

## **CHAPTER 2 THE ECONOMY: SUPPORT AND PROMOTE INVESTMENT AND JOB CREATION**

POLICY 1: ENCOURAGE GROWTH AND PARTNERSHIPS IN HIGH TECH/HIGH SKILLED INDUSTRY, EDUCATION, HEALTHCARE, ENTERTAINMENT, AND TOURISM. CONTROL INCREASES IN THE COST OF DOING BUSINESS IN NASSAU COUNTY

POLICY 2: DIVERSIFY THE HOUSING STOCK BY PROVIDING NEW HOUSING OPTIONS FOR THE COUNTY'S YOUNG WORKFORCE, VETERANS, AND SENIORS

### **YEAR 2030 GOALS**

#### **NEW JOBS COUNTYWIDE IN GROWTH SECTORS**

- HIGH TECH: 21,000
- HEALTHCARE & HIGHER EDUCATION: 40,000
- ENTERTAINMENT AND TOURISM: 11,000

NEW RESIDENTIAL UNITS TO BE PROVIDED FOR THE COUNTY'S RECENT GRADUATES, YOUNG WORKFORCE, VETERANS, AND SENIORS

- 10% OF PROJECTED RESIDENTIAL GROWTH: 2,000 UNITS

### **A. EXISTING ECONOMIC CONDITIONS**

#### **1. PAST TRENDS IN NASSAU COUNTY'S GDP GROWTH**

Over the past decade, Nassau County has significantly lagged the United States, Suffolk and Westchester Counties in the growth of Gross Domestic Product (GDP)<sup>1</sup>. During the two-year (2008-2009) height of the recession, Nassau County's GDP contracted by 3.3%, greater than Suffolk and Westchester Counties, at 1.5% and .5% respectively.

In recent years, the U.S. Bureau of Economic Analysis has estimated the origin of national level GDP at the metropolitan level, following earlier estimation of GDP at the state level. Because state and metropolitan GDP is estimated by industrial origin, not final consumption, it is not possible to determine the role of households, businesses, government and export markets in state, metropolitan, or local demand for GDP.

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<sup>1</sup> Gross Domestic Product (GDP) is the most comprehensive measure of economic activity, reflecting the value of production originating by industry for final demand by household consumption, private investment, government purchases and export markets, less imports, on an annual or quarterly basis.

The Nassau economy is part of the nation’s largest regional economy, the New York-Northern New Jersey-Long Island NY-NJ-PA metropolitan statistical area (MSA). Between 2001 and 2008, the MSA’s gross product originating rose from \$898 billion to \$1.265 trillion, or expanded by 41 percent in current dollars. The broader New York State economy generates a somewhat smaller value of annual output at \$1.144 trillion in 2008, having risen by a comparable 42 percent over the 7-year period. As a share of US GDP, the MSA and New York State comprise 8.8 and 8.0 percent respectively. By the second quarter of 2010, the US recovered the nominal dollar losses in national output from the 2007-2009 recession by topping \$14.575 trillion, or gaining 41.7 percent over 2001 in current dollars.

Table 2-1 presents the GDP of Nassau County in comparison with output of the nation, New York State, the MSA, Suffolk and Westchester counties. As the table shows, Nassau grew faster than the larger comparison areas between 2001 and 2003, but then slowed in relative performance over subsequent growth years, 2003 to 2007. Thereafter, it started to decline in real terms prior to the December 2007 onset of recession and contracted more severely than the nation. By comparison, Suffolk and Westchester grew faster than Nassau in most of the growth years to 2007 and continued to expand in 2008, when Nassau’s economy turned negative, declining thereafter less sharply than Nassau or the nation. By the end of 2008, Suffolk had surpassed Nassau in GDP by roughly \$2.5 billion.

Table 2-2 presents the industrial composition of Nassau County’s GDP, modeled upon metropolitan and state level data adjusted to reflect differences in the industrial structure of employment, the rate of annual compensation, and worker productivity. Historical GDP for 2001-2008 was extended to 2009 based upon the increase in compensation for employees of Nassau County establishments, as reported by the *Quarterly Census of Employment and Wages* (QCEW) of the New York State Department of Labor. As Table 2-2 shows, Nassau County’s GDP measured \$67.7 billion in 2009, having declined from \$70.5 billion in 2007, but grew by 31 percent over the 2001-2009 period.

**Table 2-1**  
**A Comparison of GDP Growth by Area, 2001-2009**

<i>In Millions of Current Dollars</i>	<b>GDP In \$000,000</b>
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	2001	2003	2005	2007	2008	2009
US: All Industries	\$10,286,200	\$11,142,100	\$12,638,400	\$14,061,800	\$14,369,100	\$14,119,000
NYS: All Industries	\$808,537	\$850,243	\$956,378	\$1,105,020	\$1,144,481	
NY-NJ-PA MSA: All Industries	\$898,039	\$940,950	\$1,055,344	\$1,209,997	\$1,264,896	
Nassau County: All Industries	\$51,553	\$56,953	\$62,607	\$70,501	\$70,018	\$67,711
Suffolk County: All Industries	\$49,343	\$54,671	\$61,837	\$70,426	\$72,544	\$71,430
Westchester County: All Industries	\$38,231	\$41,371	\$47,282	\$53,879	\$55,573	\$55,272
<i>As % Change over Period</i>	<b>% Change</b>					
	2001-03	2003-05	2005-07	2007-08	2008-09	2001-09
US: All Industries	8.3%	13.4%	11.3%	2.2%	-1.7%	37.3%
NYS: All Industries	5.2%	12.5%	15.5%	3.6%		
NY-NJ-PA MSA: All Industries	4.8%	12.2%	14.7%	4.5%		
Nassau County: All Industries	10.5%	9.9%	12.6%	-0.7%	-3.3%	31.3%
Suffolk County: All Industries	10.8%	13.1%	13.9%	3.0%	-1.5%	44.8%
Westchester County: All Industries	8.2%	14.3%	14.0%	3.1%	-0.5%	44.6%

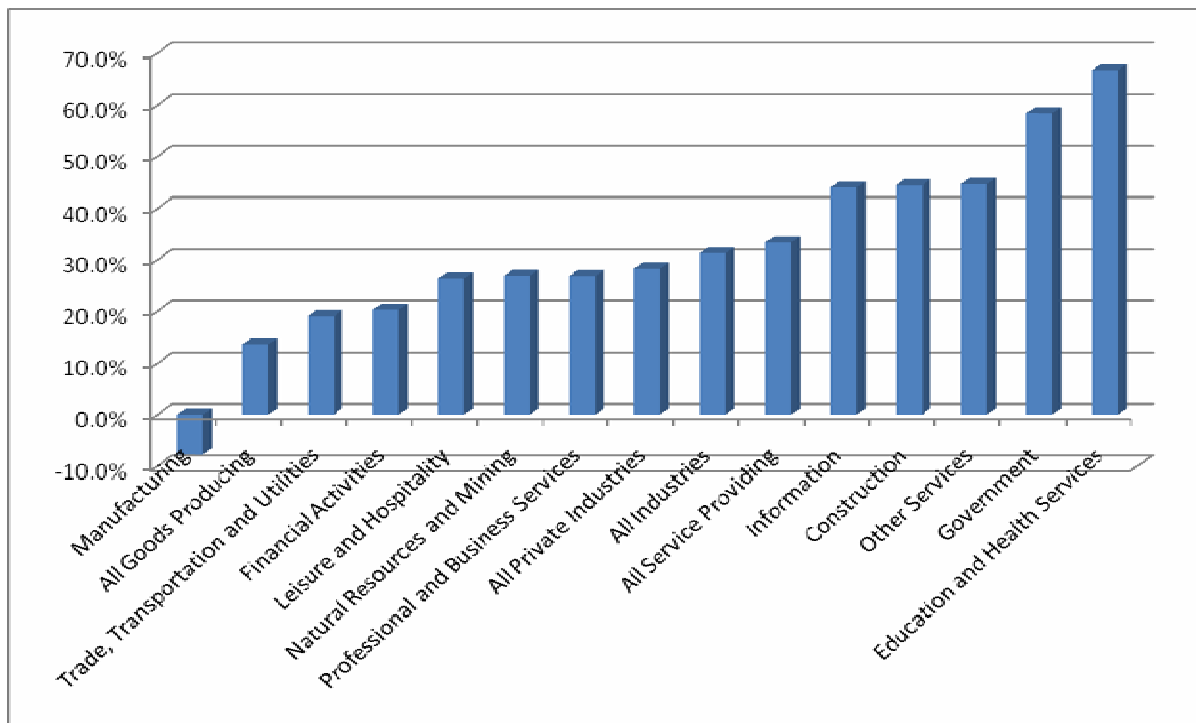
Source: U.S. Bureau of Economic Analysis, Urbanomics, and Moody's economy.com

**Table 2-2**  
**Nassau County's Economy – GDP by Supersector, 2001-2009**

<i>In Millions of Current Dollars</i>	<b>GDP In \$000,000</b>					<b>% Change</b>	
	2001	2003	2005	2007	2009	2001-09	2007-09
All Industries	\$51,553	\$56,953	\$62,607	\$70,501	\$67,711	31.3%	-4.0%
Private Industries	\$46,318	\$50,947	\$55,617	\$62,894	\$59,418	28.3%	-5.5%
Goods Producing	\$5,484	\$5,430	\$5,823	\$6,339	\$6,234	13.7%	-1.7%
Natural Resources and Mining	\$15	\$22	\$17	\$19	\$19	26.9%	0.3%
Construction	\$2,244	\$2,454	\$2,863	\$3,166	\$3,239	44.4%	2.3%
Manufacturing	\$3,225	\$2,954	\$2,942	\$3,154	\$2,976	-7.7%	-5.6%
Service Providing	\$46,069	\$51,523	\$56,784	\$64,162	\$61,476	33.4%	-4.2%
Trade, Transportation and Utilities	\$10,657	\$11,558	\$12,054	\$13,065	\$12,679	19.0%	-3.0%
Information	\$3,184	\$3,321	\$3,940	\$4,779	\$4,585	44.0%	-4.1%
Financial Activities	\$12,043	\$13,684	\$15,372	\$18,011	\$14,480	20.2%	-19.6%
Professional and Business Services	\$6,040	\$6,640	\$7,059	\$7,673	\$7,663	26.9%	-0.1%
Education and Health Services	\$5,640	\$6,572	\$7,269	\$8,479	\$9,411	66.8%	11.0%
Leisure and Hospitality	\$1,982	\$2,270	\$2,466	\$2,795	\$2,504	26.4%	-10.4%
Other Services	\$1,287	\$1,470	\$1,635	\$1,752	\$1,862	44.7%	6.3%
Government	\$5,236	\$6,006	\$6,990	\$7,607	\$8,293	58.4%	9.0%

Source: Urbanomics, based on U.S. Bureau of Economic Analysis, Regional Economic Information System

**Figure 2-1**  
**Rate of Growth in Nassau County's GDP by Sector, 2001-2009**



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Source: Urbanomics, based on U.S. Bureau of Economic Analysis, Regional Economic Information System

Figure 2-1 depicts the rate of GDP growth for all industries, private industries, and goods producers versus service providers by supersector over the 2001-2009 period. As the Figure shows, the annual output of Education and Health Services rose fastest in the 8-years, having increased by 67 percent, while the value of Manufacturing output declined by 8 percent in nominal dollar terms. The second fastest growing sector was Government which rose by 58 percent to an output value of \$8.3 billion. Although Financial Activities account for the largest value of annual output (\$14.5 billion), owing largely to the conventions of GDP accounting<sup>2</sup>, its rate of growth was among the lowest, only 20 percent. The next leading supersector, Trade, Transportation and Utilities, was also slowly growing. It generated \$12.7 billion or 19 percent of Nassau's output in 2009, of which \$5.1 billion was attributable to the value of Retail Trade (14% growth). Other notable high-growth sectors include Information with \$4.6 billion of output and Construction with \$3.2 billion of output, each growing at 44 percent. It is important to note that over the past decade, sectors heavily dependant on taxpayer funding (i.e. Education and Health Services, and Government) grew faster than private sectors.

Thus, with \$9.4 billion of annual output in 2009, Education and Health Services are the preeminent supersectors of Nassau County's economy, retaining dual leads in period growth and annual share of GDP (14%). Of this, Health Care and Social Assistance accounts for \$8.3 billion while private Educational

<sup>2</sup> The imputed rental value of owner occupied housing is included in GDP by convention of the National System of Income and Product Accounts. This inflates the value of Financial Activities which includes the Real Estate and Rental and Leasing sector.

Services generate \$1.1 billion. Over the 8-year period, Health Care output has grown by 66 percent compared to a 71 percent growth in Educational Services.

## 2. PAST TRENDS IN NASSAU COUNTY’S TOTAL EMPLOYMENT

Over the past several years, the national and regional economies have been drastically changed with the collapse of financial and housing markets. Although the region has been less impacted than other areas in terms of job and housing market losses -- and its role in global capital markets and the financial sector in general are recovering -- job losses, housing foreclosures and weakened consumer spending still persist. In Nassau County, the perception of negative economic developments has been heightened by the gradual erosion or structural change in the County’s economy. As Table 2-3 shows for employment by supersector, Goods Producing jobs have been on the decline over the past decade with Manufacturing losing 3 in every 8 jobs between 2001 and 2009, while Service Providing jobs had expanded through 2007, only to contract in the recession.<sup>3</sup>

Under the concept of “total employment” including the self employed with wage and salary workers by supersector, Nassau County peaked at 822,300 jobs in 2007 only to decline to 807,800 jobs by 2009. Payroll workers at establishments located in Nassau County numbered 621,800 or 9,100 fewer than in 2001, while Proprietors or self employed at Nassau County addresses numbered 186,000 or 52,100 greater than in 2001. Education and Health Services comprised the largest single supersector with 157,200 employees in 2009, followed by Trade, Transportation and Utilities with 142,500 workers. Whereas the latter supersector had declined over the decade, employment in Education and Health Services had grown by 27 percent, even through the 2007-2009 recession.

**Table 2-3**  
**Nassau County’s Economy – Employment by Supersector, 2001-2009**

<i>In Thousands of Jobs</i>	<b>Employment (000)</b>				
	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
All Employment	764.8	775.6	792.5	822.3	807.8
Proprietors	133.9	142.9	159.8	179.6	186.0
Wage and Salary Employment	630.9	632.7	632.7	642.7	621.8
Goods Producing	71.3	66.6	66.6	67.7	61.2
Natural Resources and Mining	1.1	1.1	1.1	1.4	1.6
Construction	33.4	34.9	36.5	39.9	37.0
Manufacturing	36.8	30.7	28.9	26.4	22.7
Service Providing	693.5	709.0	725.9	754.6	746.7
Trade, Transportation and Utilities	153.2	150.0	150.4	151.8	142.5
Information	19.1	17.0	17.5	17.6	16.9
Financial Activities	98.6	101.3	110.3	118.3	118.1
Professional and Business Services	113.0	111.1	115.0	119.4	113.7
Education and Health Services	124.1	134.1	138.4	150.0	157.2

<sup>3</sup> It should be noted that this revised data is drawn from the Regional Economic Information System of the U.S. Bureau of Economic Analysis (BEA) for consistency with Gross Domestic Product accounting. While the Wage and Salary employment is consistent with the New York State Department of Labor *QCEW* data, the Proprietors employment has been substantially revised upward, resulting in a larger overall measure of total employment.

Leisure and Hospitality	56.5	60.1	60.6	62.5	61.5
Other Services	44.5	46.4	47.1	48.5	49.0
Government	84.6	88.9	86.8	86.5	87.7

Source: *Urbanomics, based on U.S. Bureau of Economic Analysis, Regional Economic Information System*

**UNEMPLOYED RESIDENTS**

Over the past decade, the resident labor force of Nassau County has gradually expanded, increasing from 676,500 participants in 2001 to 702,200 by 2008 (see Table 2-4). But the last 18 months of recession have taken a toll on the County’s working age residents, causing labor force participation to drop by 5,500 persons on an annual basis in 2009, and to further contract by 3,500 persons on a half year basis to mid 2010. Not only have some 9,000 residents stopped seeking employment, but also the number of employed residents has declined by 27,300 persons since 2007.<sup>4</sup> Currently as of July 2010, at 6.9 percent the County’s official unemployment rate is well below the national rate of 9.5 percent, but some 49,200 residents are unemployed and actively seeking employment (Figure 2-2). In Suffolk and Westchester counties, as well as the NY-NJ-PA MSA, the jobless rate is currently higher, at 7.4, 7.0 and 9.1 percent respectively.

