmentally preferable purchasing list (EPP)

## GOAL 5

### Cultivate Innovative Ideas and Solutions

- Number of Greenable Woodbridge Prosperity Council meetings
- Patent registrations in clean technology
- Venture capital investment in clean technology

Woodbridge Township can only fully understand the state of the 'green' economy by evaluating the sustainable conversion of existing businesses, the creation of new and innovative 'green' technologies, and the increase in businesses dedicated solely to the provision of 'green' products. Additionally, any beneficial lifestyle changes of Township residents as well as increased interest in Greenable Woodbridge programs are also signs of advancing towards success. It is with a combination of these listed metrics that the township might accurately note progress in attaining the goals of the prosperity plan.

## SECTION VII

# LOOKING TOWARDS THE REGION

Although this plan defines goals and explores opportunities and actions for economic growth within Woodbridge Township, economic development efforts are generally best achieved from a regional perspective. Thus, it is important to emphasize the significance of regional support and the exploration of opportunities beyond the boundaries of Woodbridge. As explained in Section IV, core economic centers are inherently regional. Their boundaries are not geographic or political borders, but rather they are fashioned by economic activity. These metropolitan areas are the heart of the national economy, as they generate more than 80% of the nation's employment (Global Insight). Woodbridge Township and Middlesex County are located in the New York-Northern New Jersey-Long Island Metropolitan Statistical Area (MSA), which has the largest population of any MSA and featured the highest GDP in the U.S. in 2010 (BEA). Thus, Woodbridge's economy reaches far beyond the municipal, county, and even state boundaries.

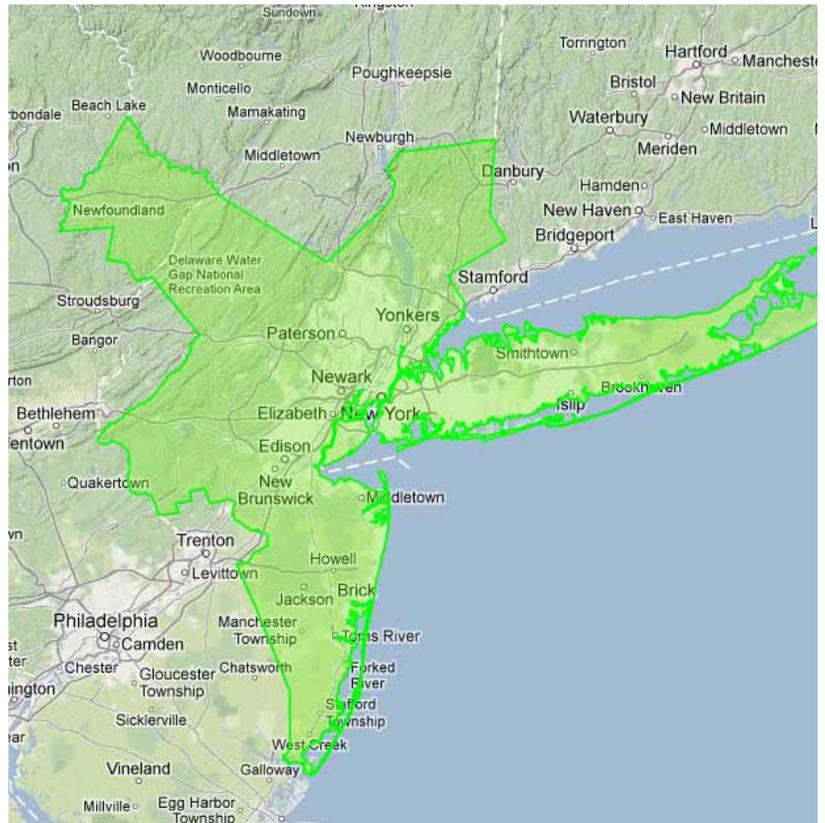


Figure 9 - New York - Northern New Jersey - Long Island MSA

The next step, when examining opportunities at the regional scale, is to identify key organizations and regional stakeholders. Government officials throughout the region should meet to learn about programs and policies that have successfully steered neighboring municipalities, and even other regions, towards increased economic, environmental, and social benefits. Similarly, businesses within municipal borders should be part of this communal effort and adaptive green businesses should be encouraged to expand their practices to all locations throughout the state. Having multiple governments and businesses working together with a common goal is essential to further develop the green economy.

