

2013 – 2014

HUDSON VALLEY

ECONOMIC DEVELOPMENT DISTRICT

COMPREHENSIVE ECONOMIC

DEVELOPMENT STRATEGY



HUDSON VALLEY REGIONAL COUNCIL



Dutchess County Legislature

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Chairman **Telephone: 845-486-2100 Fax 845-486-2113**

December 10, 2013

Dear Friends and Neighbors:

The Hudson Valley Regional Council is proud to present the 2013-2014 Comprehensive Economic Development Strategy (CEDS) for the Hudson Valley Economic Development District.

The Hudson Valley is a diverse region with densely populated urban areas with business and commercial centers, Fortune 500 companies, and world-class medical and educational centers. But the Hudson Valley is also home to pastoral working farms and sparsely populated rural communities with one-block-long, charming downtown business districts. The region includes pockets of great wealth that exist near pockets of deep poverty. Some affluent areas enjoy low unemployment and some of the highest incomes in the country, while nearby urban and rural areas struggle with economic distress.

As the regional planning organization responsible for developing the CEDS, HVRC conducted an analysis of the economic development problems and opportunities in the region and outlined an economic roadmap to diversify and strengthen regional economies.

The plan provides an overview of the regions demographics, geography and natural resources, an analysis of the regional economic conditions, a vision for the region and an action plan. To the greatest extent possible the work of both the Mid Hudson Regional Economic Development Council and the Mid Hudson Regional Sustainability Plan Consortium were incorporated in this CEDS.

The development and submission of the CEDS to the U.S. Department of Commerce, Economic Development Administration (EDA) is necessary in order to apply for investment assistance under EDA's Public Works or Economic Adjustment Assistance Programs.

The CEDS was prepared with the assistance and input of regional planner and economic development professionals. We welcome your participation and input to the continued development of this strategy. We look forward to working with all of our partners throughout the region to continue to sustainably develop the region in a way that maintains the outstanding quality of life that makes the Hudson Valley a great place to live, work and play.

Sincerely,

Robert G. Rolison,
Chairman of the Board
Hudson Valley Regional Council

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EXECUTIVE SUMMARY /THE HUDSON VALLEY REGION

The Hudson Valley region, as defined by its Hudson Valley Economic Development District boundaries, comprises 4,553 square miles, the seven counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester and their 198 municipalities. The region has a population of roughly 2.3 million people with a diverse economy, demographics, physical environment, and culture. The region borders New York City, the Delaware River and Pennsylvania, Connecticut and the Long Island Sound. The region is bisected by the Hudson River and bounded by the Catskill Mountains to the northwest and Taconic Range to the east.

The region has densely populated urban areas with business and commercial centers, Fortune 500 companies, and world-class medical and educational centers. But the Hudson Valley is also home to pastoral working farms and sparsely populated rural communities with one-block-long, charming downtown business districts. The region includes pockets of great wealth that exist near pockets of deep poverty. Some affluent areas enjoy low unemployment and some of the highest incomes in the country, while nearby urban and rural areas struggle with economic distress.

Tourism is one of the engines that drive the Hudson Valley economy. The green mountains, fresh air and clean waters provide significant recreational opportunities such as hiking, biking, fishing, boating, camping, and watching the stars. The mountains and rivers draw second homeowners from the New York City metro area. Restoration of a former railroad bridge over the Hudson River took on new significance as a major tourist draw when the “Walkway over the Hudson” recently opened. Star watching was reinvented when the Bethel Woods Center for the Arts, a world class entertainment venue, opened at the site of the original Woodstock Festival in Bethel. Now locals and visitors can enjoy entertainment such as The New York Philharmonic, Tony Bennett, and Elton John under the stars in Sullivan County. Some of the older downtown urban areas and rural main streets are experiencing modest niche market growth, but most languish with deterioration of aging infrastructure. The Woodbury Common Outlet Mall in southern Orange County is one of the top 10 tourism draws in the State of New York. Recently approved legislation is expected to bring at least one, and possibly two, casino resorts to the Catskills. With potential locations in Sullivan and Ulster counties, jobs from casino gaming and the associated entertainment and lodging could have a strong impact on the region.

Agriculture remains a very important component in the region’s economy. In places, the land is rich and lush with prime agricultural soils. There are new generations of farming entrepreneurs in community supported agriculture, organic and niche farming, developing value-added products such as cheeses, artisan breads, wines and yogurts, all designed to attract culinary buyers in markets in New York City. The Hudson River Valley is lined with apple farms, gnarled old trees laden with sweet green, golden and red apples. The grape arbors nourish a growing wine industry and an emerging micro–brewery industry in the region has promise. Dairy farms, beef cattle farms, poultry and eggs farms and horse farms complete the agricultural picture.

Protecting the region's rich agricultural component is challenging because the lands become a valuable asset for future development.

The Hudson Valley is also a major transportation corridor. On any given day, one can see freight trains, passenger trains, cargo ships, barges, passenger planes, military planes, fishing boats, and thousands of cars and trucks on the network of highways, bridges and rivers connecting the New York metro area to the Hudson Valley. Major product distribution centers line the network of highways in the region.

Water is a very important regional resource as the seven counties that comprise the Hudson Valley include important watershed lands that supply drinking water to more than 22 million people in the New York metropolitan area, Philadelphia, Trenton, as well their our own communities. The watersheds east and west of the Hudson River as well as Delaware River Watershed along the western boundary are valuable assets for the region. Protection of this priceless resource, balanced with local and regional economic development, is a central component of regional planning.

There is also pressure for natural gas mining in certain corners of the region. The region's history of preservation along with protection of water resources makes this an important regional issue.

The Hudson Valley is rich in natural beauty and physical assets, yet poverty also exists. The economic recession has had a negative impact on the valley, leaving many unemployed, record numbers of foreclosures, large drops in home values, record numbers of business closures and a large quantity of empty Class A office space. While there are encouraging signs of a recovery, the Hudson Valley, like most of the country, is still feeling the effects of the economic downturn of the late 2000s. Large numbers of layoffs, including many at Fortune 500 companies, the continuing depression of the housing market, low consumer confidence, high housing and energy prices, high property taxes and the New York State tax, regulatory and permitting structures create a challenging environment for economic development. The region is fortunate, however, because its existing infrastructure can better position it for recovery than some areas in the country.

The region's strong transportation accessibility and connectivity along with numerous existing cities, villages, and dense hamlet centers can provide engines of economic growth. Existing assets can create a vibrant economy, home to global brands as well as thousands of small businesses and farms. The Hudson Valley can continue to grow by using regional approaches and developing technology-based clusters in cooperation with local colleges and universities, and encouraging reuse of existing facilities as well as growth in new and emerging technologies.

The Mid Hudson Region Economic Development Council (MHREDC) and The Mid-Hudson Regional Sustainability Consortium have developed strategic plans and have outlined goals for the region's economic growth while maintaining its outstanding quality of life. The MHREDC region shares the same seven-county footprint as the Hudson Valley Regional Council and the EDA Hudson Valley Economic Development District.

In 2012 the MHREDCs developed a streamlined strategic plan with four core economic development strategies.

- INVEST in Tech
- ATTRACT & RETAIN Mature Industries
- GROW Natural Resource-Related Sectors
- REVITALIZE the Region's Infrastructure

Both the U.S. Economic Development Administration and New York State put considerable emphasis on identifying and analyzing "industry clusters" as an important analytical tool for understanding New York's statewide and regional economies.

The Hudson Valley's regional clusters are defined, categorized and promoted in an inconsistent manner, however, federal, state and regional agencies share similar overarching goals and objectives.

[Mid-Hudson Regional Economic Development Council](#) (MHREDC) in its 2013 progress report has identified these clusters as pivotal to advance New York's economy:

- biotech, biomedical and healthcare
- advanced manufacturing
- information technology

As part of Governor Cuomo's Cleaner Greener Program, ¹the Mid Hudson Region Sustainability Planning Consortium was tasked with the development of a sustainability plan tied to the greenhouse gas (GHG) emission reduction goals as defined by New York State, as well as the economic development goals defined by the MHREDC.

The plan is designed to help guide statewide investments and regional decision-making on land use, housing, transportation, infrastructure, energy, and environmental practices. The plan also will help identify and implement projects that provide the greatest opportunity to reduce greenhouse gas emissions, save energy, and deploy renewable energy options.

The region continues to be affected by the current economic stagnation. No level of business and industry is immune. Layoffs and staff reductions span the gamut from Fortune 500 companies to the smallest businesses. Nevertheless, the Hudson Valley's overall unemployment numbers have recently improved, although the numbers vary across different parts of the region. Communities that include residents who commute to New York City have posted lower-than-average unemployment numbers, while some urban cities in the region struggle with unemployment that's more than twice the national average.

The region's economic development communities continue to take aggressive steps, both collectively and individually, to counter job losses-implementing strategies to retain jobs, help

¹Cleaner Greener Program <http://www.nyseda.ny.gov/Statewide-Initiatives/Cleaner-Greener-Communities.aspx>

existing businesses prosper, and attract new firms, primarily focused on those that could absorb the recently unemployed labor force.

Recent employment data showed private sector employment in the Hudson Valley region increase slightly, leading the state to report evidence that the regional job market continues to accelerate. Most of that recent private sector job growth was in two of the Hudson Valley metro areas—the Kingston and the Putnam-Rockland-Westchester labor market areas. Also primarily within the Putnam-Rockland-Westchester labor market area, natural resources, mining, and construction recently continued to show signs of improvement.

The extensive economic damage in recent years as a result of severe weather events, such as Superstorm Sandy and Tropical Storms Irene and Lee, has inflicted significant economic stress upon the region. Building resiliency into economic development will be fundamental to a strong and vibrant regional economy. This includes a set of diverse goals, from having a dependable and resilient energy grid, to promoting sustainable farming practices.

The region's infrastructure, while well-developed throughout most of the densely populated parts of the region, is old and in need of replacement or repair. These infrastructure needs are coming at a time when capital funding is harder to come by. Nevertheless, investment in the region's aging infrastructure – sewers, roads, bridges, transmission lines, etc. - is crucial to maintaining and enhancing the regional economy.

What follows is a comprehensive economic analysis of the region's strengths, weakness, opportunities and threats, as well and the goals and strategies for the 2013-2014 program years. This CEDS, prepared by the Hudson Valley Regional Council as administrator of the Hudson Valley Economic Development District, in cooperation with the board of directors, regional planners, and economic development experts, and numerous program partners, is a regional economic development road map and master plan. It establishes a baseline for the managed growth and priority initiatives as the planning and program infrastructure to guide the smart growth of the region's economy.

I. STATE OF THE HUDSON VALLEY REGION

A. THE PEOPLE AND WHERE THEY LIVE

The Hudson Valley's seven county region² is home to roughly 2.3 million people. The population of the Hudson Valley region grew by 111,662 new residents, or 5.1 percent, from 2000 to 2010. The region grew faster than the state, which grew 2.1 percent during the same time period. Orange and Rockland counties had the most significant population growth, at 9.2 percent and 8.7 percent respectively. Orange County is the fastest growing county in the state. The population of New York State in 2010 was 19,399,242, and it grew 2.1 percent from 2000 to 2010.³

The Hudson Valley contains almost 12 percent of the state's population and housing and includes 10 percent of the land area of New York⁴. More than 900 square miles, or 20.6 percent of the region, is defined by the 2010 U.S. Census as "urban area," with a minimum population density of at least 500 persons per square mile. The state as a whole contains 8.7 percent urban area (8.1 percent excluding NYC).

Table 1: HUDSON VALLEY POPULATION, POPULATION CHANGE AND DENSITY

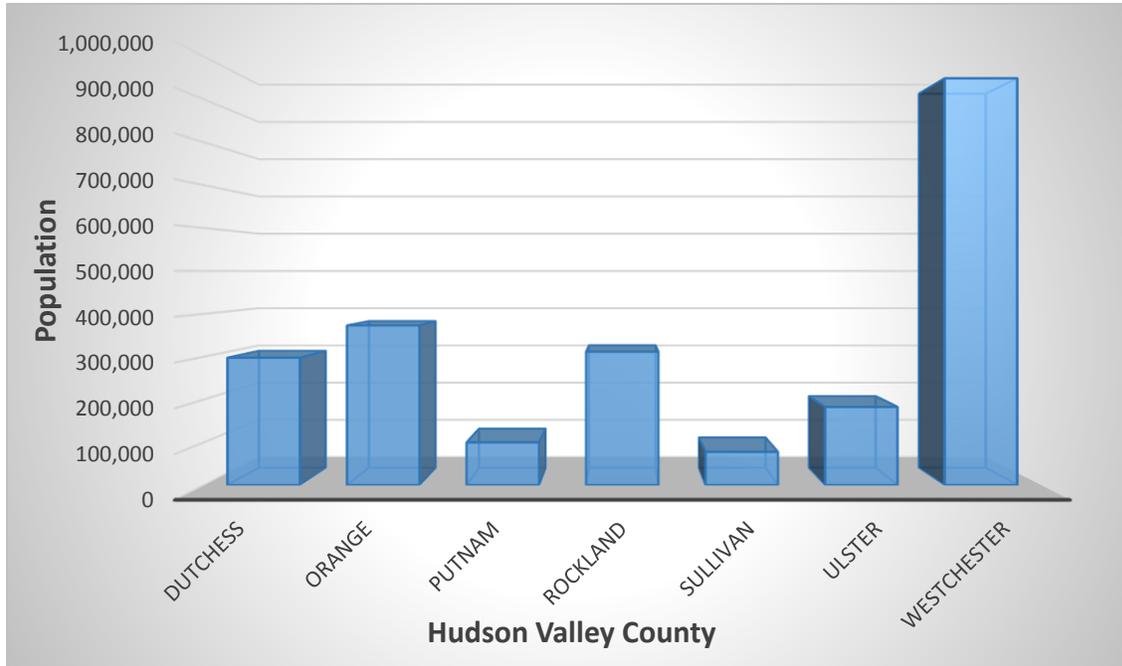
COUNTY/AREA	2000	2010	Change	% Change	Pop/Sq Mile	% Region 2010 Pop	% of NYS 2010 Pop
Dutchess	280,150	297,488	17,338	6.2	373.9	13	1.5
Orange	341,367	372,813	31,446	9.2	459.3	16	1.9
Putnam	95,745	99,710	3,965	4.1	432.9	4	0.5
Rockland	286,753	311,687	24,934	8.7	1,796.0	14	1.6
Sullivan	73,966	77,547	3,581	4.8	80.1	3	0.4
Ulster	177,749	182,493	4,744	2.7	162.3	8	0.9
Westchester	923,459	949,113	25,654	2.8	2,204.7	41	4.9
Region	2,179,189	2,290,851	111,662	5.1	498.1	100	11.8

²The Hudson Valley Region can be defined in different manners. Sometimes it is defined as a 9 county Region including Greene and Columbia Counties. Often Westchester or Sullivan Counties are not included in a regional definition because of the disparity in demographics and geography. The seven county region used by HRVC is consistent with that used by the New York State Regional Economic Development Councils and the Mid Hudson Regional Sustainability Consortium.

³StatsAmerica <http://www.statsamerica.org/>

⁴ U.S. Census Bureau, 2010. Urban-Rural Classification. <http://www.census.gov/main/www/access.html>

Figure 1: POPULATION BY COUNTY



The region has tremendous socioeconomic diversity. Demographic differences are reflected in the income, housing and employment profiles of each county. Westchester County has close to one million residents while Putnam and Sullivan counties both have populations less than 100,000. Sullivan County has a population density of 80 people per square mile while the population density of Westchester County is more than 2,200 persons per square mile. Westchester County is more than five times as densely populated as New York State as a whole.⁵ The population density, housing, and employment within the region is largely concentrated in urban and suburban areas in the southeast and along the Hudson River (see Figures 2 and 3). Rockland and Westchester have the greatest population density.

⁵ U.S. Census Bureau

Figure 2: 2010 POPULATION DENSITY

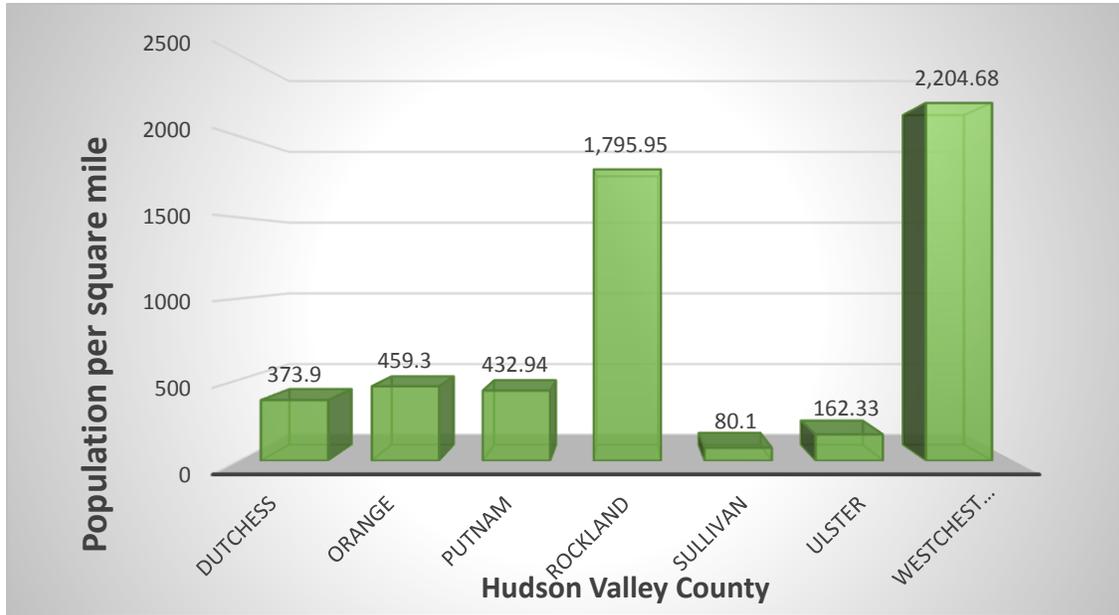
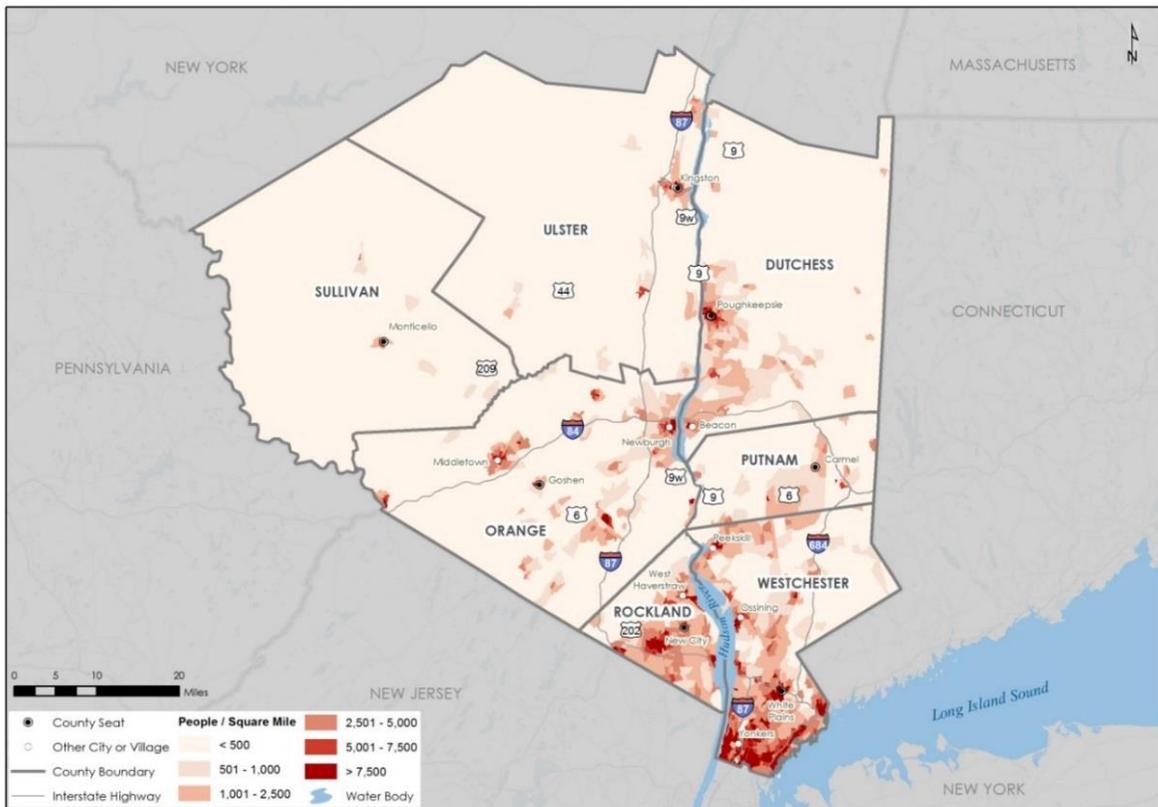


Figure 3: POPULATION DENSITY MAP



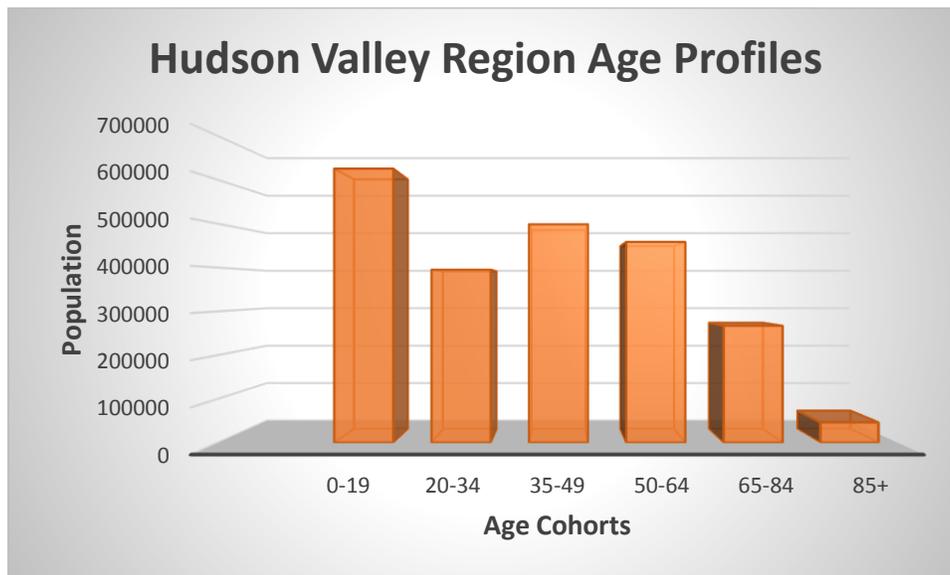
i. Population by Age Group

Young people (0-19 years of age) made up the largest percentage of the region’s population in 2010. The majority of the region’s population continues to be under the age of 50. However, the fastest growing age cohort in the Hudson Valley Region is that of persons 65 years of age and older. As seen in Table 2 this age cohort grew by almost 14 percent from the year 2000 to 2010.

Table 2: COUNTY and REGIONAL POPULATION by AGE COHORT 2010

County and Regional Population by Age Cohort 2010									
Age Cohort	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Region	% in Region
0-19	76,983	112,949	25,842	96,028	19,583	42,566	251,407	625,358	27.3
20-34	53,212	66,395	14,590	53,980	13,064	32,430	161,593	395,264	17.3
35-49	65,289	82,526	24,447	61,284	16,286	39,565	209,225	498,622	21.8
50-64	61,700	69,958	22,414	58,554	17,159	40,888	187,766	458,439	20.0
65-84	34,733	35,397	10,935	36,145	10,189	23,218	116,395	267,012	11.7
85+	5,571	5,588	1,482	5,696	1,266	3,826	22,727	46,156	2.0
Totals	297,488	372,813	99,710	311,687	77,547	182,493	949,113	2,290,851	

Figure 4: HUDSON VALLEY REGION AGE PROFILES



Growth in the 65-84 age cohort is expected to continue as demonstrated in Table 3 with those persons between the ages of 65-84 expected to increase by 28.5 percent by 2020. This is consistent with the overall growth in this age cohort for the state. The region’s growth in the 65-84 age cohort outpaces the State 28.5% to 22.42%.

Table 3: HUDSON VALLEY REGION POPULATION CHANGE BY AGE COHORT 2000-2010

Hudson Valley Region				
Population by Age	2010	2000	Change	Percent Change
Persons 0 to 4 years	141,457	150,216	-8759	-5.83
Persons 5 to 17 years	419,663	415,888	3,775	0.91
Persons 18 to 64 years	1,416,563	1,337,951	78,612	5.88
Persons 65 years and over	<u>313,168</u>	<u>275,134</u>	<u>38,034</u>	<u>13.82</u>
TOTAL POPULATION	2,290,851	2,179,189	111,662	5.12

ii. Total Population by Race

While the Hudson Valley region remains predominantly white as seen in Table 4, the fastest growing segments of the population are non-white as depicted in Table 5.

Table 4: 2010 POPULATION by RACE: COUNTY & REGIONAL TOTAL

COUNTY	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Region
RACE								
White alone	82.7%	82.5%	93.2%	78.1%	85.5%	88.6%	75.1%	83.7%
Black or African American alone	10.7%	11.4%	2.8%	12.8%	9.8%	6.6%	15.8%	10.0%
American Indian and Alaska Native alone	0.4%	0.8%	0.3%	0.5%	0.7%	0.4%	0.8%	0.6%
Asian alone	3.7%	2.6%	2.1%	6.6%	1.6%	1.8%	6.0%	3.5%
Native Hawaiian and Other Pacific Islander alone	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%
Two or More Races	2.3%	2.6%	1.6%	1.9%	2.4%	2.4%	2.2%	2.2%
Hispanic or Latino	11.0%	18.8%	12.2%	16.3%	14.2%	9.3%	22.8%	14.9%
White alone, not Hispanic or Latino	73.8%	67.3%	82.3%	64.4%	74.0%	81.0%	56.3%	71.3%
TOTAL POPULATION	297,322	374,512	99,607	317,757	76,793	181,791	961,670	2,309,452

Table 5: HUDSON VALLEY REGION POPULATION BY RACE

Hudson Valley Region Population by Race	2010	2000	Change	% Change
American Indian and Alaska native alone	8,643	5,639	3,004	53.3
Asian alone	96,404	73,612	22,792	31.0
Black or African American alone	263,011	233,802	29,209	12.5
Native Hawaiian and Other Pacific native alone	843	891	48	5.4
Some other race alone	142,226	100,214	42,012	43.0
Two or more races	66,555	54,508	12,047	22.0
White alone	1,713,169	1,710,523	2,646	0.2
Population by Hispanic or Latino Origin (of any race)				
Persons of Hispanic or Latino Origin	392,391	254,860	137,531	54.0
Persons Not of Hispanic or Latino Origin	1,898,460	1,924,329	25,869	1.3

iii. Housing in the Hudson Valley

The total number of households in the region in 2011 was 810,568, which is 11.2 percent of the state’s total number of households. From 2000 to 2010, the region’s housing unit supply grew by 8.5 percent, surpassing the state average of 5.6 percent. Single-family homes comprise 62 percent of the housing stock in the region, whereas the state is made up of 69 percent single family homes (not including NYC). Multi-family housing makes up 36 percent of the region’s housing stock with most of that in Westchester County. Orange and Rockland counties continue to see the most housing growth in the region.

Vacant housing units in the region vary widely from county to county, from a high of 38.9 percent in Sullivan County to a low of 5.5 percent in Rockland County.⁶ The variations in vacancy rates have a different explanations.⁷

An analysis done by the Times Herald-Record found that vacant housing rates increased by a combined 21.4 percent in Orange, Sullivan and Ulster counties from 2000 to 2010. While Orange County’s population grew by 9.2 percent from 2000 to 2010, vacant housing climbed by 39 percent. More than 8 percent of housing units in Orange County are vacant. Unemployment as well as the impacts of the subprime mortgage crisis have affected vacancy rates.⁸ Ulster’s vacancy rose by roughly 24 percent while Sullivan posted an 11 percent increase. Second or vacation homes, counted as vacant, can skew the numbers in places with a significant stock of second homes.

The average household size in the region in 2010 was 2.83 persons, which is slightly greater than the statewide household size of 2.69 person per household.

⁶U.S. Census

⁷ Bosch, A., 2011. More homes stay vacant across Mid-Hudson Region
<http://www.recordonline.com/apps/pbcs.dll/article?AID=/20110417/NEWS/104170336>

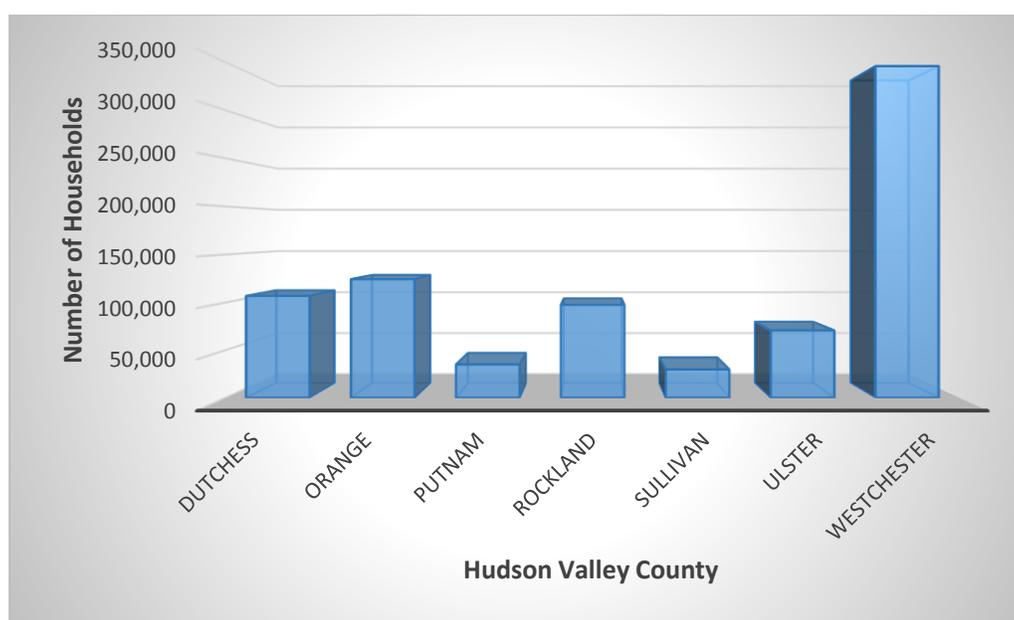
⁸ Ibid

Table 6: HUDSON VALLEY POPULATION and HOUSEHOLD CHARACTERISTICS

Hudson Valley Region Number of Households					
County/Area	2011	2010	Change	% Change 2010-2011	2000 ⁹
Dutchess	107,151	106,952	199	0.2	99,719
Orange	124,939	124,379	560	0.5	114,809
Putnam	34,998	34,907	91	0.3	32,742
Rockland	98,106	97,557	549	0.6	92,744
Sullivan	29,432	29,722	-290	-1.0	27,681
Ulster	70,034	70,691	-657	-0.9	67,501
Westchester	345,908	345,795	113	0.03	337,486
Region	810,568	810,003	565	0.1	

Source: StatsAmerica

Figure 5: HUDSON VALLEY NUMBER OF HOUSEHOLDS by COUNTY 2010



In the [2011 Catalogue of Need, New York State Homes and Community Renewal](#)¹⁰ identified more diversity in affordable housing options as the primary need in the region. The group noted a particular need for multi-family housing. In addition, there is a need for energy efficient housing and affordable, developable land.¹¹

Affordable workforce housing was identified as a need throughout the Hudson Valley as many entry-level workers, both hourly and salary, cannot afford existing market rate rents or the rents of some state subsidized developments. The report indicated that the age and deteriorated

⁹<http://www.dataplace.org/>

¹⁰ http://regionalcouncils.ny.gov/themes/nyopenrc/rc-files/midhudson/1D_HCR%20CatalogueOfNeed_HudsonValley.pdf

¹¹ *New York State Homes and Community Renewal, Office of Policy & Research, 2011 Catalogue of Need, Mid-Hudson Region,*

condition of much of the housing stock limits the opportunities of new and current residents when trying to find housing that is safe, decent and affordable.

In certain areas of the region it was found that some local employers, particularly hospitals, colleges and universities, offer incentives to purchase homes or provide housing directly as a means of assisting their employees. Current economic conditions have become an impediment to other employers that are interested in employer-assisted housing.

The primary need identified for the City of Newburgh is job training and employment opportunities to combat the city's extreme poverty levels.

According to a recent housing report by [Hudson Valley Pattern for Progress](#), the decline in the national home ownership rate has taken hold in the Hudson Valley. In the four county study area of Orange, Dutchess, Ulster and Rockland, the total number of conventional mortgage applications declined by more than 80 percent from 2005 to 2011.¹²

The [Pattern for Progress Housing Study](#) sites an informal Hudson Valley regional survey conducted by the Center for Housing Solutions, which found that saving for a down payment was the biggest barrier to homeownership. Property taxes was a close second. Based upon the reality of sub-par wages, an uncertain job market, staggering student debt, renewed rigor in underwriting criteria, high down payment requirements, and ever-increasing real estate taxes, renting has become an increasingly popular option. The Pattern for Progress Housing Study found that homeownership is not attainable for much of the Hudson Valley, including recent college graduates and working families in search of affordable places to live.

Despite the proliferation of barriers to rental and homeownership, the report did find that a number of large-scale, multi-family apartment complexes are under construction in the Hudson Valley, and their units are leasing quickly.

iv. Education

Close to 90 percent (87.8) of the region's residents (as shown in Table 7), have a high school degree or higher, and nearly 38 percent have earned a bachelor's degree or higher. This exceeds the average level of educational attainment in New York State, which is 84.6 percent and 32.5 percent, respectively. Rockland and Westchester Counties also have the highest percentages of non-English speaking adults in the region, with 15.5 and 12.3 percent of adults speaking English less than "very well," respectively.¹³

¹²Pattern for Progress Housing Study: <http://pattern-for-progress.org/pattern-unveil-new-center-housing-solutions>

¹³ US Census. 2010. ACS.

Table 7: LEVEL OF EDUCATION

Location	Percentage High School Degree or Higher	Percentage Bachelor's Degree or Higher
Dutchess	89.2	32.0
Orange	87.1	28.7
Putnam	93.0	38.1
Rockland	87.9	40.8
Sullivan	84.5	20.7
Ulster	87.9	29.3
Westchester	87.3	44.5
Region	87.8	37.5

Figure 6: PERCENTAGE HIGH SCHOOL DEGREE OR HIGHER

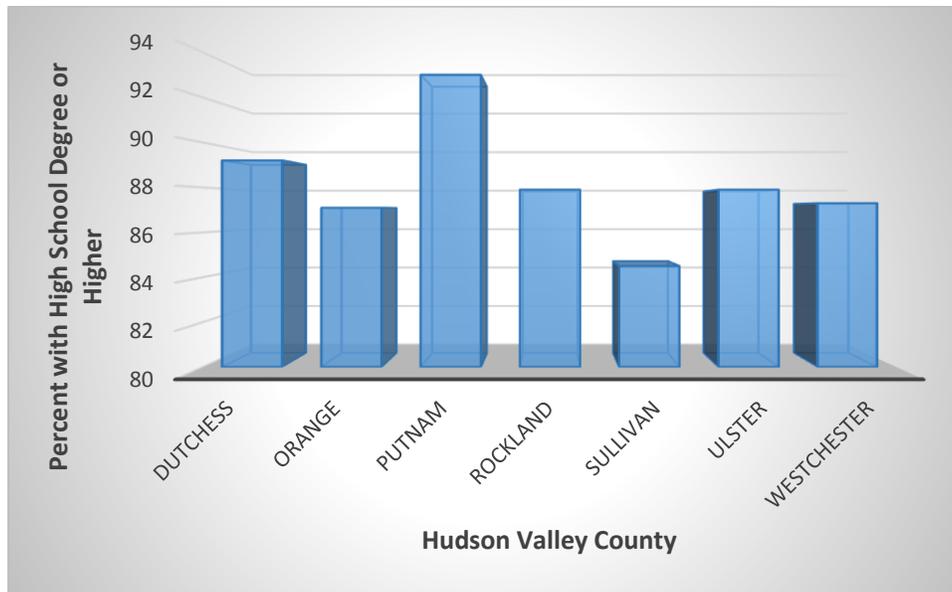
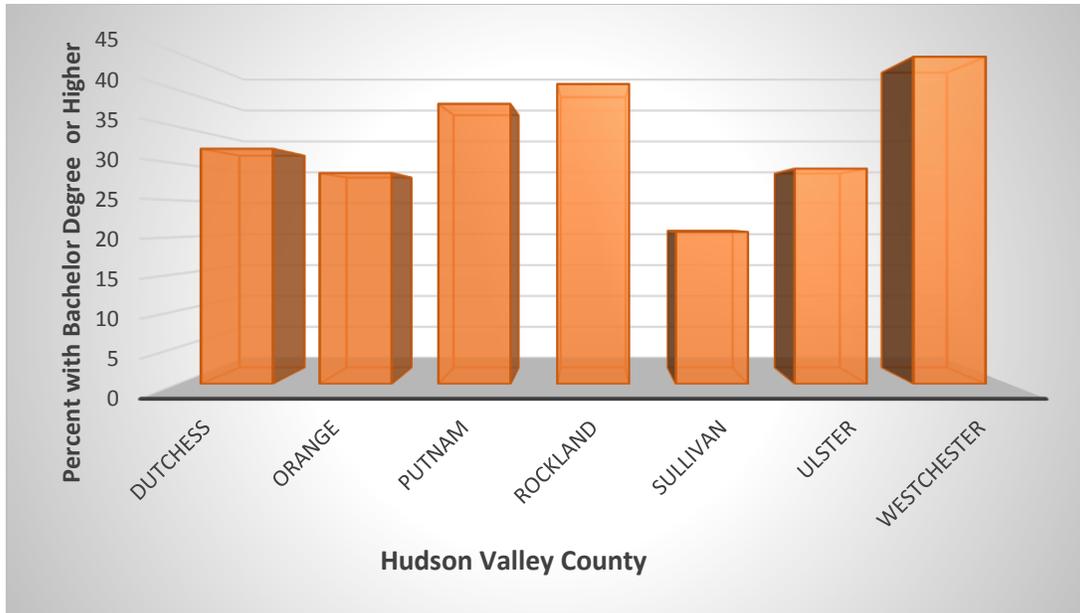


Figure 7: PERCENTAGE BACHELOR'S DEGREE OR HIGHER



B. WHERE WE ARE -THE ECONOMY

i. Labor Force Characteristics

The [New York State Department of Labor](#) (NYSDOL) recently reported that for the 12-month period ending in August 2013, private sector employment in the Hudson Valley region increased by 10,900 or 1.5 percent. Employment gains were strongest in trade, transportation and utilities (+4,000), followed by leisure and hospitality (+2,300), educational and health services (+2,000), natural resources, mining and construction (+1,500), professional and business services (+1,100), and other services (+900). Meanwhile, job losses were centered in information (-700) and manufacturing (-600). The government sector shed 3,000 jobs over the year.¹⁴

The NYSDOL indicated that the 1.5 percent growth in private sector jobs - the strongest August in two years – is evidence that the regional job market continues to accelerate. Private sector job growth was spread across the region. Over the past year, private sector jobs grew most rapidly in two of the Hudson Valley metro areas. The Kingston MSA posted the strongest percentage job growth at 2.8 percent, and the Putnam-Rockland-Westchester labor market area grew by 1.9 percent. The Poughkeepsie-Newburgh-Middletown MSA remained relatively stable (+0.3 percent) and Sullivan County (-0.9 percent) was the only area in the region that lost private sector jobs.¹⁵

As seen in Table 8 private sector job growth of 2.8 percent in the Kingston MSA outpaced both the state and the national growth rates of 1.7 percent and 2.0 percent respectively. The

¹⁴<http://www.labor.ny.gov/stats/hud/>

¹⁵ Ibid

Putnam-Rockland-Westchester labor market area growth of 1.9 percent also exceed the New York State growth rate of 1.7 percent.

Table 8: CHANGE IN NONFARM & PRIVATE SECTOR JOBS, AUGUST 2012-AUGUST 2013¹⁶

	Change in Total Nonfarm Jobs: (private sector + government)		Change in Private Sector Jobs:	
	Net	%	Net	%
United States	+2,208,000	+1.7%	+2,291,000	+2.0%
New York State	+120,400	+1.4%	+126,800	+1.7%
Downstate NY (10-co. area)				
	+119,500	+2.1%	+122,400	+2.5%
New York City	+84,400	+2.2%	+84,700	+2.5%
Suburban Counties	+35,100	+1.9%	+37,700	+2.4%
Nassau-Suffolk	+27,100	+2.2%	+28,500	+2.7%
Putnam-Rockland-Westchester	+8,000	+1.4%	+9,200	+1.9%
Upstate NY (52-co. area)				
	+14,300	+0.5%	+19,300	+0.8%
Metro Areas	+16,000	+0.6%	+18,600	+0.9%
Albany-Schenectady-Troy	+5,000	+1.1%	+4,500	+1.3%
Binghamton	-400	-0.4%	+900	+1.1%
Buffalo-Niagara Falls	+5,000	0.9%	+6,400	+1.4%
Elmira	0	0.0%	+100	+0.3%
Glens Falls	+1,100	+1.9%	+1,200	+2.4%
Ithaca	+1,000	+1.6%	+800	+1.5%
Kingston	+1,100	+1.9%	+1,300	+2.8%
Poughkeepsie-Newburgh-Middletown	-1,000	-0.4%	+600	+0.3%
Rochester	+200	0.0%	-800	-0.2%
Syracuse	+3,100	+1.0%	+2,500	+1.0%
Utica-Rome	+900	+0.7%	+1,100	+1.1%
Non-metro Counties	-1,700	-0.3%	+700	+0.2%

For the third consecutive month, as exhibited in Table 9, natural resources, mining, and construction continued to show signs of improvement, posting a growth of 3.5 percent, its strongest year-to-year growth in 16 months. It is important to note that growth is isolated within the region, with close to 85 percent attributed to the Putnam-Rockland-Westchester labor market area. Trade, transportation and utilities, the region's leading job generator, posted growth of 2.3 percent year over year, or 4,000 jobs. More than 50 percent of the growth in that sector is attributed to a strong retail component.¹⁷

¹⁶ State's Private Sector Job Count Grows by 22,700 in August 2013 to Historic Record High, September 19, 2013, <http://www.labor.ny.gov/stats/pressreleases/pruistat.pdf>

¹⁷<http://www.labor.ny.gov/stats/hud/>

In September 2013, the NYSDOL reported preliminary figures that showed New York had added 22,700 private sector jobs in August 2013, for a growth rate of 0.3 percent. This raised New York State's private sector job count to 7,459,600, an all-time high. However, between July and August 2013, New York State's unemployment rate increased from 7.5 percent to 7.6 percent. New York State's unemployment rate was down from 8.5 percent in August 2012.¹⁸

Table 9: HUDSON VALLEY NONFARM EMPLOYMENT AUGUST 2013, JULY 2013, AUGUST 2012

Category	Aug 2013	Jul 2013	Aug 2012	Net Month	% Month	Net Year	% Year
Total Nonfarm	909,900	915,300	902,000	-5,400	-0.6%	7,900	0.9%
Total Private	757,100	759,500	746,200	-2,400	-0.3%	10,900	1.5%
Goods-producing	91,700	89,800	90,800	1,900	2.1%	900	1.0%
Natural Resources, Mining and Construction	44,800	43,300	43,300	1,500	3.5%	1,500	3.5%
Manufacturing	46,900	46,500	47,500	400	0.9%	-600	-1.3%
Service-Providing	818,200	825,500	811,200	-7,300	-0.9%	7,000	0.9%
Private Service-Providing	665,400	669,700	655,400	-4,300	-0.6%	10,000	1.5%
Trade, Transportation and Utilities	180,300	180,500	176,300	-200	-0.1%	4,000	2.3%
Information	17,700	17,600	18,400	100	0.6%	-700	-3.8%
Financial Activities	46,100	46,200	45,700	-100	-0.2%	400	0.9%
Professional and Business Services	104,600	104,800	103,500	-200	-0.2%	1,100	1.1%
Education and Health Services	184,600	186,000	182,600	-1,400	-0.8%	2,000	1.1%
Leisure and Hospitality	91,200	93,300	88,900	-2,100	-2.3%	2,300	2.6%
Other Services	40,900	41,300	40,000	-400	-1.0%	900	2.3%
Government	152,800	155,800	155,800	-3,000	-1.9%	-3,000	-1.9%

¹⁸State's Private Sector Job Count Grows by 22,700 in August 2013 to Historic Record High, September 19, 2013, <http://www.labor.ny.gov/stats/pressreleases/pruistat.pdf>

ii. Unemployment – Hudson Valley Region

The region continues to be affected by the current economic stagnation. No level of business and industry is immune. Layoffs and staff reductions span the gamut from Fortune 500 companies to the smallest businesses. In June of 2013, IBM, the largest employer in Dutchess County, laid off close of 700 people from its two sites in the county. While this layoff was a small fraction of the thousands cut in the 1990s it was still characterized as “a big hit.”¹⁹

The Hudson Valley’s overall unemployment numbers are improving, but the numbers vary across different part of the region. Communities or residents that community to New York City have posted lower-than-average unemployment numbers, while some urban cities in the region struggle with unemployment that’s more than twice the national average.