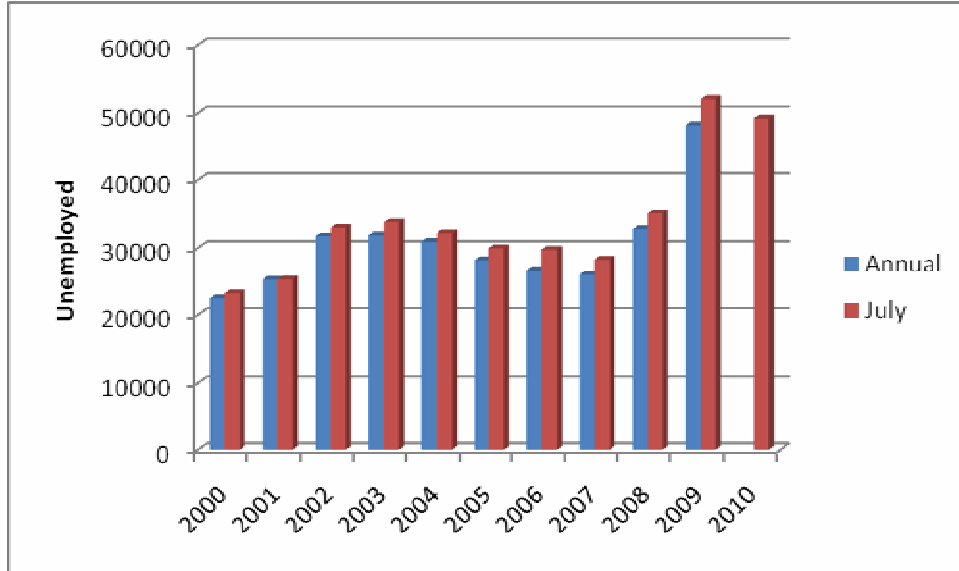
**Table 2-4**  
**Nassau County’s Residents – Employed & Unemployed Labor Force, Annually 2000-2009, in July 2010**

Year	Resident Labor Force	Employed Residents	Unemployed Residents	Unemployment Rate
2000	678.0	655.5	22.4	3.3
2001	676.5	651.3	25.2	3.7
2002	681.2	649.5	31.7	4.7
2003	681.0	649.1	31.9	4.7
2004	686.1	655.1	30.9	4.5
2005	690.3	662.1	28.2	4.1
2006	697.2	670.5	26.7	3.8
2007	698.7	672.8	26.0	3.7
2008	702.2	669.4	32.8	4.7
2009	696.7	648.5	48.2	6.9
2010 July	678.0	662.3	49.2	6.9

Source: *U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics Program (LAUS)*

<sup>4</sup> It is not possible to determine whether recent labor force drop-outs or formerly employed residents have relocated from Nassau County because of the lack of employment. However, the rise in unemployed has impacted current residents of the County.

**Figure 2-2**  
**Unemployed Labor Force in Nassau County, Annually 2000-2009, in July 2000-2010**



Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics Program (LAUS)

### 3. PAST TRENDS IN EMPLOYEE COMPENSATION OF NASSAU COUNTY ESTABLISHMENTS

In 2009, Nassau County establishments paid compensation of \$39.1 billion to 621,800 wage and salary employees, or an average of \$62,800 per employee (see Table 2-5). Employee compensation includes wages and salary disbursements, employer pension and insurance payments, and employer contributions for social insurance. With the decline in payroll employment between 2007 and 2009, employee compensation also fell, but only by 1 percent, as compensation per worker rose by 2.5 percent from \$61,258 in 2007. Over the entire 8-year period, the compensation of Nassau County wage and salary workers rose by 30 percent in nominal dollar terms, or slightly ahead of the period rate of inflation (26.6%) In the NY-NJ-PA MSA, total compensation rose by 25.8 percent between 2001 and 2009, or slower than in Nassau County and the rate of inflation, while in Suffolk and Westchester counties, the rate of increase was 38.3 and 28.3 percent respectively. Although not directly shown, benefits paid to government workers at all levels in Nassau County have also expanded considerably in the recent past.

**Table 2-5**  
**Nassau County's Economy – Employee Compensation by Supersector, 2001-2009**

<i>In Millions of Current Dollars</i>	<b>Employee Compensation (\$000,000)</b>				
	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
All Compensation	\$30,147	\$32,811	\$35,475	\$39,373	\$39,057
Private Compensation	\$25,267	\$27,198	\$29,043	\$32,233	\$31,324
Goods Producing	\$3,577	\$3,583	\$3,754	\$4,144	\$3,988
Natural Resources and Mining	\$8	\$11	\$8	\$9	\$8
Construction	\$1,571	\$1,715	\$1,865	\$2,331	\$2,344
Manufacturing	\$1,998	\$1,857	\$1,882	\$1,804	\$1,636
Service Providing	\$26,570	\$29,228	\$31,721	\$35,229	\$35,069
Trade, Transportation and Utilities	\$6,082	\$6,367	\$6,529	\$6,984	\$6,601
Information	\$1,266	\$1,249	\$1,333	\$1,706	\$1,537
Financial Activities	\$3,438	\$3,777	\$4,214	\$4,404	\$3,720
Professional and Business Services	\$4,233	\$4,491	\$4,703	\$5,162	\$4,991
Education and Health Services	\$4,438	\$5,209	\$5,790	\$6,818	\$7,610
Leisure and Hospitality	\$1,274	\$1,428	\$1,519	\$1,721	\$1,512
Other Services	\$958	\$1,094	\$1,201	\$1,295	\$1,364
Government	\$4,880	\$5,613	\$6,432	\$7,140	\$7,734

Source: Urbanomics, based on U.S. Bureau of Economic Analysis, Regional Economic Information System

Fully 90 percent of all employee compensation is paid by Service Providing establishments in Nassau County and the single largest disbursement is made by Government employers, or \$7.7 billion in 2009. This sector, however, is not the largest employer in Nassau, ranking third behind Education and Health Services and Trade, Transportation and Utilities. In 2009, Education and Health Services reported labor payments of \$7.6 billion, while Trade, Transportation and Utilities outlayed \$6.6 billion.<sup>5</sup> In comparison, Goods Producing industries accounted for less than \$4 billion in annual labor compensation while the once-strong Manufacturing sector – the only supersector to report declining labor compensation -- paid little more than Leisure and Hospitality firms in the County by 2009..

**COMMUTER DESTINATIONS – MANHATTAN MARKET**

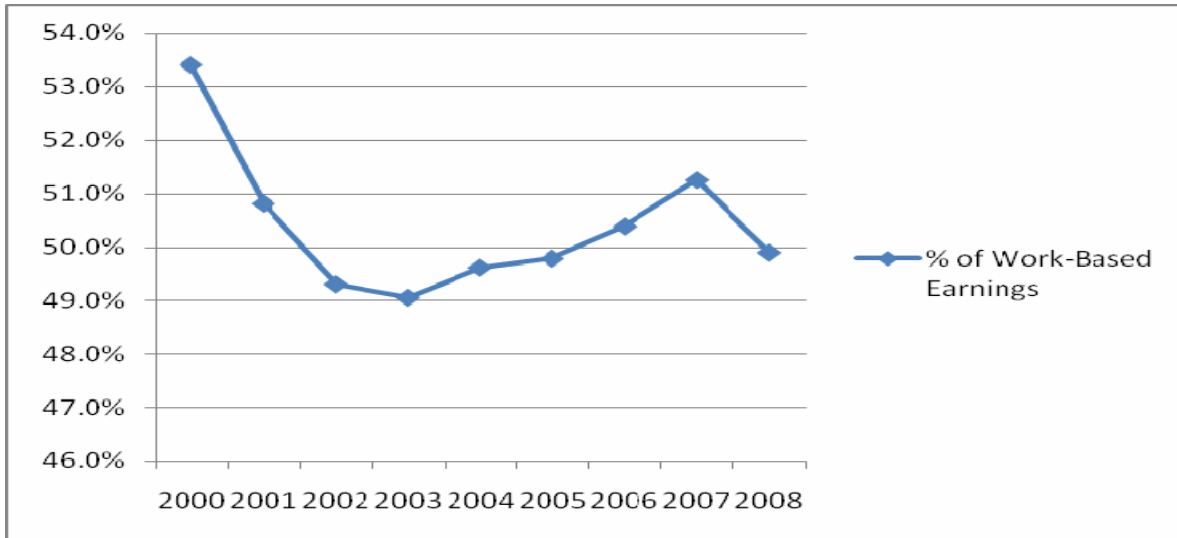
Manhattan has been the primary destination for Nassau County commuters, accounting for 94,500 residents' journeys to work in 2000 of 631,200 resident workers. At that time, Nassau commuters comprised four percent of Manhattan's wage and salary workers and brought back nearly \$10 billion in annual earnings from their employment. Since then, Manhattan's payroll employment has declined by more than three percent, following the events of 9/11, a national recession, and turmoil in financial markets.

<sup>5</sup> Proprietors' income, or labor payment to the self employed, are not included in Employee Compensation and explain some portion of the difference, especially with respect to Health Care professionals.



By 2007 Nassau commuters to New York destinations fell by nearly 2,500 workers. In 2008, the Long Island Expressway carried 3,500 fewer cars each day than in 2007 and, by the fourth quarter of 2008, the Long Island Rail Road (LIRR) reported 52,000 fewer trips to New York’s Penn Station. By January 2009, LIRR ridership was down four percent from January 2008.<sup>6</sup> Collectively, these trends suggest a decided impact on Nassau County’s commuter earnings (see Figure 2-3).

**Figure 2-3**  
**The Influx of Commuter Earnings to Nassau County as Share of Total Work-Based Earnings, 2000-2008**



*Source: Bureau of Economic Analysis, Regional Accounts*

## **B. PROJECTED ECONOMIC CONDITIONS**

### **1. PROJECTED GROWTH IN NASSAU COUNTY’S GDP TO 2030**

Over the long term to 2030, the likely growth of output in Nassau County’s economy is governed by the pace of employment growth and the improvement in worker productivity, reflected largely in continued wage increases and wage differentials relative to the regional and statewide economies. Although this outlook is driven by market forces and national trends, local competitive advantages can be enhanced to ensure growth by appropriate policy actions, like favorable regulatory and tax environments, infrastructure improvements, and workforce training. Subsequent sections of this report portray market trends in the past course and future forecast of labor compensation (wage and salary payments plus proprietors income) and employment growth including the self employed. Based upon these forecasts and national trends in labor productivity by sector, the following Table 2-6 presents the outlook for Nassau County’s GDP from 2010 to 2030 by supersector.

<sup>6</sup> The New York Times, “An Easier, Yet Uneasy, Commute to Work,” April 15, 2009

As Table 2-7 shows, annual output of Nassau County is estimated to recover prior year losses by 2010 and experience continued long term growth to 2030, more than doubling in current dollar value by rising from \$70.9 billion to \$139.9 billion or 97.4 percent (3.5% compounded growth rate). However, with annual inflation under 3 percent, real output may grow by only 25 percent over the 20-year period.<sup>7</sup>

**Table 2-6**  
**A Forecast of GDP Growth by Comparison Area, 2010-2030**

<i>In Millions of Current Dollars</i>	<b>GDP In \$000,000</b>				
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
US: All Industries	\$14,599,320	\$18,661,370	\$22,257,970	\$26,350,380	\$30,994,160
NYS: All Industries	\$1,160,790	\$1,457,960	\$1,740,640	\$2,075,710	\$2,439,690
NY-NJ-PA MSA: All Industries	\$1,203,960	\$1,553,920	\$1,842,340	\$2,138,050	\$2,457,520
Nassau County: All Industries	\$70,864	\$83,201	\$98,370	\$117,364	\$139,898
Suffolk County: All Industries	\$72,808	\$89,048	\$105,387	\$121,794	\$138,353
Westchester County: All Industries	\$56,612	\$74,185	\$89,704	\$106,617	\$124,929
<i>As Percent Change over Period</i>	<b>% Change</b>				
	<b>2010-15</b>	<b>2015-20</b>	<b>2020-25</b>	<b>2025-30</b>	<b>2010-30</b>
US: All Industries	27.8%	19.3%	18.4%	17.6%	112.3%
NYS: All Industries	25.6%	19.4%	19.2%	17.5%	110.2%
NY-NJ-PA MSA: All Industries	29.1%	18.6%	16.1%	14.9%	104.1%
Nassau County: All Industries	17.4%	18.2%	19.3%	19.2%	97.4%
Suffolk County: All Industries	22.3%	18.3%	15.6%	13.6%	90.0%
Westchester County: All Industries	31.0%	20.9%	18.9%	17.2%	120.7%

Source: *Urbanomics, and Moody's economy.com*

Education and Health Services will retain its prominence, growing to \$19.4 billion by 2030, but output generated by Information (\$18 billion) will nearly equal the value of Education and Health Services if the national outlook in productivity gains for high-technology Information are on target. By 2030, 92 percent of Nassau County's output will be generated by the Service Producing industries while 8 percent will come from Goods Producing industries and private industries will produce 87 percent of all GDP, or shares not unlike today's structure of Gross Product Originating.

<sup>7</sup> Applying the national GDP deflator, Nassau County's real output growth was roughly 11 percent between 2001 and 2009, whereas the inflation-related growth was 20 percent.

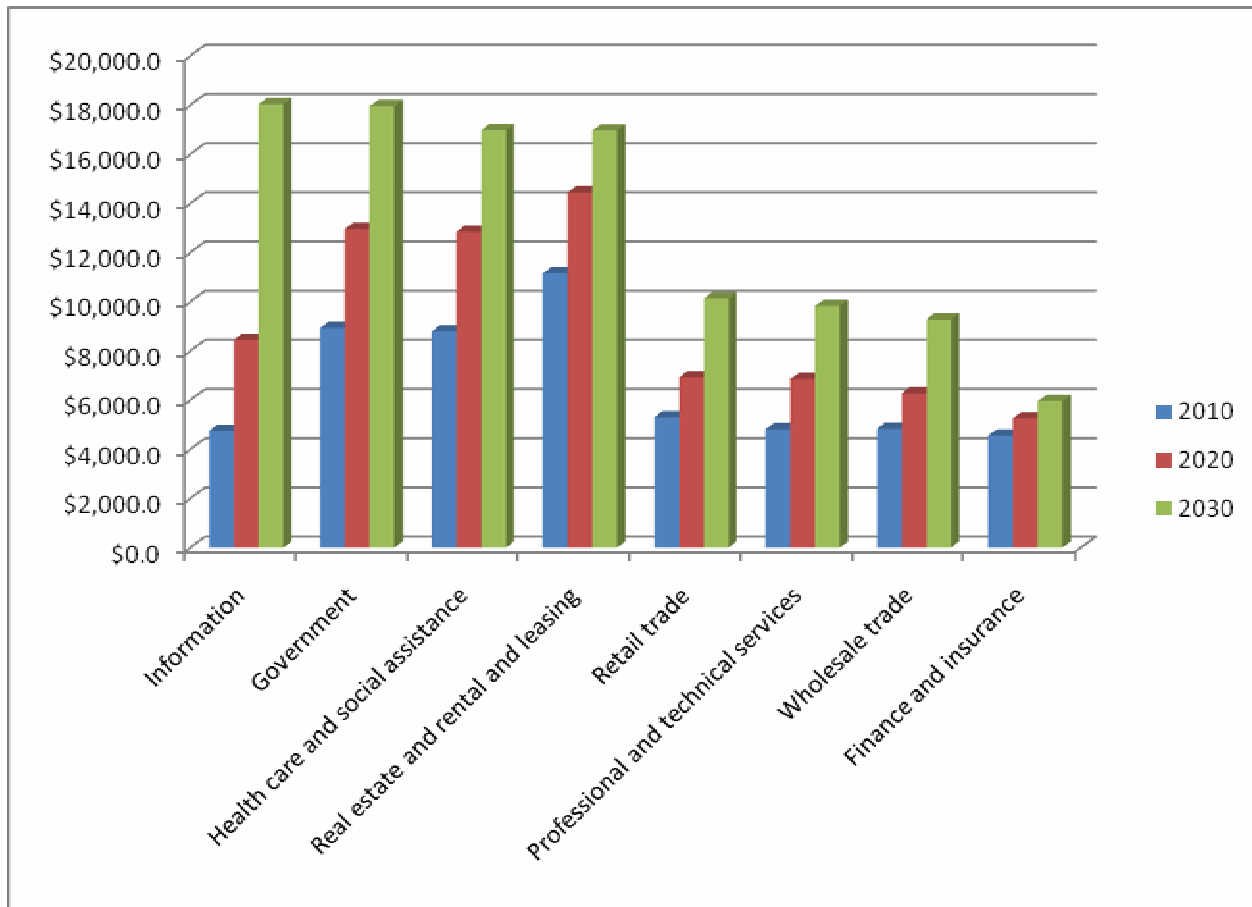
**Table 2-7**  
**Nassau County's Economy – GDP by Supersector, 2010-2030**

<i>In Millions of Current Dollars</i>	<b>GDP (\$000,000)</b>				
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
All Industries	\$70,864	\$83,201	\$98,370	\$117,364	\$139,898
Private Industries	\$61,928	\$72,285	\$85,403	\$102,141	\$121,940
Goods Producing	\$6,066	\$6,330	\$7,698	\$9,162	\$11,372
Natural Resources and Mining	\$19	\$24	\$30	\$34	\$38
Construction	\$3,063	\$3,946	\$4,562	\$5,148	\$6,311
Manufacturing	\$2,984	\$2,359	\$3,106	\$3,980	\$5,023
Service Providing	\$64,798	\$76,872	\$90,672	\$108,202	\$128,527
Trade, Transportation and Utilities	\$13,170	\$14,671	\$17,773	\$21,593	\$25,974
Information	\$4,751	\$5,648	\$8,446	\$12,420	\$18,041
Financial Activities	\$15,707	\$18,379	\$19,705	\$21,474	\$22,921
Professional and Business Services	\$7,809	\$9,133	\$10,906	\$13,108	\$15,317
Education and Health Services	\$9,901	\$12,743	\$14,569	\$16,889	\$19,355
Leisure and Hospitality	\$2,632	\$3,124	\$3,726	\$4,486	\$5,401
Other Services	\$1,891	\$2,257	\$2,579	\$3,009	\$3,559
Government	\$8,937	\$10,916	\$12,968	\$15,223	\$17,958

*Source: Urbanomics, based on IHS Global Insight and NYMTC related employment forecast*

Below the supersector level, Figure 2-4 shows the eight leading sectors of Nassau County's economy rank ordered by size in 2010 and forecasted by growth in nominal output from 2010 to 2030. Whereas these sectors account for 75 percent of today's output, they will marginally expand in share over the next 20 years but significantly redistribute in rank order of importance by contribution to GDP. Information and Government may tie with \$18 billion in annual output by 2030, each accounting for nearly 13 percent of the County's output, followed by Health care and Real estate with \$17 billion each, both accounting for 12 percent of Nassau County GDP. As noted previously, the output value of the Real estate and rental and leasing sector is misleading in monetary terms because of the imputed value of owner occupied housing. Government output, while important from the perspective of community well-being, is also not a driver of the economy. Thus Health care and Information, which will collectively account for one-quarter of Nassau County's Gross Product, will comprise the most significant individual sectors by 2030.