Although a green economy will yield the most environmental, economic, and social benefits at the regional and state scale, efforts made at the local level are also significant. Municipal governments have the potential to be an effective means to encourage people and businesses to change their daily habits. Likewise, citizens are more likely to be active in

government at local level and municipalities have the ability to cater their programs and policies towards their population while receiving feedback directly from the people they affect. The close connection between municipal governments, citizens, and businesses will foster the local knowledge base needed to support regional initiatives. This process will be enhanced by having a plan, as well as various goals, objectives, and actions, to help Woodbridge to use sustainability as a means to generate new market opportunities and spark the demand for 'green' goods and service. The green economy must first be a local economy.

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## **FIGURES:**

### Figure 1 – Township Highlights:

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### Figure 2 – Regional Context of Woodbridge Township

Dataset: Counties of New Jersey, 2008

Credits: Delaware Geological Survey, New Jersey Department of Environmental Protection (NJDEP), Bureau of Geographic Information Systems, New Jersey Office of Information Technology, Office of Geographic Information Systems (NJOIT – OGIS)

Note: “This (map/publication/report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.”

### Figure 3 – Core Green Businesses Located in Woodbridge Township

Dataset: Municipalities of New Jersey, 2008

Credits: Delaware Geological Survey, New Jersey Department of Environmental Protection (NJDEP), Bureau of Geographic Information Systems, New Jersey Office of Information Technology, Office of Geographic Information Systems (NJOIT – OGIS)

Dataset: 2000 TIGER Roads – New Jersey Counties

Credits: U.S. Census Bureau, New Jersey Department of Environmental Protection (NJDEP)

Note: “This (map/publication/report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.”

### Figure 4 – Core Green Businesses by Green Industry Categories

New Jersey Department of Labor and Workforce Development. (2010). Employers Covered by

New Jersey’s Unemployment Insurance Law. Retrieved from <http://lwd.state.nj.us/lpaapp/DataTools.html?newPage=STFIRMS>

Woodbridge Township Business Directory. Retrieved from <http://www.twp.woodbridge.nj.us/LinkClick.aspx?fileticket=Fyl7tM2Ro40%3D&tabid=762>

### Figure 5 – Core Green Businesses by NAICS 2-Digit Industry Sectors

New Jersey Department of Labor and Workforce Development. (2010). Employers Covered by

New Jersey’s Unemployment Insurance Law. Retrieved from <http://lwd.state.nj.us/lpaapp/DataTools.html?newPage=STFIRMS>

Woodbridge Township Business Directory. Retrieved from <http://www.twp.woodbridge.nj.us/LinkClick.aspx?fileticket=Fyl7tM2Ro40%3D&tabid=762>

### Figure 6 – Industrial Growth and Decline, Middlesex County, NJ (2000 – 2010)

U.S. Census Bureau. (2010). County Business Patterns: Middlesex County, NJ. Retrieved from <http://www.census.gov/econ/cbp/>

Figure 7 – Transportation Infrastructure in Woodbridge Township

Dataset: Municipalities of New Jersey, 2008

Credits: Delaware Geological Survey, New Jersey Department of Environmental Protection (NJDEP), Bureau of Geographic Information Systems, New Jersey Office of Information Technology, Office of Geographic Information Systems (NJOIT – OGIS)

Dataset: NJ Transit Rail Lines

Credits: NJ Transit – GIS Section

Dataset: NJ Transit Bus Routes

Credits: NJ Transit – GIS Section

Dataset: National Highway Planning Network – New Jersey

Credits: National Highway Planning Network (NHPN)

Note: “This (map/publication/report) was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.”

Figure 8 – Penval Redevelopment Site Plan

Heyer, Gruel, and Associates and Community Planning Consultants. (2008). Penval Road Redevelopment Plan. New Brunswick, NJ.