The August 2013 unemployment rate for the Hudson Valley region was 6.6 percent. This is down from the August unemployment rate of 7.5 percent, but was unchanged from July 2013. There were 75,100 unemployed persons in the region in August 2013, down from 76,100 in July 2013 and also down from 88,400 in August 2012.

Table 10: HUDSON VALLEY EMPLOYED, UNEMPLOYED, AND RATE OF UNEMPLOYMENT BY COUNTY

(Numbers in thousands, not seasonally adjusted)

COUNTY	EMPLOYED			UNEMPLOYED			UNEMP. RATE		
	AUG 2013	JUL 2013	AUG 2012	AUG 2013	JUL 2013	AUG 2012	AUG 2013	JULY 2013	AUG 2012
Dutchess	135.3	136.3	134.2	9.6	9.8	11.6	6.6	6.7	7.9
Orange	162.0	163.3	160.8	12.8	13.0	14.9	7.3	7.4	8.5
Putnam	52.0	52.5	50.9	3.2	3.2	3.7	5.8	5.7	6.8
Rockland	151.4	152.7	148.1	9.6	9.8	11.1	6.0	6.0	7.0
Sullivan	33.3	33.1	33.2	2.8	2.8	3.2	7.6	7.9	8.7
Ulster	80.7	81.1	79.3	6.7	6.8	7.9	7.6	7.7	9.0
Westchester	456.1	460.1	446.0	30.4	30.7	36.0	6.3	6.2	7.5
Region	1070.8	1079.1	1052.5	75.1	76.1	88.4	6.6	6.6	7.5

As of August 2013, Sullivan and Ulster counties (both at 7.6 percent) had the highest unemployment rate in the region while Putnam County (5.8 percent) had the lowest unemployment rate. Both Sullivan and Ulster Counties continue to exhibit higher unemployment rates than the state as a whole.

¹⁹IBM layoffs accelerate Dutchess County's economic plan, Craig Wolf, Poughkeepsie Journal, June 23, 2013, <http://www.poughkeepsiejournal.com>

Table 11: RANKING - REGIONAL COUNTY UNEMPLOYMENT RATE, AUGUST 2013²⁰

County	Unemployment Rate	Rank in Region
Sullivan	7.6	1
Ulster	7.6	2
New York State	7.5	
Orange	7.3	3
Dutchess	6.6	4
Westchester	6.3	5
Rockland	6	6
Putnam	5.8	7

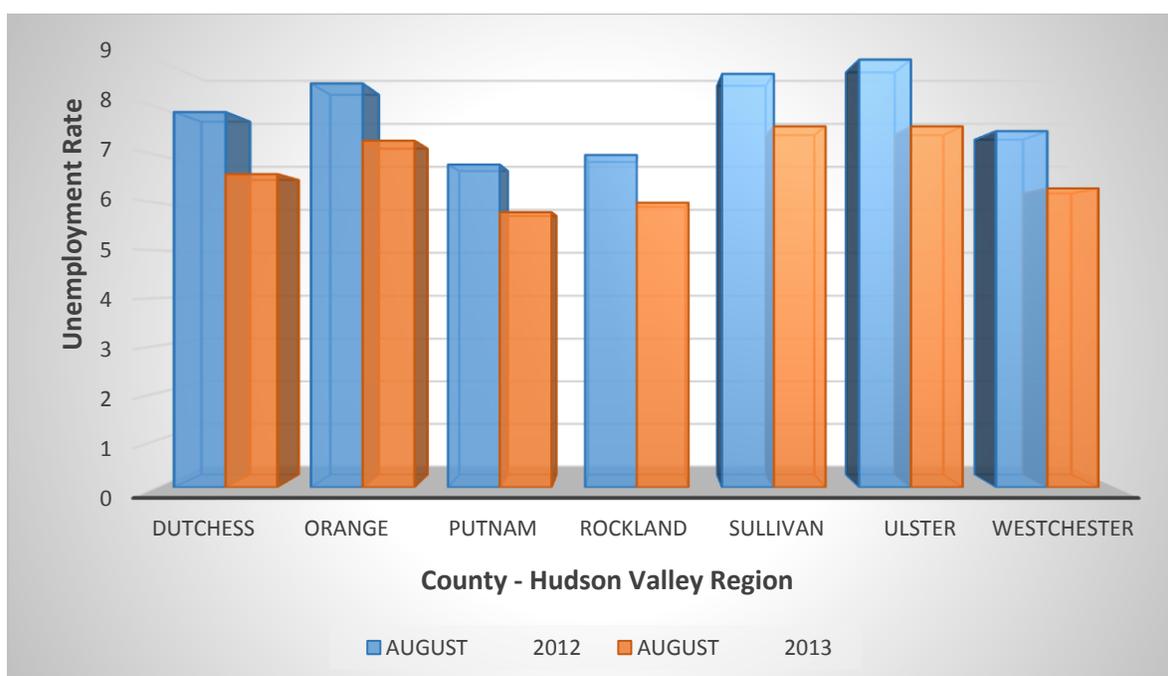
Table 12 and Figure 8 depict the decline in the unemployment rate in the seven counties from August 2012 to August 2013. The decline in the unemployment in each of the counties mirrors the decline statewide.

Table 12: COUNTY UNEMPLOYMENT RATES AUGUST 2012, AUGUST 2013

County	August 2012	August 2013
Dutchess	7.9	6.6
Orange	8.5	7.3
Putnam	6.8	5.8
Rockland	7	6
Sullivan	8.7	7.6
Ulster	9	7.6
Westchester	7.5	6.3
New York State	8.5	7.5

²⁰<http://labor.ny.gov/stats/>

Figure 8: HUDSON VALLEY UNEMPLOYMENT AUGUST 2012-AUGUST 2013



Of the 10 labor market regions in New York State, the Hudson Valley (6.6 percent) trails Long Island (6.2 percent), and the Capital Region (6.3 percent) with the lowest unemployment rate in August 2013. However, while none of the counties in the Hudson Valley had the highest unemployment rates in the state in August 2013, the lowest unemployment rates in the state are also in other labor market regions. None of the seven counties in the Hudson Valley region had the lowest or the highest rates in the state as seen in Table 13.

Table 13: NEW YORK STATE UNEMPLOYMENT RATE HIGHLIGHTS, AUGUST 2013

County	Lowest Unemp. Rate	County	Highest Unemp. Rate
Hamilton	4.2	Bronx	12.0
Saratoga	5.4	Kings	9.6
Yates	5.4	St. Lawrence	9.1
Tompkins	5.6	Oswego	8.8
Ontario	5.7	Montgomery	8.5

A Hudson Valley Economic Report released in September 2012 by [Marist College Bureau of Economic Research](#) found that the regional labor market and private-sector job count began to improve in 2012, albeit at a slow and uneven pace. The southernmost counties—Putnam, Rockland, and Westchester—rebuilt their labor market at a faster rate than the counties of the upper Hudson Valley region—Dutchess, Orange, Sullivan, and Ulster. Regionwide, private-sector job creation continues to outpace new employment and is heavily weighted toward jobs with average wages at or below \$34,000 per year. Job creation in the traditional “high-wage”

sectors—average wages at or above \$87,000 per year—continues to lag.²¹On average, the Hudson Valley continued to outperform both the Long Island and Capital regions. Relative to the New York City region, the Hudson Valley has recaptured more employment but fewer private-sector jobs.

iii. Is the Hudson Valley Economically Distressed?

When measured as a region, income and unemployment numbers in the Hudson Valley look good in comparison to those from other regions of the state and country. As is seen in Table 14 both income and unemployment rates from the 24-month period from July 2011 to July 2013 are better than for the nation as a whole.

Table 14: HUDSON VALLEY REGION DISTRESS CRITERIA STATISTICAL REPORT

	Hudson Valley Region	U.S.	Threshold Calculations
24-Month Average Unemployment Rate (BLS) ending July 2013	7.38	8.07	-0.69
2011 Per Capita Money Income (3 Year ACS)	\$37,850	\$27,158	139.37%
2011 Per Capita Money Income (5 Year ACS)	38,735	\$27,915	138.76%
2011 Per Capita Personal Income (BEA)	\$57,973	\$41,560	139.49%
2000 Per Capita Money Income (Decennial Census)	\$29,384	\$21,587	136.12%

Reference Date: 07 / 2013 (All data elements refer to this date or earlier.)

Region Consists of: Dutchess Co. NY, Orange Co. NY, Putnam Co. NY, Rockland Co. NY, Sullivan Co. NY, Ulster Co. NY, Westchester Co. NY,

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²¹Economic Report of the Hudson Valley, Second quarter 2012, Dr. Christy Huebner Caridi, Marist College Bureau of Economic Research School of Management Poughkeepsie, New York 12601, Edited by Leslie Bates, September 2012
<http://www.marist.edu/management/bureau/pdfs/secondquarter2012.pdf>

Table 15: ECONOMIC DISTRESS CRITERIA-GEOGRAPHIC COMPONENTS

	24 Month Unempl Rate	T C	ACS 3 Year PCMI	T C	BEA PCPI	T C	Census PCMI (2000)	ACS 5 Year PCMI	T C
Dutchess	7.62	-0.45	\$32,325	119	\$45,521	109.5	\$23,940	\$32,353	115.9
Orange	8.06	-0.01	\$29,737	109.5	\$40,066	96.4	\$21,597	\$29,880	107
Putnam	6.57	-1.5	\$38,641	142.3	\$53,781	129.4	\$30,127	\$39,746	142.4
Rockland	6.69	-1.38	\$33,963	125.1	\$53,787	129.4	\$28,082	\$34,983	125.3
Sullivan	9.40	1.33	\$24,063	88.6	\$37,457	90.1	\$18,892	\$24,023	86.1
Ulster	8.55	0.48	\$29,050	107	\$39,589	95.3	\$20,846	\$29,692	106.4
Westchester	7.02	-1.05	\$46,777	172.2	\$75,855	182.5	\$36,726	\$48,306	173

TC: Threshold Calculation

iii.a. Unemployment: A Closer Look

Despite the overall improvement in unemployment in the region from 7.5 percent in August 2012 to 6.6 percent in August 2013, there remain pockets of significant unemployment throughout the region. When metrics such as unemployment and poverty are examined in specific places, instead of by region or the county, the story becomes very different. Like poverty, unemployment tends to be higher in central cities, lower in the suburban ring, and higher again in rural areas.

At the request of the Hudson Valley Regional Council, the NYSDOL's the Local Area Unemployment Statistics Unit provided labor force estimates with 24-month averages, from July 2011 to August 2013, for Census tracts specific in the City of Mount Vernon²², in Westchester County, NY. The request was made as part of the assistance HRVC is providing to [The Empowerment Center](#) regarding an EDA application. While a different estimation methodology is used for these labor force estimates, an overall conclusion can be drawn that the unemployment rates in this area of Westchester County are higher than the overall unemployment rate for both Westchester County as a whole and the United States. While the county as a whole had lower rates than the nation, the unemployment rates for certain Census tracts in the City of Mount Vernon between July 2011 and August 2013 are from 2.7 percent to 10 percent greater than the August 2013 unemployment rate in Westchester County as a whole. Even in relatively prosperous counties, significant pockets of poverty and unemployment still exist

²²Census tracts 28, 29, 30, 31, 32, 35, and 37

**Table 16: DISTRESS CRITERIA STATISTICAL REPORT-
CITY OF MOUNT VERNON, WESTCHESTER COUNTY, JULY 2011 TO AUGUST 2013²³**

	Mount Vernon- Westchester County		
	Economic Distress Criteria – Primary Elements		
	Westchester County	U.S.	Threshold Calculations
Unemployment Annual Average 2012	7.2 ²⁴	8.1	-0.9
August 2013	6.3	7.3 ²⁵	-1.0
Census Tracts			
	Unemployment Rate	Threshold Calculation (from August 2013)	
Tract 0029.00 Westchester, NY	16.3	10	
Tract 0030.00 Westchester, NY	12.8	6.5	
Tract 0031.00 Westchester, NY	16.1	9.8	
Tract 0032.00 Westchester, NY	9.6	3.3	
Tract 0035.00 Westchester, NY	9.0	2.7	
Tract 0037.00 Westchester, NY	11.7	5.4	

Another look at eight Census tracts in Mt Vernon shows significantly higher pockets of unemployment in this economically distressed part of Westchester County. The unemployment rate for these eight census tracts is 14.3 percent, 5.6 percent above the United States’ rate. All eight census tracts that were analyzed in Mt. Vernon showed a higher unemployment rate than the national rate during the same time frame with unemployment rates ranging from 9.2 percent to as high as 30.2 percent, or 0.5 percent to 21.5 percent above the national rate. Per capita income for the eight census tracts was 79.08 percent that of the average U.S. income or roughly 20 percent less than the average national income. Only one census track showed a slightly higher income.

²³ U.S. Bureau of Census, Labor Statistics, and Economic Analysis; generated by STATS America

²⁴ http://data.bls.gov/timeseries/LNU04000000?years_option=all_years&periods_option=specific_periods&periods=Annual+Data

²⁵ <http://data.bls.gov/timeseries/LNS14000000>

**Table 17: DISTRESS CRITERIA STATITICAL REPORT,
CITY OF MOUNT VERNON, WESTCHESTER COUNTY 2011²⁶**

	Mount Vernon- Westchester County			
	Economic Distress Criteria – Primary Elements			
	Region	U.S.		Threshold Calculations
2011 Unemployment Rate (5 Year ACS)	14.3	8.7		5.6
2011 Per Capita Money Income(5 Year ACS)	\$22,076	\$27,915		79.08%
Census Tracts	Economic Distress Criteria – Geographic Components			
	Unemployment Rate	Threshold Calculation	PCMI 2011 ACS	Threshold Calculation
Tract 0024.03 Westchester, NY	9.2	0.5	\$30,325	108.6
Tract 0029.00 Westchester, NY	30.2	21.5	\$16,434	58.9
Tract 0030.00 Westchester, NY	10.3	1.6	\$22,402	80.3
Tract 0031.00 Westchester, NY	18.0	9.3	15,244	54.5
Tract 0032.00 Westchester, NY	12.1	3.4	19,741	67.1
Tract 0034.00 Westchester, NY	14.4	5.7	25,325	90.7
Tract 0035.00 Westchester, NY	12.8	4.1	18,204	65.2
Tract 0036.00 Westchester, NY	11.8	3.1	18,942	67.9

Reference Date: All data is from 2007-2011 Census ACS Estimates
 Region Consists of: 36119003500, 36119003000, 36119003100, 36119003300, 36119003200, 36119003600, 36119003400, 36119002900, 36119002403
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As displayed in Tables 18 and 19, both Ulster and Sullivan Counties show signs of being economically distressed counties. Their unemployment rates exceed both the United States and New York State rates. Sullivan County’s unemployment rate is the highest in the region and per capita income, relative to the nation, is also the lowest in the region.

²⁶ U.S. Bureaus of Census, Labor Statistics, and Economic Analysis; generated by STATS America

Table 18: DISTRESS CRITERIA STATISTICAL REPORT, SULLIVAN COUNTY NY 2011²⁷

	Sullivan County		
	Economic Distress Criteria – Primary Elements		
	Region	U.S.	Threshold Calculations
24-month Average Unemployment Rate (BLS)	9.40	8.07	1.33
2011 Per Capita Money Income (5 Year ACS)	\$24,023	\$27,915	86.06%
2011 Per Capita Personal Income (BEA)	\$37,457	\$41,560	90.13%

U.S. Bureau of Census, Labor Statistics, and Economic Analysis; generated by STATS America
Report Date 10/9/2013

Table 19: DISTRESS CRITERIA STATISTICAL REPORT-ULSTER COUNTY NY 2011²⁸

	Ulster County		
	Economic Distress Criteria – Primary Elements		
	Region	U.S.	Threshold Calculations
24-month Average Unemployment Rate (BLS)	8.52	8.00	0.52
2011 Per Capita Money Income (5 Year ACS)	\$39,589	\$41,560	95.26%
2011 Per Capita Personal Income (BEA)	\$20,846	\$21,587	96.57%

U.S. Bureau of Census, Labor Statistics, and Economic Analysis; generated by STATS America
Report Date 11/7/2013

As demonstrated in the three tables below, there are other pockets of economic distress throughout the region. Census tracts within three of the region’s cities, Newburgh (Orange County), Poughkeepsie (Dutchess County) and Kingston (Ulster County) were examined and all show pockets of economic distress (higher unemployment rates).

²⁷ Ibid

²⁸ Ibid

Table 20: DISTRESS CRITERIA STATISTICAL REPORT, CITY OF NEWBURGH, ORANGE COUNTY, NY 2011²⁹

	City of Newburgh- Orange County			
	Economic Distress Criteria – Primary Elements			
	Region	U.S.		Threshold Calculations
2011 Unemployment Rate (5 Year ACS)	10.2	8.7		1.5
2011 Per Capita Money Income (5 Year ACS)	\$9,318	\$27,915		33.38%
Census Tracts	Economic Distress Criteria – Geographic Components			
	Unemployment Rate	Threshold Calculation	PCMI 2011 ACS	Threshold Calculation
	Tract 0005.01 Orange, NY	8.3	-0.4	\$13,340
Tract 0005.02 Orange, NY	13.0	4.3	\$10,689	38.3
Tract 0150.05 Orange, NY	8.5	-0.2	\$8,196	29.4
Tract 0150.06 Orange, NY	11.3	2.6	\$6,656	23.8

Reference Date: October 9, 2013 All data is from 2007-2011 Census ACS Estimates

Table 21: DISTRESS STATISTICAL REPORT-CITY OF POUGHKEEPSIE, DUTCHESS COUNTY NY 2011³⁰

	City of Poughkeepsie- Dutchess County			
	Economic Distress Criteria – Primary Elements			
	Region	U.S.		Threshold Calculations
2011 Unemployment Rate (5 Year ACS)	13.2	8.7		4.8
2011 Per Capita Money Income (5 Year ACS)	\$20,220	\$27,915		72.43%
Census Tracts	Economic Distress Criteria – Geographic Components			
	Unemployment Rate	Threshold Calculation	PCMI 2011 ACS	Threshold Calculation
	Tract 2201.00 Dutchess, NY	16.6	7.9	\$18,625
Tract 2202.01 Dutchess, NY	19.4	10.8	\$14,325	51.3
Tract 2203.00 Dutchess, NY	18.6	9.9	\$15,370	55.1
Tract 2207.00 Dutchess, NY	11.0	2.3	\$18,621	66.7
Tract 2208.01 Dutchess, NY	11.1	2.4	\$33,784	121
Tract 2209.01 Dutchess, NY	8.1	-0.6	\$24,802	88.8
Tract 2211.00 Dutchess, NY	10.0	1.3	\$14,926	53.5

Reference Date: October 9, 2013 All data is from 2007-2011 Census ACS Estimates

²⁹ U.S. Bureaus of Census, Labor Statistics, and Economic Analysis; generated by Stats America.

³⁰ Ibid

Table 22: DISTRESS CRITERIA STATISTICAL REPORT, CITY OF KINGSTON, ULSTER COUNTY, NY 2011³¹

	City of Kingston- Ulster County			
	Economic Distress Criteria – Primary Elements			
	Region	U.S.		Threshold Calculations
2011 Unemployment Rate (5 Year ACS)	12.8	8.7		4.1
2011 Per Capita Money Income (5 Year ACS)	\$22,737	\$27,915		81.45
Census Tracts	Economic Distress Criteria – Geographic Components			
	Unemployment Rate	Threshold Calculation	PCMI 2011 ACS	Threshold Calculation
Tract 9519.00 Ulster, NY	9.7	1	\$26,090	93.5
Tract 9521.00 Ulster, NY	15.7	7	\$16,317	58.5
Tract 9524.00 Ulster, NY	11.6	2.9	\$28,917	103.6

Reference Date: October 9, 2013 All data is from 2007-2011 Census ACS Estimates

iv. Household Income and Poverty-Region/NY/US

The median household income in the Hudson Valley was \$60,751 in 2010 (see Table 1.2), 15 percent higher than the national average and nearly 10 percent higher than the state average. Income differences likely reflect the region’s concentration of highly educated workers and the effects of labor market spillover from New York City.

The nation's official poverty rate in 2012 was 15 percent, which represents 46.5 million people living at or below the poverty line. The 2012 poverty rate was 2.5 percentage points higher than in 2007, the year before the economic downturn.³²

In 2011 the [New York State Community Action Association](#) (NYSCAA) released its fourth annual edition of the New York State Poverty Report. NYSCAA found that more than 2.6 million New Yorkers struggle in households with incomes below the federal poverty line. Nearly 20 percent of New York families with children live in poverty, and more than 866,000 children live in poor households. Newburgh (Orange County) is one of the cities in New York where the poverty rate of working poor – defined as those who have jobs but still fit the federal criteria for poverty - is greater than 35 percent.³³

³¹ U.S. Bureau of Census, Labor Statistics, and Economic Analysis; generated by STATS America.

³² Income, Poverty and Health Insurance Coverage in the United States: 2012, U.S. Census Press Release, September 17, 2013, http://www.census.gov/newsroom/releases/archives/income_wealth/cb13-165.html

³³ New York State Poverty Report, Fourth Addition, New York State Community Action Association (NYSCAA) , Executive Summary <http://www.nyscaaonline.org/PovReport/2011/2011execsumm.pdf>

iv.a. Household Income and Poverty in the Hudson Valley Region

Due to an educated work force in the region, household incomes are generally higher in the Hudson Valley than the rest of the state. However in 2011, both Sullivan and Ulster Counties have median incomes below New York's median income. In addition while poverty rates are generally lower in the Hudson Valley, the region does have pockets of poverty and economic distress.

A 2007 paper by [Cornell University's Community and Rural Development Institute](#) (CaRDI) reported that 13.3 percent of United States residents and 14.2 percent of New Yorkers lived under the established poverty threshold in 2006. The national rate represented an increase of almost a full percentage point since the 2000 Census, and the state saw a slight decrease (0.4 percentage points) in the same six-year period.³⁴ In 2011 the state poverty rate increased to more 16 percent. Most Hudson Valley counties, with the exception of Sullivan County, remained below the state threshold, but poverty rates had increased considerably in all seven counties from 2000 to 2011.

The CaRDI report indicates that urban places in New York have far greater rates of overall poverty than rural places. Relative to national poverty rates, poverty in New York State tends to be concentrated in urban places. This is especially the case for child poverty.³⁵

Employment rates are discussed in more detail in the next section, however in Table 23 shows that unemployment rates and poverty rates have increased in each of the region's seven counties from 2000 to 2011.

These statistics underscore the disparity in the region between counties such as Westchester and Sullivan.

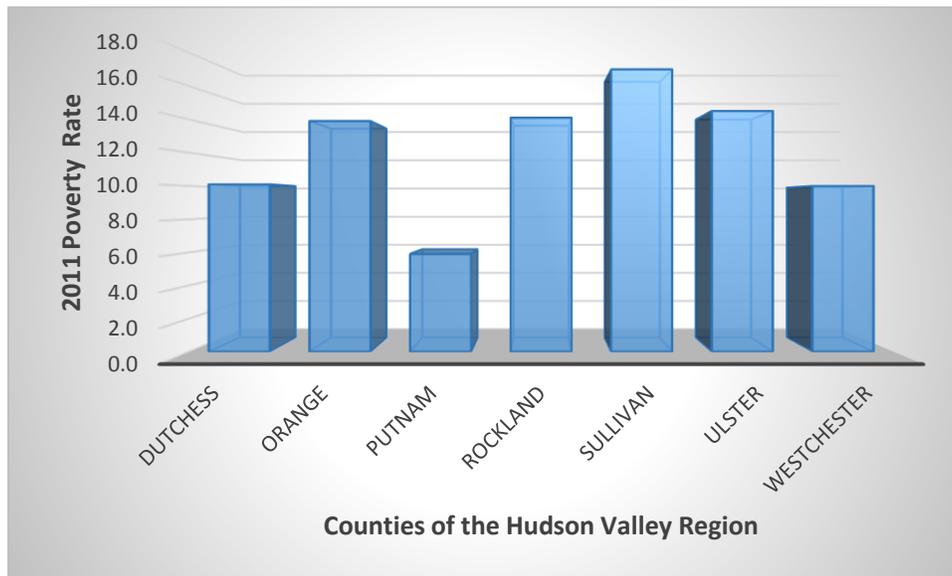
³⁴ Poverty in New York State: Patterns and Prospects, By Thomas Hirschl, Cornell University, Community and Rural Development Institute (CaRDI). Research & Policy Brief Series, Issue Number 12, December 2007 <http://cardi.cornell.edu/cals/devsoc/outreach/cardi/loader.cfm?csModule=security/getfile&PageID=214205>

³⁵ Ibid

Table 23: HUDSON VALLEY MEDIAN HOUSEHOLD INCOME & POVERTY RATES

Hudson Valley Region Median Household Income and Poverty Rates ³⁶						
County/Area	Median Income 2011	Median Income 2000	Poverty Rate 2011	Poverty Rate 2000	Unemployment Rate 2012 ³⁷	Unemployment Rate 2000 ³⁸
Dutchess	\$67,153	\$53,086	10.1	7.5	7.9	5.7
Orange	\$65,648	\$52,058	13.9	10.5	8.3	5.1
Putnam	\$87,248	\$72,279	5.9	4.4	6.7	3.5
Rockland	\$80,765	\$67,971	14.1	9.5	6.9	3.7
Sullivan	\$37,457	\$36,998	17.0	16.3	9.6	9.2
Ulster	\$54,060	\$42,551	14.5	11.4	8.8	6.3
Westchester	\$76,728	<u>\$63,582</u>	10.0	8.8	7.2	4.4
Regional Average	\$67,008	\$55,504				
NYS	\$55,147	\$43,393	16.1	14.6	8.5	7.1

Figure 9: 2011 POVERTY RATES HUDSON VALLEY



While the Hudson Valley generally has lower poverty rates than the state and nation, pockets of poverty throughout the region exceed the county, state and national rates. This is demonstrated in Table 24. While Dutchess County had a poverty rate of 10.1 percent in 2011, the City of

³⁶<http://www.statsamerica.org/>

³⁷<http://www.statsamerica.org/>

³⁸<http://www.dataplace.org/>

Poughkeepsie had 24.6 percent of its citizens living in poverty. While Westchester County had a poverty rate of 10.0 percent, Yonkers and Peekskill had poverty rates of 13.8 percent and 14.0 percent respectively.

Table 24: POVERTY RATES IN HUDSON VALLEY CITIES³⁹

City	County	% of Individuals Living in Poverty
Poughkeepsie	Dutchess	24.6
Newburgh	Orange	22.2
Middletown	Orange	18.8
Kingston	Ulster	16.1
Yonkers	Westchester	13.8
Peekskill	Westchester	14.0

As more families in the Hudson Valley region fall below the official poverty level, dependence on food stamp benefits continues to expand. As of the second quarter of 2012, one out of every 10.2 residents— 224,854 persons—in the Hudson Valley received food stamp benefits compared to one out of every 10.9 residents—210,918 persons—in the second quarter of 2011. As of the second quarter, Sullivan County was the most dependent on food stamp benefits at one out of every 6.11 persons, followed by Rockland, Orange, and Ulster counties at one out of every 7.28 persons, one out of every 8.35 persons, and one out of every 8.78 persons, respectively. Putnam County was the least dependent at one out of every 41.80 persons, followed by Dutchess County at one out of every 12.49 persons and Westchester County at one out of every 12.41 persons. In the second quarter of 2012, in New York State, one out of every 6.32 persons received food stamp benefits.

Despite the fact that household incomes and poverty rates have leveled off after the economic downturn, the region’s food pantries and soup kitchens have seen an increased demand for assistance.⁴⁰

In contrast, there was a slight decrease in the number of persons dependent on Temporary Assistance, falling from 34,043 in the second quarter of 2011 to 33,644 in the second quarter of 2012. Sullivan County was the most dependent on Temporary Assistance benefits at one out of every 32.47 persons, followed by Ulster and Orange counties at one out of every 49.62 persons and one out of every 51.31 persons, respectively. Putnam County was the least dependent at one out of every 675.22 persons, followed by Dutchess, Rockland, and Westchester counties at one out of every 100.31 persons, one out of every 92.48 persons, and one out of every 69.43 persons, respectively.

³⁹ New York State Poverty Report, Fourth Addition, New York State Community Action Association (NYSCAA) http://www.nyscaaonline.org/poverty_reports.cfm?location=nystate§ion=2011

⁴⁰ Region's poverty rates leveled off in 2010, but pantries still see rise in clients, September 21, 2011 <http://www.lohud.com/article/20110922/NEWS01/109220373/Region-s-poverty-rates-leveled-off-2010-pantries-still-see-rise-clients>

On November 1, 2012 cuts to the Supplemental Nutrition Assistance Program (formerly the Food Stamp Program) took place.

In response to the economic downturn, the American Recovery and Reinvestment Act of 2009 (ARRA) increased SNAP benefits across the board. SNAP maximum monthly benefits were increased by ARRA by 13.6 percent beginning in April 2009.

However, the sunset date for the ARRA increase was accelerated to October 31, 2013, based on lower than expected food price inflation from 2009 to 2013.

Table 25 outlines the SNAP allocations to the counties of the Hudson Valley region over the past four decades. A noteworthy allocation increase across the region occurred due to ARRA funding. From 1990 to 2000, each of the region's counties experienced either a modest increase or decrease in its SNAP allocation, with the exception of Orange County, which saw more than a 43 percent increase. From 2000 to 2010 increases ranged from a low of more than 300% (Westchester County) to a high of more than 560 percent (Dutchess County).

Further cuts to the SNAP program are anticipated.

Table 25: SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM ALLOCATION, HUDSON VALLEY

County/Area	1970 (\$)	1980 (\$)	1990 (\$)	2000 (\$)	2010 (\$)	TOTAL (\$)	% Change 1990- 2000	% Change 2000- 2010
Dutchess	226,000	3,546,000	5,187,000	5,272,000	35,024,000	49,255,000	1.64	564.34
Orange	561,000	6,010,000	11,461,000	16,436,000	84,868,000	119,336,000	43.41	416.35
Putnam	55,000	621,000	594,000	464,000	2,973,000	4,707,000	-21.89	540.73
Sullivan	171,000	1,466,000	2,873,000	2,780,000	17,475,000	24,765,000	-3.24	528.60
Ulster	307,000	4,556,000	5,248,000	5,236,000	30,476,000	45,823,000	-0.23	482.05
Westchester	<u>1,420,000</u>	<u>14,049,000</u>	<u>26,072,000</u>	<u>28,164,000</u>	<u>114,143,000</u>	<u>183,848,000</u>	8.02	305.28
TOTAL	2,740,000	30,248,000	51,435,000	58,352,000	284,959,000	427,734,000	13.45	388.34

v. Local Government

In September 2013, the New York State Office of the Comptroller released the findings of the "[Fiscal Stress Monitoring System.](#)"

Of the six government entities that were identified with 'significant economic distress' three of them are in the Hudson Valley region: Rockland County, the City of Poughkeepsie (Dutchess County) and the Town of Fishkill (Dutchess County).⁴¹

The [Fiscal Stress Monitoring System](#) and resulting fiscal stress designations rely on data (as of 8/30/2013) from annual financial reports submitted by local governments to the Office of the

⁴¹<https://www.osc.state.ny.us/localgov/fiscalmonitoring/pdf/ChangeInStatus92313.pdf>

State Comptroller. This list (sorted in order of fiscal stress score) includes only municipalities with fiscal years ending on 12/31/2012.⁴²

The financial health of a local government can have ripple effects on the local economy.

vi. Workforce Commuting

Of the 1,054,119 total working Hudson Valley residents, in 2010 about two-thirds worked within the county they reside and one-third worked outside their county of residence. Of the 934,140 total persons working in the region, more than 75 percent are from the region. However, in 2010 more workers commuted to work outside the region than traveled from outside to work within the Hudson Valley. This is seen in Tables 26, 27 and 28 and demonstrated in Figure 10. A total of 393,562 workers commuted out of the region and 273,583 workers commuted into the region, resulting in a net out-commutation of 119,979 workers in 2010. The most recent 2011 commutation data from the American Community Survey show that there is practically no change in the number of commuters traveling to work inside their resident county, outside their resident county, and outside of New York State.

The 2010 commuting patterns of Hudson Valley workers underscores the region's proximity to New York City. As is demonstrated in Figure 10 all seven of the counties in the region show a percentage of the workforce commuting to New York County (Manhattan), with Orange, Putnam, Rockland, and Westchester counties showing a significant percentage of New York County commuters. Dutchess County shows the largest percentage of its workforce population commuting north to the counties of Rennselaer and Schenectady. Sullivan County's largest percentage of commuters travels to Orange and Ulster counties, and Ulster County shows its workforce mainly commutes to Dutchess and Orange Counties. Commutation Patterns for each of the seven counties in the Hudson Valley region can be found in Appendix E.

⁴²New York State Office of the State Comptroller, Fiscal Stress Monitoring System, http://www.osc.state.ny.us/localgov/fiscalmonitoring/pdf/stress_list.pdf

Table 26: HUDSON VALLEY 2010 OUT-COMMUTATION PATTERNS

Hudson Valley Region 2010 Out-Commutation Patterns										
County/Area	Total County Residents at Work	Worked in New York State	% of Total in State	Worked in own County	% of Total work in own County	Worked outside County	% Total Worked Outside County	Worked outside of NYS	% Worked Outside NYS	Total out-commutation
Dutchess	138,358	133,394	96.4	93,389	67.5	40,005	28.9	4,964	3.6	44,969
Orange	170,425	155,721	91.4	109,987	64.5	45,734	26.8	14,704	8.6	60,438
Putnam	47,539	44,153	92.9	15,391	32.4	28,762	60.5	3,386	7.1	32,148
Rockland	137,728	118,875	86.3	81,337	59.1	37,538	27.3	18,853	13.7	56,391
Sullivan	33,143	32,233	97.3	23,713	71.5	8,520	25.7	910	2.7	9,430
Ulster	86,995	85,975	98.8	58,340	67.1	27,635	31.8	1,020	1.2	28,655
Westchester	<u>439,931</u>	<u>413,250</u>	<u>93.9</u>	<u>278,400</u>	<u>63.3</u>	<u>134,850</u>	<u>30.7</u>	<u>26,681</u>	<u>6.1</u>	<u>161,531</u>
Region	1,054,119	983,601	93.3	660,557	67.2	323,044	32.8	70,518	6.7	393,562

Table 27: HUDSON VALLEY 2010 IN-COMMUTATION PATTERNS

Hudson Valley Region 2010 In-Commutation Patterns										
County/Area	Total Persons Working in the County	Lived in NYS	% Lived in NYS	% Lived Outside NYS	Lived in County/Area	% from County/Area	Lived Outside County/Area	% from Outside County/Area	Lived outside of NYS	Total In-commutation
Dutchess	119,958	117,68	97.9	2.1	93,389	77.9	24,079	20.1	2,490	26,569
Orange	141,445	13,5446	95.8	4.2	109,987	77.8	25,459	18	5,999	31,458
Putnam	27,869	25,266	90.7	9.3	15,391	55.2	9,875	35.4	2,603	12,478
Rockland	113,123	101,141	89.4	10.6	81,337	71.9	19,804	17.5	11,982	31,786
Sullivan	28,928	27,730	95.9	4.1	23,713	82	4,017	13.9	1,198	5,215
Ulster	70,398	69,883	99.3	0.7	58,340	82.9	11,543	16.4	515	12,058
Westchester	<u>432,419</u>	<u>397,101</u>	<u>91.8</u>	<u>8.2</u>	<u>278,400</u>	<u>64.4</u>	<u>118,701</u>	<u>27.5</u>	<u>35,318</u>	<u>154,019</u>
Region	934,140	874035	93.6	6.4	660,557	75.6	213,478	24.4	60,105	273,583

Table 28: HUDSON VALLEY 2010 NET OUT-COMMUTATION

County/Area	Total Out-commutation	Total In-commutation	Net Out-commutation
Dutchess	44,969	26,569	18,400
Orange	60,438	31,458	28,980
Putnam	32,148	12,478	19,670
Rockland	56,391	31,786	24,605
Sullivan	9,430	5,215	4,215
Ulster	28,655	12,058	16,597
Westchester	<u>161,531</u>	<u>154,019</u>	<u>7,512</u>
Region	393,562	273,583	119,979

Figure 10: WORKFORCE 2010 IN/OUT COMMUTATION by COUNTY

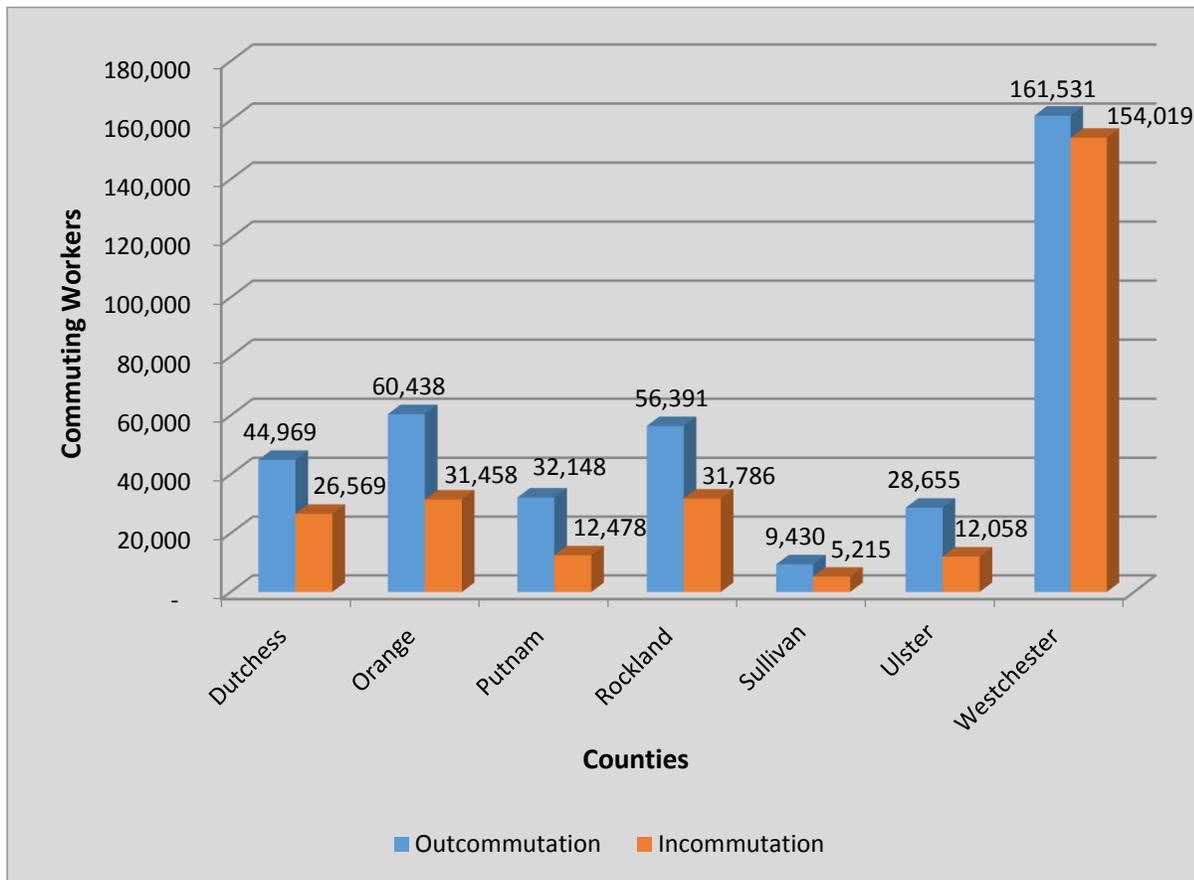
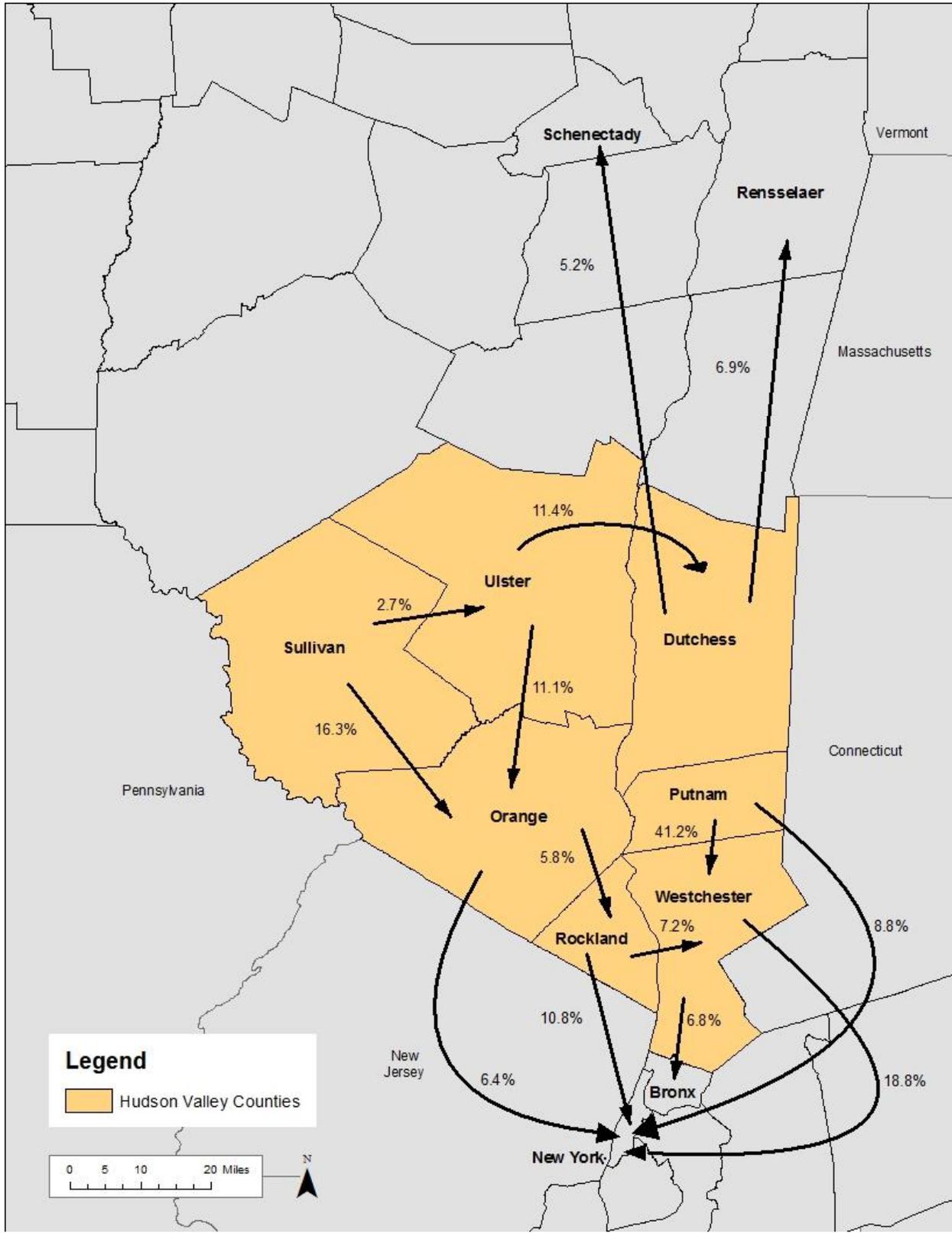


Figure 11: 2010 COMMUTING PATTERNS OF HUDSON VALLEY WORKERS



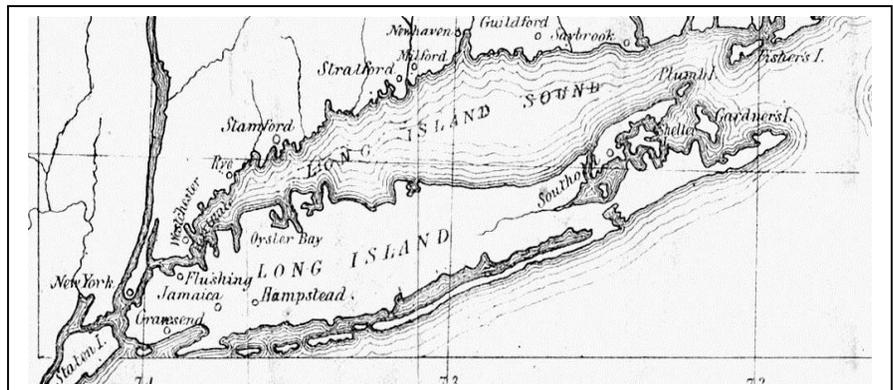
C. GEOGRAPHICAL AND HISTORICAL SIGNIFICANCE

The region is defined by water, ranging from the coastal areas and tidal flats of Westchester County, to the estuaries of the lower Hudson, to the Upper Delaware River and the mountain streams originating in the Catskills. There is great diversity of human and natural landscapes, including dense, urbanized cities, small towns and villages, rural farms and orchards, and extensive undeveloped forest lands. In places, the land is rugged, steep, wooded and inhospitable. Several mountain systems dominate on both sides of the Hudson – the Catskills on the west side and the Hudson Highlands/Taconic Ranges on the east. The Shawangunk Ridge slices through the region with the white stone cliffs on one end and the Basherkill Wetlands at the other.