**Figure 2-4**  
**Growth of Nassau County’s GDP by Sector in Nominal Dollars, 2010-2020-2030**  
*(In \$ Millions)*



Source: Urbanomics

## 2. PROJECTED GROWTH IN NASSAU COUNTY’S TOTAL EMPLOYMENT TO 2030

By 2010, Nassau County’s overall employment had declined further, leveling off at 798,800 jobs or roughly the prior mid-decade level of employment. Of these losses, payroll employment accounted for 5,900 fewer jobs and self employment for 3,200 fewer jobs than in 2009. However, based upon long term employment forecasts prepared for Nassau County by the New York Metropolitan Transportation Council (NYMTC) and adjusted for the years of recession<sup>8</sup> as well as structural changes in the economy, it is

<sup>8</sup> NYMTC forecasted wage and salary employment to increase from 649,300 to 680,800 between 2010 and 2030, and self employed jobs to rise from 151,600 to 169,100. These forecasts, which were based upon national drivers that generated one percent more jobs nationally by 2035 prior to the 2002-2009 recession, were calibrated at the county level on trends in only private employment, government employment, and self employment. The revised

expected that the eventual job recovery will generate 688,700 payroll jobs in Nassau County by 2030. Recent events have also caused proprietors to grow more rapidly than previously anticipated, reaching 182,800 in 2010 and topping 245,600 by 2030. It should be noted, however, that proprietors – or the self employed – are not necessarily full time or year round employed, but rather include part time, seasonal, and dual job holders.

As Table 2-8 shows for employment growth in Nassau County, total employment of 798,800 jobs in 2010 is forecasted to grow by 17.0 percent over the next 20 years, reaching 934,300 jobs by 2030 (see Figure 2-5). This compares with a NYMTC forecast of 17.7 percent for Suffolk County, or 148,300 more jobs, and 21.2 percent for Westchester County, or 124,400 more jobs between 2010 and 2030. At the NY-NJ-PA MSA level, total employment is anticipated to increase by 1,826,700 jobs, or grow by 16.6 percent over the 2010-2030 period.<sup>9</sup> On a sector-specific basis, Nassau’s employment outlook consists of 20 year declines in Manufacturing and Trade, Transportation and Utilities, while significant growth is forecasted for Professional and Business Services, Education and Health Services. As leaders, the latter two sectors will expand by 44,200 and 43,700 jobs respectively and account for more than all of Nassau County’s net new job growth. Less but still significant job increases will occur in Financial Activities and Leisure and Hospitality, which are forecasted to add 27,600 and 20,100 new jobs over the 2010-2030 period. The strong near term growth in Proprietors should not be taken as equivalent to wage and salary employment gains in that multiple and part-time self employment opportunities expand in more troubled economic times as income supplements.

**Table 2-8**  
**Nassau County’s Economy – Employment by Supersector, 2010-2030**

<i>In Thousands of Jobs</i>	<b>Employment (000)</b>				
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
All Employment	798.8	853.1	871.0	902.2	934.3
Proprietors	182.8	228.3	236.9	240.9	245.6
Wage and Salary Employment	615.9	624.8	634.1	661.3	688.7
Goods Producing	57.9	56.8	54.9	53.0	54.8
Natural Resources and Mining	1.5	1.9	1.9	1.9	2.0
Construction	34.7	41.1	39.4	37.9	40.1
Manufacturing	21.7	13.8	13.6	13.2	12.7
Service Providing	740.8	796.3	816.1	849.2	879.5
Trade, Transportation and Utilities	141.4	140.7	135.0	132.7	131.7
Information	16.7	15.7	16.0	16.4	17.0
Financial Activities	115.6	135.2	136.5	140.7	143.2
Professional and Business Services	111.5	119.0	130.5	144.1	155.7
Education and Health Services	160.2	181.3	187.3	196.7	203.9
Leisure and Hospitality	58.7	63.7	67.8	73.0	78.8
Other Services	47.9	51.6	52.3	54.2	57.0

Employment forecasts of this report reflect sector-specific trends as shown in Table 4 that generate greater prospects for employment opportunities in Nassau County.

<sup>9</sup> NYMTC forecasts for the NY-NJ-PA MSA do not include Pike County, PA, which currently has fewer than 15,000 jobs.

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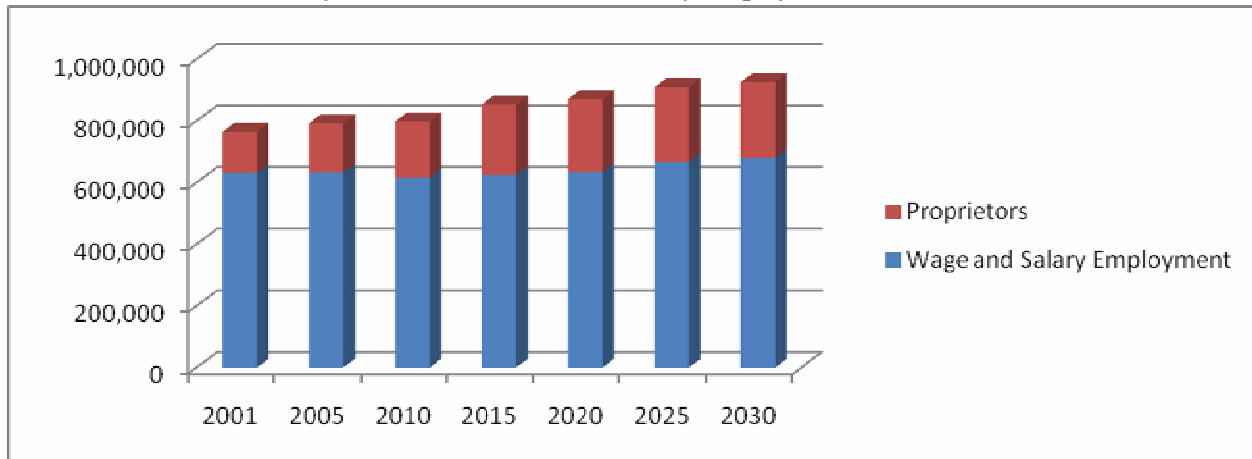
Government	88.9	89.1	90.8	91.5	92.3
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**Table 2-8 cont'd**  
**Nassau County's Economy – Employment by Supersector, 2010-2030**

% Change in Jobs	Employment Change (%)				
	2010-15	2015-20	2020-25	2025-30	2010-30
All Employment	6.8%	2.1%	3.6%	3.6%	17.0%
Proprietors	24.9%	3.8%	1.7%	1.9%	34.3%
Wage and Salary Employment	1.5%	1.5%	4.3%	4.1%	11.8%
Goods Producing	-2.0%	-3.3%	-3.4%	3.4%	-5.4%
Natural Resources and Mining	30.5%	1.0%	0.2%	0.2%	32.3%
Construction	18.2%	-4.1%	-3.7%	5.9%	15.5%
Manufacturing	-36.4%	-1.6%	-3.0%	-3.2%	-41.3%
Service Providing	7.5%	2.5%	4.1%	3.6%	18.7%
Trade, Transportation and Utilities	-0.5%	-4.0%	-1.7%	-0.7%	-6.8%
Information	-5.8%	1.7%	2.5%	3.6%	1.7%
Financial Activities	17.0%	0.9%	3.1%	1.8%	23.9%
Professional and Business Services	6.8%	9.6%	10.4%	8.0%	39.7%
Education and Health Services	13.2%	3.3%	5.0%	3.7%	27.3%
Leisure and Hospitality	8.5%	6.4%	7.7%	7.8%	34.1%
Other Services	7.6%	1.4%	3.6%	5.2%	18.9%
Government	0.3%	1.9%	0.7%	0.9%	3.8%

Source: Urbanomics, based on New York Metropolitan Transportation Council (NYMTC) Technical Memorandum 5.3.1, October 20, 2008

**Figure 2-5**  
**Projected Growth of Nassau County Employment, 2010-2030**



With current unemployment representing an increase of roughly 25,000 persons over Nassau's long term level of joblessness, the need to absorb these structurally unemployed into meaningful job opportunities represents a significant challenge in a rapidly changing economy. Dominated by Health Care, Government, Retail Trade and the self employed, these sectors represent a mix of growing and declining industries in employment terms, as well as a range of high- and low-paying job opportunities. Although Information has potential in the value of new output (GDP) generated, it is not a major employer. What is

needed are stable and growing middle income job opportunities that were once delivered by high-tech Manufacturing in Nassau County.

As the Nassau County economy recovers, adding 18,200 payroll jobs by 2020 and another 54,600 jobs by 2030, the need to absorb a surplus of unemployed residents must be addressed. Relocations may occur that transfer some unemployed workers to residential areas favored by more robust job markets. Manpower training programs, as well as skill upgrading within the employed labor force, should allow for re-entry of some unemployed even when existing skills are not appropriately matched to those in demand. However, as conditions now stand, the current decade does not allow for a net expansion of the resident labor force at Nassau County work sites if all 25,000 long term jobless need to be absorbed.

Increases in net out-commutation, or a reduction in the influx of workers from neighboring counties, must offset this imbalance. To the extent that a portion of Nassau County's labor force was displaced by the recession-induced decline in financial service and corporate office jobs in Manhattan, as evident in the drop of commuter rail ridership, the on-going recovery in the New York City job market will ease this condition. Every effort should be made to encourage young labor force entrants to hone white collar skills that will meet the needs of employers in Financial Activities, Professional and Business Services, because these sectors are expected to display the greatest rate of growth in both Nassau County and New York City over the current decade.

### 3. PROJECTED GROWTH IN NASSAU COUNTY'S EMPLOYEE COMPENSATION TO 2030

By year end 2010, the level of employee compensation in Nassau County is expected to recover previous losses in nominal dollar terms, rising to \$40.6 billion. Thereafter, growth is forecasted to \$77.1 billion by 2030, at which point comparable annual compensation of Government and the Education and Health Services supersector will likely account for 44 percent of Nassau County employee remuneration (see Table 2-9). Figure 2-5 depicts the prominence of these sectors and the few rising shares of labor payments elsewhere in the economy.

**Table 2-9**  
 Nassau County's Economy – *Employee Compensation by Supersector, 2010-2030*

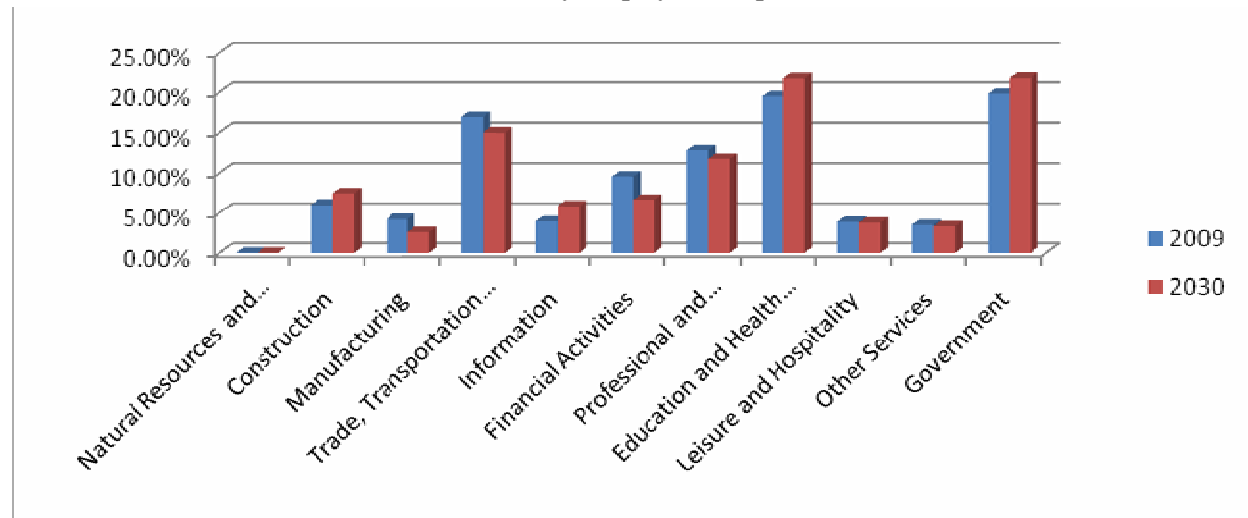
<i>In Millions of Dollars</i>	<b>Employee Compensation (\$000,000)</b>				
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
All Compensation	\$40,559	\$47,590	\$55,708	\$65,506	\$77,076
Private Compensation	\$32,222	\$37,388	\$43,567	\$51,226	\$60,199
Goods Producing	\$3,854	\$4,218	\$5,129	\$6,109	\$7,730
Natural Resources and Mining	\$8	\$9	\$8	\$8	\$8
Construction	\$2,236	\$3,044	\$3,707	\$4,420	\$5,744
Manufacturing	\$1,610	\$1,165	\$1,414	\$1,680	\$1,977
Service Providing	\$36,706	\$43,373	\$50,579	\$59,397	\$69,346
Trade, Transportation and Utilities	\$6,769	\$7,258	\$8,462	\$9,922	\$11,538
Information	\$1,568	\$1,725	\$2,402	\$3,304	\$4,509
Financial Activities	\$3,979	\$4,374	\$4,584	\$4,886	\$5,104
Professional and Business Services	\$5,062	\$5,812	\$6,761	\$7,922	\$9,029
Education and Health Services	\$8,031	\$10,520	\$12,237	\$14,437	\$16,844



Leisure and Hospitality	\$1,578	\$1,826	\$2,114	\$2,473	\$2,894
Other Services	\$1,381	\$1,654	\$1,876	\$2,173	\$2,552
Government	\$8,337	\$10,202	\$12,142	\$14,280	\$16,876

Source: Urbanomics, based on IHS Global Insight

**Figure 2-5**  
**Distribution of Nassau County Employee Compensation, 2009 and 2030**



Source: Urbanomics

## START SIDEBAR

In 2008, with areas of extreme wealth that offset pockets of poverty and middle income neighborhoods, Nassau County remained the second richest county per capita in New York State and the 10<sup>th</sup> richest in the nation, with a median household income of \$85,994. Yet with the decline in commuter earnings and the transformation of local employment from higher to lower wage jobs, it is inevitable that Nassau’s households will be adversely affected. Though slippage in standing or the value of household income is not yet evident, other signs of distress appear in housing foreclosures, and the decline in income of workforce ages.

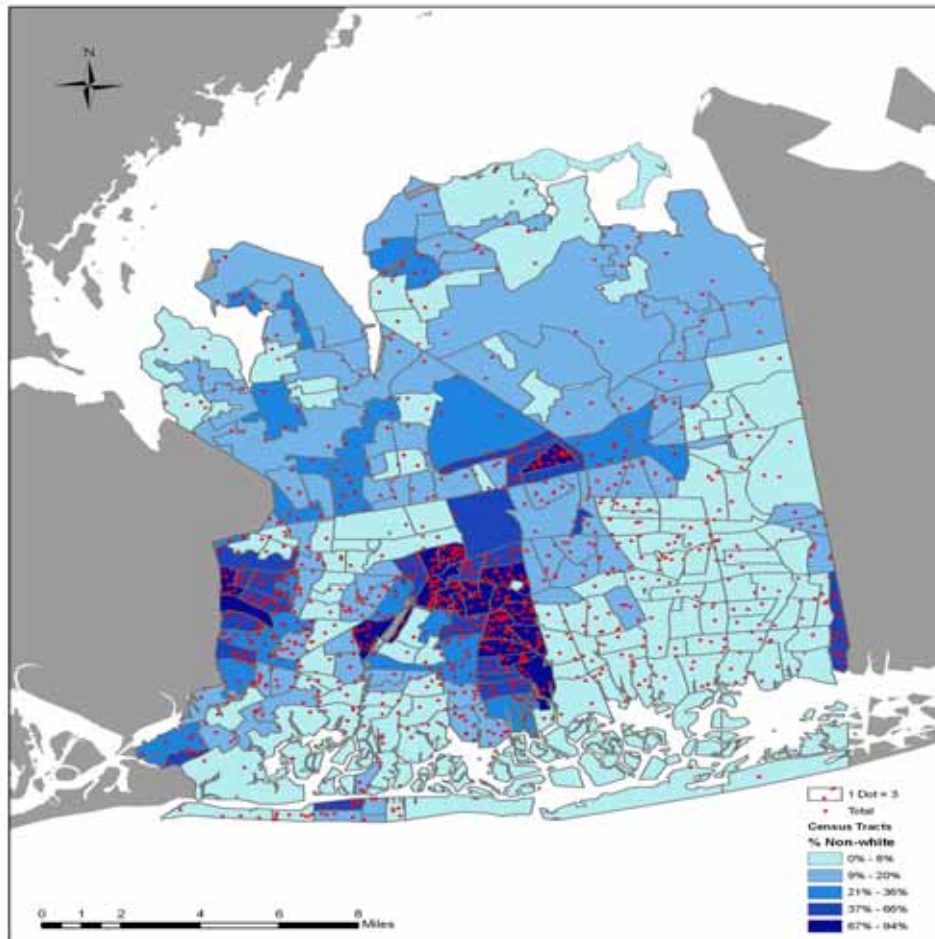
### *Residential Foreclosures*

In 44 months between 2005 and 2008, Nassau County had 12,000 homes, or 3.1 percent of its residential properties, in some stage of foreclosure. As required by the 2009 New York State Mortgage Foreclosure Law, a pre-foreclosure notice must be sent, at least 90 days before the lender commences legal action against the borrower, to all borrowers with home loans - not just to borrowers with high-cost, subprime and non-traditional home loans. Between February 13, 2010 and August 31, 2010, pre-foreclosure notices were sent to 13,661 residential property owners in Nassau County<sup>10</sup>. During this period, Nassau County accounted for the third highest share of pre-foreclosure notices in the state, at 10.2%.