Figure 9 – New York - Northern New Jersey - Long Island MSA

City Population. (2012). New York - Northern New Jersey - Long Island (Metropolitan Statistical Area, NY-NJ-PA, USA) - Population, Map and Location. Retrieved at <http://www.citypopulation.de/php/usa-metro.php?cid=35620>

**PHOTOS**

Photo 2.a

Energy.gov. (2010). New Jersey Township Champions Sustainability. Retrieved at <http://energy.gov/articles/new-jersey-township-champions-sustainability>

Photo 2.b

Credits: Jessica Hubbard

Photo 4.a

Credits: Jessica Hubbard

Photo 4.b

Woodbridge Township. (2008). Green Business Challenge Information. Retrieved at <http://www.twp.woodbridge.nj.us/Green/tabid/751/Default.aspx>

Photo 5.a

Credits: Jessica Hubbard

Photo 5.b

Steven’s Creative Consulting. (2009). Let’s Get Growing. Retrieved at <http://www.stevenscreativeconsulting.com/Resources.html>

Photo 6.a

Utah State University. (2012). Research Matters 2009: Growing Research. Retrieved at <http://research.usu.edu/research-matters2009/htm/growing-research/>

# APPENDIX B

## TABLES

1	Cranbury Township	\$131,667
2	South Brunswick Township	\$100,950
3	East Brunswick Township	\$100,655
4	Metuchen Borough	\$94,410
5	South Plainfield Borough	\$92,263
6	Milltown Borough	\$89,457
7	Piscataway Township	\$88,428
8	Plainsboro Township	\$86,986
9	Edison Township	\$86,725
10	Old Bridge Township	\$82,640
11	Helmetta Borough	\$80,690
12	Middlesex Borough	\$80,338
13	Woodbridge Township	\$79,277
14	Highland Park Borough	\$78,821
15	North Brunswick Township	\$78,469
16	Dunellen Borough	\$74,375
17	Monroe Township	\$74,202
18	Sayreville Borough	\$71,808
19	Spotswood Borough	\$70,360
20	South River Borough	\$62,284
21	South Amboy City	\$61,566
22	Carteret Borough	\$58,614
23	Jamesburg Borough	\$52,169
24	Perth Amboy City	\$47,696
25	New Brunswick City	\$44,543

Table 2: Woodbridge Township Employment Statistics										
2010	Average	Employment				Total	Average Annual		Average Weekly	
	Units	March	June	September	December	Wages	Employment	Wage	Wage	
TOTAL - FEDERAL GOVT	14	263	264	268	232	\$21,906,963	263	\$83,376	\$1,603	
TOTAL - STATE GOVT	16	1,979	1,974	1,996	1,906	\$140,454,486	1,960	\$71,676	\$1,378	
TOTAL - LOCAL GOVT	15	3,297	3,425	2,861	3,061	\$181,352,267	2,971	\$61,051	\$1,174	
TOTAL - PRIVATE SECTOR	2,966	43,470	44,763	44,627	46,569		44,503	\$57,778	\$1,111	
TOTAL COVERED UI & UCFE	3,010	49,009	50,426	49,752	51,768		49,696	\$58,657	\$1,128	
<b>2005</b>										
TOTAL - FEDERAL GOVT	14	268	269	265	255	\$16,998,316	264	\$64,367	\$1,238	
TOTAL - STATE GOVT	15	2,492	2,483	2,502	2,465	\$141,116,401	2,491	\$56,660	\$1,090	
TOTAL - LOCAL GOVT	14	3,194	3,339	2,951	3,319	\$156,041,566	2,964	\$52,643	\$1,012	
TOTAL - PRIVATE SECTOR	2,945	44,988	46,434	46,733	47,886		46,284	\$51,175	\$984	
TOTAL - ALL COVERED UI & UCFE	2,987	50,942	52,525	52,451	53,925		52,003	\$51,588	\$992	
<b>Employment Growth:</b>	-4.44%									
<b>Increase in Average Annual Wage:</b>	\$7,069									
<b>Percent Increase in Average Wage:</b>	13.70%									
<b>Increase in # of Business Units:</b>	23 (+0.77%)									