The region is 4,553 square miles and is situated immediately north of NYC, sharing a border with the Borough of Bronx. The region ranges from just above sea level at Rye in Westchester along the shores of Long Island Sound to 4,108 feet above sea level at the top of Slide Mountain in Shandaken in Ulster County, the highest peak in the Catskills range.

A portion of Westchester County, from Pelham north to Rye, borders coastal waters of Long Island Sound. Though most of the shore area is heavily developed, there remain small, relatively

undisturbed patches of salt marsh and marine tidal shore habitat. These habitats are significant refuges for many specialized plant and animal species of salt marshes, ocean beaches and rocky shores.⁴³



Although the Hudson River, its estuary and watershed is the most significant feature of the region, the western boundary of the region along Sullivan and Orange counties is formed by the Delaware River, separating these counties from Pennsylvania.

The 73 miles of river in Orange and Sullivan Counties is protected by special designation as a Wild and Scenic River and is part of The National Park Service. A scenic byway designation has been granted to Route 97, and many historical sites have been included into the National Park, including the Roebling Bridge, The Zane Grey Museum and locks

⁴³ Hudsonia Harlem Valley Biodiversity Manual Supplement, <http://hudsonia.org/wp-content/files/LIsoundshore09ready.pdf>

from the Delaware and Hudson Canal. The National Park Service only owns a small portion of the land but controls conservation easements from ridge line to ridge line through the entire reach of the park.

The main branch of the Delaware River rises in Schoharie County, N.Y., at a point 1,886 feet (575 m) above sea level and then cuts deeply through a plateau until it emerges from the Catskill Mountains. The Delaware provides drinking water to the City of Philadelphia, Trenton and several other communities. The upper reaches of the Delaware River in Delaware County (East Branch and West Branch) are dammed into reservoirs that provide water to the City of New York through tunnels under the Catskill Mountains that run beneath several counties, including Sullivan, Ulster, Orange, Putnam and Westchester. Water release regulations are in place to protect the fishery and to control the line of saltwater/freshwater as it nears the Chesapeake Bay.

Many privately owned campgrounds and canoe liveries line the river and contribute to the local economy in Orange and Sullivan County.

There is tremendous historical significance in the Hudson Valley including Washington's headquarters, FDR's home, West Point, Boscobel, Mohonk Mountain House, Fort Delaware, the D&H Canal, George Washington's Revolutionary War headquarters, the site of the original Woodstock Festival, and 300-year-old stone houses in some of the earliest settlements in the United States.



The Hudson River Valley was designated a National Heritage Area by Congress in 1996 in order to recognize, preserve, protect, and interpret its nationally significant cultural, historic, and natural resources. Hudson River Valley National Heritage Area stretches from New York City to Albany. The area resources exhibit the roles of freedom and dignity in the valley's history, and the historical and contemporary role of commerce. Revolutionary War stories, famous residences, scenic parks and gardens, and landscape interpretations all contribute to the Hudson Valley's beauty and wealth of resources.⁴⁴

The [New York State Department of Environmental Conservation's Region 3](#) includes the same seven counties as the Hudson Valley Economic Development District. Within this

⁴⁴ National Park Service <http://www.nps.gov/hurv/index.htm>

region, DEC manages 250,000 acres of state land. Similar acreage and a network of parks ranging from the Walkway over the Hudson to Lake Superior State Park are managed by the [New York State Office of Parks Recreation and Historic Preservation](#) and the [Palisades Interstate Park Commission](#). The Appalachian Trail also runs through the region. There are also more than 100,000 acres of non-profit or local government open space or park land, including a network of lands owned and managed by Scenic Hudson and the Mohonk Preserve. DEC also manages public access to 25,000 acres owned by the New York City Department of Environmental Protection, hundreds of public fishing access locations, multiple boat launches, unique areas, and the 7,000 acre Stewart State Forest. DEC Region 3 shares the [Catskill Forest Preserve](#) with DEC's Region 4.⁴⁵

D. THE NATURAL RESOURCES

i. Watersheds/Water/Rivers

The [Hudson River Estuary](#) flows through the region which includes the majority of the New York City watershed system, whose reservoirs supply 9 million New Yorkers with their drinking water, a portion of Long Island Sound, the Upper Delaware River and many protected streams and wetlands. Sixty percent of development inquiries screened by Natural Heritage for the region identify likely rare, endangered or threatened species or significant natural communities. This is the highest rate among all regions of the state. The major watersheds of the Hudson Valley Region are shown in Figure 12.⁴⁶

Water Use

The Region receives approximately 40 inches of precipitation annually⁴⁷. Groundwater, which provides a critical drinking water supply for many residents, is plentiful.²

The region is a significant exporter of water. The seven counties that comprise the Hudson Valley Region act as important watershed supply area to millions of people in the New York Metropolitan area. Much of New York City's drinking water is drawn from the region, specifically from Sullivan, Ulster, Putnam, and Westchester counties. In 2005, more than 5 billion gallons of water were withdrawn per day, of which approximately 90 percent came from surface water sources (data include NYC withdrawals).⁴⁸

The Delaware provides drinking water to the City of Philadelphia, Trenton and several other communities. The upper reaches of the Delaware River in Delaware County (East

⁴⁵http://regionalcouncils.ny.gov/themes/nyopenrc/rc-files/midhudson/1A_DEC-Region3_Snapshot.pdf

⁴⁶Mid-Hudson Regional Sustainability Plan

USGS, 2013. How Can My Watershed Address help me Find USGS Data. http://nwis.waterdata.usgs.gov/tutorial/huc_def.html

⁴⁷ CRREO, 2010. Outreach Hudson Valley Water: Opportunities and Challenges. <http://www.newpaltz.edu/crreo/discussionbrief4-fall2010.pdf>

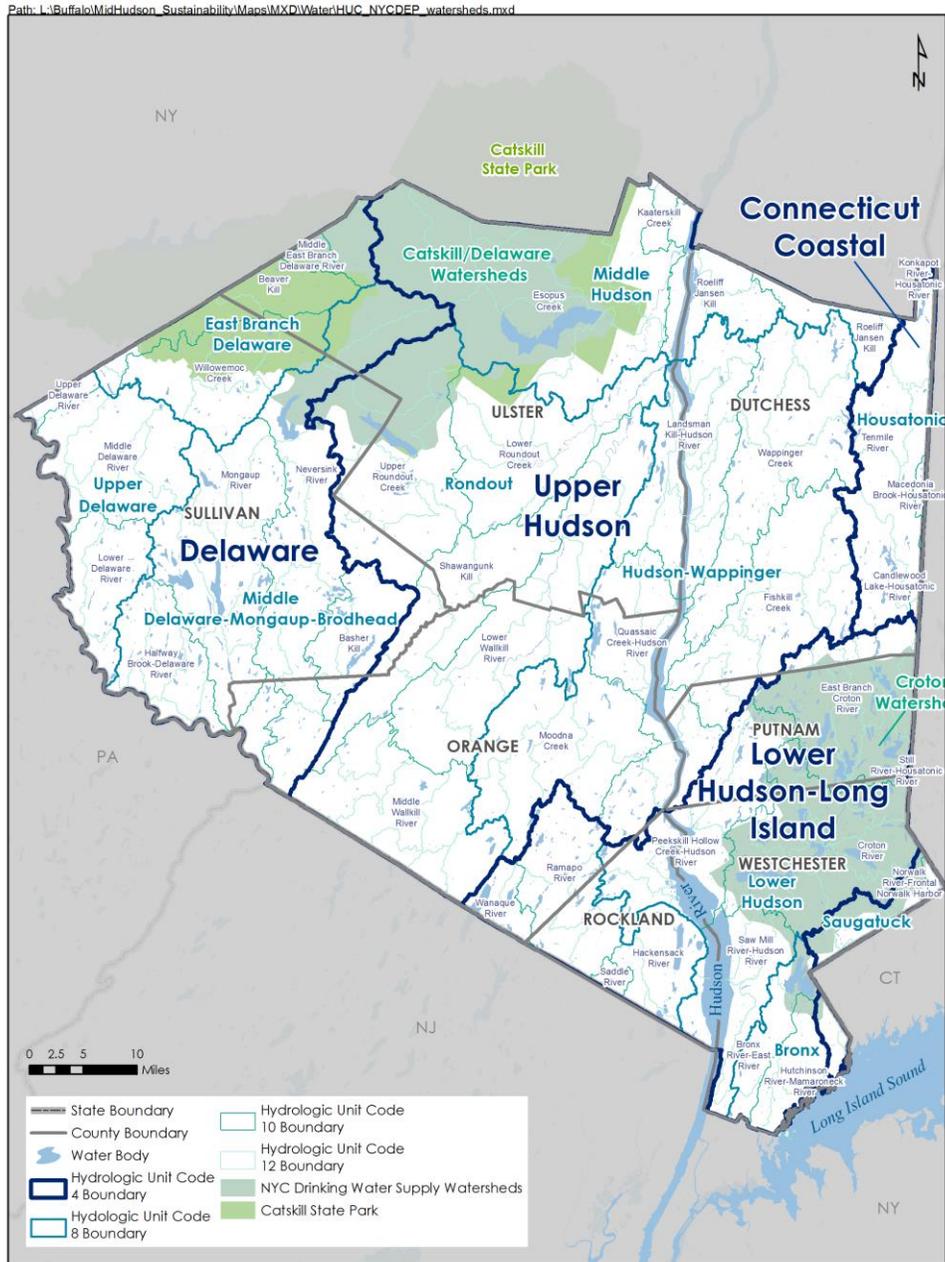
⁴⁸ USGS, 2005. Estimated Use of Water in the United States, County-Level Data.

Branch and West Branch) are dammed into reservoirs to provide water to the City of New York through tunnels under the Catskill Mountains through Sullivan and Ulster counties. The aqueduct tunnels also run beneath Orange, Dutchess, Putnam and Westchester counties. Water release regulations are in place to protect the fishery and to control the line of saltwater/freshwater as it nears the Chesapeake Bay.

The watersheds east and west of the Hudson River and Delaware River Watershed along our western boundary are priceless assets for our region.

New York City regulates portions of the region to protect surface water quality. A Memorandum of Agreement between many government agencies and organizations underlies the watershed protection program in the New York City drinking water supply watersheds. Smaller municipalities also implement certain measures to preserve water quality in some drinking water supply watersheds.

**Figure 12: THE REGION'S WATERSHEDS:
DELAWARE, UPPER HUDSON, CONNECTICUT COASTAL, and LOWER HUDSON-LONG ISLAND**



Public water systems serve approximately 70 percent of the region’s population, with 30 percent of the population on self-supply (usually private groundwater wells).⁴⁹

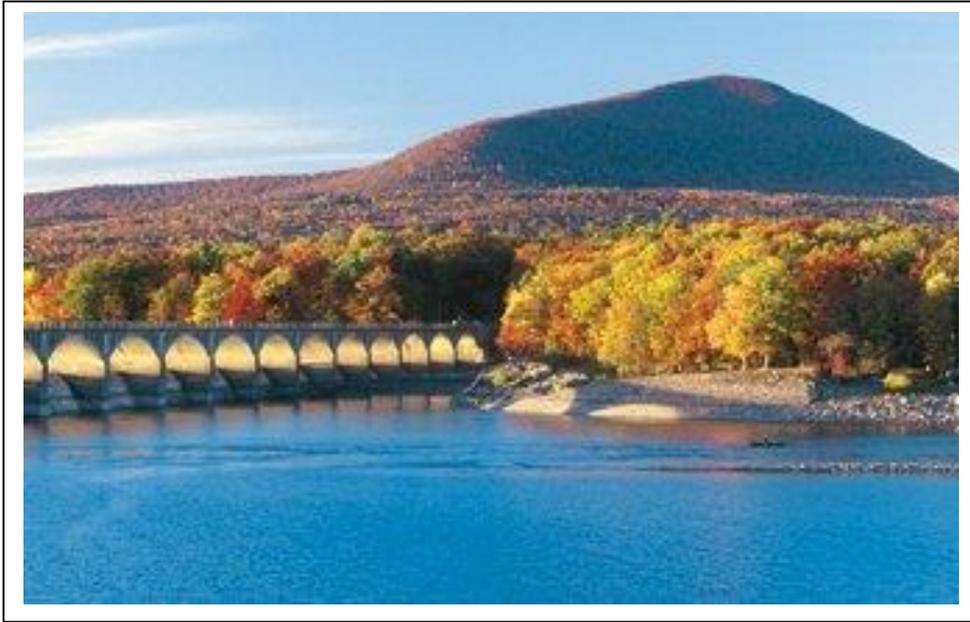
Figure 13: NYC WATER SUPPLY SYSTEM



⁴⁹USGS, 2005. Estimated Use of Water in the US, County-Level Data. <http://water.usgs.gov/watuse/> (Mid-Hudson Regional Sustainability Plan)

Table 29 shows the water withdrawals by sector in the region. These figures include withdrawals to serve New York City (included as public supply), hence the significant withdrawal in Putnam, Sullivan, Ulster and Westchester Counties that contain New York City's reservoirs.

50



⁵⁰ HV Magazine <http://www.hvmag.com/>

Table 29: WATER WITHDRAWALS per SECTOR (MGD)⁵¹

	Public Supply	Domestic Supply	Thermo-electric	Industrial	Mining	Irrigation	Livestock	Aquaculture	Total	% of Total
Dutchess	22.6	7.62	0	3.57	3.25	1.14	0.8	0.31	38.67	0.76
Orange	33.07	5.75	804.15	9.14	0.81	1.81	0.36	0	855.09	16.70
Putnam	105.23	4.91	0	0.71	0.09	0.44	0	0	111.38	2.17
Rockland	26.36	0.8	972.84	5.51	1.36	0.6	0	0	1007.47	19.67
Sullivan	97.68	2.23	0	0.78	0.44	0.59	0.21	5.82	107.75	2.10
Ulster	458.33	6.89	0	1.43	0.77	1.63	0.09	3.33	472.47	9.22
Westchester	30.27	2.24	2471.68	22.51	0	2.28	0.01	0	2528.99	49.38
Region	773.54	30.44	4248.67	43.65	6.72	8.49	0.85	9.46	5121.82	
% of Total	15.10	0.59	82.95	0.85	0.13	0.17	0.02	0.18		

Source: USGS, 2005. Estimated Use of Water in the United States, County-Level Data

⁵¹ USGS, 2005. Estimated Use of Water in the United States, County-Level Data (Mid-Hudson Regional Sustainability Plan)

Groundwater

Dutchess and Westchester County have made commitments to managing groundwater resources. Dutchess County maintains a regional groundwater level monitoring network and has issued guidance for minimum sustainable densities for individual septic systems. It also has developed a model aquifer management zoning ordinance. Dutchess County recently sampled 250 widely distributed domestic wells to help inform policy on domestic well management, road salt use, and septic system management.

Westchester County now requires that any real estate transaction involving a private well include well test results. Results of the tests are archived by the county health department and represent an important database. Water consumption for cooling in thermal electric power plants also affects water quality in the region. Withdrawals impact waterways by warming receiving waters, and also result in mortality to fish that become impinged on intake screens.

Water Quality

The NYSDEC Water Quality Assessment Program has identified the top ten most prevalent causes/sources of water quality impact/impairment in the assessed waters of New York State. These are⁵²:

- Urban Stormwater Runoff
- Aging/Inadequate Wastewater Treatment Infrastructure
- Nutrient Eutrophication
- Atmospheric Deposition and Acid Rain
- Legacy Pollutants in Sediments and Fish
- Atmospheric Deposition of Mercury
- Habitat/Hydrologic Modification
- Nuisance Aquatic Weed Growth and Invasive Species
- Pathogen Contamination of Shellfish
- Inadequate Onsite Wastewater Treatment

NYSDEC monitors surface water quality in compliance with the Clean Water Act Section 303(d). When a water body is determined to be severely impaired, a Total Maximum Daily Load (TMDL) plan must be created to reduce impairment.⁵³ The TMDL process requires identification of the source of impairment and creation of a remediation plan for improving water quality.

The distribution of impaired waters across the region is presented in Table 30. Less than a quarter of the waterbodies in the region have been assessed. Of those that have been

⁵²<http://www.dec.ny.gov/chemical/66532.html>

⁵³ NYS listings are explained and can be downloaded at: <http://www.dec.ny.gov/chemical/31290.html>

assessed, approximately a quarter have been shown to be impaired, with Putnam and Westchester counties showing the highest degree of impairment and Sullivan the least.

Table 30: WATER QUALITY IMPAIRMENTS⁵⁴

County/Area	No. of Waterbodies	No. of Water Bodies Assessed	% of Total Assessed	No. of Impaired Waterbodies	% Impaired of Total Assessed
Dutchess	108	15	13.89	3	20.0
Orange	155	22	14.19	3	13.6
Putnam	103	24	23.30	10	41.7
Rockland	48	14	29.17	5	35.7
Sullivan	234	78	33.33	6	7.7
Ulster	139	20	14.39	7	35.0
Westchester	110	29	26.36	16	55.2
Region	897	202	22.52	50	24.8

To assess water quality in streams, NYSDEC also conducts biological monitoring, or biomonitoring, which looks at the biological community to provide information on the quality or "health" of an ecosystem. Biomonitoring is considered to provide a more complete evaluation of water quality based on cumulative impacts over time, and is therefore relevant to the health of wildlife, fisheries, drinking water, recreation and other human uses. Table 31 summarizes the results of biomonitoring.

Table 31: BIOMONITORING in HUDSON VALLEY STREAM REACHES⁵⁵

County/Area	Stream Reaches Assessed/Total	% of Total Monitored	No. of Stream Reaches Moderate to Severe	% Impaired of Total Assessed
Dutchess	27/118	22.9	27	100.00
Orange	54/164	32.9	54	100.00
Putnam	22/53	41.5	22	100.00
Rockland	15/41	36.6	15	100.00
Sullivan	4/122	18.2	4	100.00
Ulster	56/409	13.7	56	100.00
Westchester	90/195	46.2	90	100.00
Region	268/1102	24.3	268	100.00

⁵⁴ Conservation, N. Y. S. D. o. (2007). "Waterbody inventory and priority waterbodies list." 2013, from <http://www.dec.ny.gov/chemical/36740.html>

⁵⁵ Mid-Hudson Regional Sustainability Plan/ NYSDEC, 2012.

Surface and groundwater sources that provide drinking water have been affected by human activities. Contaminants include siltation, stormwater runoff impacts, industrial discharges, agricultural chemicals, and residential waste. Protection of reservoir watersheds, wellheads and groundwater recharge areas is important to maintain water quality, ensure safe drinking water, and promote economic development.

Watershed Management Planning

Protecting water resources is fundamental to economic development. Addressing water quality and water supply issues on a watershed basis will help ensure protection of this important resource. A recent analysis done by the New York State Water Resources Institute, Department of Earth & Atmospheric Sciences, and Department of Crop & Soil Sciences at Cornell University reinforces previous studies that demonstrate that watershed and/or regional-scale analysis and cooperation can lead to environmental and economic benefits with respect to nutrient management, the impact of dams, and the management of water resource utilities. For the Hudson Valley region, the watershed approach to planning and decision-making has been described as essential to meeting regional water resource challenges.⁵⁶

Many watershed organizations in New York State use a watershed approach in their water protection and restoration activities because it is a very effective strategy for addressing water resource challenges.⁵⁷The NYSDEC Division of Water (DOW) uses a watershed management approach to guide many programs through the implementation of a five-step cycle called "watershed management."

⁵⁶'A watershed-scale goals approach to assessing and funding wastewater infrastructure', (Cuppett and Urban-Mead, 2010; Negro and Porter, 2009) Brian G. Rahm, *Journal of Environmental Management*, 26 June 2013

⁵⁷<http://www.dec.ny.gov/lands/25563.html>

Figure 14: FIVE STEP WATERSHED MANAGEMENT PLANNING



Watershed management plans and inter-municipal agreements that are in various stages of implementation exist throughout the region. The NYS Department of State along with the NYSDEC's Hudson River Estuary Program are both in support of the development of 37 inter-municipal watershed management plans.⁵⁸

Regional Challenges

The region is rich in water resources, which gives it a competitive advantage to attract investment and economic development.

According to the Mid-Hudson Regional Sustainability Plan, the region faces water management challenges that include:

- Localized areas of water scarcity, especially in dry weather
- Flood risk along the Hudson River and Long Island Sound, in the floodplains of the Hudson Valley, and in upland areas such as the Catskills

⁵⁸ NYSDOS 2010. Inter-municipal Watershed Management Program.
<http://www.dos.ny.gov/communitieswaterfronts/pdfs/accomplishmentRpts/3WatershedAccomplishments.pdf>

- Water quality impairment⁵⁹ in certain water bodies, including the main branch of the Hudson⁶⁰

ii. Air Quality

The region’s air quality needs improvement to meet regulatory standards. Table 32, reproduced from the Mid-Hudson Regional Sustainability Plan, shows the individual counties in the region that are currently in non-attainment for air quality. Parts of the region are out of attainment for particulates (PM-2.5) and ozone. These air pollutants are primarily a result of fossil fuel combustion. Air quality is closely linked to transportation and energy, as combustion processes (among other causes) lead to the creation of these air pollutants.

Table 32: NON-ATTAINMENT by COUNTY & POLLUTANT 2012-2012⁶¹

Location	2010	2011	2012
Dutchess	8 Hour Ozone (1997)	8 Hour Ozone (1997)	8 Hour Ozone (1997)
Orange	8 Hour Ozone (1997)	8 Hour Ozone (1997)	8 Hour Ozone (1997)
	PM-2.5 (1997)	PM-2.5 (1997)	PM-2.5 (1997)
	PM-2.5 (2006)	PM-2.5 (2006)	PM-2.5 (2006)
Putnam	8 Hour Ozone (1997)	8 Hour Ozone (1997)	8 Hour Ozone (1997)
Rockland	8 Hour Ozone (1997)	8 Hour Ozone (1997)	8 Hour Ozone (1997)
	PM-2.5 (1997)	PM-2.5 (1997)	8 Hour Ozone (2008)
	PM-2.5 (2006)	PM-2.5 (2006)	PM-2.5 (1997)
			PM-2.5 (2006)
Sullivan	In Attainment	In Attainment	In Attainment
Ulster	In Attainment	In Attainment	In Attainment
Westchester	8 Hour Ozone (1997)	8 Hour Ozone (1997)	8 Hour Ozone (1997)
	PM-2.5 (1997)	PM-2.5 (1997)	8 Hour Ozone (2008)
	PM-2.5 (2006)	PM-2.5 (2006)	PM-2.5 (1997)
			PM-2.5 (2006)

⁵⁹ “Impaired” is the term used in Section 303(d) of the Clean Water Act to refer to water bodies where designated uses are not fully supported. Impaired waters contain some form of pollution.

⁶⁰ Mid-Hudson Regional Sustainability Plan

⁶¹ US EPA, 2012. Green Book Non-Attainment Areas for Criteria Air Pollutants

In 2010, the Hudson Valley Region’s GHG emissions totaled an estimated 27 million metric tons of carbon dioxide equivalent (CO₂e). This is equivalent to the annual emissions produced by 7.6 coal-fired power plants or more that 5.6 million passenger cars. ⁶²Transportation and the built environment⁶³ account for more than 80 percent of the region’s emissions. Land use change, solid waste management, wastewater treatment, and industrial activities produce most of the region’s remaining GHG emissions.⁶⁴

Table 33: REGIONAL GHG EMISSIONS⁶⁵

County/Area	Population	Emissions (MTCO ₂ e)	Per Capita Emissions (MTCO ₂ e/capita)
Dutchess	297,488	3,631,988	12.37
Orange	372,813	4,529,387	11.81
Putnam	99,710	1,598,379	16.1
Rockland	311,687	3,431,985	11.43
Sullivan	77,547	907,644	11.97
Ulster	182,493	229,988	12.29
Westchester	949,113	10,173,625	10.64
Region	2,290,851	26,502,996	11.57

iii. Agriculture

The region, particularly the counties of Dutchess, Orange, Sullivan and Ulster, has a strong component of agricultural producers, products and related industries that represent a significant portion of the valley’s economy. Agriculture in the Hudson Valley is as diverse as the region’s demographics, and can best be described in several categories: crops and value-added products from crops; dairy & value-added products; and livestock, poultry, fish & their value-added products. In some parts of the region you cannot have a conversation

“Farming gives the Hudson Valley its distinctive character”

“The State of Agriculture in the Hudson Valley”,
Glynwood

⁶²<http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>

⁶³ Built environment includes buildings, infrastructure (roads, bridges, transmission lines etc.) and other structures that support human activity).

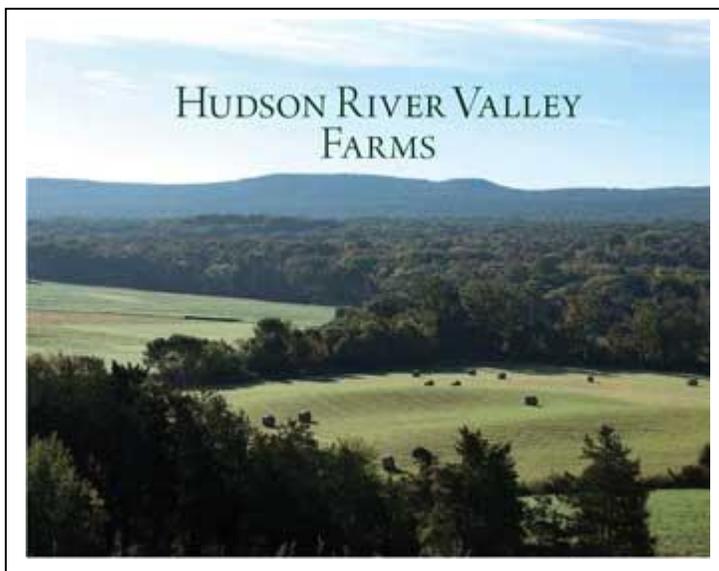
⁶⁴Mid-Hudson Sustainability Regional Plan Executive Summary

⁶⁵ Mid-Hudson Regional GHG Inventory

about agriculture without mentioning horse farms and equestrian facilities, which are important in those landscapes.

The strength of agriculture in the region is supported by the proximity to the New York Metropolitan Area. Many local agricultural producers take their product directly to the consumers through the Green Markets, Farm –to-Table programs and farmers markets. A Pattern for Progress study in 2012 detailed the needs of smaller farms and producers with respect to getting their products to market and established a need in the region for food hubs, a cooperative program to assist smaller producers in marketing their products.

Using data and research provide by Cornell University, Glynwood applied the relevant multipliers to Census data, using a broad measure of output and generative impacts that includes sales of crops and livestock products, farm-related income, and government payments to estimate the total gross economic impact of farming in the region in 2007 at \$810 million.⁶⁶



According to a report by the NYS Comptroller, in 2007 the sales of agricultural commodities in the Hudson Valley seven-county region reached \$239.9 million. Orange County was the leading agricultural county in the region, which had New York’s second-highest sales of greenhouse, nursery, floriculture, and sod products that year. Orange County also had the fourth-highest sales of vegetables, melons, potatoes, and sweet potatoes in 2007

and was the top producer of cabbages, and a large producer of onions and pumpkins. In 2007, Ulster County had the state’s second-highest sales of fruits, tree nuts, and berries as well as ranking second in the state for apples. Other major crops for Ulster County were pears and cabbages.⁶⁷

⁶⁶ “The State of Agriculture in the Hudson Valley”, Glynwood, pg. 32. <http://www.glynwood.org/publications-multimedia/state-of-ag/>

⁶⁷ The Role of Agriculture in the New York State Economy Thomas P. DiNapoli , New York State Comptroller Deputy Comptroller, Report 21-2010 February 2010 <http://www.osc.state.ny.us/reports/other/agriculture21-2010.pdf>

Crops and Value-Added Products from Crops

According to New York State Department of Agriculture & Markets, New York State ranks second in the nation in the production of apples, generating \$233 million in 2010. Three regions dominate that production – the Hudson Valley, the upper Lake Champlain Valley and along the southern shore of Lake Ontario. Within the Hudson Valley region, Ulster County is the top apple producer with a strong apple growing region along the Hudson River. Along with the apples farms, there are many grape growers and several well-known wineries in the Hudson River region. The region has a Hudson Valley Wine Trail map and brochure, which includes eateries and lodgings that promote agri-tourism.

Glynwood's Keep Farming® program guides communities in assessing the impact of local farming. One of the program's most powerful tools is an economic assessment survey that assists residents in determining how much money farmers circulate in their community. Glynwood has seen the profound effect this knowledge has—in one small rural community in the Hudson Valley the knowledge that farmers spend at least \$1.25 million each year was key to generating community support for plans to encourage their continued operations.

*"The State of Agriculture in the Hudson Valley",
Glynwood, p. 33*

New York State ranks fourth in the nation in the production of sweet corn with a high concentration of corn production found in the Lower Hudson Valley and the Genesee valley. The sweet corn crop is valued at \$71 million for the state.

Orange County and its "Black Dirt" muck land is listed as a major grower of onions in the state. The crop generates \$54.2 million for the state, ranked fourth in the nation in onion production.

New York State is second in the nation in the production of maple syrup, second only to Vermont. In the Hudson Valley, two new large commercial maple syrup producers have emerged in the last few years – Crown Maple in Dutchess County and the Catskills Mountain Sugarhouse in Sullivan County.

A new economic initiative in NYS, a program to encourage the growth of the craft beer industry, takes advantage of the popularity of Hudson Valley grain productions such as hops. On July 18, New York Governor Andrew Cuomo signed legislation that will provide tax credits for local breweries. "Craft brewers in New York continue to be an important and growing piece of the economy," the Governor said. "This tax credit will allow New York's burgeoning craft breweries to remain competitive, continue to grow and add jobs in local communities."

Many years ago New York had a very important hop industry. There is a renewed interest in growing hops in New York due to the growth of the craft beer industry.

Dairy & Value Added Products

New York State lost 1,705 dairy farms from 2002 to 2007, a decrease of 23 percent of New York's dairy farmland in just five years, according to USDA data. As of 2010, New York had just 5,400 dairy farms.

The dairy industry has been central to Hudson Valley agriculture. However, dairy farmers continue to face significant challenges. Loss of dairy farms has been the result of the rising operating and production costs and low commodity milk prices.

A 'State of Agriculture in the Hudson Valley' report issued in 2010 by Glynwood⁶⁸ indicates that from 1997 to 2007, the number of dairy farms in the region declined by 39 percent, with a concurrent 27 percent loss of dairy acreage.

According to USDA statistics as of 2007, the Hudson Valley is home to nearly 150 dairy farms, down from more than 230 in 2002, a decrease of 48 percent. From 2002 to 2007, Rockland County lost all of its remaining dairy farms. Putnam's list of dairy farms was cut in half with Orange and Sullivan seeing 43 and 40 percent declines respectively.

Hudson Valley Fresh is a regional dairy cooperative with farms in Dutchess, Ulster and Columbia counties that has grown successful by addressing the issue of reductions in the price wholesalers and third parties pay farmers for their milk. By processing their own milk and value added products, like yogurt and sour cream, at a local dairy processor in Kingston, they are able to receive a fair price for their product, create a farm-to-market food chain, earn a living wage and preserve farmland in the region by ensuring that dairy farms can be profitable businesses.

Based on a review of small plants data from NYS Department of Agriculture and Markets, Milk Control and Dairy Services, Glynwood found an encouraging trend in the growth of small dairies producing premium dairy products. Since 2007, the number of small dairy plants in New York State almost doubled, including a 55 percent increase in the Hudson Valley. In 2010 one-third of all the small dairy plants in New York State were located in the Hudson Valley.⁶⁹

⁶⁸The State of Agriculture in the Hudson Valley, a regional summary compiled primarily with data from the USDA's Census of Agriculture. The first version of this report was published in 2005, and in 2010 was updated with newer information.

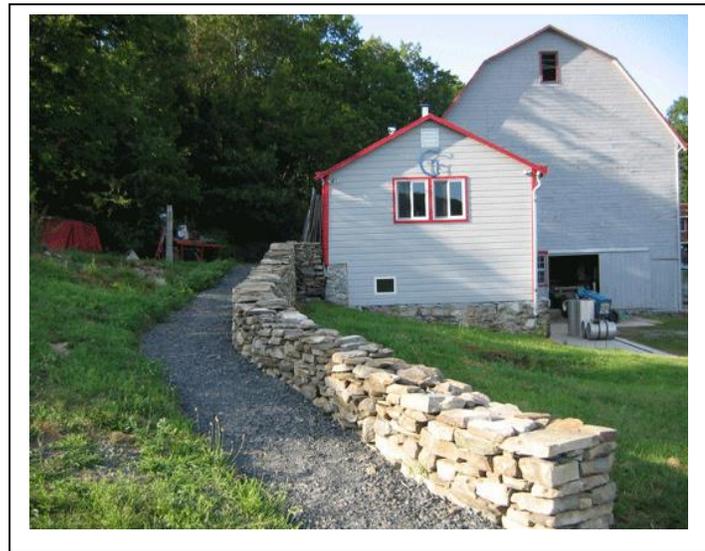
⁶⁹ Ibid, p.19

Table 34: DAIRY FARMS, HUDSON VALLEY

County	Number of Dairy Farms 2002	Number of Dairy Farms 2007	Percentage of Farms Lost
Dutchess	45	38	16%
Orange	94	54	43%
Putnam	4	2	50%
Rockland	6	0	100%
Sullivan	53	32	40%
Ulster	28	22	21%
Westchester	3	1	67%

Livestock, Poultry, Fish & Value-Added Products

The Hudson Valley is home to many livestock farms that include not only traditional dairy farms and their value added products – milk and cheese - but farms that produce cattle, sheep, pigs and hogs for market. There are also a large number of poultry farms, particularly in Sullivan County, including a facility that’s one of only three in the United States to produce “foie gras” a value-added product from duck and/or goose livers. Farms such as Snowdance Farms in Sullivan County, produce organic, free-range meat and poultry for the New York City metropolitan area restaurant market.



The region is also home to several large egg producers who package their product and sell under various labels to regional grocery stores. In 2010, the U.S. Department of Commerce, [Economic Development Administration](#), allocated \$800,000 to complete the

funding necessary for the Southern Catskills Red Meat Processing Plant located in Sullivan County. After many delays, the county broke ground in 2013. Thunder View Farms, a Sullivan County producer of Black Angus beef will join many other red meat producers in the region to use this facility, which will make processing their product more economically efficient and allow them to expand their operations. The project is coordinated by the Sullivan County Industrial Development Agency. In 2013 the Sullivan County IDA was successful in obtaining grants to develop a food hub to stimulate demand for agricultural products, support the development of niche agricultural industries and create new jobs in the agricultural sector of the local economy.

The Hudson Valley is home to several fish hatcheries which produce trout and other species for commercial markets. Continental Organics, a new agricultural business that developed out of the Orange County Business Incubator, has been recognized for excellence in agriculture by Pattern for Progress in 2013. The company produces local organically farmed fish (among other products) and provide those to restaurants in the region as well as the metro-New York area.

Equestrian Facilities

The Hudson Valley is also home to dozens of equestrian facilities, many in Orange, Dutchess, Putnam, Ulster and Westchester Counties. Although their main purpose is

Catskills Red Meat Processing Facility

The Sullivan County Legislature recently approved a \$150,000 investment in a new USDA-approved meat processing facility in Liberty. Local officials expect that the new facility will break ground in the spring. The plant, which will be run by the county, is expected to employ five full-time workers and create 50 new agricultural jobs. Construction of the 5,000 sq. ft. facility is expected to cost \$1.7 million. The federal government has committed \$800,000 toward the \$1.7 million. Former Congressman Maurice Hinchey has secured \$225,000 for the project.

The project will enable local livestock producers to supply high-end meats to NYC Metro Area markets and restaurants. Currently, farmers in the region travel two to three hours each way to have livestock processed their livestock, often waiting months for an appointment.



recreation and training, equestrian facilities are also large consumers of crop products from other farmers, including hay producers.

Organizational Support

The agricultural community in the Hudson Valley is supported by local Cornell Cooperative Extension offices as well as Soil & Water Conservation District offices throughout the region. However, the [Hudson Valley Agri-Business Development Corporation](#) (HVADC) is the leading agency in fostering economic development in agricultural areas. HVADC has grown in influence by focusing on several specific areas as cited on their web site:

- Value-added food processing
- Production agriculture
- Agriculturally related marketing and distribution
- Agriculturally related alternative energy production
- Agro/culinary tourism
- Agricultural biotechnology and related research

Two principal programs are Hudson Valley Bounty (HVB) and the [HVADC “Incubator Without Walls.”](#)

HVB is an initiative created by HVADC to promote the “local foods” concept by connecting producers and end users – restaurants and culinary businesses. At the present time 276 farms, 251 restaurants and 29 markets are involved in the program, which encourages the “preservation of local farms and the use of local and regional sustainable food products.”⁷⁰

The Incubator Without Walls program offers assistance with a range of business services and skills designed to make the individual farm and agricultural product producer more competitive in today’s challenging market.

HVADC also received a priority project designation in 2013 from the Mid-Hudson Regional Economic Development Council for developing a multi-regional, multi-county local food distribution hub network that will provide an more efficient and cost effective method for getting product to the markets in the metro New York area.

Hudson Valley Agricultural Districts

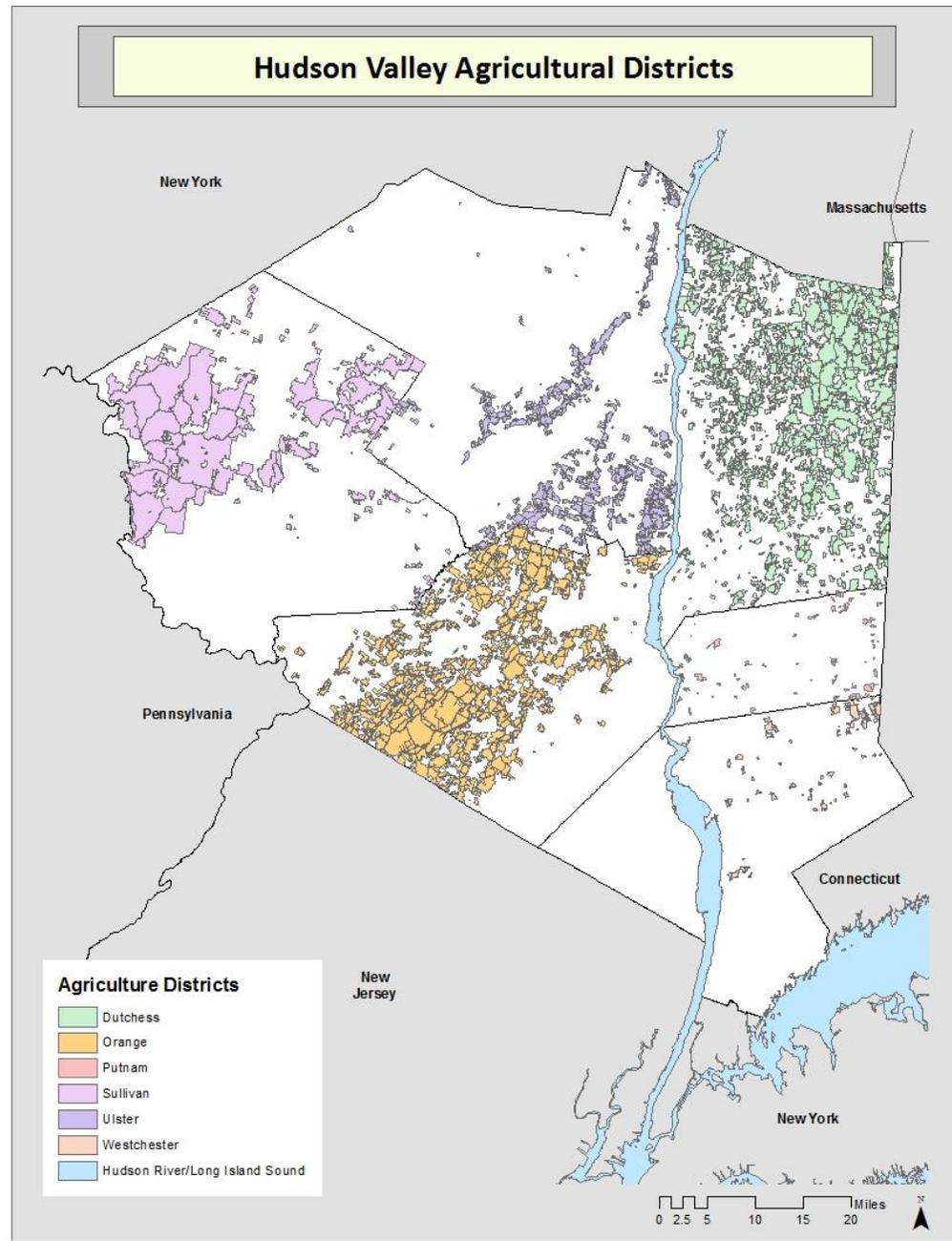
Agricultural Districts as shown in the accompanying graphic are created by local initiative under the authority of the New York State Ag & Markets Law. Not every parcel within the designated district is necessarily used for agricultural purposes, but every

⁷⁰<http://www.hvadc.org/what-we-do/hudson-valley-bounty/>

parcel is subject to “disclosures” about agricultural practices such as manure spreading, odors, and more to prevent nuisance suits.