<sup>10</sup> New York State Banking Department, 90 Day Pre-Foreclosure Notice Report, October 7, 2010

Foreclosure rates are highest in largely minority communities of Roosevelt, Freeport, Uniondale and Hempstead, but mortgage delinquencies and bank repossessions are occurring throughout the County as home owners face unexpected hikes in subprime adjustable rates, job losses and declining housing values(see Figure 4-1). If undertaken, the rehabilitation and re-sale of foreclosed properties as affordable housing could effectively support current and future job growth in Nassau County.

**Distribution of Nassau County Housing Foreclosures (2008)**



Source: Urbanomics, 2009 (review of public and private real estate sources)

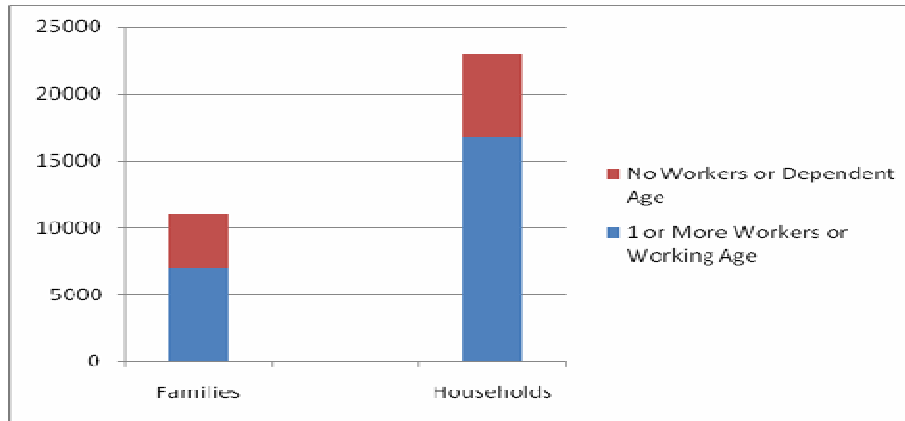
*Rising Poverty*

Over the 2005-2007 period 64,600 Nassau residents in 23,000 households, or five percent of the County’s population, lived below the poverty line.<sup>11</sup> Families comprised half of these households and two in every

<sup>11</sup> The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine the poverty line. If a family’s total income is less than the family’s threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for

three poor families had one or more members working. Among all poor households, a clear majority (73percent) were headed by persons of working age, 25 through 64 years. Since 2000, the number of working age poor residents in Nassau County has increased by 13 percent.

**Poor Families and Households with Workers or Working Age Populations, 2005-2007**



Source: U.S. Bureau of the Census, 2005-2007 American Community Survey

**END SIDEBAR**

**C. COMMERCIAL FLOORSPACE IN NASSAU COUNTY**

With few exceptions Nassau’s land area is fully developed. New opportunities to locate workforce destinations will require occupancy of vacant or idle space, redevelopment of strategic sites, and/or increased densities on existing developed sites.

About one third of Nassau County’s employment is housed in office buildings which comprise approximately 73 million square feet (msf) of built space (see Table 2-10). Most of this space was constructed in the 1980s and consists of multistory buildings of more than 100,000 gross square feet; however, seven buildings exceed one million square feet each; 51 buildings offer more than 200,000 square feet and average less than 375,000 square feet each. Only a small percentage of the County’s office stock is Class A office space suitable for prestigious office operations including large headquarters. The bulk of mid-sized buildings, which accommodate several thousand office workers each, serve primarily a locally-based market of finance, insurance, professional and business services. Approximately 8.2 msf of space exists in office condominiums and another 4.4 msf in professional office buildings that cater primarily to the medical arts. Numerous small offices and low scale office buildings serving neighborhood needs are found in commercial strip developments. With a countywide average floor area ratio of less than one, Nassau’s office market is extremely low density and of low visibility.

inflation using the Consumer Price Index (CPI-U). The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps).

**Table 2-10**  
**Commercial Office and Retail Space in Nassau County, 2009**

<i>Commercial Structure</i>	<i>GSF Building</i>	<i>% GSF Bldg</i>	<i>GSF Land Area</i>	<i>Number</i>	<i>Average Bldg</i>	<i>Average Lot</i>
<b>Office Building</b>	73,169,078	100.0%	98,456,072	2,103	34,793	46,817
Office Building > 25,000 GSF	49,995,646	68.3%		361	138,492	
Condominium Office Building	8,253,205	11.3%		130	63,486	
Professional Office Building	4,392,482	6.0%		356	12,338	
All Other Office	10,527,745	14.4%		1,256	8,382	
<b>Retail Building</b>	67,950,761	100.0%	113,133,785	3,826	17,760	64,162
Auto Dealers: Sales, Service, Used Car Lot	3,113,859	4.6%		269	11,576	
Gas, Convenience and Service	567,045	0.8%		317	1,789	
Retail Service	1,241,044	1.8%		124	10,008	
Regional Shopping Center	17,388,985	25.6%		32	543,406	
Area/Neighborhood Shopping Center	16,408,821	24.1%		283	57,982	
Condo Strip Stores - Retail	161,393	0.2%		9	17,933	
Department Store	6,256,604	9.2%		33	189,594	
Discount House	3,909,998	5.8%		57	68,596	
Large Retail Food Store - Supermarket	1,715,332	2.5%		44	38,985	
Dealerships Sales/Service (non-Auto)	12,876	0.0%		2	6,438	
Row Type Store	17,174,804	25.3%		2,656	6,466	

Source: Nassau County Real Property Tax Parcel Records

### 1. PAST TRENDS IN NASSAU COUNTY'S OFFICE SPACE

According to brokerage data of CB Richard Ellis, the Nassau County inventory of leasable office space increased from 22.8 million square feet in 2004 to 25.0 million square feet by 2010. Over the same period, the available space being marketed to potential occupants as rentable direct or sublease space rose from 1.9 to 4.2 million square feet, or more than doubled. As a consequence, Nassau's availability rate climbed to 16.8 percent, considerably above the 6 percent normally expected for clearing the market. However, the Nassau County office market appears in better condition than that of Suffolk or Westchester County.

As Table 2-11 shows, Westchester has 31.4 million square feet of inventory, down slightly from 32.5 million in 2004, but 6.3 million square feet are currently available or 19.9 percent vacant. Suffolk, which has a smaller inventory of 15.5 million square feet, is currently beset by a 20.9 percent availability rate.

Whereas the run-up in occupied office space (net absorption) turned negative in both Nassau and Suffolk in 2008 – or later than the four mounting years of declining occupancy in Westchester – Nassau’s net absorption began to improve in 2009, unlike Suffolk’s or Westchester’s (Figure 2-6). Average asking rents are also higher in Nassau, at \$27.96 per square foot annually, and have declined more slowly over the last few years than in Westchester County (Table 2-12). Other measures of changing office values are not available.

Tables 2-11 and 2-12, as well as Figures 2-7 and 2-8, show comparable data for retail and industrial space. Normally, commercial space excludes industrial but includes hospitality and service-related space in addition to office and retail. In all three counties, the inventories for available non-office uses are greater than for office space, although availability is more constrained. Nassau County has experienced a drop in occupancy of retail and industrial space since 2008, whereas Suffolk and Westchester continue to absorb new occupants. Industrial rents are considerably lower than office space but retail rents are roughly comparable. Since 2007, retail has lowered asking rents by more than 9 percent in Nassau County, significantly steeper than in Suffolk but in line with changes that occurred in Westchester County.

**Table 2-11**  
**Commercial Floor Space in Nassau and Neighboring Counties – Built Inventory and Available Space**  
*In 2004-2009<sup>12</sup> (000s of square feet and % of broker inventory)*

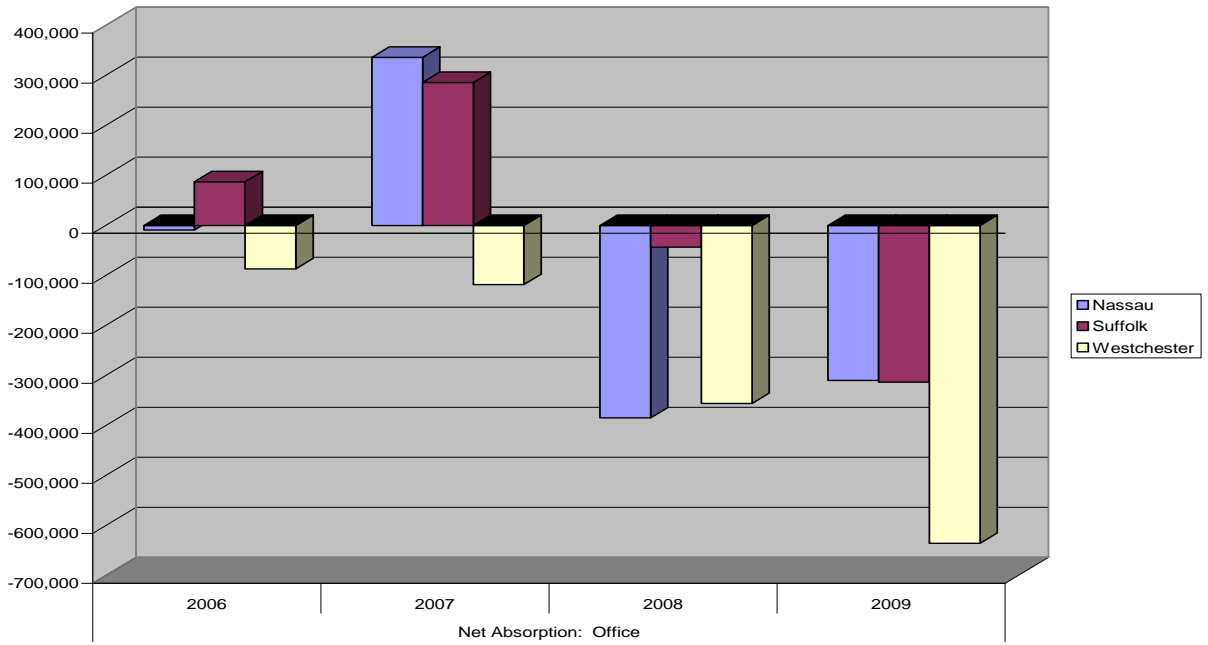
Year 2004									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester
Office	22,794	14,907	32,462	1,862	1,899	4,301	8.2%	12.7%	13.2%
Industrial	60,024	116,687	33,665	3,514	5,385	1,287	5.9%	4.6%	3.8%
Year 2005									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester
Office	22,675	15,020	32,170	2,624	2,115	4,672	11.6%	14.1%	14.5%
Industrial	60,101	116,918	33,692	2,701	4,266	2,130	4.5%	3.7%	6.2%
Year 2006									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester
Office	23,156	15,355	32,127	2,824	2,264	4,715	12.2%	14.7%	14.7%
Industrial	60,237	117,163	33,702	2,237	4,181	2,090	3.7%	3.6%	6.2%
Retail	51,393	60,726	43,225	3,029	3,490	2,405	5.9%	5.8%	5.6%
Year 2007									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester
Office	24,360	15,310	32,393	3,083	2,108	5,028	12.7%	13.8%	15.5%
Industrial	60,237	117,175	33,702	2,566	4,105	1,253	4.3%	3.5%	3.7%
Retail	51,474	60,944	43,326	3,199	3,171	2,641	6.2%	5.2%	6.1%
Year 2008									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester
Office	24,895	15,426	31,767	3,497	2,425	5,186	14.0%	15.7%	16.3%
Industrial	60,307	117,883	33,850	2,067	4,539	1,389	3.4%	3.9%	4.1%
Retail	51,550	61,990	43,683	2,669	2,927	2,385	5.2%	4.7%	5.5%
Year 2009									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester
Office	24,945	15,572	31,557	4,076	3,102	5,731	16.3%	19.9%	18.2%
Industrial	60,307	118,389	34,080	2,564	5,010	1,529	4.3%	4.2%	4.5%
Retail	51,628	62,204	43,723	2,862	3,171	2,031	5.5%	5.1%	4.7%
Year 2010: Qtr II									
	Inventory			Available Space			% Available		
	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester	Nassau	Suffolk	Westchester

<sup>12</sup> The square footage or floor space reported by the brokerage firm office inventory is less than the inventory of office building space identified by the Nassau County Assessor. It is assumed that the brokerage firm office inventory includes speculatively developed, largely Class A space of recent vintage, not space in owner-occupied or lower class office buildings.

Office	24,953	15,515	31,404		4,198	3,242	6,277		16.8%	20.9%	19.9%
Industrial	60,247	118,359	34,898		2,981	5,777	1,519		4.9%	4.9%	4.5%
Retail	51,918	62,252	44,093		2,856	3,250	2,043		5.5%	5.2%	4.6%