**Table 3: Industrial Employment in Woodbridge and U.S. by Sector (2009)**

NAICS	Industry Code Description	Woodbridge	U.S.	Location Quotient	Basic Sectors
11----	Forestry, Fishing, Hunting, and Agriculture Support	N/A	153,829	0.00	Non-Basic
21----	Mining	N/A	604,653	0.00	Non-Basic
22----	Utilities	294	641,552	1.18	Basic
23----	Construction	859	5,967,128	0.37	Non-Basic
31----	Manufacturing	1,938	11,632,956	0.43	Non-Basic
42----	Wholesale Trade	4,348	5,827,769	1.93	Basic
44----	Retail Trade	8,313	14,802,767	1.45	Basic
48----	Transportation and Warehousing	4,284	4,159,604	2.66	Basic
51----	Information	583	3,288,109	0.46	Non-Basic
52----	Finance and Insurance	3,355	6,171,240	1.40	Basic
53----	Real Estate, Rental, and Leasing	1,483	2,036,590	1.88	Basic
54----	Professional, Scientific, and Technical Services	6,412	7,839,965	2.11	Basic
55----	Management of Companies and Enterprises	1,549	2,853,450	1.40	Basic
56----	Administrative, Support, Waste Management, and Remediation Services	3,664	9,060,987	1.04	Basic
61----	Educational Services	235	3,200,553	0.19	Non-Basic
62----	Health Care and Social Assistance	2,062	17,531,142	0.30	Non-Basic
71----	Arts, Entertainment, and Recreation	504	2,010,339	0.65	Non-Basic
72----	Accommodation and Food Services	3,266	11,443,293	0.74	Non-Basic
81----	Other Services (except Public Administration)	1,213	5,264,429	0.59	Non-Basic
95----	Auxiliaries (exc corporate, subsidiary & regional mgt)	N/A	N/A	NA	NA
99----	Unclassified	N/A	17,500	NA	NA
	<b>Total (Excluding 95 and 99)</b>	<b>44,363</b>	<b>114,490,355</b>		

**Table 4: Middlesex County Shift Share Analysis**

NAICS	Industry Code Description	2000	2010	Employment Growth	National Share	Industry Mix	Regional Shift
11----	Forestry, Fishing, Hunting, and Agriculture Support	60	40	-32.77%	59	-8.40	-10.58
21----	Mining	175	60	-65.90%	173	49.50	-162.99
22----	Utilities	1,695	1,750	3.22%	1,680	-29.83	98.92
23----	Construction	14,747	11,817	-19.87%	14,620	-2528.46	-274.59
31----	Manufacturing	50,891	28,410	-44.17%	50,453	-16895.72	-5147.17
42----	Wholesale Trade	41,776	43,501	4.13%	41,416	-3150.31	5234.95
44----	Retail Trade	40,530	37,322	-7.92%	40,181	-590.96	-2268.13
48----	Transportation and Warehousing	20,395	23,362	14.55%	20,219	1370.14	1772.43
51----	Information	13,009	9,169	-29.52%	12,897	-1435.17	-2292.84
52----	Finance and Insurance	21,212	13,773	-35.07%	21,029	59.07	-7315.46
53----	Real Estate, Rental, and Leasing	4,353	5,406	24.19%	4,316	47.29	1043.19
54----	Professional, Scientific, and Technical Services	40,964	45,146	10.21%	40,611	6399.70	-1865.05
55----	Management of Companies and Enterprises	19,198	16,289	-15.15%	19,033	-105.77	-2637.97
56----	Administrative, Support, Waste Management, and Remediation Services	43,214	37,384	-13.49%	42,842	-388.57	-5069.41
61----	Educational Services	3,811	4,395	15.32%	3,778	1148.28	-531.47
62----	Health Care and Social Assistance	31,316	43,868	40.08%	31,046	8436.06	4385.53
71----	Arts, Entertainment, and Recreation	3,640	3,608	-0.88%	3,609	579.16	-579.83
72----	Accommodation and Food Services	18,285	21,353	16.78%	18,128	2805.89	419.52
81----	Other Services (except Public Administration)	12,908	13,139	1.79%	12,797	-105.79	447.92
95----	Auxiliaries (exc corporate, subsidiary & regional mgt)	7,516	NA	NA			
99----	Unclassified	334	10	-97.16%			
	Total (Excluding 95 and 99)	382,178	359,791				