The purpose of establishing agricultural districts is to preserve and protect farmland by establishing special tax incentives to active farms as well as protecting farms from overly restrictive local laws that could impact their ability to conduct their business.

Figure 15: HUDSON VALLEY AGRICULTURAL DISTRICTS



Protecting Farmland

The preservation of farmland in the Hudson Valley is mainly provided through Article 25-AAA of the Agriculture and Markets Law. The state Department of Agriculture & Markets administers PDR programs (purchase of development rights) under the State Farmland Protection Program. This program “assists county governments in developing agricultural and farmland protection plans to maintain the economic viability of the state's agricultural industry and its supporting land base. State assistance payments are available to counties or municipalities to cover up to 75 percent of the total costs for implementation activities to protect viable farmland. Since the inception of this program in 1996, the department has awarded nearly \$80 million to protect approximately 36,000 acres on 200 farms in 18 counties.”⁷¹

There are also a number of land trusts in the Hudson Valley that work to protect the region’s important agricultural resources, including the Delaware Highlands Conservancy, the Scenic Hudson Land Trust, Columbia Land Conservancy and Hudson Highlands Land Trust.

In June 2013, Scenic Hudson released [Securing Fresh, Local Food For New York City and the Hudson Valley A Foodshed Conservation Plan for the Region](#). This report outlines a strategic approach to conserve

the agricultural land that can supply fresh, local food to the people of the Hudson Valley and New York City.

The report looked at an 11-county regional foodshed⁷² and found there are 5,387 farms comprising 730,389 of significant farmland. Only 11 percent—81,430 acres—has been conserved to date.

Nine priority conservation areas were identified because they have the greatest density of priority farmland. It is recommended that these clusters, which together contain 614 “highest priority” farms totaling 163,673 acres, are where resources should be directed

Conserving the region’s foodshed will require a new public-private partnership of farmers, land trusts and governments working together in a coordinated way. Furthermore, while conserving individual farms can be done by individual land trusts using project-specific funding, conserving the region’s foodshed will require engaging a broader range of groups working in New York City and the Hudson Valley to advance the multiple components of a sustainable regional food system.

Securing Fresh, Local Food For New York City and the Hudson Valley A Foodshed Conservation Plan for the Region, June 2013

⁷¹<http://www.agriculture.ny.gov/AP/agservices/farmprotect.html>

⁷² In addition to the seven counties in the Hudson Valley this analysis included Albany, Rensselaer, Greene, Columbia counties.

first as part of a strategic approach to conserving the region’s farmland. The cost to conserve all 163,673 acres is estimated at \$720 million.

The report identified 2,573 farms of 325,814 acres in the seven county Hudson Valley region.

Table 35: HUDSON VALLEY FOODSHED, FARMS by COUNTY

County	Farms*	Acreage
Dutchess	627	106,113
Orange	808	92,636
Putnam	30	2,817
Rockland	3	215
Sullivan	642	68,679
Ulster	424	50,667
Westchester	39	4,687
Hudson Valley Region	2,573	325,814
Albany	525	64,075
Rensselaer	775	104,520
Greene	250	37,400
Columbia	846	117,151
	2,396	323,146
Total Study Area	4,969	648,960

It is difficult to present the topic of agriculture without mentioning the extensive economic damage in recent years as a result of severe weather events, such as Superstorm Sandy and Tropical Storms Irene and Lee on agricultural production. Farming has always been at the mercy of severe weather and as the effects of climate change become more and more evident, working to help farmers develop sustainable practices becomes a priority. A recent grant from the U.S. Department of Commerce, Economic Development Administration has funded a program at the Culinary Institute of America (CIA) in Dutchess County that will provide education and outreach to local farmers on sustainable practices and methodologies of getting their production re-started after a disaster. This unique pairing of the CIA, a major educator of culinary professionals, with farmers creates a synergy between the manufacturer and end user, with the common goal of preventing food-chain disruption by severe storms.

iv. Open Space/Parks/Forested Land

Much of the region’s preserved land and large, natural open spaces are located in a greenbelt through the Hudson Highlands in southeast Orange and northwest Putnam counties, in the Catskill Forest Preserve of northwest Ulster and Sullivan counties, and

along the Shawangunk Ridge in Ulster, Sullivan and Orange counties. According to Scenic Hudson, there are 618,100 acres of land protected from development either through public ownership of development rights or land conservation easements (21 percent of the region's land).⁷³

While the region has much developed land, it also has significant open space including agricultural fields and pasture, wetlands, and

large tracts of forest. According to the U.S. Census, there are 531,200 acres of forestland, covering approximately 18 percent of the total area.⁷⁴ These data underrepresent the actual amount of forest cover – depending on the data set used, forests covers 60-90 percent of the region, although a lot of this is highly fragmented forest interspersed among existing areas of development.

In addition to forestland, in 2010, 323,154 acres in the region were active farmland, representing approximately 11 percent of the region's land area.⁷⁵

Additionally, the region contains 463,300 acres of park and recreational areas, making up 16 percent of the region's total land area.⁷⁶ Because of the abundance of park and recreational land, more than 60 percent of the region's population can access parks and recreational areas within one-half mile of their home.⁷⁷ Note that there is considerable overlap among park land, protected land, and forested land.

The Hudson Valley Region boasts:

- 531,200 acres of forestland***
- 323,154 acres active farmland***
- 463,300 acres of park and recreational areas***

E. THE INFRASTRUCTURE

In 2013 Governor Cuomo's NY Works Task Force released a 10-year statewide capital plan. The plan is designed to break down the old "silo-based" approach to capital investment, better leverage existing investment dollars and grow the state's economy.

Key findings of the plan include:

- Infrastructure investments are among the smartest investments the state can make.

⁷³ Scenic Hudson, 2012. Protected Land.

⁷⁴ NYS Department of Taxation and Finance, 2012. Property Assessment Data. <http://www.tax.ny.gov/pit/property/>

⁷⁵ US Department of Agriculture (USDA), 2007. Census of Agriculture. <http://www.agcensus.usda.gov/>

⁷⁶ Scenic Hudson, 2012. Parks and Recreation Data.

⁷⁷ U.S. Census, 2010. Census of Population and Housing.

- Wedding the state’s infrastructure investments with its economic development strategy will result in the biggest bang for the infrastructure buck and greater savings for taxpayers.
- To compete globally, New York State must use resources more efficiently.⁷⁸

The statewide plan recognizes the need to upgrade the region’s infrastructure and housing stock, and build on momentum to make its urban centers more attractive as places to live, work, and shop, and to direct new development into priority growth centers supported by transit.⁷⁹

The “State of New York Statewide Capital Plan” coordinates \$174 billion in existing capital investment dollars across 47 state agencies and authorities. The statewide capital plan identifies \$582 million (4.2%) of commitments in the social services and public health sector, \$171 million (1.2%) in the energy sector, and \$659 million (4.8%) for public safety.⁸⁰

The Tappan Zee Bridge project is specifically noted as one of two anchor transportation infrastructure projects in the region (the other being Stewart International Airport). The projects for the region include a number of infrastructure improvements at state parks as well as road resurfacing, bridge repair, dam and flood control projects.

In addition to the Tappan Zee Bridge replacement, the plan highlighted these key infrastructure projects:

- Construction of Narrowsburg Big Eddy Esplanade - Town of Tusten, Sullivan County
- Public School 6 Brownfield Redevelopment - City of Yonkers, Westchester County
- Matrix Distribution Park - Town of Newburgh, Orange County

In its 2013 progress report, the Mid-Hudson Regional Council⁸¹ indicated that multiple projects are underway to upgrade the Region’s infrastructure, including

- \$15 million Newburgh–Beacon Bridge north span lead abatement and repainting project, Final phase (2013).
- \$81 million Newburgh–Beacon Bridge south span deck replacement (2013-15)

⁷⁸ Governor Cuomo Announces State's First Ever 10-Year Capital Spending Plan, Press Release, June 6 2013
<http://www.governor.ny.gov/press/06062013-10-Year-Capital-Spending-Plan>

⁷⁹State of New York Statewide Capital Plan <http://www.nyworkstaskforce.ny.gov/Statewide-Capital-Plan.pdf>

⁸⁰ Ibid

⁸¹ 2013 Progress Report, Mid-Hudson Regional Economic Development Council page 54,
<http://regionalcouncils.ny.gov/content/mid-hudson>

- \$75 million Newburgh–Beacon Bridge north span deck replacement (2019-21)
- \$18 million Bear Mountain Bridge deck replacement (2021–22)
- \$9 million Mid-Hudson Bridge main cable evaluation and suspender cable replacement (2022).

i. Transportation

One of the primary strengths of the region is its proximity to and easy access to the New York metropolitan area. The link to that asset is our strong transportation framework. Few people in the region realize the amount of commerce that travels along this framework every day. The Hudson River is a major conduit for freight, barges and tankers bringing commodities and fuel up the river to our region and beyond to the Port of Albany. The rail line along the west shore of the Hudson carries freight trains, some with more than 100 cars carrying commodities and goods from Metro New York and the Ports of New York and New Jersey to other networks that surround us.

Our transportation network is our lifeline, but it is also aging and in need of repair. Except for I-86, Sullivan County is not connected

NYS Department of Transportation

The [New York State Department of Transportation Region 8](#) covers six of the seven counties in the region. Sullivan is part of the NYSDOT Region 9 for the Southern Tier. NYSDOT Region 8 is responsible for 5,963 miles of state highways and 1,143 bridges in a 4,295-square-mile area. NYSDOT Region 8 includes 13 cities, 75 villages and 107 towns in Westchester, Ulster, Rockland, Putnam, Orange, Dutchess, and Columbia counties.

A list of NYSDOT projects that are underway in Region 8 and 9 can be found on the NYSDOT website: <https://www.dot.ny.gov/regional-offices>

Metropolitan Planning Organizations

The transportation needs in areas with populations of 50,000 or more are required by federal law to be overseen by Metropolitan Planning Organizations (MPOs). Federal transportation funding is tied to the work of the MPOs, which are required to provide long-term planning and capital project plans.

There are four Metropolitan Planning Organizations (MPOs) in the Region.

- New York Metropolitan Transportation Council
- Poughkeepsie-Dutchess County Transportation Council
- Orange County Transportation Council
- Ulster County Transportation Council

The [New York Metropolitan Transportation Council](#) (NYMTC) is a regional council of governments that is the metropolitan planning organization for New York City, Long Island and the lower Hudson Valley counties of Putnam, Rockland and Westchester Counties. NYMTC provides a collaborative planning forum to address transportation-related issues, develop regional plans and make decisions on the use of federal transportation funds.⁸²

Dutchess, Orange and Ulster County planning offices all act as the MPO for their respective counties. They are the Poughkeepsie-Dutchess County Transportation Council, Orange County Transportation Council and the Ulster County Transportation Council. Currently there is no transportation planning organization for Sullivan County. Potential creation of a Sullivan County MPO could be explored.

Urbanized areas with populations of greater than 200,000 must have transportation needs addressed by Transportation Management Areas (TMAs). Following the 2000 census, the three MPO's - Orange County Transportation Council, Poughkeepsie/Dutchess Transportation Council and Ulster County Transportation Council formed the [Mid Hudson Valley Transportation Management Area \(MHVTMA\)](#), which is required to have congestion management plans along with coordinated long term plans throughout the newly merged management area.

Roads and Bridges

The region's roads and bridges are of utmost importance as only 40 percent of the population lives in close proximity to mass transit. However, within the region the bridges and roads are in considerable need of maintenance and repair. Of the regions 2,691 bridges, 42 percent are in need of significant repair or replacement⁸³. The region's roadways are deteriorating as well, falling from a "good" rating of 7.1 in 2002 to a "fair" rating of 6.7 in 2011. A roadway in "fair" condition indicates that distress in the pavement is clearly visible⁸⁴.

There are 3,200 miles of limited access highways and 16,700 miles of local roads⁸⁵ in the Hudson Valley. There are six Interstate Highways; the NYS Thruway (I-87), a tolled interstate that runs through Orange, Rockland, Ulster, and Westchester counties connecting New York City and Albany; Interstate 84, which travels from Massachusetts through Connecticut and New York to Pennsylvania; Interstate 684, which serves Putnam and Westchester counties, Interstate 95, which serves southern Westchester County, Interstate 287, which travels between Greenburgh and I-95, and Interstate

⁸²<http://www.nymtc.org/>

⁸³NYS DOT. Bridge State of Good Repair. 2012.

⁸⁴NYS DOT. Bridge State of Good Repair. 2012.

⁸⁵NYS DOT. Roads. 2012.

86/NYS Route 17 which serves Sullivan and Orange Counties. The Taconic Parkway also serves the region by traversing Dutchess, Putnam, and Westchester counties.

Table 36: PERCENT OF DEFICIENT STATE BRIDGES: HUDSON VALLEY⁸⁶

County/Area	% of Deficient State Bridges
Dutchess	26.3
Orange	38.3
Putnam	45.8
Rockland	38.1
Sullivan	41.1
Ulster	35.1
Westchester	32.4
Region	42

The Tappan Zee Bridge

The Tappan Zee Bridge has been recommended for replacement and is one of the state’s and the nation’s priority infrastructure projects.

The Tappan Zee Bridge opened in 1955. This bridge is vital to the movement of people and goods in both the region and the state. Its initial design called for 100,000 vehicles a day. Currently daily traffic is about 138,000 vehicles per day, leading to frequent congestion. Over the past decade maintenance of the bridge has cost about \$750 million.⁸⁷ The bridge also lacks emergency shoulders.⁸⁸

Discussions to replace the Tappan Zee have been ongoing since 1999, with \$88 million spent since to debate the efficacy of the project. In the fall of 2013, the replacement of the Tappan Zee Bridge finally got underway. The project is expected to take five years with the new bridge scheduled to open in 2018. According to the New NY Bridge website, the new bridge is designed and constructed to be mass-transit-ready, which means the bridge will have the capacity to accommodate bus rapid transit, light rail or commuter rail as well as a bike and pedestrian path.⁸⁹

The total cost of building the New NY Bridge is expected to be under \$4 billion (\$3.9 billion), far less than the initial \$5.4 billion federally approved estimate.⁹⁰

⁸⁶ <http://regionalcouncils.ny.gov/content/mid-hudson>

⁸⁷ <http://www.newnybridge.com/about/why-needed.html>

⁸⁸ Governor Cuomo Announces Beginning of Formal Construction of the New NY Bridge to Replace Tappan Zee, Albany, NY , October 16, 2013 <http://www.governor.ny.gov/press/10162013New-NY-Bridge>

⁸⁹ <http://www.newnybridge.com/about/index.html>

⁹⁰ Governor Cuomo Announces Beginning of Formal Construction of the New NY Bridge to Replace Tappan Zee, Albany, NY , October 16, 2013 <http://www.governor.ny.gov/press/10162013New-NY-Bridge> and <http://www.newnybridge.com/about/index.html>

According to the *Methodology for Estimating Economic Impacts of the New NY Bridge project*, prepared by Empire State Development and the New York State Department of Labor, the bridge replacement project will lead to 38,644 direct, indirect, and induced “job-years” over the five-year period of construction.⁹¹

Rail and Bus

The region’s close proximity to New York City results in a sizable commuter population. Commuters are able to utilize rail transportation in the region that consists of five passenger lines, two originating from Hoboken, NJ, and three from Grand Central Terminal in Manhattan. The Northeast Corridor and Empire Corridor rail lines run through the region and are two of Amtrak’s busiest lines, ranking as first and fifth busiest. CSX and Norfolk Southern provide freight rail service throughout the region. Sullivan County does not have rail service.



The bus network in the region primarily serves denser urban regions, such as Yonkers, White Plains, and New Rochelle. In southern Westchester County the bus system is also widespread in many villages and towns. In other small cities, towns, and villages within the region the bus system is available in a more limited fashion. These cities, towns, and villages can include Nyack, Spring Valley, Poughkeepsie, New Paltz, Monroe/Kiryas Joel, Middletown, Newburgh, and Kingston.

According to the National Transit Database and Rockland County, in 2010 there were 17 bus operators serving the region.⁹²

⁹¹The jobs are reported in “job-years” which is a standard measure of the employment impact of a project used by industry and government agencies including Federal Highway Administration, U.S. Department of Transportation, American Association of State Highway and Transportation Officials and Associated General Contractors. A job-year is defined as one job held for one year. As an example, one pile driver working for the duration of the entire five-year project will have worked five job-years. Similarly, if every job reflected in the 38,644 job-years estimate was for the five-year duration of construction project, then this job-years estimate would be equivalent to 7,728 unique full-time jobs (38,644 divided by five years). Additional analysis is required to determine the specific occupations, timing and term of each unique job reflected in the 38,644 job-years estimate. <http://www.newnybridge.com/documents/econ-impact-methodology-05-2-13.pdf>

⁹² Small private or municipal bus systems are not listed in the National Transit Database. For example the private Short Line bus company which offers service from Monticello in Sullivan County to NYC amongst other origins and destinations.

Table 37: HUDSON VALLEY BUS OPERATORS

County	No. of Bus Operators
Dutchess	2
Orange	5
Putnam	1
Rockland	7
Sullivan ⁹³	0
Ulster	1
Westchester	1

The National Transit Database reports that several of these bus systems provide services across county borders. The Bee-Line service in Westchester County offers service into Bronx County to connect to employment centers and the New York City subway system, along with parts of Putnam County and Connecticut. The TAPPAN ZEEExpress Bus Service connects Rockland and Westchester County and multiple Metro-North lines. The OWL bus service connects Orange, Rockland, and Westchester counties.

Air Travel

Air travel in the region is serviced by six international airports with Stewart International Airport in Newburgh, and Westchester County Airport in White Plains located within the region. The Hudson Valley Region has access to three major airports in the New York City metro area – Newark, JFK and LaGuardia. Westchester County Airport in White Plains has a large business commuter population serving the many corporations with headquarters in Westchester County and local environs.



In 2011, the region’s two commercial airports accommodated a combined total of 2,317,611 passengers, down nearly 250,000 from 2007⁹⁴. The Westchester Airport saw passenger travel increase by 252,480, during the same time period passenger travel

⁹³ Sullivan County is developing a county bus plan. Coach USA runs daily to NYC.

⁹⁴ Port Authority of New York and New Jersey. 2011. Airports.
<http://www.panynj.gov/airports/general-information.html>

decreased by more than 500,000 at Stewart Airport. Both of the region's airports handle freight cargo and in 2010 Westchester handled 119,372 tons and Stewart handled 16,835 tons⁹⁵.

While there are no longer any commercial ports operating out of the region, the Port of New York and New Jersey was the third largest port in the nation and the largest on the East Coast, handling more than 85 million metric tons of cargo⁹⁶. Much of the cargo that is offloaded is either moved by rail or truck through the Hudson Valley. The Port of Albany is a smaller port that handled more than 305,000 metric tons in 2011 and is still an important economic driver for the region⁹⁷. The majority of this cargo is outbound. In 2011, the port completed a \$12 million renovation project that increased its capacity, suggesting the port will continue to grow⁹⁸.

Stewart International Airport, in Newburgh was originally developed as asset of the U.S. Military Academy at West Point. It has also been used by the Air National Guard and has exceptionally long runways capable of landing military transports. In the 1980s, the State Department of Transportation and the Urban Development Corporation began planning for the development of airport land under Stewart Properties resulting in several business enterprise operations at the airport.

Dutchess County Airport and Business Park

A Dutchess County Airport and Business Park infrastructure project has been endorsed as a regional priority project by the by the Mid-Hudson Regional Economic Development Council. An endorsement demonstrates that the project advances the council's strategic plan to grow the regional economy and creates jobs. The County Water and Waste Water Authority plans to bring water to the airport and the adjacent corporate park providing businesses the opportunity to abandon failing water systems by connecting to a new water main extension. The infrastructure upgrades will allow for better economic development in the business park.



⁹⁵ Ibid.

⁹⁶ Port Authority of New York and New Jersey. 2011. Ports.

⁹⁷ Port of Albany. 2011. Annual Report.

⁹⁸ Ibid.

In 1989, American Airlines announced the beginning of scheduled passenger service at Stewart. Also in 1989 the airport opened its 50,000-square-foot air cargo building, and the U.S. Postal Service opened its new 300,000-square-foot Federal Mail Distribution Facility. Stewart became the nation's first privatized commercial airport in March 2000. The Port Authority of NY and NJ took over operations at Stewart in 2007 and committed \$500 million as part of a 10-year capital improvement plan to expand the airport.⁹⁹

Sullivan County International Airport

Sullivan County International Airport (SCIA) in Bethel is a county-owned, public use, general aviation airport. The airport is a Part 139 Certified airport providing Airport Rescue and Firefighting services. It is capable of handling small general aviation aircraft and large business jets. It can also accommodate most large aircraft on a limited basis. Its one runway is 6,298 feet in length and 150 feet wide grooved asphalt surface with parallel taxiway. It has an Instrument Landing System (ILS) on Runway 15, pilot controlled lighting and Automated Weather Observing System (AWOS). SCIA is served by a full service Fixed Base Operator (FBO) providing aircraft maintenance, Jet fuel and 24 hr. self-service 100LL fuel, flight training, aircraft rentals, Air Charter services and hangar rental. Its primary use is general aviation and Corporate / Business travel. (Source: Wikipedia). The airport is used by many area businesses, performers and concert attendees at the Bethel Woods Performing Arts Center and some users of the Monticello Motor Club.

Today, Stewart serves the region as a major center for freight. FedEx, United Parcels and the Postal Service all have distribution centers that are located near the airport. The airport activity supports more than \$750 million in annual economic activity and more than 5,500 total jobs with about 2,700 people working at the airport.¹⁰⁰The Port Authority of NY and NJ has hoped that passenger service would be expanded and that the increased use of Stewart for freight and commerce would alleviate congestion at the three NYC airports and lead to stronger economic development and growth in the Hudson

Valley. However, passenger traffic at Stewart has been declining. Service peaked in 2007 at 914,000 passengers. In 2011 413,634 passengers were served, marking a 4.7 percent increase¹⁰¹ over 2010. However, the airport served 364,848 passengers in 2012, for a decline of 11.8 percent.¹⁰²

⁹⁹<http://www.panynj.gov/airports/swf-history.html>

¹⁰⁰<http://www.panynj.gov/airports/swf-facts-info.html>

¹⁰¹The Port Authority of NY and NJ December 2011 Traffic Report
http://www.panynj.gov/airports/pdf-traffic/DEC2011_SWF.PDF

¹⁰²The Port Authority of NY and NJ December 2012 Traffic Report
http://www.panynj.gov/airports/pdf-traffic/DEC2012_SWF.pdf

In August 2013 passenger traffic fell 14.6 percent. While US Airways reported a double-digit increase to its Philadelphia destination for the second month in a row (July, August 2013), carrying 1,471 more passengers, Delta carried 6,770 fewer passengers because of termination of its service to Atlanta and capacity reduction to Detroit. JetBlue, the airport's top-ranked carrier, experienced a slight reduction of 1.1 percent in passenger traffic.

Stewart's cargo grew nearly 26 percent in 2011 due primarily to expanded FedEx activity.¹⁰³

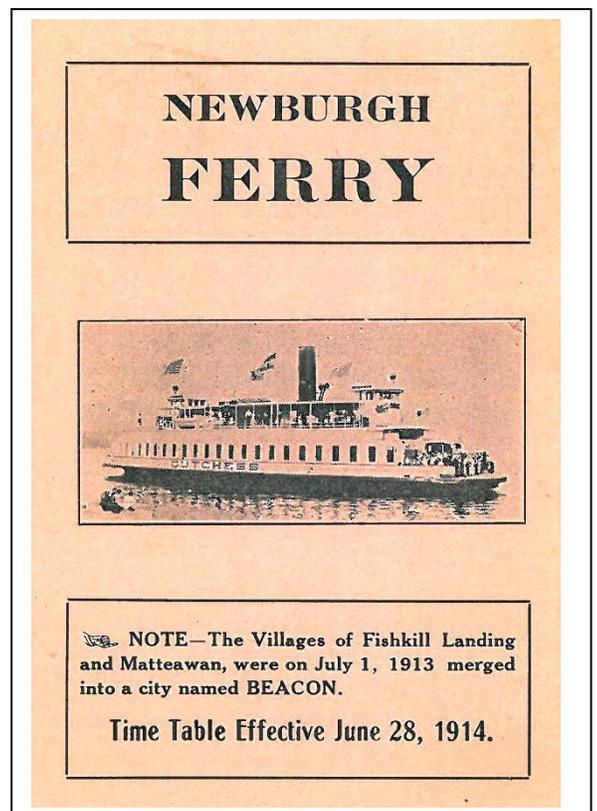
Other Modes

There is a small ferry infrastructure in place that includes docks, ships, and piers. This infrastructure is in place to handle passenger service on the Hudson River. Ferries are located in Newburgh and Haverstraw and provide transit connections to Metro-North's Hudson rail line.

There are also bike routes and trails throughout the region with a total of nearly 700 miles combined¹⁰⁴. Many of the region's paths are for recreational purposes.

The region provides vast opportunity for hiking, biking and other recreational activities. Hiking and biking trails are a key part of the region's tourism industry. Passing through the Hudson Valley, Harriman State Park, the Shawangunk Ridge and the Catskill Mountains, is the 436-mile "Long Path" a trail that runs from New York City (starting at the George Washington Bridge) to Altamont, NY (Albany area). The Sullivan County portion of the Long Path runs through the [Wurtsboro Ridge State Forest](#), [Roosa Gap State Forest](#) and the Shawangunk Ridge State Forest.¹⁰⁵

There are countless trails throughout the region, including the 30 miles of the Appalachian Trail that pass through southeastern Dutchess County, Buttermilk Falls in Rockland County, Anthony's Nose in Westchester to the Tusten Mountain Trail as part



¹⁰³The Port Authority of NY and NJ December 2011 Traffic Report http://www.panynj.gov/airports/pdf-traffic/DEC2011_SWF.PDF

¹⁰⁴NY Metropolitan Transportation Council. 2012. Bike Lanes.

¹⁰⁵<http://www.trailkeeper.org/trail/>

of the Delaware River Region Trail network. Rail trails including the Wallkill Valley Rail Trail, the Dutchess Rail Trail, the Fallsburg O&W Rail Trail and the Hudson Valley Rail Trail have all been growing in use and popularity. Perhaps the most popular and well-visited trail of late, is the Walkway Over the Hudson, the former railroad bridge that connects Ulster and Dutchess Counties.

Transportation Trends by Mode

The Hudson Valley region registered more than 1.7 million vehicles in 2009. This amounts to one vehicle for every 1.35 people. In terms of annual vehicle miles traveled (VMT) the region exceeded 23 billion, or 10,100 per capita¹⁰⁶. The average VMT per capita in 2010 in the US was about 9,600¹⁰⁷. The region's limited access highways carrying freight vehicles and through traffic contribute to the fact that the region's VMT is higher than the nation's average.

Generally, VMT is not a highly reliable measure of vehicle use because the VMT data is sampled every four years on a small proportion of state roads by the NYSDOT and the interim years are calculated through a process of interpolation.

According to the American Community Survey, which asks workers to self-report commuting behavior, in 2010, 77 percent of the region's workers commuted by automobile. Of that percentage, 88 percent drove alone in their vehicle and only 11 percent carpooled¹⁰⁸. Compared to the national average, fewer commuters drove to work, but many residents work in New York City and are served by mass transit, lowering the region's commuting average.

The national average of workers using mass transit to commute was at 5 percent, compared to the region's average of 12 percent¹⁰⁹. Ferries only account for 0.02 percent of trips in 2010 and bicycling and walking are less common commuting modes when compared to others, however, are still above the national average at 4.5 percent and 3.3 percent respectively¹¹⁰.

The New York State Bridge Authority and Thruway Authority tally the annual number of Hudson River Bridge Crossings. In 2011 there were 101.1 million Hudson River bridge crossings. This is a traffic reduction of 1.6 million crossings since 2002¹¹¹.

ii. Energy

The Hudson Valley region's seven counties are host to nearly 50 licensed electric generation facilities that feed the grid. These facilities vary tremendously in fuel type

¹⁰⁶ NYSDOT. VMT. 2012.

¹⁰⁷ U.S. DOT. Research and Innovative Technology Administration. 2012.

¹⁰⁸ U.S. Census. ACS. 2010.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ NYS Thruway Authority. 2012.

and capacity, ranging from 1.3GW of nuclear (Entergy’s Indian Point 2) to 0.2 MW of hydropower (Central Hudson’s Montgomery West dam). Entergy’s Indian Point 2 and 3 together provide 41 percent (2.3 GW) of the region’s capacity. The region is served by four electric utilities and four natural gas utilities. There are numerous vendors of other fossil-fuel derived products such as home heating oil.

Electric generation infrastructure in the Hudson Valley region is aging. No new generation facilities have been licensed since 1993. Some hydropower sites date back to the 1920s, a number of which underwent renovation in recent years, including Central Hudson’s Dashville, High Falls and Sturgeon Pool facilities.

In a recent reliability needs assessment (RNA), the New York Independent System Operator indicated that unless certain measures are taken, the current electric system will



violate resource adequacy criteria (the ability of the system to reliably meet electricity demand) beginning in 2020.¹¹²

An August 2012 report by the New York State Energy Planning Board noted that, “the typical transmission line in New York State is 40+ years old. Within the next 10 years, it is estimated that more than 2,300 miles of transmission line 115 kV and higher will reach the age threshold of 70 years (wood pole lines) or 90 years (steel pole lines) and may be at higher risk for replacement. Between the years 2020 and 2030 an additional 1,200 miles of New York transmission will reach these age thresholds and an additional 1,100 miles of New York transmission in the State will reach these thresholds between the years 2020 and 2040.”¹¹³

North American Electric Reliability Corporation (NERC) directly referenced the need to replace aging power infrastructure when it said, “The expected adequacy of New York’s power resources over the next decade does not diminish the need to address aging generation and transmission infrastructure. As of the close of 2010, 60 percent of New York’s plant capacity and 85 percent of the high-voltage transmission facilities, went into service before 1980.”¹¹⁴

¹¹² NYISO, 2012. Reliability Needs Assessment.

www.nyiso.com/public/about_nyiso/fundamentals_of_planning/reliability_planning/index.jsp

¹¹³ New York State Transmission and Distribution Systems Reliability Study and Report, p. 53 <http://www.nysenergyplan.com/>

¹¹⁴ Ibid, p. 51

If these lines are not replaced, they will be more susceptible to failure and require more outage times for maintenance. This downtime could increase risk as more lines are out of service.¹¹⁵

Additionally, the recent frequency of severe storms – and the unfortunate trend that is expected to continue – also poses a threat to electric-power systems with distribution at the highest risk due to miles of wire and proximity to trees.¹¹⁶



Transmission investment will benefit customers by dampening price volatility, reducing environmental impacts, and, through the integration of new technologies, will reduce losses, improve system performance and increase throughput.”¹¹⁷

New York State investor-owned utilities play a major role in rebuilding the transmission infrastructure. Maximizing the use of existing infrastructure and rights-of-way would provide the most efficient use of capital while minimizing environmental impact.

Compared to the rest of the state, the Hudson Valley is relatively efficient in energy use. The region comprises 12 percent of state’s population, but accounts for only 9.6 percent (360 trillion Btu) of the state’s annual energy consumption of 3,728 trillion Btu (2010).¹¹⁸

After electricity conversion and delivery losses of about 30 percent¹¹⁹, annual net energy consumption for the region is 360 trillion Btus (2010 – see Table 5.1). The corresponding annual expense associated with this energy use is \$7.26 billion.¹²⁰

Transportation (including on road, off road, rail, air, marine sectors) is the single largest user of energy in the region (See Figures 5.1 and 5.2). Petroleum is the dominant fuel source in transportation, leading to petroleum’s dominance as the largest fuel type consumed in the region. The counties with higher population densities consume less

¹¹⁵ Ibid, p. 91

¹¹⁶ Ibid, p. 56

¹¹⁷ Ibid, p.53

¹¹⁸ U.S. EIA, 2010. NYS profile. <http://www.eia.gov/beta/state/print.cfm?sid=NY>

¹¹⁹ The process of creating and distributing electricity is inefficient. See callout on the NYS Energy Flow.

¹²⁰ NYSERDA, 2013.

energy per capita across all the major consumption sectors (residential, commercial, industrial transportation – see Figure 5.2)

Energy Highway Initiative

In his 2012 State of the State Address, Governor Cuomo introduced The New York Energy Highway initiative. This initiative seeks to ensure that New York's energy grid remains the most advanced in the nation and promotes increased business investment in the state. The Governor created the New York Energy Highway Task Force and charged the task force with overseeing its implementation and enlisting the private sector.

In October 2012, Governor Cuomo's New York Energy Highway Task Force presented the New York Energy Highway Blueprint, an innovative and multi-faceted plan to upgrade and modernize the state's energy infrastructure to meet the needs of a strong and growing economy for decades to come.

[The Energy Highway Blueprint](#) outlines 13 recommended actions in four focus areas that utilize public-private partnerships to help transport New York's aging energy infrastructure into the future. The blueprint is divided into four focus areas that include:

- Expand and Strengthen the Energy Highway
- Accelerate Construction and Repair
- Support Clean Energy
- Drive Technology Innovation

The blueprints 13 action goals include:

- Invest \$1 billion for 1,000 MW of new electric transmission capacity.
- Initiate \$250 million in new renewable energy projects, leveraging \$425 million in private investment and creating 270 MW of new power.
- Modernize and repower existing inefficient, high emission plants to create 750 MW of power, enabled by approximately \$1.5 billion investment.
- Generate 1,200 MW of additional capacity through approximately \$1 billion investment to help meet reliability needs to address retiring power plants across the state.
- Accelerate \$1.3 billion of investment in existing transmission and distribution projects to enhance reliability, improve safety, reduce cost to customers and reduce emissions.
- Invest \$250 million to develop Smart Grid technologies and create the most advanced energy management control center in the country.

- Initiate field studies of Atlantic Ocean offshore wind development potential.¹²¹

In April 2013 the New York Energy Highway Task Force released a progress report—the New York Energy Highway Blueprint Update—affirming that all of the actions called for in the comprehensive Blueprint plan were under way and moving forward on or ahead of the aggressive schedules set for them.¹²²

New York State Energy Planning

In September 2009, the State Energy Planning Board was established by law, which also called on that board to complete a State Energy Plan. To create the new State Energy Plan, the [State Energy Planning Board](#) will oversee the planning process, which will culminate in recommendations to keep New York at the forefront of providing its residents with reliable, economical, and clean energy resources.

The [New York State Energy Plan](#) will develop analyses and policy recommendations to guide the state in reliably meeting its future energy needs in a cost-effective and sustainable manner, while fostering an innovative clean energy economy.¹²³

The goal of the planning process is to map the state’s energy future by demonstrating how the state can ensure adequate supplies of power, reduce demand through new technologies and energy efficiency, preserve the environment, reduce dependence on imported gas and oil, stimulate economic growth, and preserve the individual welfare of New York citizens and energy users.

The plan seeks to:

- Improve the reliability of the state's energy systems
- Insulate consumers from volatility in market prices
- Reduce the overall cost of energy in the state
- Minimize public health and environmental impacts, particularly those related to climate change
- Identify policies and programs designed to maximize cost-effective energy efficiency and conservation activities to meet projected demand growth¹²⁴

Energy Costs

On a cost basis (unit of energy acquired per dollar expended), electricity is by far the most expensive fuel type in the region (see Table 5.3). The region is not unique in this

¹²¹<http://www.nypa.gov/EnergyHighway/>

¹²²<http://www.nyserda.ny.gov/About/Newsroom/2013-Announcements/2013-04-30-Task-Force-Announces-Update-on-Progress-of-NY-Energy-Highway.aspx>

¹²³<http://www.nysenergyplan.com/>

¹²⁴<http://www.nyserda.ny.gov/BusinessAreas/Energy-Data-and-Prices-Planning-and-Policy/2013-State-Energy-Plan/Planning-Objectives.aspx>

regard – in 2010, New York had the third highest average electricity prices in the nation.¹²⁵

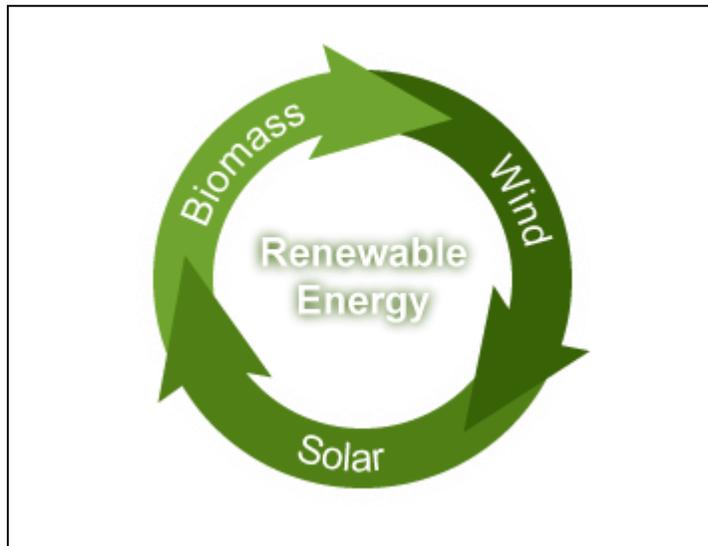
Petroleum is more expensive than natural gas, due to low present-day costs for natural gas.

Table 38: NET ENERGY USE BY SECTOR AND FUEL TYPE 2010

By sector	%	By fuel type	%
Transportation	50%	Petroleum	47%
Residential	25%	Natural gas	30%
Commercial	18%	Electricity	18%
Industrial	7%	Other ⁱ	5%
		Coal	1%

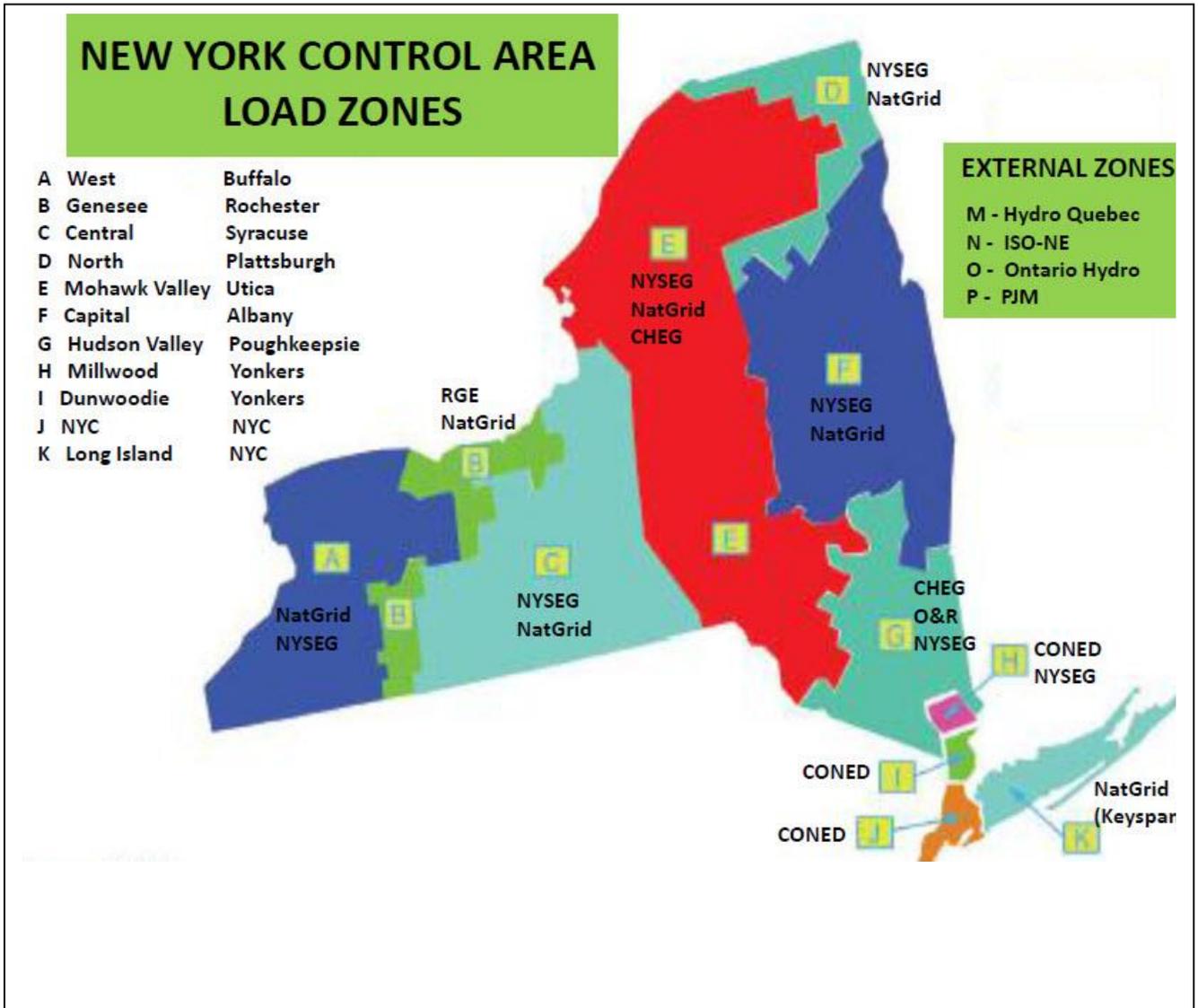
ⁱEthanol (46.8 thousand Btu) is included in 'Other' totals and also in the petroleum category as a component of motor gasoline. Total consumption and percent are based on ethanol only as 'Other.'

In August 2013, the Federal Energy Regulatory Commission (FERC) approved a proposal by the state's power grid operator, the New York Independent System Operator (NYISO), to establish and recognize a new capacity zone. This new zone, which is expected to be called the Lower Hudson Valley Capacity Zone (LHV), would encompass NYISO Load Zones G, H, I, and J (the G-J Locality in downstate NY). See Figure 16.