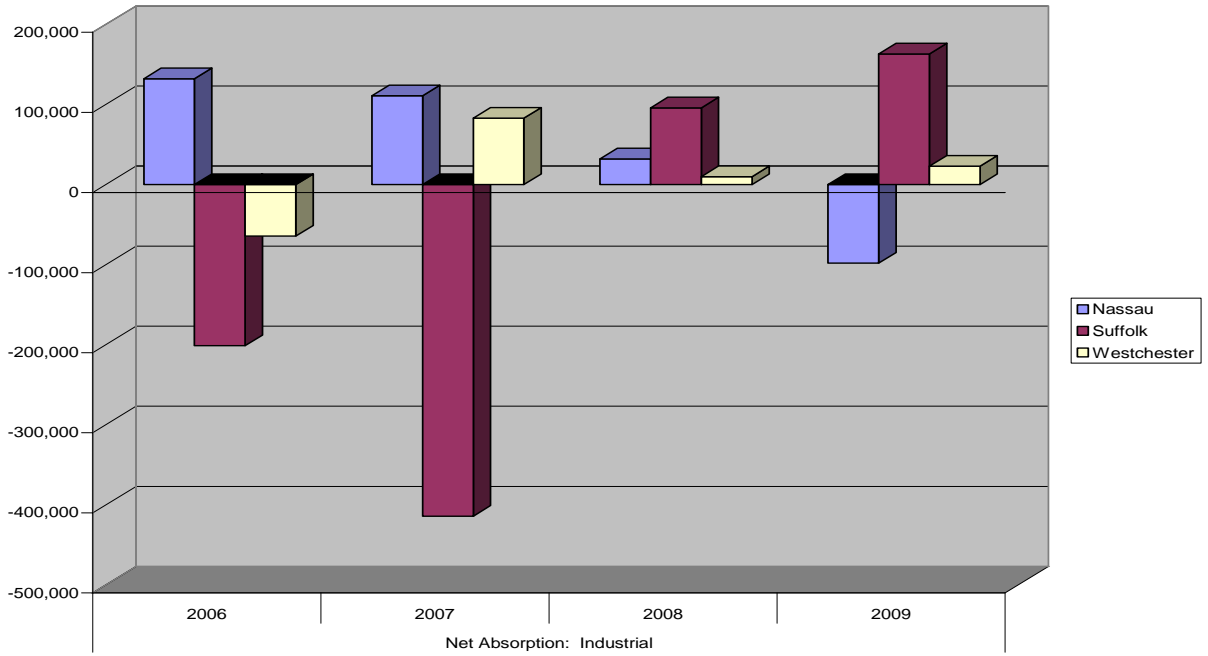
Source: CB Richard Ellis

**Figure 2-6**  
**Net Absorption of Office Space in Nassau and Neighboring Counties, Annually 2006-2009**



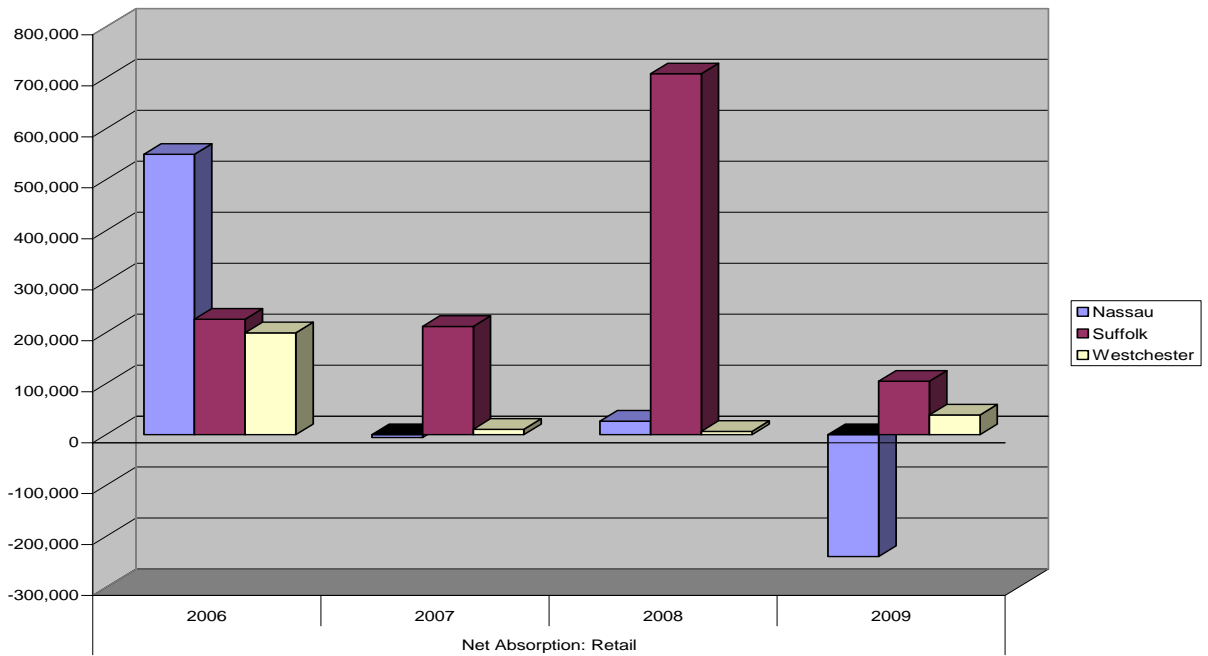
Source: CB Richard Ellis

**Figure 7**  
**Net Absorption of Industrial Space in Nassau and Neighboring Counties, Annually 2006-2009**



Source: CB Richard Ellis

**Figure 8**  
**Net Absorption of Retail Space in Nassau and Neighboring Counties, Annually 2006-2009**



Source: CB Richard Ellis



**Table 2-12**  
**Average Asking Rents of Commercial Floor Space in Nassau and Neighboring Counties, 2006-2009**

	Average Asking Rents: Office				
	2006	2007	2008	2009	2007-09%
Nassau	\$29.26	\$29.23	\$29.65	\$27.96	-4.3%
Suffolk	\$24.41	\$24.66	\$25.10	\$24.12	-2.2%
Westchester	\$27.20	\$29.04	\$28.05	\$26.77	-7.8%
	Average Asking Rents: Industrial				
	2006	2007	2008	2009	2007-09%
Nassau	\$9.49	\$11.70	\$11.29	\$11.30	-3.4%
Suffolk	\$9.29	\$8.34	\$9.11	\$8.77	5.2%
Westchester	\$12.03	\$11.64	\$11.75	\$11.16	-4.1%
	Average Asking Rents: Retail				
	2006	2007	2008	2009	2007-09%
Nassau	\$29.02	\$27.50	26.81	\$24.95	-9.3%
Suffolk	\$27.55	\$22.34	23.86	\$22.17	-0.8%
Westchester	\$30.56	\$29.17	27.81	\$26.42	-9.4%

Source: CB Richard Ellis

## 2. PROJECTED NASSAU COUNTY OFFICE SPACE REQUIREMENTS

Nassau County's best prospects for more work site employment, labor force expansion, and new development rests with the growth in commercial office activity. As noted previously, despite the scale of employment in Education and Health Services, the net increase in job opportunities (+40,000, 2010-2020) and the rate of employment growth (18%) is forecasted to be greater in Financial Activities, Professional and Business Services. These sectors require modern office space in commercial office buildings, well-situated with respect to transportation facilities and support services.

In order to lower Nassau County's office availability rate to 6 percent, a generally accepted standard by real estate brokers for clearing the market, it would be necessary to absorb 2.7 million square feet without adding new inventory. At assumed space occupied of 250 square feet per office worker, the net new absorption would adequately accommodate 10,800 office workers. Given the reduction in average asking rents, the growth in office type employment is likely to seek out available affordable space before committing to occupy new commercial development. Retail vacancies are not excessive and the available retail inventory has reputedly contracted in recent years. Comparable space data for hospitality and other service related uses are not available.

Thus, the long term demand for commercial uses, net of the re-occupancy of existing office space, will be a function of office/retail/hospitality/service employment change between 2010 and 2030, less 10,800 workers<sup>13</sup>. Table 2-13 presents a forecast of 77,400 new commercial employees in Nassau County which

<sup>13</sup> At 250sf per office employee, re-occupancy of existing vacant office space in Nassau County would account for approximately 10,800 new workers.

equates to a net demand for space by 66,600 jobs. At 250 square feet per office employee and 400 square feet per other commercial worker, the next 20 years should experience a feasible level of new commercial development at 20 million square feet.

**Table 13**  
**Employment Forecast for Commercial Space Development, 2010-2030**

<i>In Thousands of Jobs</i>	<b>Employment (000)</b>						<b>Net 2010-2030 [Accounts for re-tenancy of vacant office space]</b>
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2010-2030</b>	
All Commercial Employment	471.9	489.5	504.0	526.7	549.3	77.4	66.6
Office Type Employment	279.7	290.0	303.9	320.6	334.7	55.1	44.3
Information	16.7	15.7	16.0	16.4	17.0	0.3	
Finance and insurance	63.7	67.3	67.9	70.0	71.3	7.6	
Professional, scientific and technical	63.4	67.6	74.1	81.8	88.4	25.0	
Management of companies and enterprises	8.1	8.2	9.0	9.9	10.7	2.6	
Administrative services	38.9	42.1	46.2	51.0	55.1	16.2	
Government and government enterprises	88.9	89.1	90.8	91.5	92.3	3.4	
Retail Trade Employment	85.6	84.2	80.0	78.9	78.8	-6.8	-6.8
Leisure and Hospitality Employment	58.7	63.7	67.8	73.0	78.8	20.0	20.0
Other Service Related Employment	47.9	51.6	52.3	54.2	57.0	9.1	9.1

*Source: Urbanomics*

## **B. POLICY RECOMMENDATIONS:**

### *National Trends*

Traditionally, economic growth was based upon physical resources and the products they yielded. Today, knowledge powers the global economy while a lack of available energy and investment resources constrains national economic growth. Consumers play an extraordinarily large role in maintaining growth and shaping the industrial structure, accounting for 70 percent of spending on gross domestic product (GDP).

The current economic recession that began in December 2007 and has since surpassed the 1981-82 and 1973-75 recessions in depth and length, has been exacerbated by a run-up in energy prices and the near collapse of housing and financial markets on a global as well as national scale. Most major economic forecasts predict its end and the start of a slow U.S. recovery by 2010, some 30 months after the recession's onset. Of all the sectors and markets hard hit by this decline, few are expected to record significant gains before the middle of the next decade. According to *Moody's Economy.com*, those few will be knowledge-based, consumer-oriented, and energy-saving.

*Moody's Economy.com* predicts U.S. employment will decline by 3.5 percent over 2009, decelerating to no growth in the first half of 2010, and then marginally expanding to less than one percent employment growth in 2011. By 2012, the economy will have recovered the level of total employment that prevailed four years earlier in 2008. Major job losses have and will continue to occur in the following sectors:

- Manufacturing: Down 7.9 percent in 2009, as continuation of a long term decline, with only modest anticipation of an increase under 1 percent by 2012, never to recover previous highs
- Financial Activities: Down 4.4 percent in 2009, the third year of overall declines, without expected recovery of 2006 peak by 2012

Other sectors will recover peak period losses by 2012, after weak near term expansion:

- Professional and Business Services: – Down 5.5 percent in 2009, following year-long losses in 2008 and no growth in the first half of 2010
- Transportation and Warehousing: Down 4.4 percent in 2009 amidst losses from 2008 to first half of 2010, with recovery of prior peak expected by 2012 year-end
- Wholesale and Retail Trade: Down 3.6 percent in 2009, following losses in 2008, with modest growth that starts mid-year 2010 to recover by mid-to-end 2012
- Information: – Down 3.5 percent in 2009 with job losses from mid 2007 to mid-2010, thereafter modest growth to recover 2005 peak

A few major sectors will experience near term growth that propels job levels above prior peak years:

- Education and Health: Down only 0.1 percent in 2009 from six-month losses that end in Quarter III, followed by significant and accelerating expansion by 2011
- Government: Down only 0.3 percent in 2009 from six-month losses that end in Quarter III, followed by modest steady increases in 2010 through 2012
- Utilities: Down 1.4 percent from nine month losses in 2009, followed by losses through mid 2010, but gains thereafter to recover 2009 Quarter I peak by 2012
- Other (Personal and Nonprofit) Services: Down 2.7 percent in 2009, following delayed losses in latter half of 2007, but anticipated expansion of nearly 1 percent in 2011 and 2012
- Leisure and Hospitality: Down 2.9 percent in 2009, the second full year of loss, but positioned to grow more than 1 percent annually from 2011 onward

**START SIDEBAR**

**THREE MEASURES OF ECONOMIC DEVELOPMENT**

Using *Cluster Analysis*, the NYS Department of Labor identified the following growth sectors for Long Island in 2006. In addition to office activities, the selected clusters are knowledge-based and consumer-oriented activities:

**Selected Growth Clusters on Long Island, 2006**

	Employment	Avg An'l Wages	% Change, 2003-2006	
			Employment	Total Wages
Back Office & Outsourcing	20,700	\$39,630	18.7%	35.5%
Biomedical	14,400	\$50,590	2.9%	11.5%
Communications, Software & Media Services	33,700	\$58,730	1.6%	6.3%
Front Office & Producer Services	73,500	\$63,070	3.6%	12.4%
Information Technology Services	11,000	\$75,280	3.8%	18.1%
Travel & Tourism	9,863	\$31,420	3.6%	13.4%

*Source: New York State Department of Labor, 2006*

Using *Shift-Share* analysis, the Northeast Regional Project and the U.S. Bureau of Labor Statistics identified the national, structural, and competitive share components of Nassau County's employment growth between 2000 and 2007. Overall, jobs in the County grew primarily due to the national economy, with national job growth registering 4.2 percent. The Nassau employment mix accounted for much less growth potential than the national average. Most of Nassau's identified growth potential was in the Education and Health Services, Construction, and Leisure and Hospitality industries.

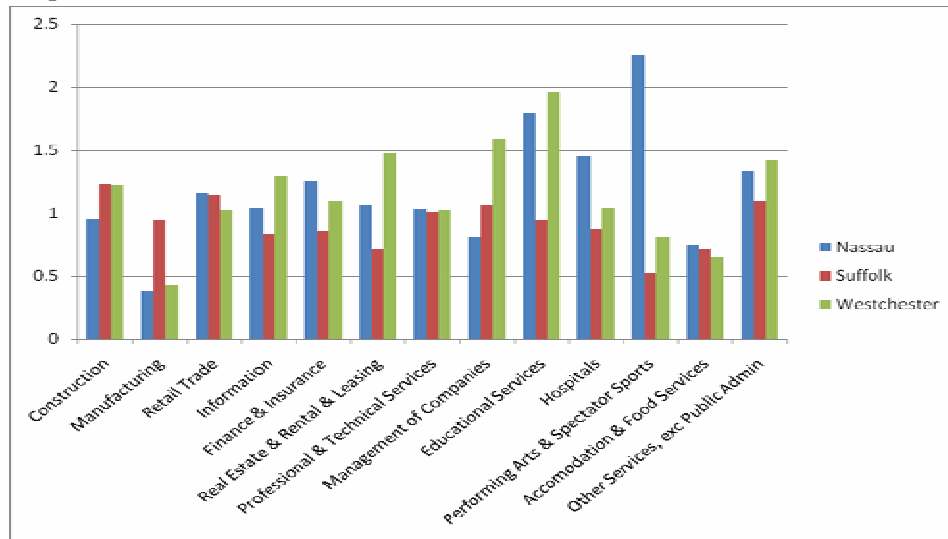
**Shift-Share Analysis for Nassau County, 2000-2007**

Sector	National Growth Component	Industrial Mix Component	Competitive Share Component	Total Job Change, 2000-2007
Education and Health Services	5,848	16,947	3,335	26,130
Information	726	-3,378	2,232	-420
Construction	1,117	2,375	259	3,751
Leisure and Hospitality	1,952	4,375	-1,052	5,275
All Other Major Sectors	15,542	-7,977	-38,333	-30,768
Total	25,185	12,342	-33,559	3,968

Source: Northeast Regional Project and U.S. Bureau of Labor Statistics

Using *Location Quotient Analysis*, the U.S. Bureau of Labor Statistics compared the relative intensity of employment by sector in Nassau, Suffolk and Westchester counties to comparable jobs in the nation in 2008, using the Quarterly Census of Employment and Wages. As Chart 4-5 shows, Nassau’s employment in Performing Arts and Spectator Sports is more than twice as concentrated as the nation’s, while Suffolk’s employment is only half as concentrated. Similarly, Nassau’s concentration in Educational Services and Hospitals far outranks Suffolk in both sectors, though Westchester has a slightly higher density of Educational Services. Compared to Suffolk County, Nassau’s other competitive sectors are Information, Finance and Insurance, Real Estate, and Other Services. Relative to Westchester County, Nassau’s jobs are somewhat stronger in Retail Trade, Finance and Insurance, Accommodation and Food Services, as well as the leading sectors of Hospitals and the Arts. In the Management of Companies, a potential for expansion is suggested by Nassau’s shortfall relative to both Suffolk and Westchester.

**A Comparison of Location Quotients: Nassau, Suffolk & Westchester to the Nation in 2008**



Source: U.S. Bureau of Labor Statistics

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**POLICY 1: ENCOURAGE GROWTH AND PARTNERSHIPS IN HIGH TECH/HIGH SKILLED INDUSTRY, EDUCATION, HEALTHCARE, ENTERTAINMENT, AND TOURISM**

Knowledge-based and consumer-oriented activities that are anchored in the nation's leading growth sectors offer the most promise for generating employment opportunities in Nassau County, especially when they are consistent with demonstrated strengths and competitive advantages of the local economy. Knowledge-based activities rely upon education, experience, and ingenuity to produce innovations that increase productivity, create new or customized products and services, and drive economic growth. Different from information-based activities that can be more easily reproduced through patents and established processes, knowledge-based activities are not easily codified or replicated, and produce spillovers or benefits to those beyond their immediate markets. Health care, higher education, software engineering, bio-medical research, information services and green energy development are pre-eminent among knowledge-based activities and represent identifiable clusters of economic activity for expansion in Nassau County.

***High Tech/High Skilled Industry***

High-technology employment is credited with increasing overall productivity and global competitiveness, stimulating economic growth, and creating well-paying jobs. Defined as activities that are engaged in design, development and introduction of new products and/or innovative processes through applied scientific and technical knowledge, high-tech industries are drawn primarily from the following fields:

- Biotechnology & scientific research and development (R&D)
- Computer hardware, software & internet services
- Electronics and instruments manufacturing
- Communications equipment and telecommunications
- Aircraft manufacturing
- Architecture, engineering and land surveying

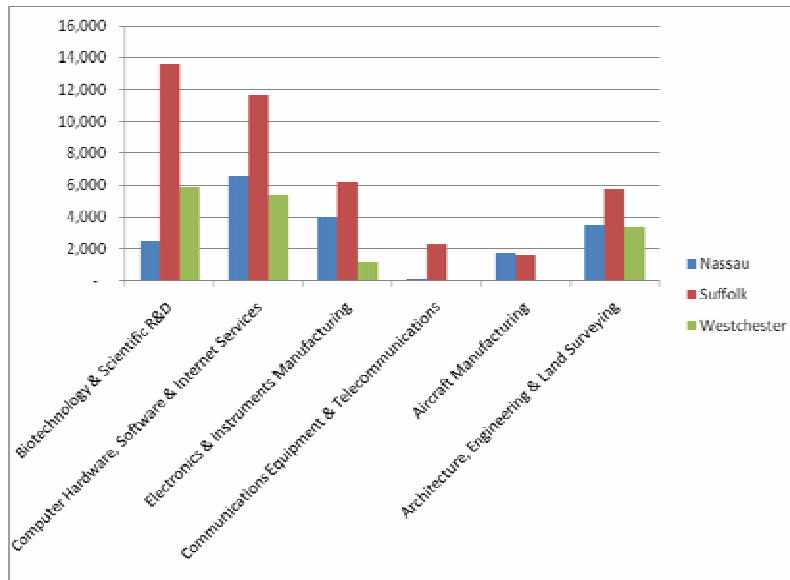
As of 2006, Nassau County had approximately 18,400 high tech jobs<sup>14</sup> in 1,700 establishments. The Grumman property in Bethpage has a cluster of high-tech industries. As Figure 2-9 shows, computer hardware and software, electronics and instruments, and architectural and engineering services dominate the high tech sector with roughly 3,500 to 6,500 jobs each. Biotechnology and scientific R&D provide approximately 2,500 jobs in Nassau. By comparison, Suffolk and Westchester counties have 41,000 and 15,650 high-tech jobs in 1,908 and 1,311 establishments, respectively. Though not as competitive as Suffolk, Nassau's strengths rest with the quality of its more notable high tech facilities. Nationally, high-tech employment has grown by 16% over the past decade. Nassau County should aim to replicate this growth in the coming two decades, attracting at least 6,000 new high-tech jobs by 2030. To achieve this goal, Nassau should seek to establish a partnership with the Long Island Forum for Technology to market Nassau as a hub for high tech jobs.