**Table 5: Core Green Businesses in Woodbridge Township**

Legal Name	NAICS 2-Digit	2-Digit Industry	Category	Employees
SOLAR-MITE ELECTRICAL CONTRACTORS,	23	Construction	Energy Efficiency and Renewable Energy	14.5
FABRAL, INC.	31	Manufacturing	Energy Efficiency and Renewable Energy	51.0
GENTEK BUILDING PRODUCTS, INC.	31	Manufacturing	Energy Efficiency and Renewable Energy	14.5
ZODIAC SYSTEMS, INC.	31	Manufacturing	Energy Efficiency and Renewable Energy	2.0
MULTI-PLASTICS EXTRUSIONS INC	31	Manufacturing	Recycling Technologies	74.5
SORT AND EXPORT COMPANY, LTD	31	Manufacturing	Retail Center	NA
SIEMENS BUILDING TECHNOLOGIES, INC.	42	Wholesale Trade	Energy Efficiency and Renewable Energy	15.0
CLEAN AIR COMPANY, INC.	42	Wholesale Trade	Energy Efficiency and Renewable Energy	7.0
PRAXAIR INCORPORATED	42	Wholesale Trade	Energy Efficiency and Renewable Energy	13.0
AMCOR PACKAGING CO., INC.	42	Wholesale Trade	Energy Efficiency and Renewable Energy	2.5
BAYSHORE RECYCLING CORP.	42	Wholesale Trade	Recycling Technologies	34.5
COASTAL METAL RECYCLING CORP	42	Wholesale Trade	Recycling Technologies	4.0
DEPENDABLE IRON & METAL CO., INC.	42	Wholesale Trade	Recycling Technologies	7.0
HOMESTEAD IRON & METAL RECYCLERS, L	42	Wholesale Trade	Recycling Technologies	6.0
WEGMANS FOOD MARKETS, INC.	44	Retail Trade	Retail Center	NA
EXTREMEZ BIKE SHOP	45	Retail Trade	Retail Center	NA
STANDARD SKATE SHOP	45	Retail Trade	Retail Center	NA
CSI TECHNOLOGY GROUP (COMPUTER SQUARE)	45	Retail Trade	Retail Center	NA
THE CARPET MAVEN	45	Retail Trade	Retail Center	NA
LUCKY 7 DESIGN	45	Retail Trade	Retail Center	NA
WAL-MART ASSOCIATES INC	45	Retail Trade	Retail Center	NA
BED BATH & BEYOND INC	45	Retail Trade	Retail Center	NA
HOME DEPOT USA	45	Retail Trade	Retail Center	NA
PAYLESS SHOESOURCE INC	45	Retail Trade	Retail Center	NA
BED BATH & BEYOND INC	45	Retail Trade	Retail Center	NA
STAPLES INCORPORATED	45	Retail Trade	Retail Center	NA

LLOYD'S REGISTER NORTH AMERICA, INC	48	Transportation & Warehousing	Transportation and Infrastructure	7.0
PROGINET CORPORATION	51	Information and Cultural Industries	Energy Efficiency and Renewable Energy	NA
CB RICHARD ELLIS INC	53	Real Estate, Rental, and Leasing	Energy Efficiency and Renewable Energy	7.0
ENVIRONMENTAL RENTAL SERVICES, INC.	53	Real Estate, Rental, and Leasing	Environmental Services	2.5
J R S ARCHITECT,P.C.	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	14.5
WARE MALCOMB (INC.)	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	2.5
BARNICKEL ENGINEERING CORPORATION	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	5.0
YSRAEL A. SEINUK,P.C., CONSULTING E	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	2.0
ARORA ENGINEERS, INC.	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	7.0
FIRST ELEMENT TECHNOLOGIES LLC	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	11.0
WILBUR SMITH ASSOCIATES, INC.	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	2.5
ICOR ASSOCIATES LLC	54	Professional, Scientific, and Technical Services	Energy Efficiency and Renewable Energy	29.0
GREENBAUM,ROWE,SMITH & DAVIS LLP	54	Professional, Scientific, and Technical Services	Environmental Compliance	18.4
WILENTZ, GOLDMAN & SPITZER, P.A.	54	Professional, Scientific, and Technical Services	Environmental Compliance	60.3
HAGER-RICHTER GEOSCIENCE, INC.	54	Professional, Scientific, and Technical Services	Environmental Services	7.0
TRC ENVIRONMENTAL CORPORATION	54	Professional, Scientific, and Technical Services	Environmental Services	7.0
PEAK ENVIROMENTAL INC.	54	Professional, Scientific, and Technical Services	Environmental Services	2.0
MARITIME ALLIANCE GROUP, INC.	54	Professional, Scientific, and Technical Services	Environmental Services	2.5
RECYCLING TECHNOLOGY DEVELOPMENT LL	55	Management of Companies and Enterprises	Recycling Technologies	3.0
JACOBS CONSULTANCY INC	56	Administrative, Support, Waste Management, and Remediation Services	Energy Efficiency and Renewable Energy	25.0
UNIPRO, INC.	56	Administrative, Support, Waste Management, and Remediation Services	Environmental Services	25.0