¹²⁵ USEIA, 2012. State Electricity Profiles. <http://www.eia.gov/electricity/state/>

Figure 16: NEW YORK CONTROL AREA LOAN ZONES



Source: <http://www.business.directenergy.com/blog/ferc-approves-nyiso-capacity-zone>

Currently, NYISO is split into three capacity zones, one of which includes consumers in Load Zone J (New York City), one that includes consumers in Load Zone K (Long Island), and the other, which serves "rest of state" (or ROS) and includes consumers in Load Zones A-I.

NYISO expects that by establishing this new LHV capacity zone, it will generate more efficient price signals, enhance reliability, mitigate potential transmission security issues, and serve the long-term interest of all consumers in New York State.

Although NYISO conducted a study to determine that a new capacity zone is appropriate, there are many concerns about the impacts of the new zone, particularly

that it could result in \$350 million in annual electric bill increases to customers in the lower Hudson Valley as well as the construction of unnecessary new power projects downstate.¹²⁶

The New York State Public Service Commission (PSC), the New York Power Authority (NYPA), and several New York utilities have filed a petition requesting that FERC reconsider its decision to allow NYISO to create a new capacity zone in the Lower Hudson Valley that includes New York City.

According to Direct Energy, one of North America's largest competitive energy suppliers of electricity, natural gas and related services:

*If you are located in downstate New York in one of the load zones G, H and I, you can expect to see an increase in your electricity price as of May 1, 2014 (next year) as a result of an increase in capacity rates related to the new LHV capacity zone. For businesses located in Zone J (which comprises NYC), capacity rates have always been higher than ROS, so the establishment of this new zone may not have as much impact on these businesses as it would on those located in Zones G, H and I (see chart on the right for detailed load zone breakdown).*¹²⁷

The PSC said if FERC's plan goes into effect, typical residential customers in the Lower Hudson Valley could see monthly bill increases ranging from 5 percent to almost 10 percent, depending on the utility. The increases for industrial and commercial customers could be even higher, the PSC said.¹²⁸

The PSC and NYPA believe FERC did not take into consideration the ongoing initiatives that are part of Governor Cuomo's Energy Highway Blueprint initiative, including the proposed bulk power transmission projects that will bring power at a lower cost from upstate New York and Canada to the Lower Hudson Valley and New York City region, thereby potentially negating the need for FERC to offer financial incentives to build more power plants downstate.

The NYISO plans to begin implementation of this new zone on May 1, 2014. The PSC is asking FERC to delay implementing its decision until 2017.

Renewables

According to the Renewable Energy Assessment of the 2009 New York State Energy Plan, from 2007 to 2011, renewable sources of the State's total electricity generation increased from 16.8 percent to 24 percent. Conventional hydropower, which provided 90 percent of the state's renewable electricity in 2007, was 83 percent in 2011, with wind increasing from 1.3 percent to 8.4 percent in the same time frame. In 2007,

¹²⁶<http://www.fierceenergy.com/story/ny-psc-utilities-urge-ferc-reconsider-iso-capacity-zone/2013-10-01>

¹²⁷<http://www.business.directenergy.com/blog/ferc-approves-nyiso-capacity-zone>

¹²⁸<http://www.reuters.com/article/2013/09/26/utilities-newyork-ferc-idUSL2N0HM14K20130926>

biomass and biogas accounted for 5.6 percent and 1.3 percent of renewables, respectively. In 2011 biomass, biogas and solar provided 8.5 percent of the state's renewable energy mix.¹²⁹

The New York State Transmission and Distribution Systems Reliability Study and Report indicated that the intermittent nature of the output from renewable resources, such as wind and solar generation, presents operating and system security challenges. This led to two NYISO studies that are discussed below.¹³⁰

Solar Energy

The Mid-Hudson Regional Sustainability Plan used the National Renewable Energy Laboratory tool¹³¹ found that rooftop photovoltaic (PV) potential alone in New York has the technical potential of 25 gigawatts (GW) in capacity and 28,420 GW hours (GWh) in generation potential. The sustainability plan then extrapolated that the region's potential capacity exceeds 3,000 MW from rooftop PV alone.

The plan also indicates that solar hot water, building heating, passive solar, and daylighting have significant potential in the region. For example, current mature technologies for domestic hot water could supply 60-70 percent of the hot water requirements of typical households in the region.



NY-SUN Initiative

[The NY-Sun Initiative](#), launched by Governor Cuomo in 2012, is a public-private partnership, investing \$800 million through 2015 to drive the growth of the solar industry and expand the renewable energy market in New York State while working to steadily bring down the costs of the technology and build capability in New York.¹³²

¹²⁹ New York State Transmission and Distribution Systems Reliability Study and Report, p. 78 <http://www.nysenergyplan.com/>

¹³⁰ Ibid

¹³¹ National Renewable Energy Lab, 2012. US Renewable Energy Technical Potentials: A GIS-Based Analysis.

¹³² <http://ny-sun.ny.gov/#>

The NY-Sun Balance of System (BOS) initiative aims to:

Develop:

- training programs and materials to educate local government planners, code officials, fire department personnel, home owner associations, and other local stakeholders
- programs and materials to address electrical requirements, safety practices, and the requirements of the National Electric Code and state law
- new, innovative business models that will result in lower overall PV costs
- or pilot lower-cost, streamlined, financing or leasing schemes to lower PV financing costs
- and facilitate implementation of designs, practices, standardization and modularization to lower costs

Microgrids

A microgrid is a localized grouping of electricity generation, energy storage, and consumers that typically operate connected to a traditional centralized grid, but can also operate independently. Microgrids are a tool to enable local business districts to collaborate in curbing electricity costs and capture value from the electricity markets that are inaccessible to most without the shared investment. With their ability to operate in sync with the power system, yet with a duplication of the supply infrastructure, microgrids offer a critical opportunity to ensure reliability through diversity, and to attract business to the region that requires an absolutely reliable supply of power.

Promote:

- standardized and streamlined procedural requirements for permitting and interconnection

Incorporate:

- permitting procedure best practices into efforts supported by existing deployment programs, such as the development and implementation of regional sustainability plans under the Cleaner, Greener Communities program, to promote adoption at the local and regional levels

Demonstrate:

- new and under-used technologies and practices that have the potential to reduce the installed cost of PV systems in order to validate performance, system integration strategies, cost reductions and safety
- projects that optimize the full value of all BOS cost reductions when implemented as a fully-integrated PV system¹³³

¹³³http://ny-sun.ny.gov/sites/default/files/GEN-NYSERDA-sun-fs-1-v4_lowres.pdf

Wind Power

A NYISO study, completed in October 2010 found that wind generation could supply reliable clean energy at a low cost of production to the New York power grid. Wind energy results in significant savings in overall marginal system production costs, reduction in greenhouse gases such as CO₂, other emission such as NO_x and SO₂, and an overall reduction in wholesale electricity process.

Opportunities for wind generation exist at greater than 1 MW small and large wind farms, onsite or distributed energy wind turbine projects of 1MW or less, and small wind installations at 5kW and more. Studies of wind resources in Sullivan County confirm the potential for 336 MW of wind generated electricity/year at the wind farm level, and an additional 14 MW at onsite and small wind installations.¹³⁴ Similar opportunities exist in the region's other counties with similar open areas such as Dutchess, Putnam and Ulster.

Community Energy Districts (CEDs)

To stimulate private investment, the Regional Sustainability Plan promotes the use of Community Energy Districts (CEDs). A CED aggregates supply and demand opportunities within a specific neighborhood or cluster of facilities. Energy districts have proven highly effective at raising participation rates and lowering costs by delivering economies of scale to each neighboring building owner. While quite flexible, CEDs, by definition, pool the interests of a diverse set of co-located property owners and operators. Each district could incorporate one or more of the following resources and strategies: energy generation, energy efficiency, demand response, energy storage, electric vehicle charging, or collective energy purchase. Each district would tailor the mix of resources and strategies in a manner that creates synergistic value for the particular mix of energy consumers within the district. While CEDs will make each strategy more cost-effective, and will enable supply continuity, private investment, and the security of supply that allows for business retention and entry, the strategies that a CED will deploy are also often viable outside a CED.

Hydropower

In the region, several small hydropower (1-5 MW) sites have been in operation since the early 1900s. Several new sites are already in preliminary development.

The hydroelectric stations are small, local stations, which use renewable energy to provide about 2 percent of their customers' total electric needs. The dam at the Sturgeon Pool Hydro facility, originally constructed in 1922-23, is being upgraded by Central Hudson and has the potential to produce 15 MW combined from three turbines.

¹³⁴ Sullivan Alliance for Sustainable Development, 2013. Wind Power Basics. <http://sullivanalliance.org/wind-power/>

Distributed Generation

Distributed generation involves the use of small-scale technologies to produce electricity at the end-user level for the sole use of individual residential, commercial or industrial customer. Electricity is generated near the point of consumption as opposed to a centralized generation which requires the transmission of energy over long distances. Systems include modular (sometimes renewable) generators such as combined heat and power (CHP). These customers reduce their demand and/or consumption – in some cases provide excess capacity to the utility grid. These systems reduce the amount of energy lost in transmission and can reduce stress on the system overall.

New York was the second state to adopt uniform interconnection standards for distributed generation systems. Through the New York State Research and Development Authority's Distributed Generation and Combined Heat & Power program, the state has provided significant financial incentive and technical assistance to encourage CHP deployment.¹³⁵

Challenges

The region's geography – connecting Long Island and New York City with the rest of the state – limits the development of traditional thermal power plants, refineries, and other facilities. High local demand for electricity is compounded by the region's role as a conduit for electricity to New York City. The region's ability to attract and retain business and jobs is at risk due to the physical constraints of siting new energy infrastructure.

To meet the vision set by the Regional Economic Development Council's recent economic development strategy, the Hudson Valley must take action to reduce real and perceived risk to its energy infrastructure. A sustainable energy system is about reducing risk, controlling costs, and investing in the local/regional economy. Updating the region's buildings, industrial facilities, and electrical grid will mitigate risk, create thousands of jobs, strengthen the local economy, and reduce the region's dependence on fossil fuels and imported energy.

The region has long been home to highly skilled industry experts and businesses cooperating with non-governmental organizations, labor, municipalities, and academia. Critically, the region's diverse population exhibits a growing appreciation of principles of sustainability and environmental justice.

Despite the recent drop in natural gas prices, fossil fuel prices have risen from 2000 to the present.¹³⁶ Since 2010, both heating oil prices and gasoline prices have risen

¹³⁵American Council for an Energy-Efficient Economy <http://www.aceee.org/node/2958/all>

¹³⁶ NYSERDA, 2012. Energy Prices and Weather.

sharply, as tracked by NYSERDA's average weekly price history. After hovering around \$3 per gallon for most of 2010, #2 fuel oil jumped 30 percent entering the late fall of 2012 to about \$4 per gallon.¹³⁷ The price of gasoline has risen similarly, as gasoline is derived from the same fuel stock oil.

There is virtually no petroleum extraction in the Hudson Valley. For all practical purposes, 100 percent of the fuel oil (including gasoline and kerosene) used for transportation and for space heating is imported.

Household Fuel Use

About 85 percent of the region's households use either fuel oil or utility-supplied natural gas for space heating.

Fuel oil use is predominate in four of the region's counties, with at least six out of 10 households in Dutchess, Putnam, and Ulster using oil for space heating. For these homes in particular, energy efficiency is a big money saver, in light of rising fuel oil prices.

The breakdown in fuel source varies widely across the region's counties. For example, in Westchester and Orange counties fuel oil and natural gas use is roughly equal, while in Rockland County natural gas use is predominate, serving 89 percent of Rockland residents.

iii. Telecommunications/Broadband Broadband in the New York State and the Hudson Valley Region

In 2008, the Broadband Program Office (BPO) was established and charged with executing Broadband Strategy for New York State. Its mission is to increase economic and social opportunities through universal broadband deployment. The BPO is working to close the digital divide that exists in adoption and availability rates. Broadband is generally defined as a facilitator for Internet access.

According to the NY Public Commission....

If just 10 percent of New York's households choose Green Power for their electricity supply, it would prevent nearly 3 billion pounds of carbon dioxide, 10 million pounds of sulfur dioxide, and nearly 4 million pounds of nitrogen oxides from getting into our air each year. Green power helps us all breathe a little easier.

¹³⁷ Ibid.

The BPO as part of Empire State Development recognizes the strong correlation between broadband access, improved quality of life and economic growth. It is also acknowledged that every sector of the economy is becoming increasingly dependent on higher broadband speeds. The BPO identifies a combination of two separate issues for digital divide in New York – broadband availability and adoption. Broadband availability refers to the physical access of high-speed Internet service. Broadband adoption refers to the percentage of people who subscribe to broadband service.¹³⁸

Consumer access to broadband drives entrepreneurship, increases healthcare access, contributes to environmental conservation, and equalizes economic opportunities between urban and rural areas. Institutional access to high-speed broadband attracts new business, increases innovation, spurs technical research, drives nanotechnology and creates economic prosperity hubs. Access to high-speed broadband also provides transformative opportunities to public and private sectors of the economy.

2012-2013 Broadband Annual Report, P. 19

In its recent Annual Report, the BPO states that vast economic benefits can be realized across a range of industries including agriculture, education, government, healthcare, or public safety through expanded access and adoption of broadband.¹³⁹ Areas of the state without broadband are in jeopardy of being left behind as businesses and jobs relocate to regions where high-speed connectivity is available and affordable.¹⁴⁰

The BPO also recognizes that broadband access is particularly important in rural areas because it helps attract new business enterprises and enables existing businesses to remain in their rural locations. A small company in rural New York that has access to high-speed internet has the ability to immediately become a global company.

According to testimony given by the assistant secretary of the U.S. Department of Commerce before Congress in July 2012, broadband is responsible for 20 percent of

Broadband is considered both an attraction and retention tool for economic development. Existing businesses and entrepreneurs who effectively leverage broadband are best equipped to compete in a global market, and are most likely to remain in the state and expand their businesses. Communities with high-speed Internet access find it easier to attract new employers and encourage local entrepreneurship.

2012-2013 Broadband Annual Report, p.17

¹³⁸ 2012-2013 Broadband Annual Report, p. 25

¹³⁹ Ibid, p. 18

¹⁴⁰ Ibid, p. 19

new jobs across all businesses, and 30 percent of new jobs in businesses with less than 20 employees.¹⁴¹

Speed

Internet speeds are directly correlated to the degree of economic impact. Higher speeds deliver more economic benefits, and minimum speeds for broadband access continue to rise as applications and innovation evolve.¹⁴²

Download speeds of 100 Mbps or more are quickly becoming the standard for institutional access. The BPO reported that in 2012, New York State raised minimum speed thresholds above the FCC minimum standards.¹⁴³

“Big Broadband” or Gigabit Networks, a new generation of high-speed broadband, is reported to have marshaled in a new age for economic development with ultrafast connections.

Broadband Access in NY

Approximately 18 million people in New York have access to reliable and fast Internet connections, but roughly 1.1 million people do not. The number of New York citizens without access to high-speed Internet is more than the entire population of Vermont and Wyoming combined (and 10 other states and U.S. territories).¹⁴⁴ Those who cannot access the Internet are at a severe disadvantage.

In New York and in the Hudson Valley region, the gap between broadband access in rural and urban areas remains wide. There is higher availability and faster internet speeds in areas that have higher housing densities based on the economics involved in the broadband business. The 2012-2013 BPO Annual Report indicates that a significant hurdle to achieving universal broadband is the perception that sparsely populated

Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.

FCC Broadband Plan Executive Summary

¹⁴¹ Lawrence Strickling, Assistant Secretary, Department of Commerce, July, 2012 Testimony before Congress

¹⁴²2012-2013 Broadband Annual Report, p. 21

¹⁴³2012-2013 Broadband Annual Report, p. 21

¹⁴⁴ Ibid, p. 25

areas may not have enough subscribers to justify costs of extending broadband services to those regions.¹⁴⁵

New York State’s 2010 broadband adoption rate study illustrated that substantial disparities in home computer use and Internet adoption exist for the economically and socially disadvantaged.¹⁴⁶

Eighty-five percent of New Yorkers with incomes of more than \$60,000 have a broadband connection at home, whereas the broadband usage rate is only 37 percent for those with incomes of \$20,000 or below. Disparities also exist based on education, employment status and age. The lowest adoption rates are found in seniors 65 or older.

With cost being the number one reason why consumers choose not to subscribe to broadband, competition is crucial for increasing statewide adoption rates. Competition in residential broadband services provides consumers the benefits of choice, better service, and lower prices. In New York, especially rural and remote areas, subscribers have limited choices when choosing a broadband provider.¹⁴⁷

Broadband Access in the Hudson Valley Region

In its recent 2012-2013 annual report, the BPO found that there are 74,400 people in Hudson Valley that do not have broadband service. Overall, only 3 percent of the region’s population and 3 percent of the region’s households are without broadband service. While service is generally good in five of the seven counties and higher than most other parts of the state, there are still pockets with no broadband access at all. A significant number of people in Ulster and Sullivan County are unable to access the Internet. According to the BOP 2012-2013 annual report, 5 percent of Ulster County’s residents have no access, along with 7 percent in Sullivan County.

On March 5, 2013, Governor Cuomo awarded \$25 million in funding to expand high-speed Internet access in unserved and underserved areas of New

York through the Connect NY Broadband Grant Program. Under the Connect NY grant program, each region was awarded a portion of the \$25 million available. Table 39 and Figure 17

Mid-Hudson Region

- 7 Counties - 4,764 Square Miles
- 901,589 Households (Population 1,217,156)
- 30,956 Households (3%) with No Broadband Access

2012-2013 Broadband Annual Report

¹⁴⁵ Ibid, p. 26

¹⁴⁶ <http://nysbroadband.ny.gov/themes/broadband/images/BroadbandAdoption.pdf>

¹⁴⁷ 2012-2013 Broadband Annual Report, p. 29

provide a breakdown of the funding that went to each region as well as the percentage of households and percentage of population within each region that does not have access to broadband. Other than the Long Island region, the Hudson Valley received the smallest percentage of this funding. Despite the fact that only 3 percent of the region’s population (74,400) does not have access to broadband, the number of people that are not served rivals that in other regions such as the North Country (77,900).

The Hudson Valley received \$194,868 for Time Warner Cable to bring high-speed Internet service to 135 households in the towns of Rockland (Sullivan County) and Denning (Ulster County). The project will also provide residents with access to digital TV, telephone services and security services. In the Town of Denning, 511 out of the 531 homes have no broadband access.

Table 39: CONNECT NY BROADBAND GRANT PROGRAM

Funded Connect NY Projects Regional Breakdown					
Region	Amount of Funding Awarded (\$)	% Households with No Broadband Access	No. of People w/o Broadband Access	% Population with No Broadband Access	% of Funding Received
Capital Region	3,813,707	17	161,000	15	15.3
Central	3,896,988	9	68,700	9	15.6
Finger Lakes	2,521,064	7	80,700	7	10.1
Long Island	0	4	85,700	3	
Mid-Hudson	194,868	3	74,400	3	0.8
Mohawk Valley	3,281,921	15	66,800	13	13.1
NYC*	1,636,346	3	245,000	3	6.6
North Country	5,280,740	26	77,900	18	21.1
Southern Tier	2,581,631	17	92,000	14	10.3
Western	1,792,735	8	106,000	8	7.2
STATE TOTAL	25,000,000	6	1,058,200	5	100.00

Figure 17: AMOUNT OF CONNECT NY BROADBAND FUNDING PER REGION

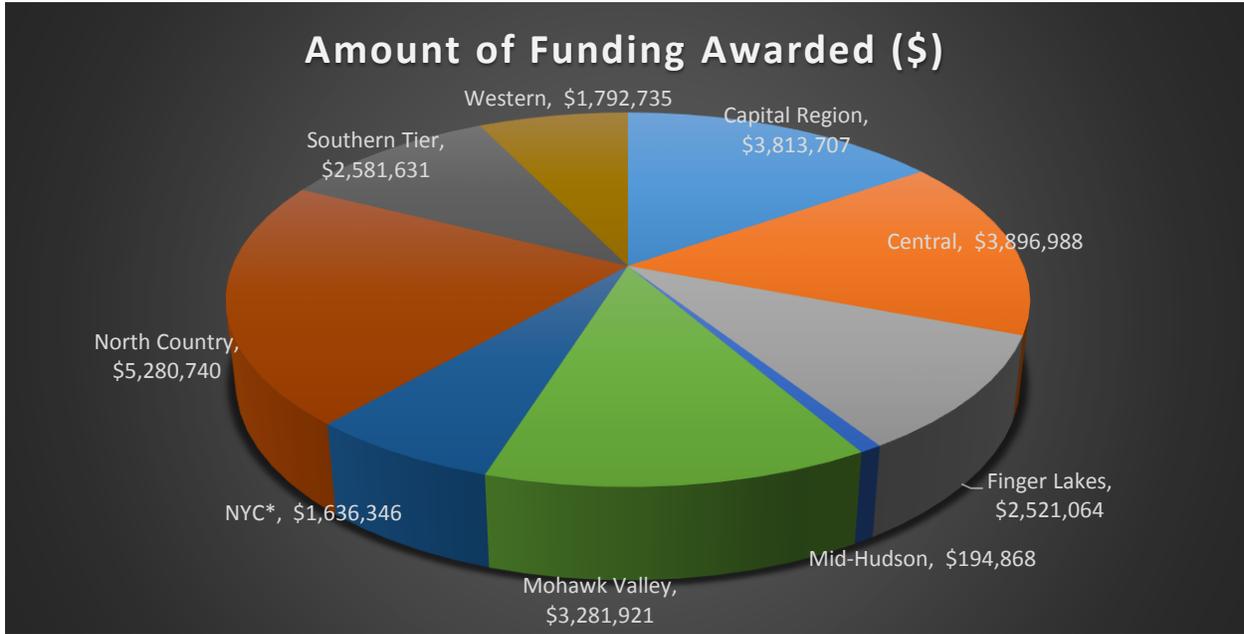


Figure 18: NO. of PEOPLE in NYS without BROADBAND SERVICE

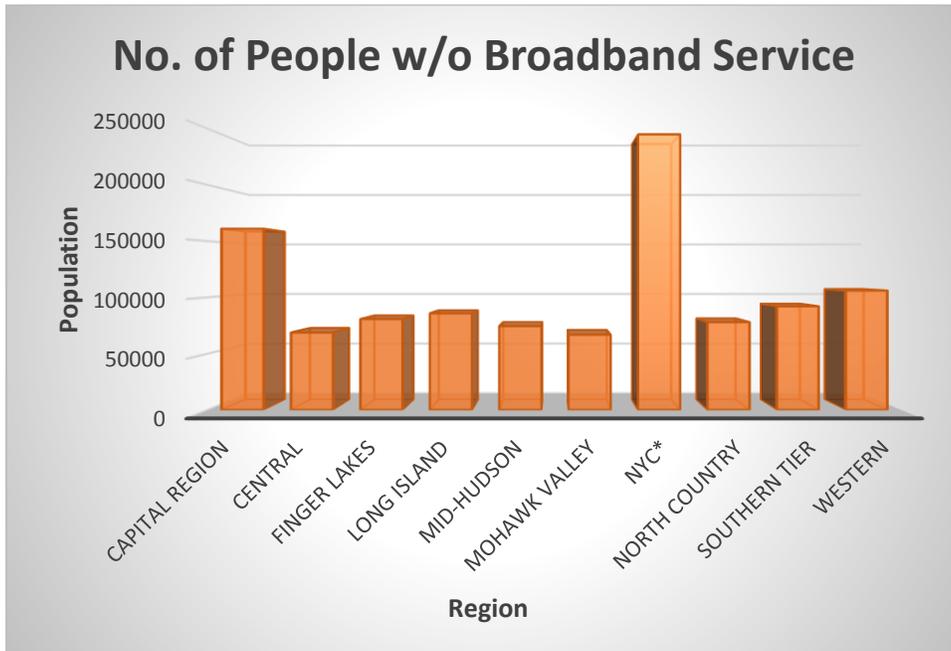


Figure 19: PERCENT of POPULATION WITH NO BROADBAND, BY NY REGION

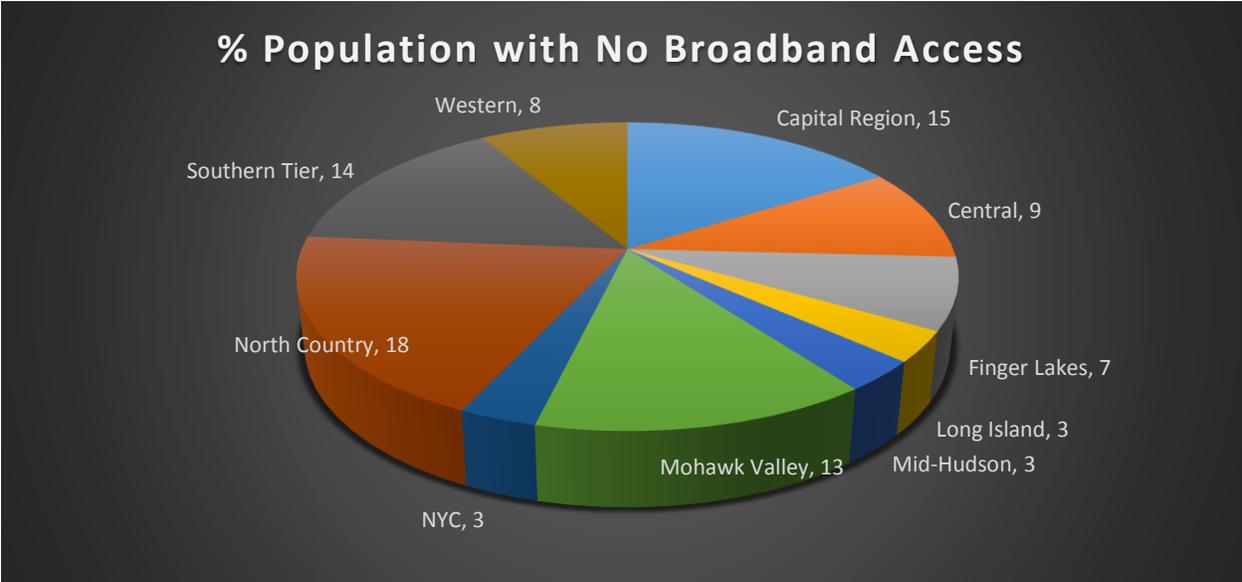
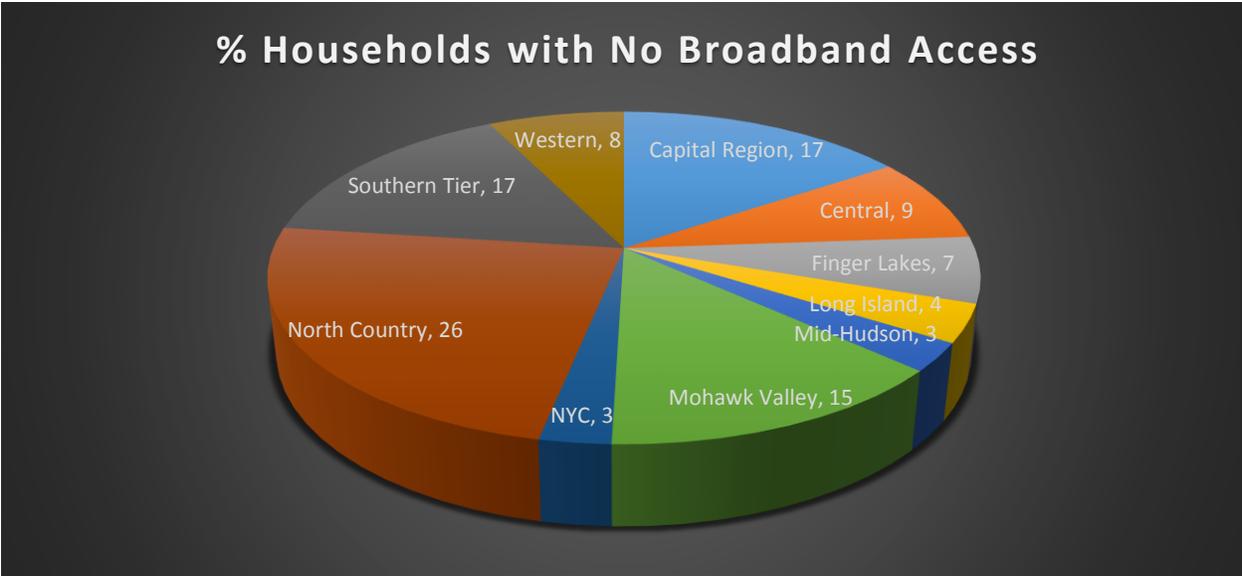


Figure 20: PERCENT of HOUSEHOLDS WITH NO BROADBAND ACCESS, BY NY REGION



In October 2010, Sullivan County received funding to conduct its own study to develop a plan to upgrade its mobile telephony and broadband services, both of which are thought important for the county’s economic growth.

State and federal government databases that provided coverage data by census block were found to be an inaccurate indicator of both wireless and wireline coverage. Data collected this way has inherent inaccuracies because it is insufficiently granular. If a company offers any service at all in a census block, no matter how little, the entire block was designated covered. However, many census blocks in mountainous areas of Sullivan County were designated as having coverage even though the actual coverage might skim the mountain tops and provide no coverage along the roads where homes and businesses are located.

At the Rural Broadband Symposium held on October 22 2013, in Sullivan County Congressman Gibson indicated that *more and more, it is essential that our rural areas have efficient and affordable internet access to be able to meet the critical needs of these communities. This includes enabling small businesses to access both customers and suppliers, the efficient and effective delivery of healthcare information, and the ability of students to compete fairly in the educational arena. In addition, it is also a quality of life issue, as so much of all the information that people seek is accessible primarily on the internet.*

Sullivan County realized a more granular approach to data collection was necessary to determine a more accurate picture of wireless availability. Therefore, the contractor drove the roads and marked up maps to record where wireless service was and was not actually available. This closer, more detailed mapping of the local telecommunications infrastructure was performed to identify specific street locations where telecommunications services are unavailable. Tower location data was available from the FCC database.

Similarly, wireline broadband was found to only be available when a fiber or cable (or wire) is directly connected to the premises, or is directly connected to a last mile wireless device. Therefore, this wireline coverage exists only where there is a physical connection and does not spread out over an area or census block. According to the Sullivan County study, the FCC is aware of this problem and knows that a more granular approach to data collection is required when identifying areas as served or unserved.

Sullivan County's analysis found that current telecommunications services are inadequate.

The study concluded:

- current telecommunications infrastructure and available services are hindering the progress of commercial activity and denying residences 21st century digital communications services.

- medical services are a major growth sector for the county, but without ubiquitous mobile telephony and broadband, local advances in remote telemedicine cannot be developed at the required pace.
- providing broadband services to under/unserved areas will likely require some subsidization through government funding, loans and/or philanthropy.
- funding for these telecommunications services is best viewed as social and economic necessities. Short-sighted approaches predicated on local financial sustainability may ensure the long-term disenfranchisement of potentially profitable sectors of the economy that happen to be located in remote or rural areas.

iv. Water and Wastewater

The Hudson Valley region has well-developed water and wastewater infrastructure, but considerable maintenance is needed to ensure its long-term functionality. Over the next 20 years, New York State needs to spend at least \$28.7 billion on drinking water treatment infrastructure¹⁴⁸ and \$36.2 billion on wastewater infrastructure.¹⁴⁹ Investments are needed to meet regulatory mandates to protect public health and the environment.

According to the [Mid- Hudson Regional Sustainability Plan](#), there is no precise data available on what portion of the region is serviced by sewers. According to county GIS data, approximately 12.5 percent of the region's area is serviced by sewers. Assuming sewer areas correlate with the population on public water supply, the Mid- Hudson Regional Sustainability Plan estimates that approximately 78 percent of the region's population lives within an area served by sewer, and approximately 22 percent of

The U.S. Environmental Protection Agency recently ordered the City of Middletown, New York to comply with federal Clean Water Act requirements for reducing pollutants in the wastewater that flows from area industrial facilities to its wastewater treatment plant. Under the Clean Water Act, wastewater treatment plants of a certain size that receive wastewater from industrial facilities are required to develop pretreatment programs that reduce pollutants from industrial wastewater at their source. The City of Middletown meets these criteria, but has failed to establish a pretreatment program for the Middletown Sewage Treatment Plant.

EPA Orders Middletown, NY to Address Clean Water Act Violations, October 23, 2013

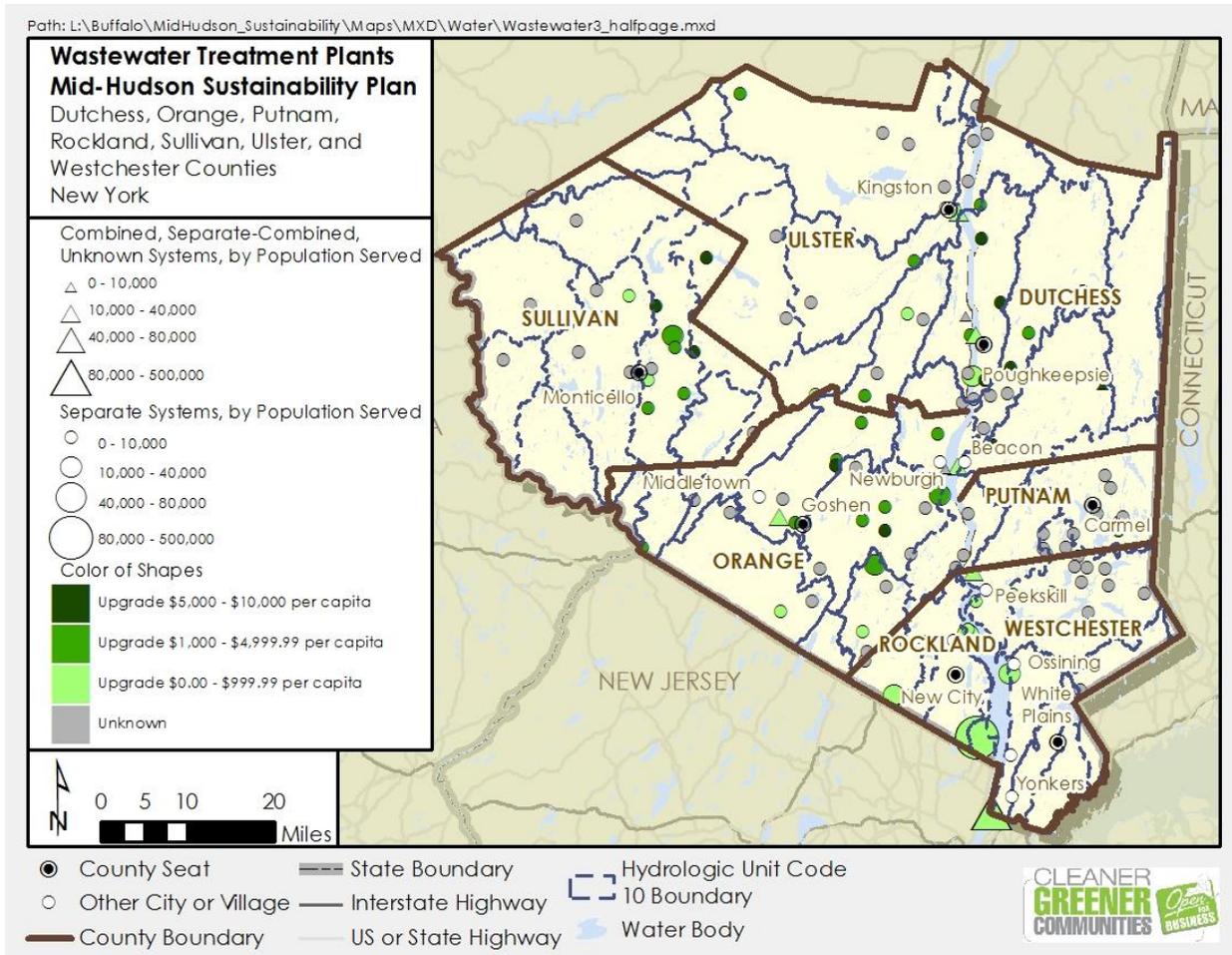
¹⁴⁸ NYSDOH, 2008. Drinking Water Infrastructure Needs of New York State. http://www.health.ny.gov/environmental/water/drinking/docs/infrastructure_needs.pdf

¹⁴⁹ NYSDEC, 2008. Wastewater Infrastructure Needs of New York State. http://www.dec.ny.gov/docs/water_pdf/infrastructure_rpt.pdf

the population uses septic wastewater treatment. Absent comprehensive data these estimates should be used with caution.

Figure 21 shows where wastewater infrastructure improvements are needed. Capital improvement needs are weighted based on the population served by the individual facility, the condition of existing facilities, available financing, and the ability of the applicant to complete the project.

Figure 21: WASTEWATER TREATMENT PLANTS, HUDSON VALLEY REGION



A recent analysis done by the [New York State Water Resources Institute](#), Department of Earth & Atmospheric Sciences, and Department of Crop & Soil Sciences at Cornell University, suggests that it is feasible to perform a watershed-scale goals assessment to augment existing approaches to wastewater infrastructure analysis and planning to sustain wastewater infrastructure. Goal-based watershed assessments could be used to encourage more coordination among management agencies to address regional water quality challenges. Watershed-scale, goal-based assessment can also contribute to states' attempts to incorporate smart growth principles into planning and funding

decisions, and can be used to generate discussion about what smart growth means for diverse communities facing different development paths.¹⁵⁰

Stormwater

Regional infrastructure for stormwater management includes systems for drainage and, increasingly, systems that treat and infiltrate stormwater. Urban areas contain large areas of impervious surfaces, such as paving or roofs. Impervious surfaces convey stormwater, along with its assimilated pollutant load, to storm drains which often discharge directly to surface waters. A significant portion of the runoff generated in cities, villages and other areas with sewers, flows into sanitary sewer lines. Additionally, development can significantly compromise or destroy wetlands which act as natural buffers during flood events.

During rainstorms, wastewater plants connected to these systems are overwhelmed by the resulting volume of water and the overflows are discharged directly to a receiving water body as diluted raw sewage. When sewers overflow with stormwater, the release of effluent is called a Combined Sewage Overflow (CSO). Overflows can also occur as a result of infiltration and inflow that results when groundwater infiltrates or is directly discharged into sanitary sewer lines due to unintentional cracks and leaks in pipes or intentional pumping (pumping a basement).

Wastewater overflows from CSOs are a large source of water pollution in the region, and the projected costs to fix these problems are a daunting. Systems in the cities of Kingston, Newburgh, Poughkeepsie and Yonkers are designated CSOs and they are required to develop and implement Long-Term Control Plans to remediate these problems. These plans are in various stages of implementation.

Dams, Bridges and Culverts

New York State's dam infrastructure is also aging and in need of repair. The design lives of many dams have been exceeded. Many dams were not built, nor are being maintained according to today's engineering standards. According to the Mid-Hudson Regional Sustainability Plan, there are 1,372 NYSDEC inventoried dams in the region,¹⁵¹ with 128 of these classified as high hazard (class C), 250 as intermediate (class B), and 921 as low (class A). Hazard rating refers to the probability of loss of human life should a dam failure take place. At a minimum, assurance is needed that the 378 class B and C dams in the Mid-Hudson Region are either scheduled for controlled decommissioning or are functionally secure.

¹⁵⁰'A watershed-scale goals approach to assessing and funding wastewater infrastructure', *Journal of Environmental Management*, 26 June 2013, Rahm, Brian G. et al.

¹⁵¹NYSDEC, 2013. NYS Dams Inventory. <http://www.dec.ny.gov/pubs/42978.html>

There are also thousands of aging culverts and bridges in the region. Some are in poor condition. Many are not sized adequately to pass future predictions of floodwaters. Undersized culverts can be the source of flooding or ice dam restrictions that can cause flooding, culvert or road washouts, and downstream flood release surge damage.

v. Solid Waste Management

Regional and County Infrastructure

Due to the mix of both the public and private-sectors, as well as inter-county and inter-regional import and export of materials, the solid waste and materials management landscape is complicated, creating challenges to define and characterize in a regional manner.

There are numerous private and public facilities used to manage materials in the region, including recyclables handling and recovery facilities (RHRFs) and materials recovery facilities (MRFs), resource recovery facilities (RRFs – also known as a waste-to-energy plants), composting facilities, and transfer stations. The Hudson Valley has no active public landfill. According to the region’s sustainability plan the maintenance, monitoring, and in some cases remediation of closed landfills continue to be a cost and environmental liability for many counties.

Responsibility for materials management is shared by multiple parties. New York State provides oversight and assistance to local municipalities so that they may adhere to their solid waste management obligations as directed under state law. The state Department of Environmental Conservation (NYSDEC) itself operates under a framework of federal guidance, which sets regulations and establishes guidelines governing activity in the sector.¹⁵²New York seeks to accomplish its solid waste management objectives through the New York State Solid Waste Management Plan.

In the Hudson Valley each county serves as a formal Solid Waste Management Planning Unit, providing oversight, guidance, and in some cases running facilities and other infrastructure and services. However, municipalities are traditionally responsible for implementation of solid waste management and collection programs. Activities are run directly by a local government or via contract with third-parties. In some cases a public authority is created to implement a solid waste management program within a political or geographic area.

The Hudson Valley Regional Council (HVRC) has a Solid Waste and Material Management Committee consisting of solid waste professionals from all seven counties and NYSDEC Region 3. The HVRC Solid Waste and Management Committee strategy is

¹⁵² U.S. EPA, 2013. Wastes Laws and Regulations (<http://www.epa.gov/epawaste/laws-regs/index.htm>)

intended to be consistent with the vision set by the NYSDEC's sustainable materials management strategy, *Beyond Waste*¹⁵³ and the goals and objectives set forth in the Mid-Hudson Regional Sustainability Plan. The goal is to shift the focus on materials management from "end of pipe" waste disposal to a more comprehensive perspective that addresses the entire materials lifecycle.

The Committee meets quarterly at different locations throughout the region. With the upsurge of interest in and the growing importance of reducing waste and better managing materials in the waste stream, this group has been very active in developing programs, sharing concepts, ideas and resources on a regional basis.

The committee's most recent meeting was held at the Taylor Recycling Facility in Orange County where the committee was given a tour of the recycling facility and a presentation on the proposed Taylor Biomass Energy Project. The Taylor Biomass Energy is a one of the regional priority projects endorsed by the Mid-Hudson Regional Economic Development Council. The project will create 576 jobs, including 384 construction jobs.

The committee is also working with the NYSDEC to address the safe disposal of unused medications. Because the region transports most of its waste to facilities in other parts of New York, or even outside the state, there is great interest in minimizing the amount of waste that is hauled by concentrating on reuse and recovery. It is difficult to obtain regional information about materials streams because many private companies are involved in waste management, and the counties have a limited ability to regulate solid-waste management. Therefore, NYSDEC statewide estimates are used for the region. Table 40 presents the state's 2008 solid waste data broken down by method of management. The largest material stream in New York is municipal solid waste (MSW), which makes up 50 percent of the total and of which 20 percent is recycled. Construction and demolition waste is the second largest stream at 36 percent of the total, 55 percent of which is recycled.

The incineration of waste in the Hudson Valley is most likely greater because two of the seven counties – Westchester and Dutchess – burn a significant proportion of their municipal solid waste. They also comprise 54 percent of the region's population.

Accounting for incineration and absent regional data, perhaps it can be assumed the Hudson Valley region has a similar profile to New York State.