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<sup>14</sup> Update: In 2008, Nassau County had approximately 14,800 high tech jobs in 1,600 establishments.

**Figure 2-9**

**High-Tech Employment in Nassau & Suffolk Counties by Subsector, 2006**



*Source: County Business Patterns, 2006, U.S. Census Bureau*

Cold Spring Harbor Laboratory in Laurel Hollow is a world-class research institution where more than 300 scientists and over 100 post-doctoral and graduate students conduct groundbreaking research at the forefront of efforts in molecular biology and genetics. The Laboratory supports major programs in cancer research, neuroscience, plant biology, genomics and bioinformatics, and maintains a broad educational mission. Since its founding in 1891, Laboratory scientists – including seven Nobel Laureates – have significantly advanced the treatment and diagnosis of cancer and the understanding of the human genome.

The Laboratory recently constructed four new buildings and adopted a master plan to develop two additional research buildings, a great hall meeting facility, a degree-granting school of biological science, a new library, a building for special collections, six new residence halls, a sports facility, and several existing building extensions and renovations. Employment growth and course attendance are tied to changes in research funding. Over the past decade total staffing has grown from roughly 750 full-time employees to nearly 1,000 full and part-time employees, including graduate students and fellows.

The former Northrop Grumman site at Bethpage provides a significant opportunity for development of a science-based lifestyle campus for high technology industries. This facility contains more than one million square feet of industrial space in 20 buildings. Adjacent to the Long Island Rail Road, within one mile of its nearest rail station, fully equipped with all utilities and adequate parking. Moreover, reflecting the site’s history of aircraft development, Grumman-Bethpage is still surrounded by notable homeland security/defense companies like Northrop Grumman, Lockheed Martin, American Defense Systems, and Aeroflex.

Building upon Nassau County's existing concentrations of homeland security, software, and alternative energy firms, the potential exists for significant job growth in highly skilled, high paying activities at Bethpage by tapping into the growth potential foreseen for the advanced composite materials industry<sup>15</sup>. At the national level, the aerospace industry demand for composite materials is anticipated to quadruple over the next 20 years, to \$30 billion annually.

Future applications of high strength, intelligence-embedded materials are not only restricted to aerospace and military defense, but also find direct uses in improving autos, boats, wind turbines and other alternative energy and transport equipment. By partnering with homeland security/defense firms and academic research interests of nearby universities, like Hofstra, and coupled with support from private venture capital and public funding sources, like the New York State Foundation for Science, Technology and Innovation (NYStar), an advanced materials science park could generate considerable research activity on-site and stimulate off-site development of hi-tech manufacturing processes. Elsewhere, university-based science parks have led to the birth of huge local industries, like Hsinchu Science Park and the growth of semiconductor manufacturing in Taiwan.

Somewhat less promising but equally important as a source of high technology jobs for Nassau County, the field of biotechnology and advanced medical research should also be supported by research sites, training and housing accommodations. Major healthcare institutions, medical colleges, private research laboratories, and a few pharmaceutical firms exist in the County, in dispersed locations and campus sites. A tighter network of collaboration may be necessary, focused on a biotechnology innovation center with a program of publicly funded laboratory research and shared clinical trials.

### ***Green Energy***

There is currently no standard for determining the number of dedicated green jobs by industry; however, sector classification methods and recent studies described below are able to shed some light on the potential green job market in Nassau County.

According to the National Governors Association Center for Best Practices, there is growth in some green industry segment in every state of the nation. Green segments are drawn from businesses that produce or practice environmentally-sound goods or services in a diverse array of existing industries, ranging from Construction and Utilities, Manufacturing and Waste Management, to Finance, Real Estate, Professional and Business Services.

By applying a nationally accepted classification of green industries by 6-digit NAICS code to the detailed industrial composition of Nassau's economy, a profile of green employment segments emerges in Table 2-14.<sup>16</sup> Between 2006 and 2008, the latest years for which detailed industry data were available to identify green activity in Nassau County, green jobs grew by 4.8 percent, increasing from 24,800 to

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<sup>15</sup> A precise blending of two or more materials to create a new material that is stronger, lighter and easier to work with than alternative materials such as metals and plastics. Some advanced composite materials have embedded electronics.

<sup>16</sup> It is not possible to determine how many establishments within these segments engage in environmentally sound practices.



26,000<sup>17</sup>. Although wage and salary data were not available for all these sectors, those that construct Renewable Energy Systems had average industry wages of \$54,400 in 2008 while some that design Energy Efficient manufactured products paid \$56,600 per employee. The largest potential green industry segment – Renewable Energy Support Functions with 11,600 jobs in 2008 – was comprised of financial service firms and civil engineering companies that paid employees \$66,600 on average. Commercial banks and investment houses finance green projects and broker carbon emissions credits, while civil engineering firms design pollution control and waste management systems.

**Table 2-14**  
**Nassau County’s Potential Green Industry Segment Employment, 2006-2008**

<b>Green Employment Sectors</b>	<b>2006</b>	<b>2008</b>	<b>% Chge</b>
Renewable Energy Support Functions	11,016	11,557	4.9%
Renewable Energy Generation/Transmission/Construction	2,065	2,403	16.4%
Biofuels	60	50	-16.7%
Energy Efficiency Development & Manufacturing	468	712	52.1%
Green Building Construction	9,591	9,571	-0.2%
Recycled Materials	1,187	1,397	17.7%
Consulting & Support	427	317	-25.8%
<b>Total Green Functions</b>	<b>24,814</b>	<b>26,007</b>	<b>4.8%</b>

*Source: County Business Patterns, 2006-2008, U.S. Census Bureau*

Green Building Construction is potentially the second largest source of green industry segment employment in Nassau County. Consisting largely of residential, commercial and industrial builders, as well as architectural firms and real estate agents that promote green development, employment in these establishments was virtually unchanged between 2006 and 2008 but average wages were \$48,300 per annum. More favorably, the smaller Consulting & Support segment, which includes environmental consultants, environmental conservation and wildlife organizations, paid annual average wages of \$58,200 to a small but shrinking workforce in 2008. Recycled Materials -- the second fastest growing green segment that handles Nassau County’s solid and hazardous materials wastes as well as provides remediation services – pays less than average wages of \$45,500 per annum.

In an effort to more accurately quantify green jobs by sector, the New York State Department of Labor is currently undertaking a Green Jobs Study to determine the number and type of jobs involved in the production, distribution, installation, construction, design, consultation, and financing of renewable energy and energy efficiency products and services throughout the State<sup>18</sup>. The study seeks to more accurately quantify the green employment sector and emerging jobs, as well as develop appropriate job training and funding strategies.

<sup>17</sup> County Business Patterns, 2006-2008

<sup>18</sup> Green Careers NY – Green Jobs Study (<http://www.greencareersny.com/survey.shtml>)

In 2008, the United States Conference of Mayors and the Mayors Climate Protection Center undertook a study to measure current and potential green jobs in U.S. metropolitan areas. They defined the number of workers employed in green activities more strictly, as:

- any activity that generates electricity using renewable or nuclear fuel
- agriculture jobs supplying corn or soy for transportation fuel
- manufacturing jobs producing goods used in renewable power generation
- equipment dealers and wholesalers specializing in renewable energy or energy-efficiency products
- construction and installation of energy and pollution management systems
- government administration of environmental programs
- supporting jobs in engineering, legal, research and consulting fields

Using more strict criteria for determining the number of green jobs, as of 2006, there were 750,000 green jobs in the national economy and fully 85 percent were located in metropolitan areas. The New York-Northern New Jersey-Long Island NY-NJ-PA metropolitan area was the highest ranking area with 25,021 green jobs as of 2006. Using Global Insight forecasts at the national and metropolitan levels, the potential growth in green employment was calculated under assumptions for the future of renewable electricity generation, increased energy efficiency for residential and commercial buildings, and increased usage of renewable fuels by the transportation sector. The forecast for the New York-Northern New Jersey-Long Island metropolitan area was 197,971 green jobs by 2038.<sup>19</sup>

Although detailed measurement of green jobs under existing and forecasted conditions is not available for Nassau County, the foregoing sources coupled with sector employment projections suggest that one potential for green job growth rests with the anticipated expansion of Construction employment. New residential and commercial construction, as well as the retrofitting of existing development, should incorporate new energy efficient features and green building materials. Conceivably, some products could be produced in Nassau County, such as solar panels and recycled materials, while even more jobs could be created by installation. Given the nature of building retrofitting, the specialty trade contractor component of the Construction sector will ultimately benefit the most from these employment opportunities. Increasing demand for green building work can generate new jobs for electricians, HVAC technicians, carpenters, plumbers, roofers, laborers, and insulation workers, among others.

Another potential for green job growth stems from Nassau's technological resources and engineering expertise of its universities, research institutions and advanced high-tech manufacturers. By working collaboratively, these establishments could generate the skills and innovations to make clean energy a reality. A shift to a greener economy will not only reduce Nassau's carbon footprint, but also create well-paying employment opportunities. With appropriate investments and new regulations, such actions could result in the generation of at least 15,000 new jobs in Nassau County by 2030.

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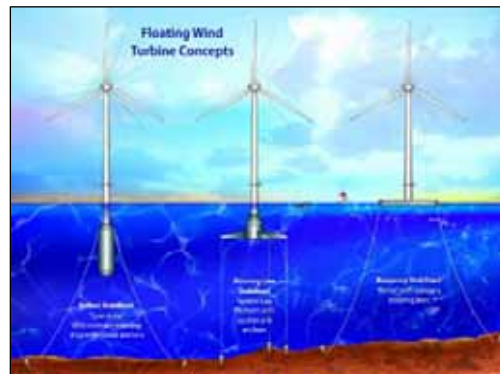
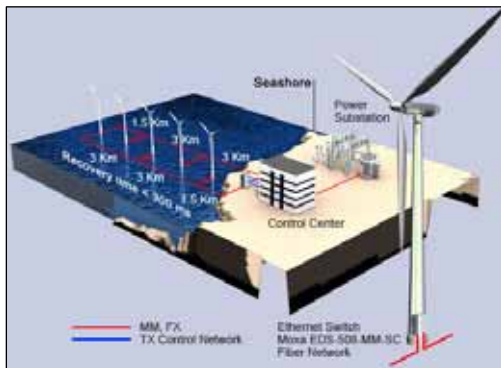
<sup>19</sup> The United States Conference of Mayors and Global Insight, Inc., *Green Jobs in U.S. Metro Areas*, October 2008.

**BEGIN SIDEBAR**

Over the long term, products and services delivered by Nassau County’s green segments will likely find new uses or take new forms in response to market demands. The following illustrations identify specific uses and new directions for private and public policy implementation. In ensuring a sustainable economic as well as environmental future, all alternative energy proposals should be accompanied by a cost-benefit analysis that considers the effects on existing utility rates.

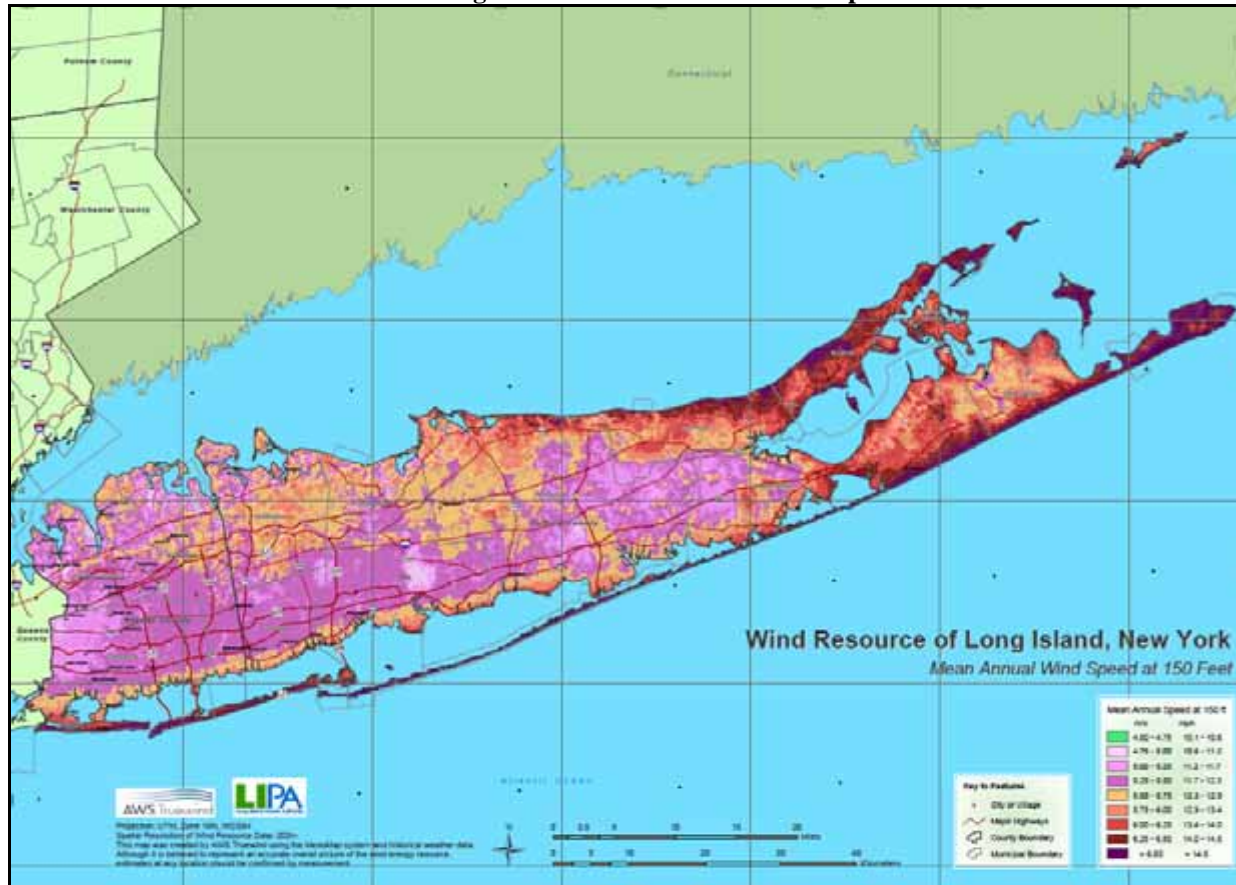
Renewable Energy Sources: Wind Power

- Types/Information:
  - Large Scale: Turbines and Farms (higher output, higher cost, more visual)
  - Small Scale: Microgeneration (lower output, lower cost, less visual)
- Requirements:
  - A wind of approximately 11 mph is required for efficient energy production from small grid-connected wind machines, while 13 mph is required for wind farms.
- Examples:
  - Land wind farms: Half Hollow Nursery in Laurel, Suffolk County, LI (at 156 feet tall, the 100 kW turbine is expected to generate 157,600 kilowatt hours annually); Jersey-Atlantic Wind Farm, Atlantic City, NJ (as shown below, the 7.5 MW farm produces 19 million kilowatt hours annually or sufficient energy to power 2,000 homes)
  - Water based wind farms: Cape Wind, Massachusetts (a 2010 approved offshore wind farm in Nantucket Sound will generate 454 MW of electricity from 130 turbines, or enough to power 420,000 homes)
  - Wind turbine generators: 2.5 kW generators were installed on the defunct Shoreham nuclear power plant site in Suffolk County
  - Proposed Queens Wind Farm to be sited 14 miles off western end of Rockaway Peninsula by 2017 is expected to generate 350-700 MW, or enough to power 250,000 homes
- Policy Applications:
  - Southampton, Southold, Shelter Island, Riverhead and East Hampton Village are buying wind power through LIPA’s Green Choice program.
- Employment:
  - National Wind Engineers: 150,000
  - Projected 10 yr Growth: 7-13%
  - Median Salary: \$89,560