IEC, INC.	56	Administrative, Support, Waste Management, and Remediation Services	Environmental Services	34.5
ENVIRONMENTAL INDUSTRIAL SERVICES C	56	Administrative, Support, Waste Management, and Remediation Services	Environmental Services	14.5
UNIQUE SYSTEMS OF AMERICA, INC.	56	Administrative, Support, Waste Management, and Remediation Services	Environmental Services	7.0
BAYSHORE SOIL MANAGEMENT LLC	56	Administrative, Support, Waste Management, and Remediation Services	Recycling Technologies	25.0
UNITED WASTE MANAGEMENT, INC.	56	Administrative, Support, Waste Management, and Remediation Services	Recycling Technologies	5.0
MONTECALVO DISPOSAL SERVICES, INC.	56	Administrative, Support, Waste Management, and Remediation Services	Recycling Technologies	26.0
RUSSELL REID WASTE HAULING AND DISP	56	Administrative, Support, Waste Management, and Remediation Services	Recycling Technologies	174.5
INFLO INTERNATIONAL INC	56	Administrative, Support, Waste Management, and Remediation Services	Recycling Technologies	3.0
VISTA TRAVEL AGENCY	56	Administrative, Support, Waste Management, and Remediation Services	Retail and Wholesale	NA
US DEPARTMENT OF LABOR	62	Health Care and Social Assistance	Environmental Compliance	NA
P. K. ARCHITECTURE L.L.C.	99	Unclassified	Energy Efficiency and Renewable Energy	1.0
DYNAMIC SERVICES LLC	99	Unclassified	Environmental Services	1.0
H K PATEL INC	99	Unclassified	Recycling Technologies	NA
CLEARVIEW INDUSTRIES, INC.	99	Unclassified	Recycling Technologies	2.0

<b>Table 6: Adaptive Green Businesses in Woodbridge Township</b>		
<b>Legal Name</b>	<b>NAICS 2-Digit Code</b>	<b>2-Digit Industry</b>
MIDDLESEX WATER COMPANY	22	Utilities
AMERICAN PROPERTIES REALTY, INC.	23	Construction
LPB GRAPHICS INC.	31	Manufacturing
HESS CORPORATION	31	Manufacturing
SHELL OIL COMPANY	31	Manufacturing
PQ CORPORATION	31	Manufacturing
CHEMTURA CORPORATION	31	Manufacturing
MAUSER CORP	31	Manufacturing
PILOT LABORATORIES, INC.	31	Manufacturing
XEROX CORPORATION	42	Wholesale Trade
ALWAYS EQUIPMENT INC	42	Wholesale Trade
RAHWAY STEEL DRUM CO., INC.	42	Wholesale Trade
PRIDE SOLVENTS & CHEMICAL CO. OF NE	42	Wholesale Trade
EXTREMEZ BIKE SHOP	45	Retail Trade
BOOK TRADER	45	Retail Trade
FORDS FLOWER SHOP	45	Retail Trade
SUPER VALUE LIQUORS	45	Retail Trade
FOUR BROTHERS APPLIANCES	45	Retail Trade
FORDS MATTRESS AND DINETTES	45	Retail Trade
PACHEKO LLC	45	Retail Trade
SUPER FOODTOWN	45	Retail Trade
YOGU ROUTE FROZEN YOGURT	45	Retail trade
7-ELEVEN	45	Retail Trade
K&M JEWELERS	45	Retail Trade
PIER 1 IMPORTS INCORPORATED	45	Retail Trade
T MOBILE, USA, INC	45	Retail Trade
LOWE'S HOME CENTERS, INC.	45	Retail Trade
RITE AID	45	Retail Trade
WALLGREENS	45	Retail Trade
WALLGREENS	45	Retail Trade
WALLGREENS	45	Retail Trade
THE GAP STORES INC	45	Retail Trade
COLONIAL PIPELINE COMPANY	48	Transportation & Warehousing
CROWN WORLDWIDE MOVERS INC	48	Transportation & Warehousing
HERCULES FORWARDING INC	48	Transportation & Warehousing
FEDEX CORPORATE	48	Transportation & Warehousing
SAVINO DEL BENE USA INC	48	Transportation & Warehousing
ALLIANCE SHIPPERS INC	48	Transportation & Warehousing
WAKEFERN FOOD CORP.	48	Transportation & Warehousing
NIPPON EXPRESS U S A INC	48	Transportation & Warehousing