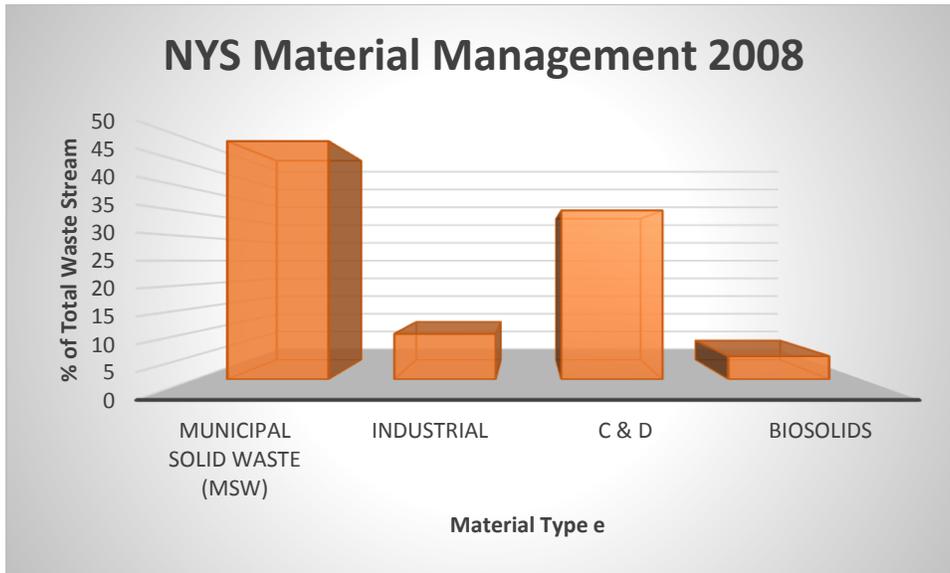
The recycling rates in the Hudson Valley region exceed the state average and a per capita MSW disposal rate is below the state average.

¹⁵³ NYSDEC, 2010. *Beyond Waste*. <http://www.dec.ny.gov/chemical/41831.html>

Table 40: NYS MATERIALS MANAGEMENT, 2008

Method of Management	Municipal Solid Waste (MSW)		Industrial		C & D		Biosolids		Total	
	Million Tons	%	Million Tons	%	Million Tons	%	Million Tons	%	Million Tons	%
Recycle/Compost	3.7	20	1.4	39	7.2	55	0.9	47	13.1	36
Landfill	6	33	2.1	60	4.1	32	0.3	17	12.5	34
Combustion	2.5	14	<0.1	1	<0.1	0	0.4	24	3	8
Export for Disposal	6.1	33	<0.1	0	1.7	13	0.2	12	8	22
Total	18.3	100	3.5	100	13	100	1.8	100	36.6	100
% of Total	50		9.56		35.52		4.92		100.00	

Figure 22: NYS MATERIALS MANAGEMENT, 2008



As shown in Table 41, the Mid-Hudson Sustainability Plan used estimates based on 2009 Planning Unit Annual Recycling Reports to demonstrate that the region overall is generating less waste per capita and recycling a greater percentage of its materials compared with the state. NYSDEC's *Beyond Waste* report set a goal of 1.7 pounds per person per day by 2020, and the Mid-Hudson Sustainability Plan' set a MSW recycling rate goal of 50 percent. To achieve these, the region will have to realize a 54 percent reduction in per capita disposal and an 8 percent increase in the recycling rate. This will require significant collaboration among the Hudson Valley counties.

Table 41: REGIONAL MSW DISPOSAL AND RECYCLING RATES¹⁵⁴

County/Area	Population	Per Capita MSW Disposal Rate ² (lbs./person/day)	Recycling Rate ¹⁵⁵ %
Dutchess	297,488	2.8	29
Orange	372,813	3.8	38
Putnam	99,710	3.3	29
Rockland	311,687	5.6	34
Sullivan	77,547	3.1	38
Ulster	182,493	4.8	41
Westchester	949,113	3.2	52
Region	2,290,851	3.7	42
NYS ¹⁵⁶	19,378,102	4.1	35

Disposal Rate - Materials collected in Putnam County are hauled to transfer stations outside of the county by private haulers; therefore there is currently no reliable disposal and recycling data. Putnam disposal rate value presented in this table is an estimate generated using the average disposal rates of the surrounding Mid-Hudson counties. Recycling Rate - Putnam County 2010 Materials Generation and Recovery Data provided by Planning Unit¹⁵⁷

Large variations in reported values may in part be due to discrepancies in how the counties define, collect and measure MSW generation and recycling rates.

Furthermore, materials that are generated outside the region but brought to a Hudson Valley facility may cause inflated values – such as in Rockland County, which has a service area that extends into New Jersey and other counties in New York.

Materials Accounting

Each county is required to send an annual report to the NYSDEC documenting waste disposed and materials diverted at county planning unit facilities. Each county measures the waste and materials that it directly manages. This includes municipal solid waste as well as portions of many other materials streams. These reports, however, do not provide a clear and consistent picture of all activity in the county, as not all waste and materials is managed directly by the county or other planning unit. Accounting for private sources and haulers is a challenge and changes waste and materials management numbers.

¹⁵⁴ Recycling rates used in development of MHRSP were collected from respective Counties Plans, reports or personal communications. Recycling Rate is the proportion of MSW diverted from a landfill or incineration. It excludes C & D, miscellaneous waste (textiles, electronics, tires, etc.), biosolids, and metal reported by automobile dismantlers, junkyards and scrap metal processors.

¹⁵⁵ Recycling rates used in development of MHRSP were collected from respective Counties Plans, reports or personal communications. Recycling Rate is the proportion of MSW diverted from a landfill or incineration. It excludes C & D, miscellaneous waste (textiles, electronics, tires, etc.), biosolids, and metal reported by automobile dismantlers, junkyards and scrap metal processors.

¹⁵⁶ NYSDEC, 2010. *Beyond WastePlan*. Pg. 93

For example, based on their 2009 NYSDEC report, when Sullivan County only included the quantity of materials handled at county management facilities, the percent of material recycled is 10 percent. Accounting for private sources and haulers the percent of the waste stream diverted from landfills in Sullivan County is closer to 38 percent. This is estimated based on discussions with private haulers, large commercial facilities, and other information collected by the county. Because it is more indicative of recycling behavior across the entire county, the 38 percent is used in the County's Long-term Solid Waste Management Plan.¹⁵⁸

Regional Challenges

In the Mid-Hudson Regional Sustainability Plan, each of the seven Mid-Hudson counties has identified challenges to meeting statewide goals for sustainable materials management. The challenges have been categorized into the six broad themes described below.

Organic Materials Management

The southern more urbanized counties have disproportionately large organic components in their solid waste streams due to disposal of yard waste. For example, Westchester County estimates that up to 29 percent of its waste stream comprises organic yard waste.

Organic materials are often sent to landfills or incinerated. There are, however, existing municipal organics composting programs in the region, such as those operated by Westchester County (estimated to collect and compost nearly two-thirds of yard waste disposed), the Rockland County Solid Waste Management Authority (RCSWMA), and the Ulster County Resource Recovery Agency (UCRRA). These can be used as model programs that can be expanded or replicated to improve organics recovery regionally.

Within the region there also may be significant opportunity to recover unserved food that can help feed those in need in the region prior to it going into the waste stream.

Transport and Disposal (T & D) Costs

All landfill-destined waste is exported as either solid waste or as incinerated residual ash. Export requires moving huge volumes of material long distances, which results in significant greenhouse gas emissions and air pollution.

The cost of collection and hauling waste materials represents a large portion of community operating budgets and continues to rise. Increase in T&D costs can primarily be attributed to rising fuel costs. All other major cost factors, such as hauler fees and landfill disposal fees, stayed roughly the same.

¹⁵⁸ Mid Hudson Regional Sustainability Plan

Regulatory Enforcement

There are a number of state and municipal laws regulating the separation of materials and prohibiting the disposal of recyclables in the waste streams. According to the Mid-Hudson Regional Sustainability Plan, there are some local laws that are lacking fundamental and important provisions for requiring source separation in all generating sectors and providing for enforcement. Where local enforcement provisions do exist, municipalities do not effectively use them, particularly for commercial and institutional generators.

Post-Consumer Product Market

Many materials can be reused or reprocessed into useful products; however, the development of a viable, large-scale market for these materials continues to remain a challenge at all levels. Regional and inter-county coordination may be able to help improve the region's access to post-consumer markets, by allowing for the aggregation of materials streams, among other benefits.

Programmatic Funding

Many counties lack the necessary funding to support staff or make the capital investment to initiate more effective materials management programs.

Data Collection and Management

Inconsistent definitions, tracking mechanisms, reporting, and data management render materials accounting very difficult. While individual counties, such as Westchester and Rockland, may have vigorous material accounting systems, the different approaches used by each individual county makes regional-scale reporting and tracking difficult.

Table 42, taken from the Mid-Hudson Regional Sustainability Plan, summarizes some of the challenges identified by county staff and other stakeholders. The two most commonly cited challenges were regulatory enforcement and T & D cost. Addressing these challenges on a regional scale could bring the greatest benefit to the region as a whole.

Table 42: SOLID WASTE MANAGEMENT REGIONAL CHALLENGES

County/Area	Organic Materials Mgmt	T & D Cost	Flow Control	Regulatory Enforcement	Post - Consumer Product Market	Programmatic Funding	Data Collection & Mgmt
Dutchess		X	X	X			X
Orange				X			X
Putnam	X		X	X			X
Rockland	X	X			X		X
Sullivan				X		X	X
Ulster		X	X			O	X
Westchester		O					X
X - Directly Identified as a challenge by County staff through MHRSP Planning Process							
O - Identified as a challenge by County stakeholders through MHRSP Planning Process							

Universal waste, Household Hazardous Waste, and Pharmaceutical Waste

Universal waste, household hazardous waste (HHW), and pharmaceutical waste pose significant environmental and public health threats when improperly managed.

To address the potential hazards posed by HHW, communities in the region have organized programs to collect, package and transport HHW to hazardous waste treatment, storage, recycling or disposal facilities. HHW programs reduce environmental threats by providing a collection and management system, informing residents about how to properly manage HHW and, most important, how to avoid using hazardous products at home.

The Ulster County Resource Recovery Agency (UCRRA) is currently working with the Ulster County Sheriff’s Department to expand sub stations for medicine drop off. Through the NYS Department of Health Medication Drop Box Program, Ulster County obtained drop boxes to be placed at five new law enforcement agencies for collection. Two additional towns in Ulster County acquired the drop boxes through their own grant funding and are responsible for their own collection/disposal. UCRRA will continue to hold hazardous waste and medicine collections throughout the year.

Westchester County hosts medicine take-back programs and has 20 offices with drop boxes that have collected 926 pounds of unused medications. Between Westchester HMRF and sheriff’s office drop boxes, approximately 2,000 pounds have been collected. In Sullivan County prescription drug take back days have been expanded from once a year to four times a year with a year round collection set up in 2013 at the Town of Fallsburg Police Station.

II. AN ANALYSIS OF REGIONAL ECONOMIC CONDITIONS

This section contains two parts: an analysis of the “Strengths, Weaknesses, Opportunities and Threats” in the Hudson Valley as well as an analysis of the region’s industry clusters.

A. STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

The Hudson Valley Regional Council (HVRC) met with representatives from each of the region’s seven counties to explore and understand the strengths, weaknesses, opportunities and threats to the region. Meeting participants included representatives from county planning departments, economic development corporations and industrial development agencies.

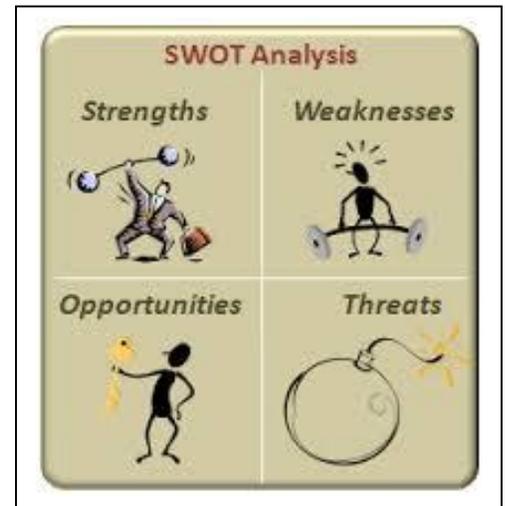
HVRC also developed and distributed a survey , found in Appendix F, through SurveyMonkey to collect consistent information from each of the region's counties. Six of the seven counties responded to the survey. Rockland County did not complete the survey.

HRVC also met with the [Hudson Valley Economic Develop Corporation](#), the Hudson Valley Agribusiness Development Corporation and the Hudson Valley Technology Development Center to gather information on projects and program development that impact economic development in their specific spheres in the region.

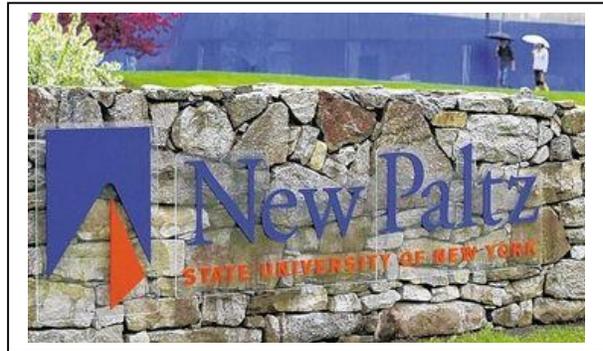
The “Strengths, Weaknesses, Opportunities and Threats” identified below are not ranked and are provided in no particular order of importance.

Strengths

- Region’s proximity to and easy access to New York City/Metro Market
 - The farthest reaches of Hudson Valley region are 2 hours away from the metropolitan New York region – the most populous in the country.
- Highly educated and diverse workforce
 - 87.8 percent of Hudson Valley residents have a high school degree or higher
 - 38 percent of Hudson Valley residents have a bachelor’s degree or higher
 - The state average education attainment is 84.6 percent (HS degree and higher) and 32.5 percent (bachelor’s degree and higher)
- Strong educational institutions proactively involved in addressing economic development and job training needs



- Secondary Education
- SUNY New Paltz (Ulster) – new 3D manufacturing initiative
- Marist College(Dutchess)– housing & partnering with EDA funded Women’s Enterprise Development Center
- Touro(Orange) – New medical college soon to open in repurposed medical center
- Culinary Institute of America (Dutchess) – The Culinary Institute will serve as the hub for a newly created Food Hub Alliance, which will provide farms and agri-businesses in the Hudson Valley with the resources, training, services, and support necessary to recover from the natural disasters, sustain their current farming operations, as well as expand and create new economic opportunities to make the region more resilient to future disasters. This program received EDA funding.
- Highly ranked public schools



- Engaged State Government
 - Established 10 Regional Economic Development Councils that developed strategic plans
 - Consolidated funding opportunities for better access to state funds for projects with job creation and economic growth potential
 - Funded 10 regional sustainability plans that connected economic development and job creation with environmental sustainability , energy efficiencies, measurable greenhouse gas emission reductions
 - Established “NY Open for Business” with initiatives for specific industries such as craft breweries, advanced manufacturing, START-UP NY tax free zones in and around colleges and universities for business incubation and development.
 - Pro-business/ pro-growth governments and a strategically diverse business base.
- Transportation Hub
 - A network of interstate and intrastate highways, two major airports (Stewart & White Plains), Metro North passenger rail service direct to New York City, CSX freight service along the Hudson River, boats and barges from Port of New York to Port of Albany.
 - Major regional impact project is the current building of the new Tappan Zee Bridge – which will be wider and can accommodate rapid bus service.
 - Distribution center cluster – major corporations including Walmart, Kohls, Whole Foods, Home Depot, Hudson River Fruit, Fastenal and others have easy access to metro New York region through I84, Route 17, easy access to markets across the entire northeast and NJ & PA markets.

- Conversion of New York State Route 17 to Interstate 86 – 70 percent completed – will have major economic impacted in western portion of region (Orange & Sullivan)
- Widening of New York State Route 17 in Orange County
- Class A office space and shovel ready sites
 - An abundance of office space available in Westchester and Rockland County
 - Corporate and business parks shovel ready for investment
- Outstanding quality of life
- Exceptional cultural and natural resources
- Abundance of water
- Prime Agricultural Land
- Regional food systems

Weaknesses

- Cost of living, property values, property and school taxes:
 - The cost of labor and land in the region relatively high. According to Forbes Magazine, Westchester and Rockland counties are two of the highest taxed counties in the country¹⁵⁹. Five of the region’s counties, Dutchess, Orange, Putnam, Rockland, and Westchester, also pay the Metropolitan Transportation Authority Payroll Tax (1 percent of payrolls). The counties argue that they do not receive enough mass transit services in return for what they pay into the system.
 - High cost of services = pressure on taxing districts
- Vacant office space/partially completed, partially occupied corporate and industrial parks:
 - In Westchester and Rockland counties there is more than 5 million square feet of Class A vacant office space. The abundance of vacant office space is due in part to the downturn in the economy but also to restructuring and downsizing of businesses. The properties that remain vacant or incomplete are at risk of becoming a blight on communities.
- Regulatory oversight:
 - Due to home rule and various regulatory processes, businesses that are looking to locate or expand in the region must obtain permission from a multiplicity of local governments and endure lengthy and complex approval processes, such as the State Environmental Quality Review Act, zoning, and permitting.
 - Those counties located in a New York City watershed have an added layer of regulatory processes to go through when looking to develop in the watershed area.
 - Delaware River Basin (Sullivan County) regulates Delaware River withdrawals.

¹⁵⁹Mid Hudson Region Economic Development Council Strategic Plan. Weaknesses. 2013.

- Youth flight:
 - There is a large loss of young people with valuable skill sets that are leaving the region. They are leaving in favor of places that they perceive to offer greater economic and social opportunities.
- Aging population
 - The Region has an aging population that is expected to increase by 28.5 percent by 2020 (age 65-84). This is consistent with the overall growth in this age cohort for the State. The Region's growth in the 65-84 age cohort outpaces the State 28.5% to 22.42%. As the region's population continues to age the demand for publicly funded services, long term care financing, and a shift from acute to chronic illnesses will rise. These are issues that need to be addressed quickly as the projections show significant growth in this sector by 2020.
- Urban sprawl (no centralized locations = no synergy)
 - Due to sprawling development patterns, some counties are finding that there is a lack of synergy among businesses. The pattern of urban sprawl can lead to increases in property taxes and community costs (i.e. road maintenance, sewers and other infrastructure) and can result in lower sales for businesses and an increased chance that they will decide to close or relocate.
- Perception of New York State as not being development friendly:
 - New York is generally perceived as being a difficult and expensive state for business relocation and development. This perception has not only kept new business from entering the region, but businesses currently located here look for new and more affordable places to develop. This has led several large corporations, such as IBM in Ulster County, to restructure and relocate all or large portions of their business, leaving many people unemployed in their wake. These large businesses were job generators and their vacancy has left counties still trying to recover from the loss of jobs, the domino effect of those lost paychecks on retail and other businesses including real estate, and trying to fill and or redevelop the vacant industrial space.
- Access to transportation in rural areas:
 - For the most part, the region has excellent access to transportation (perhaps with Sullivan County being the exception). The Mid-Hudson Regional Sustainability Plan details the importance of Transit Oriented Development (TOD) which is an attainable goal in Dutchess, Putnam, Orange, Westchester and Rockland. Metro North provides passenger rail services into the metro New York region for east-of-Hudson residents. West-of-Hudson residents have limited rail access from Orange County through Rockland County. But the lack of public transportation, other than limited bus service, for residents in Sullivan and Ulster County, limits their access to employment opportunities. Ulster and Sullivan County have the highest unemployment rates in the region.
- Aging and/or inadequate infrastructure:
 - The region's infrastructure is well developed throughout most of the densely populated parts of the area, but it is old and in need of replacement or repair.

These infrastructure needs are coming at a time when funding is harder to come by. Westchester, Rockland, and Putnam's infrastructure needs totaled approximately \$1.4 billion as of 2008. In some communities, the infrastructure problems, i.e. water availability, sewage capacity, roads, bridges, phone, broadband, etc. are preventing economic growth. For example, Sullivan County has a lack of water/sewer infrastructure along prime commercial highway corridors.

- Broadband/cellular coverage:
 - Broadband and cellular coverage is still lacking in some areas in the Hudson Valley. Sullivan and Ulster are the counties with the largest gaps in coverage, along with other parts of the region including Dutchess County that only retain spotty service. Broadband and cellular coverage should be considered basic infrastructure in today's economy.

Opportunities

- Tappan Zee Bridge :
 - Replacement of the Tappan Zee Bridge began in 2013 and is considered the project with the most impact on the region. Talks continue regarding rapid bus transit across the span and development of links to other public transportation and employment hubs such as White Plains.
- Conversion of Route 17 to Interstate 86 :
 - This project has long been expected to bring major economic development to this corridor through Orange and Sullivan County.
- Legalized casino gaming :
 - Ulster and Sullivan County, the two counties with the highest unemployment and lowest incomes in the region, also have the largest clusters of establishments for tourism and recreation. The ballot proposal to legalize gaming in New York, which passed in November 2012, includes two casinos for the Catskill area – most likely one in Sullivan County and one in Ulster County. It is anticipated that the approval of the constitutional amendment will result in major economic boost for the region. The EPT Concord project in Sullivan County received priority project status for 2013 from the Regional Economic Development Council (REDC).
- Mid-Hudson Regional Sustainability Plan – 2013
 - A major accomplishment for region, funded through Governors Cleaner Greener NY Program, sets a path for sustainable, smart growth in the region.



- Encourage investment in green and sustainable development throughout the region.
- Forever ties economic development with sustainability.
- Distribution of produce grown on local farms
 - Catskill Region LTL Local Food Distribution Hub (Columbia County – Sullivan County) Hudson Valley Agribusiness Development Corporation in partnership with the Sullivan County IDA and Ginsberg Foods proposed a regional food hub initiative to address needs in Sullivan and Columbia Counties. By establishing two distribution centers, one in Columbia and one in Sullivan, they create a mechanism to enable smaller producers to take advantage of the larger markets in the Hudson Valley and New York metropolitan region. The program received a priority project designation from the REDC in 2013.
 - Creation of a sustainable regional food system.
- 3D printing Initiative at SUNY New Paltz (Ulster County)
 - Taking advantage of Governor Cuomo’s START-UP NY tax free initiative program, fueled by venture capitalists and economic development organizations such as Hudson Valley Economic Development Corporation, this state-of-art new technology is sited within SUNY New Paltz Hudson Valley Advanced Manufacturing Center.
- Emergence of craft breweries, distilleries and wineries (regionwide)
 - A new state tax credit program available for local brewers, distillers and wineries developed to encourage growth in this area.
 - Hudson Valley Venture Capital is a major investor in many of these projects, helping growth throughout the region.
- Manufacturing supply chain project with Global Foundries, semiconductor manufacturer
 - [National Supply Chain Network Initiative](#), a Clinton Global Initiative (CGI) Commitment to Action, facilitated by Global Foundries as a collaborative partnership with the Auto Harvest Foundation, the Hudson Valley Technology Development Center (HVTDC), the Center for Economic Growth (CEG) and others to create a regional pilot in the Hudson Valley (“Tech Valley”) that is intended to better connect the supply chain.
- Develop new workforce programs to respond to lack of skilled laborers in region
 - There is a disparity in the jobs available and the workers available.
- Rehabilitate, reuse and repurpose existing infrastructure
 - Revitalize aging downtown business districts
 - The Warwick Valley Local Development Corporation Business Park Re-development project acquired an abandoned state prison facility and will repurpose the facility into a shovel-ready business and industrial park, as well as recreation area for local residents. The property goes back on the tax rolls to create jobs and tax revenue for the local municipalities and schools. This is another project that received priority status from REDC.
- Local waterfront revitalization program
 - Utilize the New York State Department of State program to attract new business, development and tourism.

- Pattern projects after recent successes, such as the Walkway Over the Hudson.
- Encourage participation in the Climate Smart Communities Program
- Expansion of Center for Discovery. Major investment, job creation and redevelopment of Hurleyville community.

Threats

- Aging infrastructure – roads, bridges, transmission lines, dams, water and wastewater.
- Deterioration of the Tappan Zee Bridge and continued infighting regarding upgraded rapid transit across the bridge.
- Disparity between available workers and their skills and available jobs requiring higher skill levels not being addressed.
- Neighboring regions/states implementing more aggressive and organized economic development programs.
 - Hi-tech investments in other regions can lead to poor retention in local tech markets.
- Global competitors: particularly in traditional manufacturing.
- Improper/ineffective planning for community impacts with respect to potential casino development.
- Continued erosion of tax base through loss of business and manufacturing facilities, and the issuance of property tax exemptions.
- Lack of progress in shared services between governments to reduce costs and taxes.
- Insufficient dialogue on solutions to education issues such as school closures, empty classrooms, school taxes.
- Effects of climate change
 - The continuing effects of climate change, negative impacts on agriculture, tourism, air quality and water quality through increased flooding, storm surges and extreme weather events.
 - Negative impacts on electric grid and distribution systems as seen in last several storms.
 - No clear regional plans for development of renewable energy protocols.
 - Sea-level rise and flooding.
 - A lack of resiliency planning.
- Loss of farmland and farmers.
- Contaminated site remediation and brownfield redevelopment.
- Solid waste management, including transportation to distant facilities.
- Lack of affordable housing.
- Community and environmental impacts in regards to new casinos, including the potential to forever change the rural landscape of the region and dramatically alter main streets, impacts on transportation and water infrastructure, problem gambling, increased crime and overpromised economic development.

B. REGIONAL INDUSTRY CLUSTER ANALYSIS

Both the U.S. Economic Development Administration and New York State put considerable emphasis on identifying and analyzing “industry clusters” as an important analytical tool for understanding New York’s statewide and regional economies. The state Department of Labor finds this analytical tool useful in workforce and economic development applications. The clusters framework is increasingly used by the state to study notable industry links in the state and regional economies.

In 2011, the NYSDOL identified and analyzed the following 16 industry clusters in the Hudson Valley:

1. Back Office & Outsourcing
2. Biomedical
3. Communications, Software & Media Services
4. Distribution
5. Electronics & Imaging
6. Fashion, Apparel & Textiles
7. Financial Services
8. Food Processing
9. Forest Products
10. Front Office & Producer Services
11. Industrial Machinery & Services
12. Information Technology Services
13. Materials Processing
14. Miscellaneous Manufacturing
15. Transportation Equipment
16. Travel & Tourism

This analysis looked at industry subclusters as well.

In 2010 the 16 industry clusters in the Hudson Valley included 28,700 establishments with total employment of 216,100 and total wages of \$17.1 billion in 2010. Annual cluster wages averaged \$79,000.

Table 43: TOP INDUSTRY CLUSTERS, 2011

Top 5 Clusters Ranked by Employment	Top 5 Clusters Ranked by Total Wages (millions of dollars)	Top 5 Clusters Ranked by Annual Average Wage	Top 5 Clusters Ranked by Location Quotient (private sector jobs only)
1) Front Office & Producer Services (42,700)	1) Front Office & Producer Services (\$4,592.0)	1) Electronics & Imaging (\$145,500)	1) Electronics & Imaging (2.54)
2) Travel & Tourism (32,900)	2) Financial Services (\$3,155.2)	2) Front Office & Producer Services (\$107,600)	2) Biomedical (1.38)
3) Financial Services (30,800)	3) Electronics & Imaging (\$1,734.9)	3) Biomedical (\$104,000)	3) Communications, Software & Media Services (1.00)
4) Distribution (21,100)	4) Distribution (\$1,359.0)	4) Financial Services (\$102,500)	4) Miscellaneous Manufacturing (0.93)
5) Communications, Software & Media Services (17,500)	5) Communications, Software & Media Services (\$1,166.6)	5) Information Technology Services (\$99,900)	5) Front Office & Producer Services (0.91)

Source: Industry Clusters in New York's Economy: A Statewide and Regional Analysis, New York State Department of Labor, Division of Research and Statistics, Bureau of Labor Market Information, December 2011

Additionally the [Hudson Valley Economic Development Corporation](#) (HVEDC), looking to promote the relocation or expansion of companies in the same seven county Hudson Valley region, focuses its efforts on the following seven industry clusters:

Definitions of Industrial Clusters

Industrial clusters are “... geographic concentrations of competing, complementary, or independent firms and industries that do business with each other and/or have common needs for talent, technology, and infrastructure” (University of Minnesota)

“Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region. Clusters arise because they increase productivity with which companies can compete ... Cluster development initiatives are an important new direction in economic policy...: (Institute for Strategy and Competitiveness, Harvard University)

Michael Porter describes industry clusters (1998, p 197) as “... geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g. universities, standards agencies, trade associations)in a particular field that compete but also cooperate.”

1. Biotechnology/Pharmaceutical
2. Semiconductors/Microelectronics
3. Solar/Photovoltaics
4. Medical Imaging Devices
5. Financial Insurance
6. Information Technology
7. Research and Development

Industry Clusters and Workforce Development

In a separate analysis, the state Department of Labor produced a report on significant industries in the Hudson Valley to assist local workforce investment boards (LWIBs) in strategic planning and to focus their resources in priority industries (and eventually on priority occupations within those industries). Significant industries were identified on the basis of job counts, wage levels, job growth (both net and percent) over the 2006-2009 period, and expected job growth based on industry employment projections through 2016. Economic development or workforce development officials' designations of priority industries were also considered.

It was recommended by the NYSDOL that local workforce investment boards should concentrate their workforce development resources on the particular industries identified below.

The report found 15 industries to be "significant." Five of these industries saw an increase in their employment totals between 2006 and 2009. These five industries combined generated more than 10,000 jobs from 2006 to 2009.

"All significant industries" shared one or more of the following characteristics: rapid growth (percentage basis); large growth (absolute basis); high wages (average weekly wage) above the regional (all industries) average of \$992; or strong expected growth through 2016.

The report identifies a broad-based set of industries fitting into six major industry categories: construction, manufacturing, financial activities, professional and business services (which sell to other businesses), educational services, and health care.



Table 44: SIGNIFICANT INDUSTRIES, HUDSON VALLEY, 2010

Significant Industries, Hudson Valley Region, 2010								
NAICS	Industry Name	Job Count		Net Change	% Change	Average Weekly Wage (\$)	Projected % Change in Jobs 2006-2016	Industry Significance
		2006	2009					
	ALL INDUSTRIES	885,732	861,332	-24,400	-2.8	992	7.2	NA
236	Construction of Buildings	11,755	9,393	-2,362	-20.1	1039	NA	W
237	Heavy and Civil Engineering Construction	3,802	4,043	241	6.3	1485	7.8	G, P, W
238	Specialty Trade Contractors	33,767	29,293	-4,474	-13.2	1077	44.5	J, P, W
325	Chemical Manufacturing	8,879	7,779	-1,100	-12.4	1562	-25.2	W
334	Computer and Electronic Product Manufacturing	18,937	14,223	-4,714	-24.9	2540	-22.7	W
522	Credit Intermediation and Related Activities	14,639	12,032	-2,607	-17.8	1375	-1.1	W
524	Insurance Carriers and Related Activities	13,557	12,338	-1,219	-9.0	1673	-9.7	W
541	Professional, Scientific, and Technical Services	41,965	41,619	-346	-0.8	1478	6.7	J, W
551	Management of Companies and Enterprises	12,763	12,757	-6	0.0	3011	2.8	W
561	Administrative and Support Services	38,193	35,378	-2,815	-7.4	693	22.9	J, P
611	Educational Services	99,503	102,772	3,269	3.3	1081	6.3	G, J, W
621	Ambulatory Health Care Services	44,129	48,417	4,288	9.7	1097	19.3	G, J, P, W
622	Hospitals	39,353	40,243	890	2.3	1079	1.2	G, J, W
623	Nursing and Residential Care Facilities	39,310	40,637	1,327	3.4	703	22.2	G, J, P
	G: Industry experienced above-average job growth; can be net or percentage growth							
	J: Industry employs a significant number of jobs (>8,000)							
	P: Above-average growth project 2006-2016							
	W: Industry pays above-average wages							

Construction

The NYSDOL report stated that the outlook for this sector is uncertain. Job opportunities are anticipated for the following reasons: the region has been targeted to receive \$1.2 billion in federal stimulus aid, of which \$167 million is designated for transportation and infrastructure projects. These are expected to create several thousand jobs, and the pending retirement of the Baby Boomers will also contribute to more job opportunities.

The recent economic downturn has had a significant impact on the construction sector. Two of the three significant industries from this sector on the list recorded losses of several thousand jobs: *construction of buildings* (NAICS Industry 236) lost 2,362; and *specialty trade contractors* (NAICS Industry 238) lost 4,474. According to the NYDOL, several high-profile projects in the region have been delayed due to funding problems, which in turn further dampens job activity in commercial and residential construction.

Manufacturing

Both the computer and electronic product manufacturing (NAICS Industry 334) and *chemical manufacturing* (NAICS Industry 325) logged significant job losses from 2006 to 2009.

Nonetheless, they both pay well above the average (all industry) weekly wage. The weekly wage in computer and electronic product manufacturing is \$2,540, which is almost triple the average all-industry weekly wage of \$992. The NYSDOL indicated that in the future job opportunities will arise from two sources: the expansion and relocation of solar energy companies to the area, most notably Prism, SpectraWatt and Solar Tech Renewables; and biotech companies in the lower Hudson Valley area. Regeneron and San-Mar are expanding in Westchester County, potentially creating several hundred high-paying jobs within the next few years.

Financial Activities

The NYSDOL identified Credit Intermediation and related activities (NAICS Industry 522) and insurance carriers and related activities (NAICS Industry 524) as part of the broader finance and insurance industry with several New York City financial institutions having back-office operations in the region. This includes Morgan Stanley. These two financial industries have a large employment base in the region and provide weekly wages that are well above the average all-industry weekly wage.

Professional and Business Services

These significant industries include professional, scientific and technical services (NAICS Industry 541); management of companies and enterprises (NAICS Industry 551); and administrative and support services (NAICS Industry 561). The NYSDOL report indicated that the sector has shown signs of a turnaround, as job losses have decelerated. Gradual improvement in corporate profits will result in spending for professional and business services, which will spur a demand for office workers, computer specialists, engineers, accountants, lawyers and consultants as described in the report.

Because professional and business services is an industry sector that is sensitive to economic trends, job gains this area are in part attributed to improved business conditions.

Educational Services

The report identified educational services (NAICS Industry 611) as the largest employment base of any significant industry in the region, with about 103,000 jobs. This sector is driven more by demographic trends than by economic conditions. The average weekly pay rate for jobs in educational services (\$1,081) exceeds that of average all-industry (\$992).

The NYSDOL anticipates a large number of layoffs due to budget issues at local area schools. Based on the State School Boards Association and Council of Superintendents report, the 2011 NYSDOL report anticipated that school officials were planning to layoff close to 1,800 teachers in the region due budget cuts.

Health Care

Demographic trends, similar to educational services, also drive job growth in health care (NAICS Industry 621; 622; 623). The health care sector added more than 6,500 jobs from 2006 to 2009. The average weekly wages ranged from \$703 in nursing and residential care facilities, to \$1,097 in ambulatory health care services. This sector is not as sensitive to economic conditions.

Demographic changes help create a demand for nurses, home health aides, medical assistants and other health care specialists. Industries presented here are classified according to their North American Industry Classification System (NAICS) code.



Table 45: INDUSTRY RANKING BY JOB COUNT 2006

Rank	Industry Name	Job Count
1	Educational Services	99,503
2	Ambulatory Health Care Services	44,129
3	Professional, Scientific, and Technical Services	41,965
4	Hospitals	39,353
5	Nursing and Residential Care Facilities	39,310
6	Administrative and Support Services	38,193
7	Specialty Trade Contractors	33,767
8	Computer and Electronic Product Manufacturing	18,937
9	Credit Intermediation and Related Activities	14,639
10	Insurance Carriers and Related Activities	13,557
11	Management of Companies and Enterprises	12,763
12	Construction of Buildings	11,755
13	Chemical Manufacturing	8,879
14	Heavy and Civil Engineering Construction	3,802

Table 46: INDUSTRY RANKING BY JOB COUNT 2009

Rank	Industry Name	Job Count
1	Educational Services	102,772
2	Ambulatory Health Care Services	48,417
3	Professional, Scientific, and Technical Services	41,619
4	Nursing and Residential Care Facilities	40,637
5	Hospitals	40,243
6	Administrative and Support Services	35,378
7	Specialty Trade Contractors	29,293
8	Computer and Electronic Product Manufacturing	14,223
9	Management of Companies and Enterprises	12,757
10	Insurance Carriers and Related Activities	12,338
11	Credit Intermediation and Related Activities	12,032
12	Construction of Buildings	9,393
13	Chemical Manufacturing	7,779
14	Heavy and Civil Engineering Construction	4,043

The ranking of industry sectors by job count stayed fairly consistent from 2006 to 2009, as seen Tables 45 and 46. *Educations Services, Ambulatory Health Care Services and Professional, Scientific, and Technical Services* remained the top three. *Nursing and Residential Care Facilities* moved up to number four in 2009, switching ranks with *Hospitals*. *Management of Companies and Enterprises* moved up from number 11 in 2006 to number 9 in 2009, with *Credit Intermediation and Related Activities* moving down from number 9 to 11.

The Mid-Hudson Regional Economic Development Council and Industry Clusters

To strengthen the region's capacity for future growth with targeted job creation investments, the [Mid-Hudson Regional Economic Development Council](#) (MHREDC) in its 2013 progress report has identified these clusters as pivotal to advance New York's economy:

- biotech, biomedical and healthcare
- advanced manufacturing
- information technology

Biotech, Biomedical and Healthcare

The MHREDC indicated that the largest biotechnology firms in the region continue to expand their local operations. At the end of June 2013, Regeneron in Tarrytown had approximately 1,400 full-time employees, an increase of 18 percent since the end of 2011 (1,175) and 7 percent (1,301) since the end of 2012. Acorda Therapeutics in Ardsley, Westchester County, which now employs 260 people, added 36 jobs in 2012 and the same number in the first six months of 2013.¹⁶⁰ Facilities expansion at the Regeneron Tarrytown site was expected to create more than 400 additional scientific, technical, and administrative jobs by late 2015. Through the Excelsior Jobs Program, New York's Empire State Development pledged \$8.5 million in tax credits, and the Town of Mount Pleasant Industrial Development Agency offered additional incentives.

The MHREDC also reported that this past year expansions at several of the region's hospitals. The MHREDC foresees job growth in the health care sector due to the implementation of the Affordable Care Act.

The MHREDC has funded seven priority projects in the area of biotech, biomedical, and/or health care. They include:

1. New York Medical College (NYMC), renovation for 110,000 square feet of laboratory incubator and workforce training space.
2. The Center for Discovery, Sullivan County, for the creation of an assessment center and integrated specialty hospital for children with autism, severe developmental disabilities, and medical complexities.
3. Touro College, Orange County at the former regional hospital site for a new osteopathic medical college including an on-site clinic and student housing.

Advanced Manufacturing

The MHREDC reported a 1.4 percent (12,382 people) increase in the advanced manufacturing sector average annual employment from 2011 to 2012. Additionally, the region experienced growth in its small and medium enterprises (SMEs) over this past year. There has also been some job growth in the manufacturing sectors throughout the region with opportunities in all counties, led by Westchester which has a thriving manufacturing base.¹⁶¹

¹⁶⁰2013 Progress Report, Mid-Hudson Regional Economic Development Council page 24, <http://regionalcouncils.ny.gov/content/mid-hudson>

¹⁶¹ Ibid, p. 28

The MHREDC continues to support the development of a regional center, called The Center for Global Advanced Manufacturing (CGAM), established in 2012. The CGAM provides technology and business support services to manufacturing firms in the Hudson and Mohawk Valley regions. CGAM hopes to improve competitiveness and promote the sector's growth

and sustainability. A lab is housed in New Paltz, Ulster County, and CGAM is to establish a machinist training center, the Automated Equipment and Machining Training Center, at the Armory in Newburgh, Orange County. In addition to New York State funding, the Automated Equipment and Machining Training Center and the remote SUNY Institute of Technology classroom, is supported by \$750,000 from the Orange County IDA funding and donations of equipment from IBM. CGAM has also established the region's first "3D Printing and Design Center" at SUNY Rockland.

The diversity of the Mid-Hudson's SME manufacturing cluster has become increasingly apparent, with factories that manufacture bread products (Bread Alone), hydroponic farms (Continental Organics), and lighting manufacturers (SELUX), all expanding this past year.

2013 Progress Report, Mid-Hudson Regional Economic Development Council p. 28

With a 'SUNY 2020' \$15 million grant, SUNY Manufacturing Alliance for Research and Technology Transfer (SMART) established nine labs, five of which are in this Hudson Valley region:

- 1) Characterization Testing - SUNY Ulster
- 2) Metallurgical and Materials - SUNY Dutchess
- 3) Machining and Automation - SUNY Orange and SUNY IT (Armory, Newburgh)
- 4) 3D Printing and Design Center - SUNY Rockland
- 5) Advanced CNC Machining - SUNY Westchester (and SUNY Mohawk Valley)
- 6) CGAM – SUNY Sullivan

CGAM also created a pilot program to match manufacturing companies in the Hudson and Mohawk Valleys that were outsourcing some work to other states or countries with potential in-state suppliers. According to the MHREDC 2013 Progress Report this resulted in bringing more than \$200,000 of commerce back to the state. This pilot is expected to continue in 2014 bringing additional work and commerce to the state.

Information Technology

The IT sector is the regions best paid, with average annual wages rising to \$140,053 this year (a 4.7 percent increase over last year).¹⁶²

A recent course held at the New York State Center for Cloud Computing and Analytics at Marist College attracted 1,069 students. The NYSCCAC acts a resource available to those wishing to start or grow IT businesses in New York.

¹⁶²2013 Progress Report, Mid-Hudson Regional Economic Development Council page 32, <http://regionalcouncils.ny.gov/content/mid-hudson>

Including its world headquarters in Armonk, Westchester County, IBM has five sites in the Hudson Valley that continue to anchor the region's identity as a thought leader in the field of large-scale computing, cloud computing, OpenFlow, and analytics, as well as a producer of hardware and software.¹⁶³

In May, financial giant Bloomberg L.P. announced that it would locate its new mission critical datacenter in Orangeburg, Rockland County. It is projected that more than \$135 million will be spent on construction, land acquisition, and soft costs during the construction phase, while Bloomberg's total investment in the region over the next 15 years will be more than \$710 million.

The U.S. Economic Development Administration and Industry Clusters

STATS America, with partial funding from the U.S. Commerce Department's Economic Development Administration, has developed tools to facilitate relevant insights and help answer the fundamental questions underlying regional development.

For economic development professionals, regional planners, and community leaders, the following four tools offer new ways to understand and strengthen their regional economy:

- Industry cluster analysis
- Innovation Index
- Occupation clusters
- Regional investment decisions

These tools can be used to explore 17 industry clusters and six subclusters, along with 15 knowledge-based occupation clusters and three subclusters to analyze regional strengths.