**Map 1**  
**Wind Resource of Long Island at Mean Annual Wind Speed for 150 Feet**



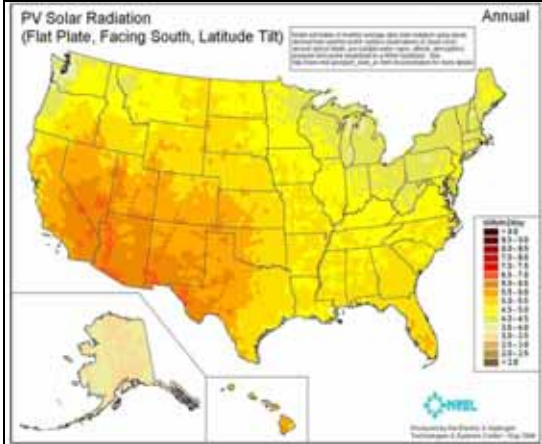
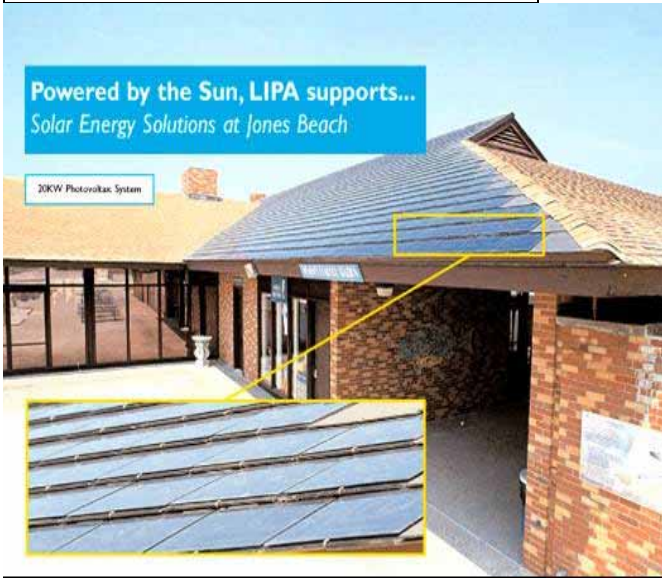
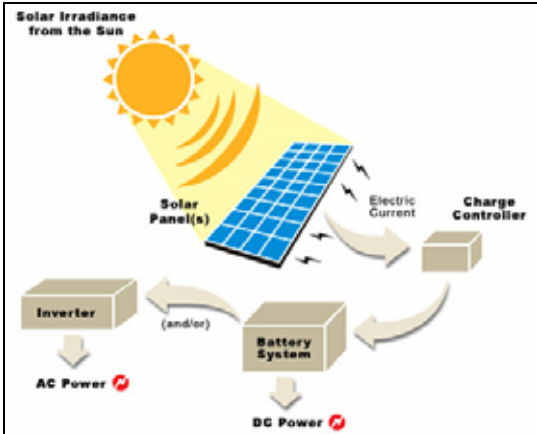
Source: Long Island Power Authority

- Financial Costs, Savings and Incentives:
  - Long Island Power Authority (LIPA) will provide residents, businesses and non-profits with financially feasible rebates and incentives for the installation and/or operation of wind energy systems, assuming there are adequate wind resources (at least 11 mph), sufficient property for siting, and local zoning permission.
  - For homeowners, a LIPA customer may receive up to 60 percent of installed costs or \$3.50 per kWh produced (up to 16,000 kWh annually), for a maximum rebate of \$56,000.
  - Combined with a NYS tax and federal Residential Wind Investment Tax Credit (30% through December 31, 2016), energy becomes very affordable.
  - Under existing conditions, a typical 10 kW energy system requires a \$16,800 customer investment, net of rebates and tax credits, but yields a \$2,575 savings for LIPA customers, a 6.5 year simple payback. Before undertaking such an investment, potential users need to rigorously review the system economics and affect on energy rates.

Renewable Energy Sources: Solar Power

- Types/Information:
  - 3 main types: monocrystalline, polycrystalline, and amorphous photovoltaic (PV) panels. Plus many other competing technologies.
    - Heliostat towers (or solar power tower) utilizes mirrors to focus sunlight on a central solar panel system which boils water (or another liquid) which drives a steam turbine
- Requirements: battery or other storage capacity for days with less sunlight.
- Examples:
  - LIPA's Solar Pioneer Program has installed over 1,300 PV solar systems on Long Island over the last 8 years. The current program incentive tranche has been fully subscribed and the next tranche will begin accepting applications on October 1, 2010.
  - LIPA's R&D project, "Sunslates," installed an 18 kW solar array at Jones Beach, Field One, and a 15 kW solar array at the New York Institute of Technology in Old Westbury, LI (as shown below).
  - Numerous private homes in Nassau County with unobstructed access to the sun have installed PV panels on southern facing roofs exposed to sunlight between 9AM and 4 PM (as shown below).
- Policy Applications:
  - Nassau County legislature adopted a resolution seeking to meet at least 25 percent of Nassau County facilities' electricity needs with solar, wind and other renewable energy sources. Similar legislation was also passed in Suffolk County.
- Employment:
  - National Solar Engineers: 183,000
  - Projected 10 yr Growth: 7-13%
  - Median Salary: \$92,950

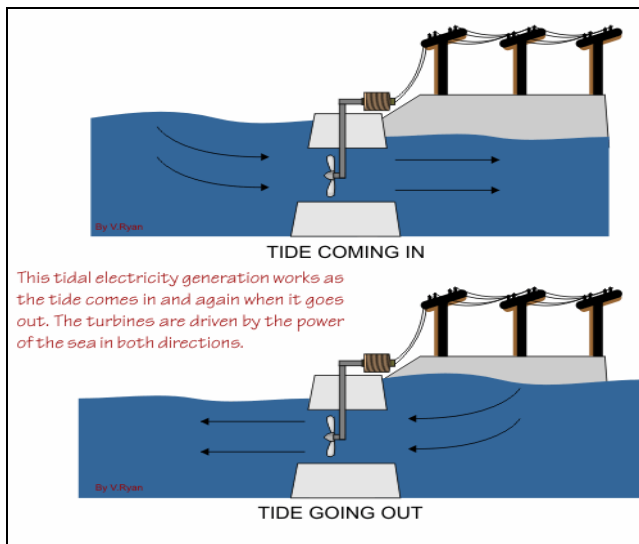




- Financial Costs, Savings and Incentives:
  - The Solar Pioneer Program of the Long Island Power Authority (LIPA) will provide residential electric customers with a maximum rebate of \$17,500 or 50 percent of the installed costs of a new grid-connected PV system, whichever is less.
  - Combined with a NYS tax and federal Residential Wind Investment Tax Credit (respectively, 25% and 30%), a typical 5.2 kW PV system installed cost of \$30,160 will require only a \$9,742 customer investment.
  - Based on an estimated annual output of 6,620 kWh valued at 0.196 cents/kWh rate, the estimated yearly savings would be \$1,297 or a simple payback of 7.51 years.

Renewable Energy Sources: Tidal Power

- Types/Information: the tidal pulls are harnessed to turn turbines and generate electricity. Similar to wind turbines, but with more reliability if there are tides nearby. Newer technology is tidal stream generators.
- Examples:
  - Verdant Power – East River, Roosevelt Island, New York City
    - First grid connected, free flow tidal power system
    - Windmill like turbines attached to river bed
    - Delivered 70 megawatt hours over 2 years to commercial customers on Roosevelt Island
    - 30 turbine, 1 megawatt build out in process
- Employment:
  - National Marine Engineers: 8,000
  - Projected 10 yr Growth: 3-6%
  - Median Salary: \$74,330





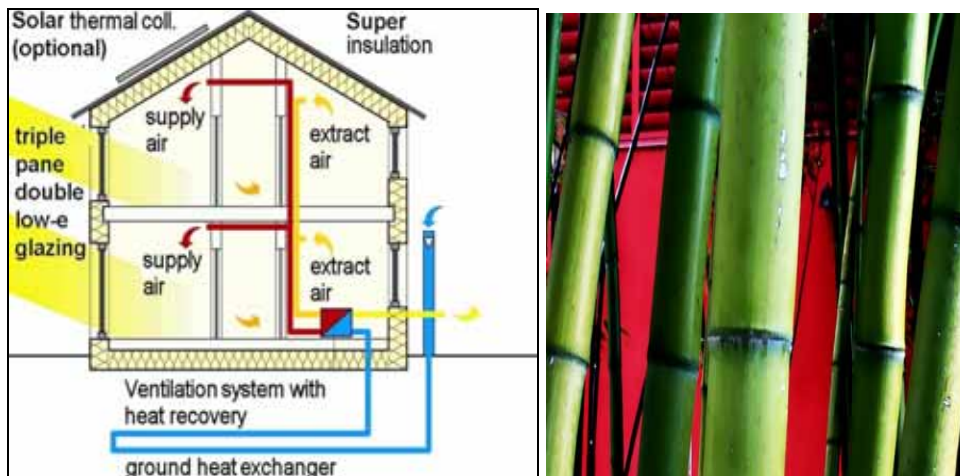
Renewable Energy Sources: Biofuels

- Types/Information: The re-use of natural plants and wastes for fuel usage. Bioethanol (sugar and starch crops) and biodiesel (vegetable oils, animal fats, or recycled greases) are the two primary types.
- Examples: Bohemia, NY (North American Biofuels, Co.), NYC (Metro Bio Fuel), Bethlehem, CT (Bio-Pur Inc), Newark, NJ (Innovation Fuels Inc.), Elizabeth, NJ (Bio One LLC), Westerly, RI (Mason Biodiesel LLC)
- Employment (all Engineering and Natural Sciences Managers):
  - 2008 National employment = 228,700 with an increase of 8% over the next 10 years.
  - Earnings: median \$115,270 in 2008



Renewable Building Materials

- Types/Information:
  - The use of eco-friendly and sustainable materials for building. This can include recycled materials, reclaimed materials, and lower volatile organic compounds.
- Uses: everything from flooring to bricks to roofing tiles.
- Examples: re-used slate roofing, recycled modular carpet, bamboo flooring.



### *LEED Buildings*

- **Types/Information:** Leadership in Energy and Environmental Design, a certification program for maximizing energy savings, efficiencies and environmental quality while minimizing resources in building and neighborhood design and construction. LEED promotes a whole-building approach to sustainability by recognizing and rating performance in 5 key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.
- **Requirements:**
  - For new construction, there are 69 possible points that a project can attain, with varying levels of success:
  - Certified (26-32 points)
  - Silver (33-38 points)
  - Gold (39-51 points)
  - Platinum (52+ points).
  - Certification process is done through an application and registration fees. LEED registered professionals take examinations for certification.
- **Examples:**
  - Wild by Nature (Gold Certified), the first supermarket in New York State awarded Gold certification, located in Oceanside, Hempstead Town, Nassau County
  - Leviton Manufacturing World Headquarters in Melville, Suffolk County (CI Certified)
  - Watermill Ateliers (Gold Certified), an 8,000 square foot office development in 3 buildings located in Watermill, Suffolk County
  - Brookhaven National Laboratories – Research Support Building (RSB) and Center for Nanomaterials – received Silver certification for on-site development in Upton, Suffolk County
  - Tanger Outlet Mall in Deer Park, Suffolk County, has been LEED Silver certified
  - Adelphi University Sports and Arts Center in Garden City, Nassau County (CI Certified)
  - Hampton Bays School in Suffolk County has received Silver certification
  - 2 Stop & Shop supermarkets in Nassau County and 9 supermarkets in Suffolk County have been LEED certified
  - West Hampton Village Hall in Suffolk County has received Gold certification
  - 1001 Franklyn Avenue, Garden City, Nassau County, has been LEED certified
  - Space Storage Center in Deer Park, Suffolk County, is Silver certified
- **Policy Applications:**
  - The Town of Babylon, Suffolk County, adopted an aggressive green building code by requiring all commercial and industrial building projects over 4,000 square feet to meet minimum LEED standards.



### Retrofitting Existing Buildings

- Types/Information:
  - Energy Efficient Lighting – LEDs for example
  - Thermal Insulation of exterior surfaces
  - Energy Efficient Windows
  - Water Efficiency
- Requirements: LEED EB
- Examples:
  - Long Island Green Homes, a program created by the Town of Babylon, Suffolk County, helps town residents to lower their utility bills by making their homes more energy efficient without assuming new debt. The program provides homeowners with capital to perform retrofits on their properties and connects them with trained workers to make the improvements. It has been financed by identifying carbon emissions as solid waste and allocating \$2,000,000 from the Town's solid waste management fund. Homeowners reimburse the Town for costs incurred by their upgrades from energy bill savings. The program is estimated to have created 6,600 new green collar jobs.
- Policy Applications:
  - PlaNYC, New York City's plan for long term sustainable development, is a commitment to 127 initiatives that will upgrade infrastructure, improve quality of life, and support environmental and economic sustainability. Thirty initiatives launched in October 2009 will encourage and support green business development and job opportunities. 13,000 new jobs are forecasted to be created within 10 years, while through 2038, it is estimated that nearly 200,000 jobs could be created in the greater metropolitan area. Financial incentives include:

- Solar Thermal Grant Program: Up to \$50,000 to businesses and institutions interested in installing solar thermal systems in their buildings.
- Tax abatement: up to \$250,000 for the installed cost of a solar PV system. Also applies to green roof installations up to \$100,000.

## **END SIDEBAR**

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### ***Healthcare & Higher Education***

Healthcare and higher educational institutions are Nassau County's most competitive and specialized knowledge-based employers. They are growing sectors and are relatively recession-proof. Nassau is home to 15 general medical and surgical hospitals, 16 colleges, universities and professional schools, and one junior college. These institutions are supported by 47 firms that provide educational services, 4,631 ambulatory health care centers and doctor's offices, and 196 nursing and residential care facilities.

Nassau's more than 4,900 healthcare and higher educational facilities are located throughout the county and are easily accessible by automobile, but typically are not concentrated within downtown centers or near rail stations. In the first quarter of 2006, approximately 100,200 people were employed in this sector, representing roughly one-sixth of Nassau's job base and earning \$4.8 billion in annual wages. As Table 2-15 shows, health care and higher educational institutions are far more significant to Nassau County's economy than to Suffolk or Westchester.

Medical and educational properties are one segment of the job and real estate markets in which continued growth can be expected. Demographic trends support further development and specialization and quality of service has elevated this sector's role to an export function, or the provision of care for nonresidents. New investment in health care and educational facilities, as well as supportive development of related offices and workforce housing, can attract jobs and reinvigorate older centers of the County. Nassau County has the potential to capture 40,000 new jobs in the Health Services and Education sector over the next 20 years.,

**Table 2-15**  
**Health Care & Education in Nassau, Suffolk & Westchester Counties, 2006**

<i>Nassau</i>				
<i>Subsector</i>	<i>Establish-ments</i>	<i>2006:QI Employment</i>	<i>Annual Payroll \$000</i>	<i>Average An'l Wage</i>
Junior Colleges	1	375	\$9,305	\$24,813
Colleges, Universities & Professional Schools	16	10,247	\$318,820	\$31,113
Educational Support Services	47	236	\$10,241	\$43,394
General medical & surgical hospitals	15	32,491	\$1,991,329	\$61,289
Ambulatory Health Care/Doctor's Offices	4,631	44,283	\$2,039,918	\$46,065
Nursing and Residential Care Facilities	196	12,567	\$444,819	\$35,396
<b>Total</b>	4,906	100,199	\$4,814,432	\$48,049
<i>Suffolk</i>				
<i>Subsector</i>	<i>Establish-ments</i>	<i>2006:QI Employment</i>	<i>Annual Payroll \$000</i>	<i>Average An'l Wage</i>
Junior Colleges	4	480	\$11,910	\$24,813
Colleges, Universities & Professional Schools	8	2,985	\$83,420	\$27,946
Educational Support Services	45	263	\$8,958	\$34,061
General medical & surgical hospitals	17	24,536	\$1,259,264	\$51,323
Ambulatory Health Care/Doctor's Offices	3,202	30,071	\$1,388,388	\$46,170
Psychiatric and Substance Abuse Hospitals	3	3,007	\$156,699	\$52,111
Nursing and Residential Care Facilities	473	16,958	\$528,255	\$31,151
<b>Total</b>	3,752	78,300	\$3,436,894	\$43,894
<i>Westchester</i>				
<i>Subsector</i>	<i>Establish-ments</i>	<i>2006:QI Employment</i>	<i>Annual Payroll \$000</i>	<i>Average An'l Wage</i>
Junior Colleges	3	212	\$5,260	\$24,813
Colleges, Universities & Professional Schools	22	9,323	\$237,309	\$25,454
Educational Support Services	51	288	\$10,272	\$35,667
General medical & surgical hospitals	21	19,736	\$1,031,019	\$52,241
Ambulatory Health Care/Doctor's Offices	2,712	25,864	\$1,300,048	\$50,265
Psychiatric, Substance Abuse & Specialty Hospitals	8	4,548	\$216,181	\$47,533
Nursing and Residential Care Facilities	221	14,941	\$486,531	\$32,563
<b>Total</b>	3,038	74,912	\$3,286,620	\$43,873

Source: County Business Patterns, 2006, U.S. Census Bureau

Attesting to the strength of the hospital sector in Nassau County, its largest institution – North Shore-Long Island Jewish Hospital (North Shore-LIJ) – has approximately 525,000sf of medical-related development planned, which includes a new Center for Advanced Medicine in Lake Success. According to North Shore-LIJ, it is also expanding its women’s services and ICU capacity, refurbishing its Schneider Children’s Hospital and the Zucker Hillside Hospital, and reconfiguring its Plainview campus for state-of-the-art use in the next decade. Its major investments in research facilities, which are expanding faster than those at Stony Brook, Cold Spring Harbor and Brookhaven National Laboratory, are attracting many scientists.

North Shore-LIJ currently has approximately 40,000 employees, with roughly 10,000 living within a one-mile radius of the Nassau/Queens border. Transportation access and housing are significant issues that hospital administrators must address. The hospital currently has 400 to 500 apartments on two campuses, but needs another 1,400 units for its nurses, residents and scientists. Most nurses and scientists currently live in Queens due to the high cost of housing in Nassau.