VERIZON CORPORATE SERVICES CORP.	51	Information and Cultural Industries
AT&T ENTERPRISE SERVICES, INC	51	Information and Cultural Industries
MR. PRINTER	51	Information and Cultural Industries
LAUNCHPAD CREATIVE	51	Information and Cultural Industries
GENERAL ELECTRIC CAPITAL CORP	52	Finance and Insurance
SIEMENS FINANCIAL SERVICES INC	52	Finance and Insurance
JPMORGAN CHASE BANK, NA	52	Finance and Insurance
CALYON SECURITIES (USA) INC.	52	Finance and Insurance
THE HERTZ CORPORATION	53	Real Estate, Rental, and Leasing
ELRAC INCORPORATED	53	Real Estate, Rental, and Leasing
ELRAC INCORPORATED	53	Real Estate, Rental, and Leasing
ELRAC INCORPORATED	53	Real Estate, Rental, and Leasing
RYDER TRUCK RENTAL INC	53	Real Estate, Rental, and Leasing
AMERICAN PROPERTIES REALTY INC	53	Real Estate, Rental, and Leasing
WOODBIDGE PLACE ASSOCIATES	53	Real Estate, Rental, and Leasing
FIVE STAR INSURANCE	54	Professional, Scientific, and Technical Services
HESS CORPORATION	55	Management of Companies and Enterprises
BASF CORPORATION	55	Management of Companies and Enterprises
BIS FRUCON INDUSTRIAL SERVICES INC.	56	Administrative, Support, Waste Management, and Remediation Services
VISTA TRAVEL AGENCY	56	Administrative, Support, Waste Management, and Remediation Services
FORDS TRAVEL CENTER	56	Administrative, Support, Waste Management, and Remediation Services
NATIONAL BARTENDERS SCHOOL	61	Education Services
BERKELEY COLLEGE OF BUSINESS	61	Education Services
MIDDLESEX EAR, NOSE, & THROAT	62	Health Care and Social Assistance
SDH SERVICES EAST LLC	72	Accommodation and Food Services
FORDS BBQ CHURRASQUERIA	72	Accommodation and Food Services
HOT DOGS AND MORE	72	Accommodation and Food Services
VILLA BORGHESE	72	Accommodation and Food Services
MYOORA THAI CUISINE	72	Accommodation and Food Services
COLONIA SUPREME BAGELS	72	Accommodation and Food Services
2 FAT GUYS	72	Accommodation and Food Services
PK'S UNDER THE BRIDGE CAFÉ	72	Accommodation and Food Services
NATIONAL ASSOCIATION OF PRINTING IN	81	Other Services (Except Public Administration)
PAUL SCIORTINO HAIRSTYLIST	81	Other Services (except Public Administration)
GRATEFUL DOG GROOMING	81	Other Services (except Public Administration)
HEADQUARTERS HAIRCUTTERS	81	Other Services (except Public Administration)
THE HAIR PLACE	81	Other Services (except Public Administration)
CLOVER CLEANERS	81	Other Services (except Public Administration)
TOWNSHIP OF WOODBRIDGE	92	Public Administration

<b>Table 7: Businesses with Green Building Practices</b>
Green Buildings
Metro Top Plaza Associates
Solar-Mite Electrical Contractors
Hess Corporation
Avionic Instruments LLC
Siemens Medical Solutions USA, Inc
Cisco Systems Capital Corporation
Woodbridge Bowling Center, Inc.
Woodbridge Board of Education
Zappin Investments
Tilcon New York Inc.
Suburban Real Estate
636 Inman LLC