The 17 Industry Clusters and Six Subclusters

1. Advanced Materials
2. Agribusiness, Food Processing and Technology
3. Apparel and Textiles
4. Arts, Entertainment, Recreation and Visitor Industries
5. Biomedical/Biotechnical (Life Sciences)
6. Business and Financial Services
7. Chemicals and Chemical-Based Products
8. Defense and Security
9. Education and Knowledge Creation
10. Energy (Fossil and Renewable)
11. Forest and Wood Products
12. Glass and Ceramics
13. Information Technology and Telecommunications
14. Transportation and Logistics
15. Manufacturing Supercluster
 1. Primary Metals
 2. Fabricated Metal Products
 3. Machinery

¹⁶³ Ibid

4. Computer and Electronic Products
5. Electrical Equipment, Appliance and Components
6. Transportation Equipment
16. Mining
17. Printing and Publishing

The 15 Occupation Clusters and Three Subclusters

1. Agribusiness and Food Technology
2. Arts, Entertainment, Publishing and Broadcasting
3. Building, Landscape and Construction Design
4. Engineering and Related Sciences
5. Health Care and Medical Science (Aggregate)
6. *Health Care and Medical Science (Medical Practitioners and Scientists)*
7. *Health Care and Medical Science (Medical Technicians)*
8. *Health Care and Medical Science (Therapy, Counseling, Nursing and Rehabilitation)*
9. Information Technology
10. Legal and Financial Services, and Real Estate
11. Managerial, Sales, Marketing and HR
12. Mathematics, Statistics, Data and Accounting
13. Natural Sciences and Environmental Management
14. Personal Services
15. Postsecondary Education and Knowledge Creation
16. Primary/Secondary and Vocational Education, Remediation & Social Services
17. Public Safety and Domestic Security
18. Skilled Production Workers: Technicians, Operators, Trades, Installers & Repairers

With data provided by the STATS America tool, below is a matrix to show industry employment location quotients above 1.2 for each county in the Hudson Valley region and for the region as a whole. Location quotients exceeding 1.25 are usually taken as preliminary indication of a regional specialization in a given sector, or that the region has a higher concentration of employment in that particular industry than the national average.

This matrix enables users to see the overall competitive strengths of the region, as well as those of individual counties. Understanding a region's industrial strengths provides valuable insights into how different sectors within a region can be connected.

Industry Clusters and Location Quotients

Using the STATS America Innovation Tool, regional data can be culled to create a matrix to show industry employment location quotients for each county in the region and for the region as a whole. (A location quotient over 1.0 means that a region has a higher concentration of employment in a particular industry

These specialized industries are engaged in activities which have impacts beyond their geographic area. These industries with LQ's above 1.00 are sometimes also referred to as "export" or "basic" industries. Conversely clusters with LQ's less than 1.00 are identified as non-basic or "import" industries.

Southern Tier East 2012 CEDS, p. 30

than the national average. Using a location quotient of 1.2 or more provides a conservative estimation for this example.) This matrix allows users to see the overall competitive strengths of the region, as well as those of individual counties.

Understanding a region's industrial strengths can provide valuable insights into how different sectors within a region can be connected.

As part of its 2012 CEDS, the Southern Tier East Regional Planning Development Board prepared a comprehensive overview and discussion of industry clusters and what they mean. This Southern Tier 2012 report defines "*Location quotients exceeding 1.25 are usually taken as preliminary indication of a regional specialization in a given sector or that the region has a higher concentration of employment in that particular industry than the national average.*" This analysis also states that a location quotient over 1.25 says absolutely nothing about regional industry clusters because they offer no insight on interdependencies between sectors. "*Industry cluster studies that rely solely on location quotients to identify clusters are really only sector studies, but in concert with other techniques may contribute to a meso-level cluster analysis.*"¹⁶⁴

Hudson Valley Regional Clusters

With data provided by the STATS America tool, below, in Table 47 is a matrix displaying industry employment location quotients (LQ) above 1.0 for each county in the Hudson Valley region and for the region as a whole.

For the region as a whole, three sectors exhibited employment location quotients greater than 1.0:

- computer & electronic product manufacturing subcluster within the manufacturing supercluster
- biomedical/biotechnical sector within the life science cluster and the
- education & knowledge creation.

The manufacturing supercluster is very strong within Dutchess County, primarily in the computer & electronic product manufacturing sub cluster.

Primary metal manufacturing is strong in Dutchess, Orange, Putnam and Rockland counties. Machinery manufacturing had a strong LQ in Ulster County with electrical equipment, appliance & component manufacturing exhibiting strength in Putnam, Rockland and Ulster counties. Advanced material is strong in Dutchess and Rockland with agribusiness food processing & technology exhibiting employment

These specialized industries are engaged in activities which have impacts beyond their geographic area. These industries with LQ's above 1.00 are sometimes also referred to as "export" or "basic" industries. Conversely clusters with LQ's less than 1.00 are identified as non-basic or "import" industries.

Southern Tier East 2012 CEDS, p. 30

¹⁶⁴Southern Tier East Comprehensive Economic Development Strategy 2012 Southern Tier East Regional Planning Development Board

strength in Sullivan and Ulster counties.

Information technology and telecommunications remains strong in Dutchess County. In Rockland County, chemicals and chemical based products shows a strong employee LQ while mining is strong within Sullivan County.

The biomedical/biotechnical sector within the life science sector is strong in five of the seven counties in the region.



Table 47: INDSUTRY CLUSTER EMPLOYMENT

	Dutchess	Orange	Putnam	Rockland	Sullivan	Ulster	Westchester	Region	Employees
Advanced Materials	1.53			1.83					25,718
Agribusiness Food Processing & Technology					2.21	1.19			8,816
Apparel & Textiles				1.15					2,558
Arts, Entertainment , Recreation & Visitor Inds.					1.61	1.2			29,892
Biomedical/Biotechnical (Life Sciences)	1.33			1.74	1.51	1.08	1.19	1.24	117,819
Business & Financial Services							1.14		63,399
Chemicals & Chemical Based Products		1.13		3.02					10,228
Defense & Security									31,116
Education & Knowledge Creation	1.65						1.15	1.07	35,228
Energy (Fossil & renewable)	1.04								27,830
Glass & Ceramics									482
Information Technology & telecommunications	2.16								32,655
Transportation & logistics									32,655
Manufacturing Supercluster	2.06								20,151
Primary Metal Manufacturing	1.69	1.29	1.78	1.04					764
Fabricated Metal Product Manufacturing			2.32						3,804
Machinery Manufacturing						2.26			1,416
Computer & Electronic Product Mfg.	8.32							1.74	11,713
Electrical Equip, Appliance & Component Mfg.			1.5		1.31	1.8			1,593
Transportation Equipment Mfg.									861
Mining	1.24				2.6	1.28			575
Printing & Publishing		1.12					1.31		13,222

Cluster by Employment

When clusters are ranked by the actual number of employees in the clusters, as depicted in Table 48, the top five clusters by employment are *biomedical/biotechnical, business & financial services, education & knowledge creation, information technology & telecommunications* and *transportation & logistics*.

Table 48: INDUSTRY CLUSTERS 2011 EMPLOYMENT AND TOTAL WAGES

DESCRIPTION	EMPLOYMENT IN CLUSTERS		TOTAL WAGES
	EMPLOYEES	RANK	
Biomedical/Biotechnical (Life Sciences)	117,819	1	\$5,745,434,757
Business & Financial Services	63,399	2	\$6,484,707,986
Education & Knowledge Creation	35,228	3	\$1,625,967,982
Information Technology & Telecommunications	32,655	4	\$3,507,065,097
Transportation & Logistics	32,655	5	\$628,924,583
Defense & Security	31,116	6	\$2,059,780,194
Arts, Entertainment, Recreation & Visitor Inds.	29,892	7	\$1,210,965,748
Energy (Fossil & renewable)	27,830	8	\$2,450,879,396
Advanced Materials	25,718	9	\$2,361,070,752
Manufacturing Supercluster*	20,151	10	\$1,841,795,381
Printing & Publishing	13,222	11	\$978,000,442
Computer & Electronic Product Manufacturing*	11,713		\$1,354,407,349
Chemicals & Chemical Based Products	10,228	12	\$806,183,358
Agribusiness Food Processing & Technology	8,816	13	\$343,907,806
Fabricated Metal Product Mfg*	3,804		\$202,675,549
Forest and Wood Products	3,486	14	\$177,464,387
Apparel & Textiles	2,558	15	\$138,952,151
Electrical Equip, Appliance & Component Mfg.*	1,593		\$82,286,935
Machinery Manufacturing*	1,416		\$93,751,893
Transportation Equipment Mfg*	861		\$58,239,777
Primary Metal Manufacturing*	764		\$50,433,879
Mining	575	16	\$37,073,321
Glass & Ceramics	482	17	\$23,833,877

III. A VISION FOR THE HUDSON VALLEY

The Hudson Valley Regional Council supports the vision created in the Mid-Hudson Regional Sustainability Plan (MHRSP). This vision for sustainable development builds on the region's unique social, cultural, and natural history, with the goal of promoting economic development, environmental sustainability, and enhancing quality of life for the more than 2 million residents that call the region home.

The HVRC shares and promotes the sustainable development vision outlined in the MHRSP. The projects presented below are provided as examples of potential economic development projects in the region. Their presentation in this document is not necessarily an endorsement of the project by the HRVC. .

The Hudson Valley benefits from five deeply interconnected building blocks for sustainable development: a diverse natural environment, a vibrant economy, strong transportation accessibility and connectivity, numerous existing centers, and an exceptional quality of life. The plan's vision is to take strategic action to preserve and enhance the unique attributes that make the region a desirable place to live, while also establishing the region as a national leader in sustainability.¹⁶⁵

A strong economy relies on good connectivity within the region and with the outside world. Existing centers provide platforms for development that concentrate people, jobs, and infrastructure in more land and resource efficient patterns, while enhancing the vibrant cultural fabric of the Region.

The Hudson Valley Regional Council shares this vision for sustainable development as set forth in the Mid Hudson Regional Sustainability Plan:

- A diverse natural environment, containing the Hudson and Upper Delaware rivers, the Catskills, the Hudson Highlands, Long Island Sound, and much more.
- A vibrant economy, home to global brands as well as thousands of small businesses and farms.
- Strong transportation accessibility and connectivity within the region and beyond.
- Exceptional quality of life, due to the region's natural splendor, a long history of social and cultural innovation, and unique historical assets.
- Numerous existing cities, villages, and denser hamlet centers that provide engines of economic growth, containing existing assets around which human settlements can be clustered to provide cost effective job centers, reduce car dependency, and reduce pressure on the environment.¹⁶⁶

¹⁶⁵Mid Hudson Regional Sustainability Plan Executive Summary, May 2013
http://www.co.orange.ny.us/filestorage/124/1362/MHRSP_FinalDraftExecSummary_May2013.pdf

¹⁶⁶ Mid Hudson Regional Sustainability Plan, May 2013, p 2-2

The region's strong transportation accessibility and connectivity along with numerous existing cities, villages, and denser hamlet centers are engines of economic growth. Existing assets can create a vibrant economy, home to global brands as well as thousands of small businesses and farms. The Hudson Valley will grow and prosper by using regional approaches and developing technology-based clusters in cooperation with nearby colleges and universities, by encouraging the reuse of existing facilities and growth in emerging technologies.

The region's economic development community continues to aggressively pursue collective and county-based strategies to foster the vibrant economy by retaining jobs and supporting the growth and prosperity of existing businesses. The recent trend, however, as growth has occurred, is toward selective and managed economic development in tune with "smart growth" models.

The HVRC also supports the Core Economic Development Strategies outlined by the Mid Hudson Regional Economic Development Council

- INVEST in Tech
- ATTRACT & RETAIN Mature Industries
- GROW Natural Resource-Related Sectors
- REVITALIZE the region's Infrastructure

Sustainable development and smart growth

Achieving sustainable development in the region will require the implementation of comprehensive smart growth strategies. Smart growth aims to create and maintain great neighborhoods and communities by:

1. Mixing land uses
2. Taking advantage of compact building design
3. Creating a range of housing opportunities and choices
4. Creating walkable neighborhoods
5. Fostering distinctive, attractive communities with a strong sense of place
6. Preserving open space, farmland, natural beauty, and critical environmental areas
7. Strengthening and directing development towards existing communities
8. Providing a variety of transportation choices
9. Making development decisions predictable, fair, and cost effective
10. Encouraging community and stakeholder collaboration in development decisions

Middletown Community Health Center, Inc. Pathway to Health Project

Middletown Community Health Center, Inc.'s (MCHC) "Pathway to Health Project" is the development of a new 28,431-square-foot health center facility in the historic Ontario & Western Railroad Station located on the fringe of downtown Middletown. The project will allow MCHC to offer a wide range of patient services currently provided in several disparate locations within the City of Middletown. Integrated services under one roof will allow MCHC to better serve its patients drawn from the greater Middletown area and Orange County at large.

MCHC's development efforts are focused on the restoration and adaptation of one of Middletown's historic treasures, the Ontario & Western Railroad Station. It is envisioned that the train station, which has sat abandoned in the middle of a distressed neighborhood for several decades, will be redeveloped into a state-of-the-art clinical health facility. The redeveloped health center will be large enough to permit the integration of health center services as well as allowing for the co-location of diagnostic services. The overarching goal of the project is to provide essential health services under one roof to provide quality, affordable healthcare to the uninsured and underinsured residents of the City of Middletown and Orange County.

According to the 2010 Census, the City of Middletown suffers from a poverty level of 17.3 percent, versus Orange County's rate of 11.4 percent, and would therefore benefit from having additional access to affordable healthcare. According to the New York State Department of Education, 72 percent of the City of Middletown School District students receive either free or reduced-price lunch. These statistics are clear indicators of the need for low-cost healthcare in this area. This project will fit in line with Orange County's most recent health assessment, which states access to chronic disease specialists, prevalence and mortality, access to preventative education, primary care and early screening, and detection services in the county should be expanded, especially for those at high risk for health disparities – uninsured, recent immigrants, minorities and low-income groups. The 2010 Census reported that the City of Middletown had a population of 28,086, with 32 percent of working households at an annual income of less than \$35,000. The Census also reported that more than 11 percent of the region's residents are uninsured and could benefit from low-cost healthcare. In addition, the Census shows that only 51.3 percent of the city's residents own their homes versus 70.1 percent in Orange County and the region's 70.4 percent.

In addition, developing the health center will generate many high paying, quality jobs for area residents and the youth of our communities. In the last Census, the unemployment rate in the City of Middletown was at 9.5 percent, which is considerably higher than the region's 7.8 percent. The addition of the health center means an increase in economic vitality for the local area and is expected to have a sizable ripple effect throughout the city, county and the region. These new employment opportunities will pay between \$32,900 and \$124,300, adding more high paying jobs to the city and the region. According to 2011 data from the American Community Survey's five-year estimate, the region's median annual income was \$70,541. The same report said the City of Middletown had a median family income of \$58,248. With 75 percent of the MCHC jobs being provider positions paying closer to the higher end of the salary range (\$124,300), this will bring financial security to more of the region's residents. The health center has a strong presence within the city. This project will realign their locations without shutting any existing facilities. This means even more healthcare jobs for the region's residents.

Hudson Valley Regional Council Goals and Objectives

The Hudson Valley Regional Council has identified the following five goals for 2013-2014:

Goal I: To support projects in the region that promote sustainable economic development and create and retain jobs

Goal II: Support regional alliances and initiatives that promote sustainable economic development, job creation and job retention. Enhance the climate for economic development activities and initiatives through outreach and partnerships.

Goal III: Promote inter-county cooperation and efficiencies in the key environmental areas of solid waste and materials management, green infrastructure and water quality.

Goal IV: To encourage regional dialogues on post-storm resiliencies.

Goal V: Encourage economic development that utilizes energy efficiencies, reduces greenhouse gas emissions, and investigates alternative energy sources. HVRC's plan to achieve these goals is discussed in more detail in **Section V: Action Plan and Evaluation.**

The Newburgh Community Land Bank

The Newburgh Community Land Bank (NCLB) incorporated in 2012 is the only Land Bank in New York State authorized to a city exclusively. Under its designation, The City of Newburgh has the authority to buy abandoned homes for a negotiated low price. Upon acquiring the buildings, they will either be renovated or torn down, depending on the state of ruination, helping to alleviate the high property taxes currently burdening city homeowners.

Land banks are not-for-profit corporations created to take control and redevelop vacant or abandoned properties to where they can better serve the public interest. The Newburgh Community Land Bank (NCLB) will implement innovative strategies designed to return vacant and abandoned property to productive use and the City's tax rolls. The Newburgh Community Land Bank will hold, maintain, rehabilitate, and dispose of these parcels in order to ensure that they help revitalize Newburgh's neighborhoods and increase the City's ratables.

The NCLB is concentrating focus on a target area generally bounded to the North by Gidney Avenue and Clinton Street, to the West by Dubois Street, to the South by Broadway, and to the East by Grand Street. To buttress the NCLB efforts, the City is concentrating its code enforcement efforts in this target area to ensure the success of the Land Bank's operations.

The Newburgh Community Land Bank will work closely with area anchor institutions – Mount Saint Mary College, St. Luke's Cornwall Hospital, and SUNY Orange, as well as other strategic partners in the private, public and non-profit sector. The residents and other community members will be involved in an iterative process that ensures that the activities of the NCLB respond to community need.

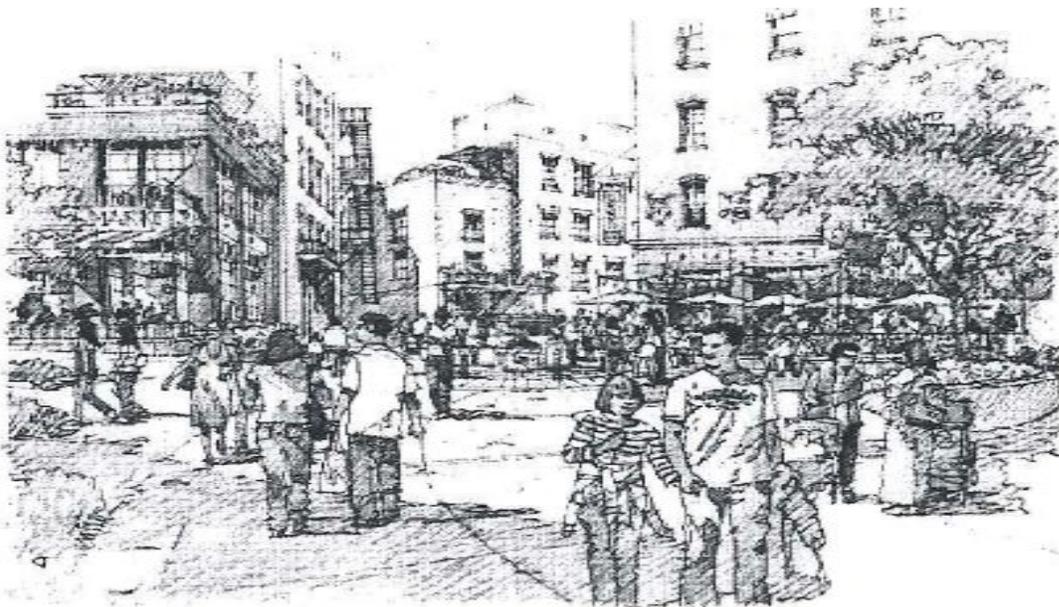
Rising Development- Yonkers LLC Redevelopment Project

Following the success with daylighting of the Saw Mill River and creation of Van der Donck Park, Rising Development's redevelopment project is the lynchpin within the existing centers City of Yonkers commercial core area. This redevelopment project will create the critical mass necessary for the successful revitalization of Yonkers' lower downtown to the waterfront area and will contribute significantly to the overall economic growth of Yonkers and the Hudson Valley region.

The redevelopment plan includes the renovation of five vacant properties totaling about \$20 million, and will create 35 new live/work lofts and 21,000 square feet of new retail and restaurant space.

Rising Development strategically aligns with MHREDC goals for economic development:

- Improves key regional infrastructure to make the region more business ready
- Supports the revitalization of the region's urban centers
- Promotes entrepreneurship, small business and starts-up
- Attracts young, educated, entrepreneurial professionals back to the urban core
- Strategically supports and promotes waterfront development to enhance tourism, recreation and trade
- Aligns public-private support to ensure implementation of the plan
- Leverages the city's outstanding natural resources and creates a natural tourism destination
- Aligns with sustainable and transit-oriented downtown initiatives
- Fosters affordable and sustainable housing located within walking distance to trains and buses
- Multi-phase project will create nearly 2,000 jobs, with 1,500 created in severely distressed downtown district of Yonkers



Rendering of redeveloped Mill Street Courtyard

IV. INTEGRATION WITH PARALLEL PLANNING AND ECONOMIC DEVELOPMENT PROGRAMS

This section outlines the state programs and parallel planning and economic development initiatives in New York that will be important to incorporate in the Hudson Valley Regional Councils' efforts to meet its goals and objective.

HVRC will collaborate with the New York State Mid-Hudson Regional Economic Development Council, the Empire State Development Corporation and other partners throughout the region to prioritize and advance economic development priorities that will address the needs of the Hudson Valley in accordance with the stated goals of the EDA.

Mid Hudson Regional Economic Development Council

The Mid Hudson Regional Economic Development Council (MHREDC) engaged in a comprehensive planning process and developed a strategic plan that would chart a path to job creation and economic vitality. In 2012, the council developed a streamlined strategic plan with four core economic development strategies. HVRC supports the MHREDC Core Economic Development Strategies, which include:

INVEST in Tech

Strengthen the region's capacity for future growth with targeted job creation investments in the region's key industry clusters:

- biotech, biomedical and healthcare
- advanced manufacturing
- information technology

(Additional discussion of these industry clusters can be found in Section II)

ATTRACT & RETAIN Mature Industries

Take on initiatives that attract, retain and stimulate mature industries as sectors of the regional economy that represent large, vital anchor employers.

These mature industries are:

- Distribution
- Financial and professional services
- Corporate food and beverage

GROW Natural Resource-Related Sectors

Leverage the region's outstanding natural resources, including its unique location between the Hudson River, Delaware River, and Long Island Sound, to sustain and promote development and industries that preserve the region's outstanding quality of life.

This MHREDC natural resource-related sectors include:

- waterfront community development

- agriculture
- tourism, arts and culture
- agriculture
- artisanal food and beverage

REVITALIZE the Region’s Infrastructure

To make the region more business ready the MHREDC supports building projects to improve key regional infrastructure. Improving the region infrastructure will cultivate investment in needed housing and create jobs.

The MHREDC region shares the same seven-county footprint as the Hudson Valley Regional Council and the EDA Hudson Valley Economic Development District. The Hudson Valley Regional Council has actively followed the work of the Mid Hudson REDC and seeks to support the REDC strategies in development of this and future CEDS for the Hudson Valley.

Bloomberg LP

Scheduled to open by first quarter 2014, the new Bloomberg datacenter in Orangetown, Rockland County, will bring 80 full-time jobs to the region. Built by Russo Development Corp. of New Jersey, construction of the facility created 250 jobs.

This high-tech business was described by Orangetown supervisor Andy Stewart, as the flag that will make Orangetown visible and attractive to other like-minded companies seeking space in close proximity to Manhattan.”

The \$840 million project includes initial building fit-up, equipment purchases and a plan to retrofit a 131,800-square-foot building several times over 15 years to ensure peak performance of the datacenter.

According to the Rockland Industrial Development Agency, the project received a 12-year PILOT (payment in lieu of taxes) incentive as well as an exemption from sales tax on construction materials for the facility and a mortgage tax exemption for the completed structure. Bloomberg received an exemption for sales tax on furnishings and equipment which will net the county \$23 million in direct sales tax and \$80 million in income taxes through the term of the lease. The Pearl River School District is expected to receive \$250,000 in the first year, reaching approximately \$580,000 a year by 2025.

The foresight of Orange & Rockland Utilities (O&R) to locate its electrical substation on Corporate Drive, the incentives offered by the Rockland County IDA and by O&R, and the welcoming nature of the Town of Orangetown in providing timely permits for Russo to make the site shovel ready were all significant in Bloomberg deciding to locate in Orangetown.

A vacant 232,000-square-foot site down the road from the new Bloomberg data center was recently purchased to create an additional data center co-located with other commercial space.

The seven county Hudson Valley region is the fastest growing region in the state. To stimulate economic development and mitigate climate change, there is a need to build on the *“momentum*

to make its urban centers more attractive as places to live, work, and shop, and to direct new development into priority growth centers supported by transit.”¹⁶⁷

The MHREDC 2013 progress report reemphasizes these goals and its core economic development strategies.

The MHREDC has also incorporated into its strategic plan the goals of moving impoverished individuals into jobs and revitalizing distressed communities. The MHREDC identifies these locales as “opportunity areas.” The intent is to discover what strategies may work in such areas and then export successful strategies to other distressed communities in the region.

In 2013, the MHREDC selected two opportunity areas as pilot communities.

- City of Peekskill, Westchester County - an 80-block, 450-acre area (16 percent of the total land area), north of the city’s downtown, in Northern Westchester County, estimated population of 9,000,
- Village of Brewster, Putnam County, population 2,690.¹⁶⁸

Resources permitting the MHREDC hopes to expand the number of communities during future rounds of the funding.

This MHREDC goal of developing strategies that will help distressed communities is consistent with the work being done by the Hudson Valley Regional Council through the USEDA and CEDS.

In September 2013, the MHREDC endorsed the following as priority projects for state funding¹⁶⁹:

¹⁶⁷ Mid Hudson Regional Sustainability Plan

¹⁶⁸2013 Progress Report, Mid-Hudson Regional Economic Development Council page 106, <http://regionalcouncils.ny.gov/content/mid-hudson>

¹⁶⁹Mid-Hudson Regional Economic Development Council Endorses 21 Projects as Regional Priorities for 2013 Competition, September 18, 2013, <http://regionalcouncils.ny.gov/mid-hudson/091813/regional-priorities-2013>

Table 49: MID-HUDSON REDC 2013 PRIORITY PROJECTS

PRIORITY PROJECT	Location	Type
Taylor Biomass Energy	Orange County	Energy
3D Printing Initiative/ SUNY New Paltz	Ulster County	Additive Manufacturing (3D Printing) technology, design, research
White Plains Multimodal TransCenter	Westchester County	Public Transportation Service
Dutchess County Airport and Business Park	Dutchess County	Municipal Water Infrastructure
Putnam Hospital Center	Putnam County	Health Care Services
Nyack Hospital	Rockland County	Health Care Services
5 Scobie Partners (Hudson Valley Lighting)	Orange County	R &D, Design, Assembly and Distribution
City of Newburgh	Orange County	Water and Wastewater Infrastructure
EPT Concord Resort	Sullivan County	Casino Resort community
LTL Local Food Distribution Hub Network	Capital and Mid-Hudson Regions	Agribusiness
Kolmar Labs	Orange County	Bulk manufacturing
Teutonia Buena Vista	Westchester	Housing & Job Training
Warwick Valley Local Development Corporation Business Park Redevelopment Plan (Mid-Orange Correctional Facility)	Orange County	Business and technology campus housing incubators, research facilities and light manufacturing
Northern Dutchess Hospital	Dutchess County	Health Care Services
Yonkers Downtown	Westchester County	Public Waterfront Esplanade
Echo Lake Corporate Park	Orange County	New Infrastructure
Harbor Square Waterfront Redevelopment	Westchester County	Mixed-use waterfront Redevelopment, Park and Promenade
Clear Labs Solutions	Putnam County	Manufacturing Facility
OPPORTUNITY AGENDA		
FITT to Grow New York	City of Peekskill (Westchester) and Village of Brewster (Putnam)	Economic and Workforce development
MHREDC Opportunity Area Feasibility Study	City of Peekskill (Westchester) and Village of Brewster (Putnam)	Re-purposing and Re-development
INNOVATION HOT SPOTS		
Mid-Hudson Incubator Hot Spot	Dutchess County	High tech resources, shared services, small business services and incentives, and academic resources

Opportunity Agenda

One of the MHREDC goals is to move impoverished individuals into jobs, and to revitalize distressed communities. This goal is directly consistent with the goals of HVRC to assist distressed areas of the region such as those identified in Section I. To accomplish these goals, the REDC has

sought to identify an "opportunity area" in which to focus its resources and examine strategies that might work.

As seen in Table 48 the MHREDC has identified the City of Peekskill in Westchester County and the Village of Brewster in Putnam County as distressed communities. The MHREDC focused on identifying impediments to job growth in the following areas: (a) job creation, specifically lowering the numbers of unemployed and underemployed; (b) community revitalization (e.g. building demolition, vacant lot cleanup, securing vacant buildings) focused in business districts; (c) movement to work sites either within or without of the target area; and (d) addressing workforce training.¹⁷⁰ (NOTE that the REDC definition of a 'distressed' community may be different than that of EDA).

The priority projects that the MHREDC supports in these distressed communities are:

- **FITT to Grow New York** – A flexible, innovative training and technical assistance project in support of the economic and workforce development needs of the City of Peekskill and the Village of Brewster that will provide lessons for the region in terms of promoting economic development in distressed communities. (Putnam and Westchester Counties)
- **MHREDC Opportunity Area Feasibility Study** – A planning project to prepare strategic plans and feasibility studies into re-purposing obsolete buildings in Peekskill's opportunity area and to define a path forward for redevelopment of Brewster's main street corridor. (Putnam and Westchester Counties)¹⁷¹

The MHREDC indicated that if awarded funding, the projects identified in Table 49 have the potential to generate more than \$572 million in economic activity and the potential to create and retain more than 5,061 full-time jobs as well as create 6,268 construction jobs in the Hudson Valley.

The Mid-Hudson REDC recently released its 2013 progress report with the council continuing to endorse and promote all the core and supporting goals, also identifying areas of focus. In 2013, the Council chose to prioritize these three areas for targeted investment and activities:¹⁷²

- **INVEST in Technology**
- **GROW Natural Resource Related Sectors**
- **REVITALIZE the Region's Infrastructure.**

One of the council's action items for 2014 will be to evaluate the efforts it is making toward the ATTRACT and RETAIN strategy and what specific measures would be necessary to be more effective.¹⁷³

¹⁷⁰Guidelines for the Mid-Hudson Regional Economic Development Council's Opportunity Agenda
<http://regionalcouncils.ny.gov/assets/documents/regionalopportunities/midhudsonopportunity.pdf>

¹⁷¹Mid-Hudson Regional Economic Development Council Endorses 21 Projects as Regional Priorities for 2013 Competition, September 18, 2013, <http://regionalcouncils.ny.gov/mid-hudson/091813/regional-priorities-2013>

¹⁷²2013 Progress Report, Mid-Hudson Regional Economic Development Council page 7, <http://regionalcouncils.ny.gov/content/mid-hudson>

¹⁷³ Ibid

The Mid Hudson Regional Sustainability Plan objectives nicely match the focal strategies proposed by the REDC. They share a common goal of fostering economic development in a way that contributes to the region's quality of life and environmental sustainability. There is an interconnection between the four economic development focal strategies, the three areas targeted for investment and activities and the plan objectives, project priorities, and enabling strategies.

Objectives with matrices and targets were identified in the regional sustainability plan for land use and transportation, energy, solid waste and materials management, agriculture and open space and water.

Strategic priorities that emerged throughout the sustainability plan include efforts to:

- Foster economic development
- Make all growth smart growth
- Invest in infrastructure to create jobs and prepare for the future
- Benefit from and preserve the region's unique assets through tourism
- Develop a Mid-Hudson Region sustainability brand
- Foster innovation in green technologies and services
- Grow natural resource sector industries
- Enhance education and outreach for sustainability

The Hudson Valley Regional Council supports the Mid-Hudson REDC's core and supporting goals, as well as the priorities identified above.

A list of the members of Mid Hudson Region Council can be in Appendix B.

MID HUDSON REGION SUSTAINABILITY PLAN

As part of Governor Cuomo's Cleaner Greener Program,¹⁷⁴ close to a million dollars were spent on this sustainability planning process for the Hudson Valley region. The Mid Hudson Region Sustainability Planning Consortium was tasked with the development of a sustainability plan for the region tied to the greenhouse gas (GHG) emission reduction goals as defined by New York State, as well as the economic development goals defined by the Mid-Hudson Regional Economic Development Council (MHREDC). The consortium tapped into the experience of public and private experts across a wide range of fields, seeking to engage each of the seven counties along with community residents, to create an integrated sustainability plan. The consortium and its six working groups developed both long-term and short-term sustainability goals and a vision for the region shared by the Hudson Valley Regional Council. The Hudson Valley Regional Council is an active member of the consortium.

The plan is designed to help guide statewide investments and regional decision-making on land use, housing, transportation, infrastructure, energy, and environmental practices. The plan also will help identify and implement projects that provide the greatest opportunity to reduce greenhouse gas emissions, save energy, and deploy renewable energy options.

¹⁷⁴<http://www.nyscrda.ny.gov/Statewide-Initiatives/Cleaner-Greener-Communities.aspx>

Sustainability Plan Objectives

Land Use, Livable Communities and Transportation Objectives

- Strengthen centers supported by transit
- Create complete communities
- Reduce transportation fossil fuel consumption and GHG emissions
- Improve the safety, integrity, and resilience of regional infrastructure for all users

To achieve these objectives:

- Implement Transit-Oriented Development (TOD)
- Promote Land Efficient Development (LED)
- Expand and upgrade mass transit
- Improve streets, sidewalks, and trails to connect communities and promote non-motorized transportation
- Use Transportation Demand and Systems Management to relieve roadway congestion and improve freight efficiency
- Mandate improvements in fleet vehicle fuel efficiency
- Rollout new commuter incentives

Energy Objectives

- Become radically less energy and fossil fuel intensive while strengthening the regional economy
- Expand renewable generation exponentially as an energy source across the region
- Improve the resilience of the energy delivery system throughout the region

To achieve these objectives:

- Expand energy efficiency programs
- Create community energy districts
- Expand renewable energy production and distributed generation
- Increase demand response participation
- Develop energy storage capacity
- Develop innovative project, financing, and policy models

Solid Waste/Materials Management Objectives

- Reduce the volume of solid waste generated
- Increase the proportion of material diverted from landfills and incinerators via reuse, recycling, composting, and other organic recycling methods
- Reduce transportation & disposal cost
- Decrease the impact of materials transportation for disposal/recovery
- Increase reuse, recycling, composting
- Enhance local market creation for improved materials recovery outcomes

To achieve these objectives:

- Expand organics recycling
- Increase material reuse
- Promote product stewardship and Environmentally Preferable Purchasing
- Pilot new technologies

- Implement transportation improvements
- Facilitate inter-county cooperation
- Change policy to improve local management capacity

Agriculture and Open Objectives

- Increase agriculture and silviculture activities in the region
- Improve access to sustainable agriculture and silviculture training and technologies
- Increase intra-regional consumption of food and fiber
- Reduce energy use and GHG emissions from farm and farm-related activities
- Strengthen the economic viability of agriculture and silviculture in the region
- Increase open space
- Protect wildlife and maintain biodiversity

To achieve these objectives:

- Protect prime farmland and facilitate access to land for farmers
- Protect priority conservation areas
- Increase energy efficiency and renewable energy in agriculture
- Strengthen food infrastructure networks
- Expand urban agriculture
- Promote sustainable agriculture education and training and facilitate transfer of knowledge

Water Objectives

- Increase agriculture and silviculture activities in the region
- Improve access to sustainable agriculture and silviculture training and technologies
- Increase intra-regional consumption of food and fiber
- Reduce energy use and GHG emissions from farm and farm-related activities
- Strengthen the economic viability of agriculture and silviculture in the region
- Increase open space
- Protect wildlife and maintain biodiversity

To achieve these objectives:

- Upgrade infrastructure to achieve water and energy efficiency and mitigate the impacts of climate change
- Implement low impact development and green infrastructure
- Continue to create and support watershed management plans and programs
- Strengthen water conservation and reuse using education, audits, and codes
- Benchmark energy use of water infrastructure

A list of members of the Mid Hudson Regional Sustainability Plan Consortium can be found in Appendix C.

NEW YORK ECONOMIC DEVELOPMENT PROGRAMS

BUILD NOW-NY

The **Build Now-NY** program identifies economic development sites certified as “shovel ready” site. Shovel ready means that the developer has worked proactively with the state to address all major permitting issues, **prior** to expressing interest in the location.¹⁷⁵

Shovel Ready Certification is administered by the Empire State Development (ESD). The program was initiated in 1998 and is designed to help local communities attract private sector investment and create jobs. The program offers a '**Self-Evaluation**' **checklist** to help investors identify site attributes for a proposed development and determine suitability of the site for this program. Shovel Ready Certification is promoted by ESD as a business-friendly, common-sense, job-creating tool that will continue to ensure the state retains its competitive edge in the global marketplace.

Below in Table 50 are the sites identified in the Hudson Valley Region on the Empire State Development web page as Build Now-NY sites.

Putnam Hospital Center and Northern Dutchess Hospital

Two proposed hospital expansion projects in the region have been endorsed by the Mid-Hudson Regional Economic Development Council (MHREDC) as regional priorities for the 2013 round of Governor Cuomo's regional council initiatives.

Putnam Hospital Center (PHC) is a 164-bed, not-for-profit, acute-care hospital based in Carmel (Putnam County). It offers the highest quality medical, surgical, psychiatric, pediatric and obstetrical/gynecological care, as well as 24-hour emergency services.

The expansion project at the Putnam Hospital Center will develop, construct and equip a new surgical suite to keep pace with emerging technologies and eliminate the need for local residents to seek medical care outside of the region.

Northern Dutchess Hospital is a 68-bed acute care, non-profit hospital providing a comprehensive range of emergency, medical and surgical services to more than 140,000 people across the Hudson Valley.

The expansion project at Northern Dutchess Hospital includes the construction of an 81,000-square-foot, state-of-the-art medical pavilion that will allow it to offer a broader range of complex surgical procedures to patients who often travel to Manhattan for such treatment.

¹⁷⁵ <http://www.esd.ny.gov/BusinessPrograms/Data/BuildNow/>

Table 50: BUILD NOW NY & SHOVEL READY CERTIFIED SITES MID-HUDSON REGION

Site	Town/City	County	Type	Shovel Ready Certified
New York International Plaza	Town of New Windsor	Orange County	Multi-Tenant Business Park	X
Hudson Valley Crossing Acres (Formerly Green Acres Development)	Town of Montgomery	Orange County	Warehouse/Distribution	
Kingston Business Park	City of Kingston	Ulster County	Research & Development	
Tetz Chester Corporate Center (Formerly Tetz Chester Site)	Town of Chester and Wawayanda	Orange County		
Panattoni Crossroads Distribution Center	Town of Montgomery	Orange County	Warehouse/Distribution/Logistics Center	
Liberty Agriculture and Light Industrial Park	Village of Liberty	Sullivan County	Multi-Tenant Business and Technology Park	
Liberty Business Park	Town of Liberty	Sullivan County	Multi-Tenant Business and Technology Park	
Montgomery Interstate Distribution Center	Town of Montgomery	Orange County	Warehouse/Distribution/Logistics Center	
Orange County Executive Center	Village of Goshen	Orange County	Multi-Tenant Business and Technology Park	
Westage Industrial Park	City of Beacon	Dutchess County	High Technology Manufacturing Site	
Panatonni Pine Lane Business Center (formerly Wawayanda Business Center)	Town of Wawayanda	Orange County	Warehouse/Distribution/Logistics Center	
Quickway Office Park	Town of Montgomery	Orange County		

NYS EMPIRE STATE DEVELOPMENT NY EXCELSIOR JOBS PROGRAM

The Excelsior Jobs Program provides investment and job creation incentives to firms in targeted industries such as biotechnology, pharmaceutical, high-tech, clean-technology, green technology, financial services, agriculture and manufacturing. Businesses in these industries that create and maintain new jobs or make significant financial investment are eligible to apply for up to four new tax credits. Businesses claim the credits over a 10 year period. To earn any of the tax credits, firms must first meet and maintain the established job and investment thresholds.

The following businesses located in or planning to locate in New York are potentially eligible for the program:

- Scientific research and development firms creating at least five net new jobs.
- Software development firms creating at least five net new jobs
- Agriculture firms creating at least five new jobs

- Manufacturing firms creating at least 10 net new jobs
- Financial services (customer service) back office operations creating at least 50 net new jobs
- Back office firms creating at least 50 net new jobs
- Distribution firms creating at least 75 net new jobs
- Other firms creating at least 300 net new jobs and investing at least \$6 million
- Firms in strategic industries that make significant capital investment that have at least 25 employees; manufacturing firms that retain at least 10 employees are also eligible to apply for participation in the program.

The [program](#) is limited to firms making a substantial commitment to growth – either in employment or through investing significant capital in a New York facility.

START-UP NY (SUNY Tax-free Areas to Revitalize and Transform Upstate NY)

In October 2013, Governor Cuomo announced his plan to implement the [“Startup NY”](#) initiative. Under this program the state hopes to attract new businesses and expand existing businesses by providing major incentives for companies to relocate, develop, or significantly expand in New York by offering state and local tax free zones on university and college campuses. The program will allow the business that locate in these zones and create jobs to operate without paying state or local taxes for a period of 10 years.

Incentives includes the following taxes:

- No income tax.
- No business or corporate state or local taxes.
- No sales tax.
- No property tax.
- No franchise fees

Every business must create new jobs and:

- Be a new start-up company; or
- Be a company from out-of-state that is relocating to New York State; or
- Expanding as an existing New York State company.¹⁷⁶

Businesses that are excluded from the program include retail and wholesale businesses; restaurants and hospitality; professional practices like law firms and medical practices; and energy production and distribution companies.

The academic institutions in Start-Up NY in the Hudson Valley¹⁷⁷ are:

- Ulster County Community College
- SUNY New Paltz

¹⁷⁶<http://research.binghamton.edu/Innovation/StartUpNY.php>

¹⁷⁷<http://startup-ny.com/eligibility/regional-profiles/>

- Dutchess Community College
- Orange County Community College
- Rockland Community College
- Westchester Community College
- SUNY Purchase
- Sullivan County Community College

Some private universities will also be allowed into the program. Some abandoned prisons in the upstate area could become home to start-up companies under the Cuomo administration's Start-Up New York initiative.

Industries in the Hudson Valley Region include:

Biotech companies, energy (high-technology, biotechnology and green technology), film television, financial services, advanced manufacturing, agribusiness, tourism and international opportunities.

The application process will start in January.

OTHER NEW YORK STATE PROGRAMS

New York State solicits grant applications for funding to advance the priorities of the REDC through the [New York State Consolidated Funding Application](#) (CFA) process. The following programs are currently available through the CFA¹⁷⁸:

- Empire State Development Grant Funds (\$152 M)
- Excelsior Jobs Tax Credits (\$70 M)
- Market New York (\$10 M)
- Business Incubator and Innovation Hot Spot (\$1.25 M)
- Economic Development Purposes Fund (\$1 M)
- Strategic Planning and Feasibility Studies (\$1 M)
- Environmental Investment Program (\$1 M)
- Industrial Development Bond Cap (\$350 M)

TOURISM in NEW YORK STATE

Tourism is one of the engines that drives the Hudson Valley economy. The green mountains and fresh air provide significant recreational opportunities such as hiking, biking, fishing, boating, camping, and watching the stars. The mountains and rivers draw second homeowners from the New York City metro area. Restoration of a former railroad bridge over the Hudson River took on new significance as a major tourist draw when the “Walkway over the Hudson” recently opened. Star watching was reinvented when the Bethel Woods Center for the Arts, a world class entertainment venue opened at the site of the original Woodstock Festival in Bethel, NY. Now locals and visitors can enjoy entertainment such as The New York Philharmonic, Tony Bennett, and Elton John under the stars in Sullivan County.