*(Pull Quote: “Each year, 400 new residents and 80 to 90 new scientists are hired by North Shore-LIJ, at salaries that range from \$40,000 to \$100,000 per year.”)*

North Shore-LIJ seeks to develop workforce housing nearby its hospital and research facilities or in downtowns accessible to train stations. It is also considering constructing a sports medicine facility in the Hub, and in bringing community health services to the underserved low-income communities. Currently hospital personnel are working with Nassau Community College to train local residents for career ladder jobs at various hospital campuses in the County.

Nassau’s major health care institutions cooperate closely with its higher educational facilities. North Shore-LIJ is building a medical school, dormitories, and high-tech incubator on the Hofstra University campus, which will be New York State’s first new medical school since 1963, and is expected to enroll its first class in the summer of 2011. The new medical school will provide a major source of employment for nurse graduates of Molloy College and Adelphi University, the fourth largest nursing school in the nation, and offers clinical service support for Nassau University Medical Center (NUMC). Under consideration is a “village for healthy living” in East Meadow, a potential collaboration between Nassau Health Care Corporation (NuHealth), Hofstra University and a developer to create campus housing with a wellness center and medical research capability.

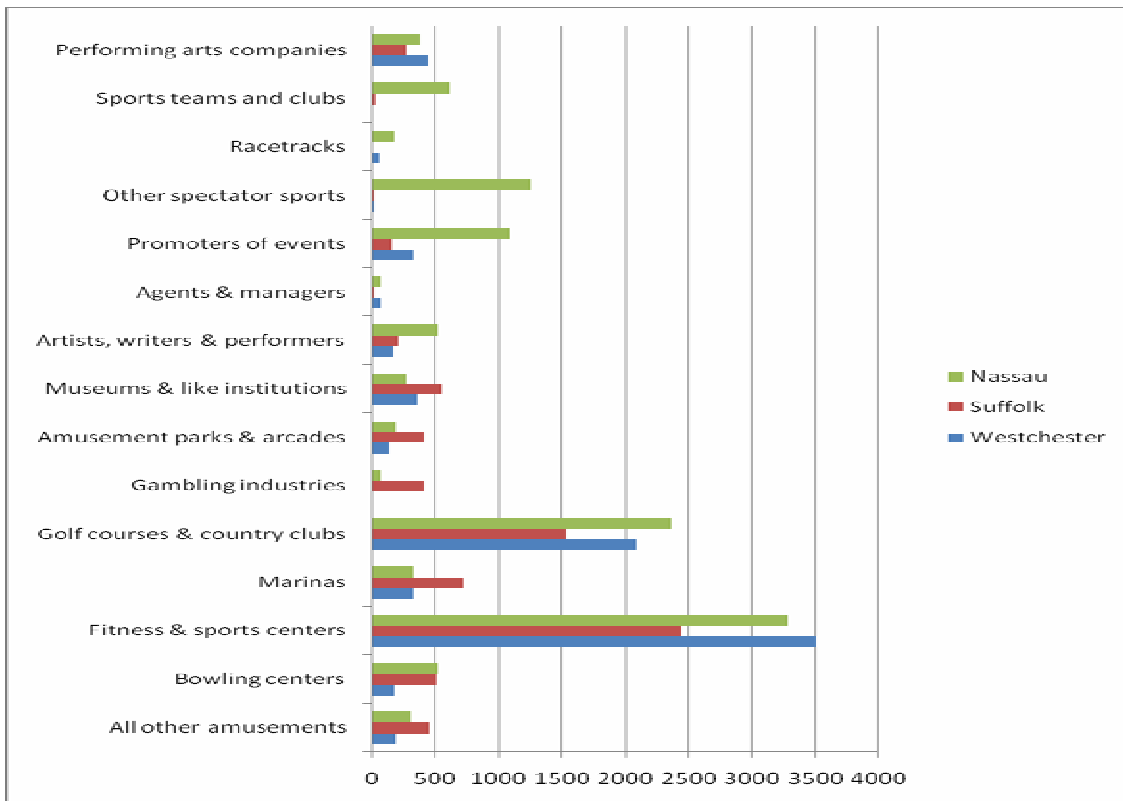
### ***Entertainment and Tourism***

Consumer-oriented activities comprise the major employers of the national and local economy, engaging workers with more moderate skills in serving the shopping, personal care, recreation, leisure, social needs and other activities of residents. When excelled in or uniquely positioned in the market, consumer-oriented activities can become export activities, drawing spending into the local economy. Sports, entertainment, recreation, arts, leisure, dining and hospitality activities represent the most promising consumer-oriented sectors for tourism development and enhancement of Nassau County’s quality of life.

Nassau County is known for its beautiful beaches, and has numerous parks, championship golf courses, indoor sports and entertainment venues that serve not only the recreational needs of its residents, but also those of the entire New York region. As of 2006, Nassau had approximately 11,500 private sector<sup>20</sup> and several hundred public sector jobs in arts, entertainment and recreation activities. The private sector jobs represent roughly one half billion dollars in wages from 857 establishments.

The largest numbers of jobs in this industry are in fitness centers, golf courses, and spectator sports, with 52 golf courses and country clubs alone employing 2,400 workers. Compared to job levels in 2000, while the number of jobs in most other industries declined, this sector grew by 28 percent. As shown on Figure 2-10, employment in Nassau’s sports, entertainment and tourism industry is 45 to 48 percent greater than that in Westchester and Suffolk Counties. Over the next twenty years, Nassau County should focus on attracting approximately 20,000 new leisure and hospitality jobs in the sports, entertainment & tourism industries.

**Figure 4-10**  
**Employment in the Arts, Entertainment and Recreation Industry of Nassau, Suffolk & Westchester Counties, 2006**



Source: County Business Patterns, U.S. Census Bureau

<sup>20</sup>Update: In 2008, Nassau County had approximately 11,600 private sector jobs in the arts, entertainment and recreation activities, representing over \$400 million dollars in wages from 823 establishments.

One such sector, the gambling and racetrack industry plays a relatively small role in Nassau County's tourism draw, reporting only three establishments with fewer than 300 employees in 2006. By contrast, Suffolk County has four gambling operations with six times as many workers. A recent proposal of the Empire State Development Corporation would redevelop 36 acres that are largely surface parking lots adjoining Belmont Park, the host racetrack of the Belmont Stakes, into gambling/recreation-related uses that would create jobs, generate additional tax revenue, and bolster economic development in Elmont, Bellerose, and Floral Park. Contingent on changes to New York State law, site plans include a Racino, which is a facility with video lottery terminals and a horse racing venue; a hotel, retail center, and sports facility; mixed use retail with senior housing; and some recreational opportunities. The proposed redevelopment options could transform Belmont Park into a vibrant destination center.

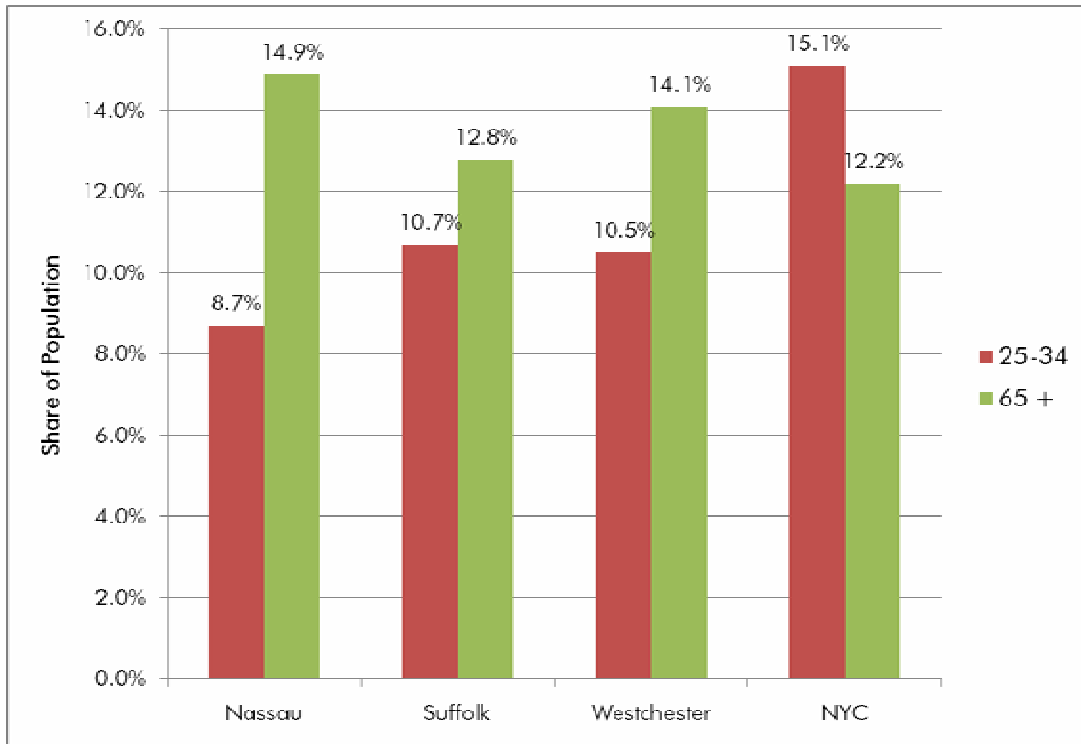
**POLICY 2: DIVERSIFY THE HOUSING STOCK BY PROVIDING NEW HOUSING OPTIONS FOR THE COUNTY'S YOUNG WORKFORCE, VETERANS, AND SENIORS**

The provision of various types of housing in vibrant communities is essential if Nassau County wants to retain its young people and senior population. Diversification of housing choice is necessary in order to address the housing needs of these populations who may not want or need to live in single-family homes. Providing opportunities for lifelong Nassau residents to remain in Nassau when they retire as well as housing types attractive to young people will increase property tax revenues as well as retail spending, which will strengthen the County's tax base, thereby helping to slow the rate of increase in taxes.

As shown in Figure 2-11, compared to other counties in the region, Nassau has the lowest percentage of residents aged 25-34 (8.7 percent). At the opposite end of the age bracket, of the four areas, Nassau has the highest percentage of residents over age 65, at nearly 15 percent. Creating new housing choices may help to correct this imbalance. Affordable rental units can serve the dual purpose of attracting a greater share of younger, working-age people, while also providing an economically feasible housing alternative for the County's older residents.



**Figure 2-11**  
**Selected Age Group Breakdown Comparison: 2007**



Source: US Census, American Community Survey 2007

As was highlighted at the public workshop for Nassau residents ages 20 to 35, held on July 22, 2009, there are few opportunities to rent an apartment in the County even though the demand for such units exists. One resident, an employed teacher who lives with her parents aptly stated, “*the only thing you see on Craigslist is apartments in people’s basements. Who wants that?*” For older adults there are limited housing options between single family living and assisted care. Nassau County’s Department of Senior Citizen Affairs identifies approximately 50 senior housing developments within the County. These are operated by a range of public and private organizations and offer a variety of living arrangements, from full nursing care to independent living. However, these units do not address an important gap in the County’s current housing market- housing for “active adults”- people who no longer need or want to live in single family homes, but are too young for assisted care. As was recently noted by Former Georgia Governor Roy Barnes in discussing suburban Atlanta’s planning efforts to adapt to an aging population, “Seniors don’t want to be segregated into retirement communities. We have learned that those are outdated. What seniors really want is a lifetime community with services – restaurants, arts facilities, libraries and post offices.”<sup>21</sup>

As has been noted, this Master Plan promotes the creation of young workforce and senior housing in order to address a serious unmet housing need in Nassau County. Providing such housing is

<sup>21</sup> Saporta, Maria. “Atlanta Faces the Future.” *Planning Magazine*, June 2009: 21-23.

essential in order to accommodate baby boomers who want to age in place and young people who want to live in the communities where they grew up, but are not yet able or interested in purchasing a single-family home. Diversifying housing choices in Nassau requires the creation of alternatives to single-family neighborhoods with options such as apartments and townhouses in exiting downtown areas, the Nassau Hub, and in select locations along underutilized strip commercial corridors.

While the majority of the County’s housing stock is comprised of single-family homes, many municipalities that have downtowns also provide some multifamily housing. As shown in Table 2-16, in places such as Great Neck Plaza, Hempstead and Long Beach over 35% of the housing stock is multifamily. In contrast, in places like West Hempstead, Elmont, Syosset and Hicksville, less than 5% of the housing stock is multifamily.

**Table 2-16**  
**Existing Multifamily Housing in Nassau County’s Existing Downtowns**

<b>Downtown</b>	<b>Geography</b>	<b>Total Housing Units</b>	<b>Units in Multifamily (5+) Structures</b>	<b>Percent of Total Housing Units</b>
Great Neck Plaza	Village	3,892	3,593	92.3%
Hempstead	Village	15,563	6,255	40.2%
Long Beach	City	16,128	6,315	39.2%
Freeport	Village	13,819	3,927	28.4%
Farmingdale	Village	3,290	930	28.3%
Rockville Centre	Village	9,421	2,644	28.1%
Mineola	Village	7,656	2,003	26.2%
Lynbrook	Village	7,561	1,324	17.5%
Garden City	Village	7,549	1,069	14.2%
Glen Cove	City	9,734	1,130	11.6%
Port Washington	CDP	5,639	591	10.5%
Baldwin	CDP	7,999	792	9.9%
Westbury	Village	4,714	432	9.2%
Valley Stream	Village	12,697	767	6.0%
West Hempstead	CDP	6,114	192	3.1%
Elmont	CDP	10,151	174	1.7%
Syosset	CDP	6,354	105	1.7%
Hicksville	CDP	13,912	222	1.6%
Nassau	County Total	458,151	48,950	10.7%

*Source: U.S. Census 2000 SF3*

Along with forecasted population growth over the next 20 years, Nassau County is expected to see an increase in its labor force by 35,100 new residents. The majority of the labor force growth will occur among young adults and seniors (see Figure 2-12). To support the sustainable growth of Nassau’s economy, these segments of the population should be encouraged to live and work right here in Nassau County. Providing new housing options that meet the needs and preferences

of young adults and seniors must be considered as complementary to creating additional high-value jobs in the high-tech/green, education and health services sectors.

**Figure 2-12**  
**Nassau County’s Labor Force 2010 - 2030**

Age	Labor Force		
	2010	2030	Change
16-19	26,666	24,546	-2,121
20 - 24	60,660	63,845	3,184
25 - 34	121,503	149,682	28,180
35 - 44	150,387	169,658	19,271
45 - 54	190,207	152,170	-38,038
55 - 64	122,080	113,705	-8,375
65-69	21,997	34,073	12,076
70+	21,840	42,783	20,943
<b>Total</b>	<b>715,340</b>	<b>750,460</b>	<b>35,120</b>

*Source: 2010-2035 NYMTC Regional Transportation Plan*

The forecasted increase of approximately 21,000 new residential units in Nassau County over the next 20 years provides a significant opportunity for expanding housing options. As part of this housing expansion, opportunities to provide student housing for graduate and medical students in downtowns should be explored. North Shore-LIJ and Hofstra University are currently partnering to build a new medical school and dormitories on the Hofstra campus. As the medical school expands, municipalities should work with Hofstra and North Shore-LIJ to identify appropriate locations for additional student housing.

In addition, new apartment and townhouse units will help municipalities in Nassau provide housing affordable to recent graduates and entry-level high-tech growth sector employees. Workforce housing is typically targeted to residents who earn between 80% - and 120% of area median income. If 10% of the projected units are designated for the young workforce and seniors, just over 2,000 new units can be constructed in the county over the next twenty years.

In order to provide an adequate range of housing choices to meet the varied demands of the County’s households, Nassau must encourage the construction of a range of housing types in areas suited for growth. As the Long Island Index notes, high home values are beneficial in that they indicate that Nassau remains a desirable place to live; however, when costs become prohibitively high, residents feel that Nassau’s benefits no longer outweigh its costs. Over the past decade, Nassau County’s median household income has not kept pace with a tremendous increase in home values. This has placed a great strain on the ability for residents to remain in the County. Housing designated for the young workforce and seniors will ensure that Nassau

provides housing opportunities that meet the needs and budgets of these vital members of the County’s economy.

**SUMMARY OF COUNTYWIDE ECONOMIC DEVELOPMENT GOALS**

This chapter outlines a broad economic development vision for the County that focuses on growing three key sectors: high tech/high skilled industry (including green jobs), healthcare and higher education, entertainment and tourism.. Job growth in these areas will be focused in downtowns and targeted redevelopment areas. Employment goals for these *three sectors* over the next twenty years are shown in Table 2-17.

**Table 2-17  
Countywide Economic Development Goals for Growth Sectors\***

<b>Sector</b>	<b>New Jobs in Downtowns and targeted Redevelopment Areas**</b>	<b>New Jobs in other locations within Nassau</b>	<b>Total New Jobs</b>
High Tech	15,750	5,250	21,000
Healthcare & Higher Education	30,000	10,000	40,000
Entertainment & Tourism	8,250	2,750	11,000
<b>Total Jobs</b>	<b>54,000</b>	<b>18,000</b>	<b>72,000</b>

Source: Urbanomics

\* Note: This table presents County job growth goals based on National trends and proactive County policies.

\*\* Note: Jobs in downtowns and targeted redevelopment areas represent approximately 75% of expected job growth. Projections for the High Tech sector include Green Energy jobs