¹⁷⁸<http://www.esd.ny.gov/BusinessPrograms.html>

In May 2013, Governor Cuomo initiated a large tourism campaign, committing nearly \$60 million to grow the industry, create jobs and attract even more visitors to the Empire State.¹⁷⁹

This included a new I LOVE NY marketing campaign with Port Authority and MTA to promote Upstate New York tourism destinations and a new [Taste NY](#) marketing effort. [Taste NY](#) promotes New York made food and beverage products, including participating in the Hudson Valley Wine and Food Festival in Dutchess County.¹⁸⁰

The National Geographic Traveler named the Hudson Valley as one the world's [Best Trips 2013](#), stating "*Not even Rip Van Winkle could sleep through the cultural clarion of today's Hudson Valley... Much like Rip, Hudson Valley wanderers often wake up to find this is where they long to rest their vagabond souls.*"¹⁸¹

The REDC's 2013 progress report stated that the average annual employment in the tourism, arts, and culture industry declined very slightly in 2012 (from 30,030 in 2011 to 29,933 in 2012) but remained well above 2010's average (29,151).¹⁸²

However, an increase of 3.1 percent in tourism visits from 2011 to 2012 (part of a 9.6 percent increase from 2010 to 2012), and an accompanying \$3.8 billion in related spending was also reported by the MHREDC.¹⁸³

The Hudson Valley is a getaway destination offering spectacular mountain views, historic estates, wine trails, shopping, outdoor adventures and much more. Millions of visitors have enjoyed our bountiful choices - just a stone's throw away from Manhattan.

[Hudson Valley Tourism](#)

Hudson Valley Tourism has received State funding to advance the comprehensive branding and public relations strategy of the Follow the River/Discover the Hudson Valley campaign.

Thousands of visitors come to the Hudson Valley each year to attend a vast array of special events. The 2012 Hudson River Valley Ramble—a joint project of the Hudson River Valley Greenway and National Heritage Area—attracted 132,000 participants. The Hudson Valley Garlic Festival held in Saugerties NY attracts more than 50,000 garlic lovers annually to this two-day event.

One of the biggest tourism attractions in recent years is the [Walkway Over the Hudson](#). The former abandoned 1889 railroad bridge, now a pedestrian park, attracts hundreds of thousands of visitors each year. A 2012 study found that the Walkway Over the Hudson draws almost half its visitors from beyond the immediate area. The study, funded by the Dyson Foundation, also

¹⁷⁹Governor Cuomo Launches New York's Largest Tourism Campaign in Decades. May 8, 2013 Press Release

¹⁸⁰2013 Progress Report, Mid-Hudson Regional Economic Development Council page 46, <http://regionalcouncils.ny.gov/content/mid-hudson>

¹⁸¹National Geographic Traveler, <http://travel.nationalgeographic.com/travel/>

¹⁸²2013 Progress Report, Mid-Hudson Regional Economic Development Council page 46, <http://regionalcouncils.ny.gov/content/mid-hudson>

¹⁸³ Ibid, p. 11

found that the pedestrian walkways have resulted in 383 new jobs and \$9.4 million in new wages.¹⁸⁴

This past Fourth of July, 4,000 visitors came to the Walkway Over the Hudson to watch fireworks.

The latest addition to the bridge is blinking sign flashing information collected from the Hudson River to help visitors learn more about the river flowing beneath their feet.

NYS Department of Environmental Conservation Programs

HUDSON RIVER ESTUARY PROGRAM

The Hudson River Estuary Program protects and improves the natural and scenic Hudson River watershed. The program was created in 1987. Its work focuses on the tidal Hudson and its adjacent watershed from the federal dam at Troy to upper New York Harbor. Its core mission is to:

- Ensure clean water
- Protect and restore fish, wildlife and their habitats
- Provide water recreation and river access
- Adapt to climate change
- Conserve the world-famous scenery¹⁸⁵

The majority of HVRC seven-county region falls within the Hudson River Estuary. The Estuary Program is an important partner in HVRC's work on water quality improvement and green infrastructure education.



The Estuary Program develops a forward-looking plan called The [Hudson River Estuary Action Agenda 2010-2014](#). The Action Agenda provides an ecosystem-based management approach to addressing the critical issues facing the Hudson River estuary and valley. It is the primary planning tool of the Hudson River Estuary Program and identifies the actions needed to carry out the program's core mission. The Action Agenda is split into 12 key goals:

- Goal 1: Signature Fisheries
- Goal 2: River and Shoreline Habitats
- Goal 3: Valley Habitats and Ecosystems
- Goal 4: Streams and Tributaries of the Hudson River Estuary Watershed
- Goal 5: River Scenery, Forests, Farms and Open Space
- Goal 6: Climate Change
- Goal 7: Public Access
- Goal 8: Education
- Goal 9: Waterfront Revitalization

¹⁸⁴Hudson Walkway draws visitors from afar, Associated Press, Wall Street Journal, February 19, 2012

¹⁸⁵<http://www.dec.ny.gov/lands/4920.html>

- Goal 10: Water Quality
- Goal 11: Contaminant Reduction
- Goal 12: Celebrate Progress and Partnerships

HVRC supports the Estuary Program Action Agenda as an important component of achieving its vision of a sustainable future for the Hudson Valley region.

CLIMATE SMART COMMUNITIES PROGRAM - OFFICE OF CLIMATE CHANGE

The Climate Smart Communities program is a free and completely voluntary outreach and support program provided by the participating state agencies for the benefit of New York State municipalities. The [Climate Smart Communities program](#), run by the State Office of Climate Change, is a state-local partnership aimed at reducing greenhouse gas emissions, saving taxpayer dollars and advancing community goals.

Any town, city, village or county can join Climate Smart Communities without cost by passing a resolution adopting the CSC pledge and submitting a certified copy to DEC. [Adopt the Climate Smart Communities Pledge](#) includes a model pledge and details on how to join. The 10 elements of the pledge are as follows:

- Pledge to Combat Climate Change by Becoming a Climate Smart Community
- Set Goals, Inventory Emissions, Move to Action
- Decrease Energy Demand for Local Government Operations
- Encourage Renewable Energy for Local Government Operations
- Realize Benefits of Recycling and Other Climate Smart Solid Waste Management Practices
- Promote Climate Protection Through Community Land Use Tools
- Plan for Adaptation to Unavoidable Climate Change
- Support a Green Innovation Economy
- Inform and Inspire the Public Commit to an Evolving Process

Formal adoption of the Climate Smart Communities pledge, as embodied in the model resolution at <http://www.dec.ny.gov/energy/65494.html>, signals a community's commitment to reduce its contribution to climate change. While the pledge includes no legally enforceable provisions, the state does require that communities adopt the entire pledge before being designated as Climate Smart Communities.

Those agencies that award preference points to Climate Smart Communities on competitive grant applications must be assured that communities so designated have expressed the same level of commitment. This assurance will become more important as the agencies move to expand the grants for which Climate Smart Communities are awarded preference and to grant additional preference for Certified Climate Smart Communities after the release of the Climate Smart Communities certification program in 2014. Adoption of the complete pledge will be required of all communities seeking certification.

Climate Smart Communities in the Hudson Valley region also have access to technical support

services in the areas of climate action, and energy efficiency and conservation through the [Climate Smart Communities Regional Coordinator](#), Vanasse Hangen Brustlin, Inc.

One of the many benefits to becoming a Climate Smart Community is it helps position a community for economic growth as energy savings and growing "green" businesses support local jobs and economic recovery in New York's communities.

Environmental Justice Tracts

Environmental justice, as defined by the NYSDEC, is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.”¹⁸⁶

The Environmental Justice Tracts, Hudson Valley (Figure 23) is based on 2000 Census data that has identified an environmental justice tract in each county of the region except for Putnam. The potential environmental justice areas delineated on this map include the areas around several of the region’s correctional facilities. These areas typically have a higher-than-usual proportion of minorities and a lower-than-usual median household income because the Census Bureau counts inmates as part of the local population.

As indicated in the Mid Hudson Regional Sustainability Plan, it is anticipated that an updated environmental justice map based on 2010 Census data will depict different results.

Better identification of environmental justice area, along with economically distress areas and priority growth areas in the region can help HRVC identify priorities in the region.

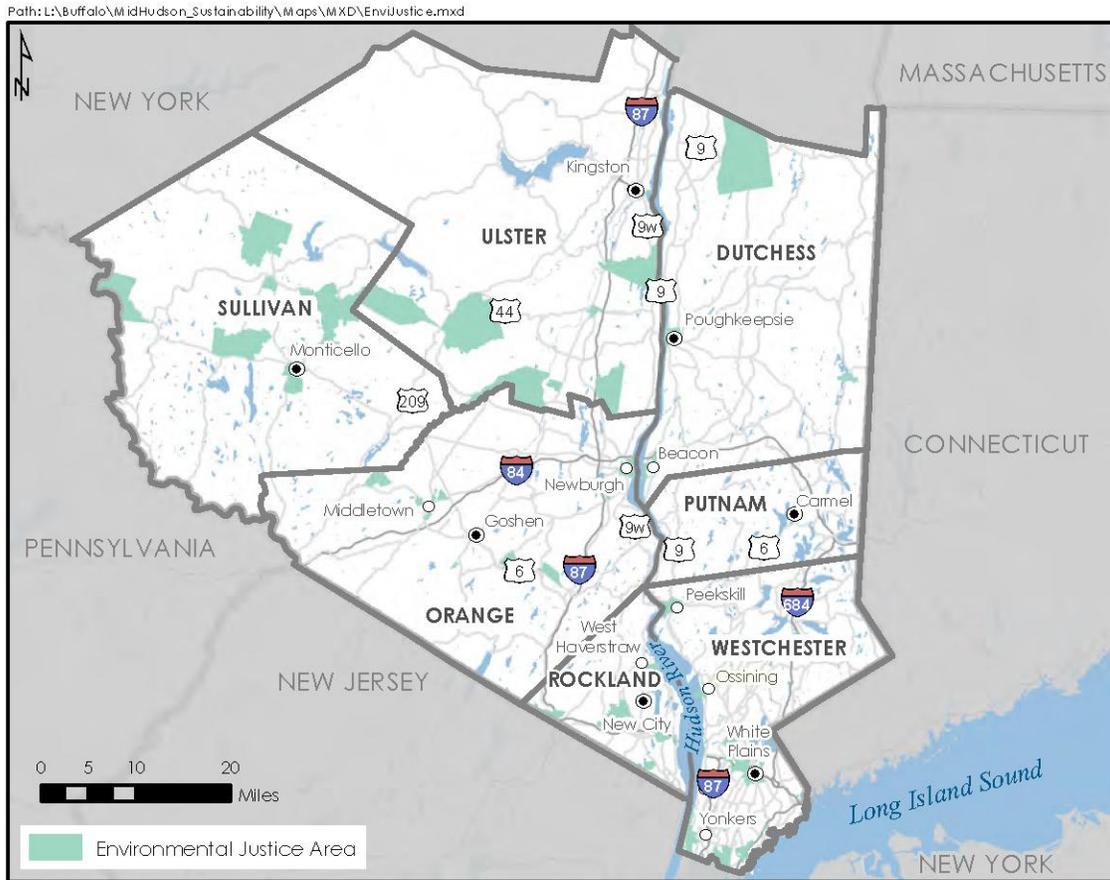


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¹⁸⁶ NYSDEC, 2012. Environmental justice. <http://www.dec.ny.gov/public/333.html>

¹⁸⁷ <http://www.publicnewsservice.org>

Figure 23: ENVIRONMENTAL JUSTICE TRACTS, HUDSON VALLEY



Brownfields, State Superfund and Wetlands Hudson Valley Region County Maps can be found at:

http://regionalcouncils.ny.gov/themes/nyopenrc/rc-files/midhudson/1A_MidHudsonMaps.pdf

CORNELL COOPERATIVE EXTENSION

Cornell Cooperative Extension (CCE) brings local experience and research-based solutions together to create programs in five priority areas:

- Agriculture and Food Systems
- Environment and Natural Resources, Sustainable Energy, and Climate Change
- 4-H Youth Development/Children, Youth, and Families
- Nutrition, Food Safety and Security, and Obesity Prevention
- Community and Economic Vitality

Each of the seven counties in the Hudson Valley region has a Cooperative Extension service with varying degrees of program activity. Many of these programs, particularly regarding water quality and green infrastructure, share common goals and objectives with the Hudson Valley Regional Council.

Links to County CCEs

[Dutchess County](#)

[Orange County](#)

[Putnam County](#)

[Rockland County](#)

[Sullivan County](#)

[Ulster County](#)

[Westchester County](#)

NYS SOIL AND WATER CONSERVATION DISTRICTS/COUNTY WATER QUALITY COORDINATING COMMITTEES (CWQCCS)

[Soil and Water Conservation Districts \(SWCD\)](#)¹⁸⁸ represent a wide range of agricultural, environmental and other interests. The broad range of interests allows it to carry out its work through a network of partnerships between state, federal and local agencies, as well as citizen interests and the private sector. The HRVC is one of those partners.

Each of the region's seven counties has a soil and water conservation district with professional staff that work with public and private landowners to protect and enhance water quality, reduce erosion, prevent pollution and preserve natural resources.

The [Lower Hudson Coalition of Conservation Districts](#) comprises 11 soil and water conservation districts working together to conserve water quality and natural resources in the Hudson River Estuary watershed. Six of those districts are in the Hudson Valley region: Ulster, Dutchess, Orange, Putnam, Rockland and Westchester. The other districts are Albany, Rensselaer, Greene, Columbia and New York City.

The primary program area that HVRC and SWCD share is that of water quality in the region, particularly addressing nonpoint sources (NPS) of water pollution. While land use decisions are made locally, water quality issues must be addressed regionally. It takes both the private and public sectors, at all levels, to tackle this issue. To do that, [County Water Quality Coordinating Committees \(CWQCCs\)](#) were formed across New York State. These committees were to develop and implement County Water Quality Strategies to address non-point source issues.

County Soil & Water Conservation Districts are the focal point for establishing the CWQCCs and are key to implementing the strategies that identify and set local priorities. Currently, the CWQCC's in the region are, for the most part, not active with the exception of Rockland County and to a certain extent Orange County. The East of Hudson Watershed Corporation, established by municipalities in Dutchess, Putnam and Westchester Counties addresses many of the same issue as a CWQCC.

¹⁸⁸<http://www.nys-soilandwater.org/>

HVRC will continue to work with County Soil & Water Conservation Districts to develop and implement County Water Quality Strategies to address non-point source issues.

EAST OF HUDSON WATERSHED CORPORATION

The East of Hudson Watershed Corporation (EOHWC) is a not-for-profit local development corporation. The EOHWC is formed by the municipalities located in the New York City Watershed in Westchester, Putnam, and Dutchess Counties. It is a regional stormwater entity that installs stormwater retrofit projects to meet the requirements for phosphorus reduction defined by the New York State Department of Environmental Conservation (NYS DEC). The corporation is working in conjunction with the NYS DEC and New York City Department of Environmental Protection (NYC DEP) to reduce the levels of phosphorus in the surface water of the New York City Watershed east of the Hudson River.

CATSKILL WATERSHED CORPORATION

The Catskill Watershed Corporation (CWC) is a local development corporation established to protect the water quality in the New York City Watershed [West of the Hudson River](#) (WOH); which includes portions of Sullivan (Liberty, Neversink, Fallsburg) and Ulster County (Denning, Hardenburgh, Hurley, Kingston, Marletown, Neversink , Olive, Rochester, Shandaken, Wawarsing, Woodstock). CWC works to preserve and strengthen communities located in the region; and to increase awareness and understanding of the importance of the New York City water system.

Ninety percent of the 1.3 billion gallons of water consumed daily by 9 million residents of New York City and suburban communities comes from six reservoirs in the five-county Catskill Mountain/Delaware River Region of New York State. The [West-of-Hudson Watershed](#) is home to 72,000 full- and part-time residents who live in small towns among forested mountains and river valleys.¹⁸⁹

The CWC has economic development programs intended to support environmentally responsible businesses and to create and retain jobs in the Catskills. They are intended to help offset impacts of New York City Watershed regulations and the city's acquisition of thousands of acres of land which will remain permanently off limits to development.

The cornerstone of the CWC's efforts in the West-of-Hudson watershed is the Catskill Fund for the Future (CFF), a revolving fund initially capitalized by a \$59.7 million appropriation by New York City, and today invested and wholly managed by the CWC. An [economic development study](#), prepared in 1998 for the CWC by consultants Hamilton, Rabinovitz and Alschuler (HR&A), served as a guidance document for establishment of [loan](#), [grant](#) and [tourism](#) promotion programs funded through the CFF.¹⁹⁰

¹⁸⁹ http://www.cwconline.org/cwc_website_new_002.htm

¹⁹⁰ <http://www.cwconline.org/index.html>

COUNTY PLANNING PROGRAMS

Each of the regions seven counties have active planning programs varying in resources to address planning issues in their respective counties. These are important partners for HVRC in addressing economic development, water quality and solid waste management.

Links to County Planning Programs

- [Dutchess County Planning and Development](#)
- [Orange County Department of Planning](#)
- [Putnam County Planning Development and Public Transportation](#)
- [Rockland County Planning](#)
- [Sullivan County Division of Planning and Environmental Management](#)
- [Ulster County Planning Department](#)
- [Westchester County Planning](#)

COUNTY ECONOMIC DEVELOPMENT PROGRAMS

Dutchess County Economic Development Corporation

DCEDC¹⁹¹ is the central point of contact for business development needs and activities in Dutchess County. It's a business-led, nationally recognized economic development corporation, whose mission is to attract, retain, and expand for-profit and not-for-profit businesses for the benefit of Dutchess County. DCEDC's organizational structure includes programs in:

- Business retention and expansion
- Dutchess County data and business resources
- Empire Zone administration
- Industrial Development Agency (DCIDA) liaison
- Local Development Corporation (DCLDC) liaison
- Financial counseling and deal structuring
- External marketing
- Commercial real estate listings
- Dutchess County Tourism
- Technology
- Municipal advocacy

Office of Economic Development for Orange County New York

Orange County Partnership

The Orange County Partnership is a private, not-for profit economic development agency that serves as the one stop resources for business development in Orange County, NY. Its team of economic development professionals works with commercial real estate brokers, developers,

¹⁹¹<http://www.thinkdutchess.com/>

site selection forms and regional and statewide economic development agencies to find the most advantageous and cost-effective locations for corporate attractions and expansions.¹⁹²

Orange County Business Accelerator

The Orange County Business Accelerator is a partnership between Orange County Government and the Orange County Industrial Development Agency. This partnership is aimed at fostering prosperous new businesses in Orange County. The OCBA's purpose is to help businesses extend their reach far beyond the borders of Orange County and simultaneously grow Orange into the most business-friendly environment in the Hudson Valley.¹⁹³

Putnam County Economic Development Corporation

The Putnam County Economic Development Corporation works to drive the economic vitality of Putnam County by fostering an environment conducive to the creation and retention of business, delivering an enhanced quality of life for its residents.¹⁹⁴

Rockland Economic Development Corporation (REDC)

Rockland Economic Development Corporation (REDC) focuses on building Rockland's economy by creating and attracting new businesses and retaining and expanding existing businesses to stimulate job growth as a way of improving the quality of life in Rockland County. Its role is to coordinate the operations of economic development programs and services for business and industry in Rockland County.

REDC provides access to economic development financing incentives, marketing, technical assistance, government contracting programs, information and referrals. Additionally, it houses and administers the Procurement Technical Assistance Center (PTAC), a Small Business Center (SBC), the Rockland County Industrial Development Agency (IDA) and the Rockland County Economic Assistance Corporation (RCEAC), which operate independently, and provides counseling space for the [Rockland County chapter of SCORE](#).¹⁹⁵

Sullivan County Partnership for Economic Development

The Sullivan County Partnership for Economic Development is a private/public partnership established in 1994 to better serve the needs of relocating and/or expanding businesses in Sullivan County. The partnership is funded primarily by private business with matched funding from the County Legislature and the Industrial Development Agency.

The partnership, by design, takes the position of our clients when assisting those prospects looking to invest or expand in Sullivan County. Private investors make up nearly 100 percent of the governing body of the organization and work through a board of directors, executive committee and a dedicated professional staff. It is through the policies and guidance of this board structure that the partnership carries out its stated mission.¹⁹⁶

¹⁹² <http://ocpartnership.org/index.asp>

¹⁹³ <http://www.ocaccelerator.com/>

¹⁹⁴ <http://www.putnamedc.org/>

¹⁹⁵ <http://www.redc.org/new/site/about>

¹⁹⁶ <http://scpartnership.com/about/>

Ulster County Economic Development

Ulster County adopted a county-wide economic development plan, *Ulster Tomorrow*, as part of the county's comprehensive plan, recognizing the significant connection between planning and economic development.

Ulster Tomorrow is the collaborative effort of Ulster County, *Ulster County Development Corporation*, and the *Ulster County IDA*. This strategic planning effort is designed to help the county's delivery of economic development services, coordinate the various activities of the system, and provide focus to the economic development efforts across our large and geographically diverse county.

To meet this challenge, the sponsors of this plan have collaborated to:

- Advance new economic opportunities for existing and new businesses
- Improve living standards and quality of life while protecting our natural resources
- Grow good jobs and good investment throughout the county
- Build stronger communities and widen citizen participation in public life¹⁹⁷

Westchester County Office of Economic Development

The *Office of Economic Development* continually works to help businesses find the resources and hands-on expertise necessary to promote economic investment and to help businesses prosper in Westchester. The office and *Team Westchester* — a partnership of public and private professionals — offers business resources, financial assistance, as well as a wide range of related services and incentives to help businesses prosper in Westchester County.¹⁹⁸

COUNTY SOLID WASTE PROGRAMS

Dutchess County

Dutchess Division of Solid Waste Management

The Division of Solid Waste Management of the Dutchess County Department of Planning and Development is responsible for the formulation and implementation of programs for the collection and disposal of solid waste generated within the county. The division is also charged with regularly reporting to the county executive with any appropriate recommendations regarding integration of both public and private facilities for accepting, hauling, processing and disposing of solid waste.

¹⁹⁷<http://www.co.ulster.ny.us/planning/ulstertomorrow.html>

¹⁹⁸<http://business.westchestergov.com/economic-development>

Dutchess County Resource Recovery Agency

DCRRA is a public benefit corporation created by the New York State Legislature for the purpose of providing solid waste management services for Dutchess County.¹⁹⁹

Orange County

Orange County Environmental Facilities and Services

Putnam County

The county's solid waste management programs lies within the Department of Health where they promote the four R's: reduce, reuse, recycle... and now recover. While the health department takes care of many solid waste management services for the county, there are also many things that can be done to help keep Putnam green.²⁰⁰

Rockland County

Rockland County Solid Waste Management Authority

The Rockland County Solid Waste Management Authority was created by the Rockland County Legislature in September of 1994. Prior to its inception, the Solid Waste Management Committee existed as a sub-committee of the County Legislature. The committee was charged by the New York State Department of Environmental Conservation to develop a Solid Waste Management Plan that would help to resolve the county's past, present and future solid waste issues.

The Authority initially consisted of 15 members: 13 elected officials consisting of the five town supervisors (ex officio), eight legislative representatives (5 majority & 3 minority members), and two representatives of the County Executive. In April 1999, the Authority board was expanded to 17 members to allow for mayoral representation. The members are not compensated for their time in any way.

With the pending closure of all three of Rockland's municipal landfills, the Authority began working to implement the plan, which was approved by the DEC in 1994. The Authority concentrated on reducing the amount of material that would be landfilled. The plan included the construction and/or development of a household hazardous waste facility (HHW), a materials recovery facility (MRF), a sludge co-composting facility (COCO), a C & D bulky waste facility, and a yard waste composting facility. All of the facilities are now in operation.

The Authority purchased the scalehouse and transfer station in August 1998 from the Town of Ramapo. The renovation of the transfer station included a recyclables pre-processing facility that was completed in 2001. C & D is incorporated in pre-processing facilities. All facilities are now functioning.²⁰¹

¹⁹⁹<http://www.dccra.org/index.html>

²⁰⁰<http://www.putnamcountyny.com/health/swm/>

²⁰¹http://www.rocklandrecycles.com/about_us/history.html

Sullivan County

Division of Solid Waste & Recycling

The Division of Solid Waste manages Sullivan County's solid waste disposal program, including the county landfill and materials recovery facility in Monticello, along with five recycling / transfer stations throughout the county. Sullivan County does not handle waste hauling, nor does the county recommend waste haulers.²⁰²

Ulster County

Ulster County Resource Recovery Agency

Ulster County Resource Recovery Agency (UCRRA), is a public benefit corporation which was formed for the purpose of developing, financing, and implementing a comprehensive countywide solid waste management program. The agency was created by the New York State Legislature pursuant to Chapter 936 of the Public Authorities Law approved December of 1986. The agency's organizational structure consists of a five-member board of directors; an executive director; agency counsel; a seven-member management team; 40 administrative and operations personnel; and engineering consultants on an as needed basis.

The agency's mission is to provide an efficient, economical and environmentally sound solid waste management system in and for the County of Ulster. The agency strives to carry out the principles of New York's solid waste hierarchy in its work, emphasizing reuse of materials, reduction of MSW, and the carrying out of an effective and user friendly recycling program, with landfill disposal of MSW that cannot be reused, reduced or recycled. The agency also holds household hazardous waste and electronics recycling events for the residents of the county. Municipal drop off centers for disposal of solid waste and recycling developed by the agency offer county residents a convenient alternative to private collection contracts. The agency routinely negotiates contracts with area solid waste collection firms for disposal of MSW at its two conveniently placed transfer stations, and long hauls through private contractors the processed waste to permitted landfills in New York State.²⁰³

Westchester County

Westchester County Environment and Recycling

County government has many programs, including those that focus on [recycling](#), [climate change and sustainability](#) and land preservation. The County operates four [solid waste and recycling facilities](#) and established the [Solid Waste Commission](#) to foster honesty and competition in the garbage collection industry.

The [Solid Waste Commission](#) was created to serve as a watchdog to improve consumers' rights, lower costs, and foster fairness, honesty and competition in the garbage and [recycling](#) industry.

²⁰²<http://www.co.sullivan.ny.us/Departments/SolidWasteRecycling/tabid/3198/Default.aspx>

²⁰³<http://www.ucrra.org/aboutus/aboutus.htm>

Workforce Investment Boards

The Hudson Valley region is home to seven regional workforce development systems. These systems are a product of the Workforce Investment Act (WIA) enacted in 1998 and effective in 2000²⁰⁴. The region's workforce investment boards (WIBS) are working to link job seekers with local industry employers and to provide worker training programs in order to meet the needs of potential employers. The one-stop employment centers that WIBS offer makes the employment process simpler for both job seekers and employers.

The WIBS that make up the regional workforce development system in the region consist of:

- Dutchess County Workforce Investment Board serving Dutchess County
- Orange County Employment and Training Administration serving Orange County
- Rockland County Workforce Investment Board serving Rockland County
- Workforce Development Board of Sullivan County serving Sullivan County
- Ulster County Workforce Development Board serving Ulster County
- Westchester Putnam Workforce Investment Board serving Westchester and Putnam counties
- Yonkers Workforce Investment Board serving the City of Yonkers within Westchester County

²⁰⁴ Department of Labor Employment and Training Administration. Workforce Investment Act of 1998. 2009.

Partners for HVRC Initiatives and Economic Development

The following is a list of the partners (business, government, non-profit, academic) to work with on economic development and planning issues in the Hudson Valley region:

Bard College
Catskill Center for Conservation and Development
Catskill Mountainkeeper
Central Hudson Gas & Electric Corporation
Center for Research Regional Education and Outreach (CRREO) at SUNY New Paltz
Common Waters (in the Upper Delaware Valley)
Cornell Cooperative Extension
County Soil and Water Conservation Districts
Dutchess County Government/Planning
Dutchess County Economic Development Corporation
Dutchess County IDA/LDC
Dutchess County Workforce Investment Board
Dutchess Community College
Dutchess Orange Ulster MPO
Empire State Development (NYS)
Food Bank of the Hudson Valley
Hudson Valley Agribusiness Development Corporation
Hudson River Estuary Program
Hudson River Greenway*
Hudson River Sloop Clearwater
Hudson Riverkeeper. Inc
Hudson Valley Economic Development Corp.
Hudson Valley Pattern for Progress
Land Use Law Center at Pace University
League of Women Voters
Lower Hudson Coalition of Conservation Districts
Marist College
Mercy College
Mid-Hudson Regional Economic Development Council
Mid-Hudson Small Business Development Center
Mid-Hudson Library Association
New York Metropolitan Transportation Council
New York Planning Federation
NYS Association of Regional Councils
NYS Association for Reduction, Reuse, Recycling
NYS Department of Environmental Conservation
NYS Department of Labor
NYS Economic Development Corporation
NYSERDA

Northeast Recycling Council (NERC)
Orange County Government/Planning
Orange County Partnership
Orange County Office of Economic Development
Orange County Business Accelerator
Orange County IDA
Orange County Chamber of Commerce
Orange-Rockland Utilities
Pace University
Putnam County Government/Planning
Putnam County IDA
Regional Councils in NYS
Regional Plan Association
Regional Food Bank of Northeastern New York
Rockland County Government Planning
Rockland County Economic Development Corp
Rondout Growers Association
Small Business Development Center
Scenic Hudson
Sullivan County Government/Planning
Sullivan County IDA
Sullivan County Community College
Sullivan County Visitors Association
Sullivan County BOCES
Sullivan County Partnership for Economic Development
Sullivan Center for Workforce Development
Sullivan Renaissance
SUNY Ulster
SUNY New Paltz
The Westchester County Association
The Solar Energy Consortium
Ulster County Government/Planning
Ulster County Development Corporation
USDA
Upper Delaware Council
Vassar College
Westchester Community College
Westchester County Government/Planning
Westchester Economic Development Corp
Westchester County IDA
Westchester Municipal Planning Federation
Westchester/Putnam Workforce Investment Board
Local, County and Regional Chambers of Commerce

*Of 179 eligible municipalities in the six eligible counties (Sullivan County is excluded), 166 have signed on as Greenway members in one of the region's more successful efforts in regionalism.

V. ACTION PLAN 2013-2014 and EVALUATION

New York State has prioritized job creation in all programming and funding opportunities. HVRC is working to develop priority projects that create jobs and can access various sources of federal and state funding. The Hudson Valley region has a very strong education cluster and yet there are many untrained workers. Job training in the region is critical. HVRC will continue to assist in the development of applications that will offer expanded opportunities for job training and entrepreneurship.

HVRC will collaborate with the New York State Mid-Hudson Regional Economic Development Council, the Empire State Development Corporation and other partners throughout the region to prioritize and advance economic development priorities that will address the needs of the Hudson Valley in accordance with the stated goals of the EDA.

Economic development through the application of “clusters” allows the HVRC to broaden its regional agenda to include the wider range of economic development activities in terms of execution of plans and initiatives. The organization’s strategy

is to build programmatically and to occupy a greater leadership role. This is reflected in the continually evolving committee structure and the collaborative approach to preparing the Comprehensive Economic Development Strategy (CEDS) for the Hudson Valley region of New York

HVRC is now a member of the Mid-Hudson Region Sustainability Consortium and will continue to be an active player in advancing the goals and objectives of the Mid-Hudson Regional Sustainability Plan. HVRC anticipates acting in the governance role of the sustainability plan. This new role will allow HVRC to provide additional guidance and support on sustainability and resiliency to communities and businesses.

HVRC’s expanding alliance and partnerships will allow for incorporation of state and regional goals and objectives into the CEDS planning, policy and implementation process. This will create a stronger and more inclusive process, thereby helping projects that meet federal, state and regional goals.



HRVC has identified these issues as important regional issues to focus on.

- A. Economic Development
- B. Water Resources/Water Quality/Green Infrastructure
- C. Solid Waste/Food Recovery and Composting
- D. Sustainability Planning and Governance
- E. Transportation²⁰⁵

Other HVRC efforts include:

- a) Outreach and collaboration with:
 - i. County Planners
 - ii. Economic Development agencies and professionals
 - iii. Chambers of Commerce
- b) Outreach and assistance to entities providing employment and job training opportunities.
- c) Sponsorship of educational conferences, seminars, and forums that address important relevant regional issues.
- d) Network with organizations and partners on important regional initiatives and programs, including economic development, water resources and water quality, solid waste and material management, social justice and quality of life issues.

The goals and objectives of the CEDS are:

Goal I: To support projects in the region that promote sustainable economic development and create and retain jobs.

Objectives/Measurements:

- 1) Expand the CEDS planning process to incorporate the New York State Regional Economic Development Strategy, Mid-Hudson Regional Sustainability Plan, and other new plans in the region.
- 2) Encourage stakeholder attendance at board, committee and planning meetings.



²⁰⁵ Transportation is an important regional issue and is a very important aspect to economic development in the region. However, given the depth of resources and strong agency interaction on all aspects of transportation – including county, state and regional groups - HVRC will lend support and coordination, but does not plan to make transportation a focused initiative. This will avoid duplication of strong efforts that are ongoing.

- 3) Assist applicants with their projects in order to improve the quality of projects brought forward.
- 4) Develop inroads to other funding sources to assist applicants in reaching their stated goals.

Goal II: Support regional alliances and initiatives that promote sustainable economic development, job creation and job retention. Enhance the climate for economic development activities and initiatives through outreach and partnerships. This will be measured in the following ways:

- 1) Increase and expand HVRC’s involvement and participation with alliance partners.
- 2) Develop relationships with other organizations that are involved with the expansion and strengthening of the region’s clusters, including agriculture, education, and energy technology.
- 3) Explore funding opportunities to study areas of regional sustainable economic relevance, such as regional organics diversion, food recovery, composting and/or shared services.

Goal III: Promote inter-county cooperation and efficiencies in the key environmental areas of solid waste/materials management, green infrastructure and water quality.

Objectives/Measurements:

- 1) Expand the number of regional programs created and implemented, improve qualitative and quantitative results from program participation.
- 2) Strengthen collaboration with soil & water conservation districts, Cornell Cooperative Extension and the Hudson River Estuary Program to offer educational programming that will provide continuing education to professionals as well as educate the public on these key water and wastewater issues.
- 3) Explore funding opportunities to study regional organics diversion, food recovery and composting
- 4) Encourage regional dialogues for shared services as well as cross-jurisdictional programming.

Goal IV: To encourage regional dialogues on post-storm resiliencies

Objectives/Measurements:

- 1) Identify needs of small businesses immediately post-storm, flood, disaster through outreach with emergency management personnel.
- 2) Develop resiliency data for businesses to expedite opening and/or re-building.
- 3) Explore with stakeholders a revolving loan fund for post-disaster recovery



4) Conduct seminars in cooperation with emergency responders and soil & water conservation districts on resiliencies for businesses.

Goal V: Encourage economic development that utilizes energy efficiencies, reduces greenhouse gas emissions, and investigates alternative energy sources.

1) Sponsor and participate in conferences, seminars and opportunities for entities and municipalities to interact with and learn from energy professionals

2) Collaborate with NYSERDA EDGE program to bring energy efficiency financial benefits to businesses, layering NYSERDA EDGE money into funding applications.

3) Develop an energy team for outreach to all municipalities and business entities in region.

4) Assist in workforce training for all aspects of cleaner/greener programming.

The HVRC intends to continue administering the district and pursuing the initiatives outlined in the CEDS. This CEDS update will contribute to maintaining the appropriate regional priorities and will



continue to play a valuable role as a unifying tool in the region. Furthermore, HVRC leadership believes that the region's organizational structure, partnerships and commitment will result in the consistent focus and application of resources to execute the plan and make the necessary mid-course corrections and appropriate adjustments over time.

This past year has been a rebuilding year for HVRC, with a great deal of outreach and

program development. HVRC's current contract with Hudson Valley Pattern for Progress is to provide HVRC with fiscal oversight, bookkeeping, and occasional grant writing assistance. This management agreement was amended at the end of 2012 and fee reduced by half to allow the hiring of a professional program manager to assist in continued program development. In addition, a paid intern joined HVRC in July to assist with the continuing implementation of branding, name recognition, publicity and site upgrades to help re-establish the identity and role of the HVRC. The executive director has extensive experience in small government, stormwater and floodplain management, water quality, planning and zoning, business and grant writing and administration. The new staff person has similar experience and strengths working with state and local governments, as well as not-for-profits, non-governmental organizations on sustainability planning, greenhouse gas accounting, energy and environmental outreach and education, and can assume managerial duties for HVRC.

The intent of this strategy is to allow the process to build on what is already in place and continues to solicit direct input from the region's committees, work groups and other partner organizations, both formally and informally.

The timeline for improving the CEDS outreach and strategic planning processes is three years, (July 2013 through the end of June 2016). Additional HVRC staff will enhance HVRC efforts to ensure better compliance with EDA and CEDS goals.

The Hudson Valley Economic Development Corporation (HVEDC), of which HVRC is a 'partner', representing the partnership with the region's professional economic development practitioners (described below), continues to be successful. It is an example of economic development through the application of "clusters" and allows the HVRC to broaden its regional agenda to include the wider range of economic development activities in terms of execution of plans and initiatives. The organization's strategy is to build programmatically and to occupy a greater leadership role. This is reflected in the continually evolving committee structure and the collaborative approach to preparing the Comprehensive Economic Development Strategy (CEDS) for the Hudson Valley region of New York.

VI. APPENDICES

Appendix A: Organizational Overview

i. Hudson Valley Regional Council

The Hudson Valley Regional Council (HVRC) is an intergovernmental forum with seven member counties (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester). The Council's mission is to foster cooperation in resolving problems of mutual concern and to pursue opportunities of mutual benefit across the region. HVRC, established in 1977 is one of 650 such councils in the United States that in addition to providing a regional perspective, offer planning, education & outreach, and advocacy for the communities they serve.

The HVRC is funded through an EDA planning grant, matching funds from the seven counties, and through partnerships with various agencies, such as the state Department of Environmental Conservation and Hudson River Watershed Alliance, they administer programs of regional significance. The HVRC was established under Article 5-G of the General Municipal Law of the State of New York on December 15, 1977. The Articles of Agreement were revised in March, 1982 and July, 1992.

HVRC prepares the Comprehensive Economic Development Strategy (CEDS) for the region. The annual CEDS provides a snapshot of the region's economy and identifies key economic development initiatives. HVRC is partially funded by the US Department of Commerce, Economic Development Administration and through that alliance and the CEDS, HVRC can assist local projects with federal funding opportunities.

The Hudson Valley Regional Council partners with the NYS Department of Environmental Conservation to provide education and outreach to local municipalities with respect to Water Quality and storm water management. Recent initiatives have included extensive work on Green Infrastructure projects throughout the Hudson River region. Examples of these projects are available on this site.

In the past year, HVRC has been an active participant in the development of the Mid-Hudson Regional Sustainability Plan. With the Plan completed and adopted, HVRC has agreed to assist in the continuance of regional sustainability efforts through the formation of a Sustainability Committee. The committee includes those that were part of the Sustainability Consortium that developed the Plan. HVRC also has a very active Solid Waste Committee comprised of professionals from all seven counties. The committee shares ideas, successes, and challenges and examine materials management issues in the region.

Background

In 1978, the lower Hudson Valley region was formally designated an Economic Development District by the U.S. Department of Commerce, Economic Development Administration (EDA). The HVRC is the District Administrator but differs from other administering districts in New York State in that the Regional Council does not undertake traditional planning functions for its member counties. These are maintained within each county. The focus of the HVRC instead is on cooperative functions, economic planning activities, and the regional coordination of a number of state-funded initiatives in economic development, including regional planning, solid waste management, water quality, “green” building, and sustainability programs, and oversight for a state funded not-for-profit recycling and waste reduction corporations. The Council has two staff members, an Executive Director and a Deputy Executive Director. Its offices are housed in the Town of Newburgh, the geographical “hub” of the Region and in the shadows of Stewart International Airport, the state’s first “privatized” airport, which continues to represent the key economic development “engine” for the region. This arrangement is affording the Council a more favorable opportunity to better develop its own identity and to “fit in” as a major player in the region’s economic development process.

Dues from the member counties support the administration of the District and its activities, the EDA annual planning grant funding, and water quality grants from the NYS Department of Environmental Conservation (DEC). In addition, other economic “ad-hoc” development programs in areas such as workforce and manpower development and training, and sustainable energy awareness programs are funded by the NYS Empire State Development, NYS Department of Labor, and other New York State sources, and are augmented by local funds and in-kind support.

Organizational Structure

The Board of Directors of the Regional Council includes elected officials and/or their representatives from the seven-county region. Individual counties can have three to five members depending on their population. In larger counties, the mayor of the largest city is appointed a member. The seven-county footprint we serve has also been designated as an Economic Development District by the United States Department of Commerce’s Economic Development Administration (EDA).

Board Structure

In compliance with EDA regulations, the HVRC Board of Directors is comprised of public and private sector members from each participating county. Currently, the Board has 24 active members (see Append A.ii.). The key requirements of the Federal Register pertaining to board composition are being complied with, including private citizen and minority representation.

The requirements set forth in Section 304.2, (Section c) of the Interim Final Rule (IFR) concerning the broadening of the governing body to demonstrate it is representative of

the principal economic interests of the Region, are understood, and the Board representation currently is as follows:

2013-2014

- Total Board Members: 24
- Government Representation: 20
- Private Sector representation: 4
- Industry/ Economic Development: 2
- Small Business: 4
- Planning: 3
- Materials Management: 1

The Board meets quarterly, provides general organizational governance, direction, and identifies annual focus areas for the HVRC. Status reports are provided to the members and function to assist in fulfilling the regional goals and priorities determined by the Board. The Executive Director undertakes the implementation of tasks detailed in the annual work plan and reports to the Chairman and the Board. A Strategy Committee provides additional guidance when issues arise outside of Board meetings and also coordinates the CEDS preparation. The description of the HVRC structure follows.

Committee Structure

With a small professional staff and an aggressive and challenging agenda, the HVRC relies increasingly on committees for program and policy direction and for determining priorities and establishing initiatives. As a result, the HVRC continues to develop and execute a working committee structure that serves to strengthen the on-going CEDS process, but also enhance the Council's collective ability to implement regional initiatives. A committee overview is below:

HVRC Committees:

- Economic Development
- Solid Waste Management
- Strategy Committee
- Sustainability Committee

The Strategy Committee, formerly the Program Committee, is comprised of the diverse members of the Board of Directors as outlined above and is supported at the working level by the member county professional planners and economic development practitioners, and other specialists.

The committee provides assistance to the HVRC in identifying and establishing CEDS projects and priorities for the Program year at the county level and maintains the project review process on a continuum throughout the year. This "bottom-up" approach increases the comprehensiveness of the plan and results in a greater feeling of ownership for CEDS on the part of each member county.

ii. Hudson Valley Regional Council Board of Directors

Table 51: 2013 HUDSON VALLEY REGIONAL COUNCIL BOARD OF DIRECTORS

Member County	Name	Title	Affiliation	HVRC Officer	Proxy
Dutchess	Marcus Molinaro	County Executive	Dutchess County		Ron Hicks
	Robert Rolison	Chair	Legislature	Chair	
	John Tkazyik	Mayor	City of Poughkeepsie		
	Dale Borchert		Legislature		
	James Constantino		Private Sector		
Orange	Steve M. Neuhaus	County Executive	Orange County		David Church
	L. Stephen Brescia	Chair	Legislature		
	Judy Kennedy	Mayor	City of Newburgh	Vice-Chair	
Putnam	Mary O'Dell	County Executive	Putnam County		Bruce Walker
	Carl L. Albano	Chair	Legislature		
	Barbara Scuccimarra		Legislature		
Rockland	Edwin J. Day	County Executive	Rockland County		
	Alden H. Wolfe	Chair	Legislature		
Sullivan	Scott Samuelson	Chair	Legislature		Josh Potosek
	Ira Steingart		Legislature	Secretary	
Ulster	Mike Hein	County Executive	Ulster County		Dennis Doyle
	John R. Parete	Chair	Legislature		
	Shayne Gallo	Mayor	City of Kingston		
	Frank Crosson		Private Sector	Treasurer	
Westchester	Robert P. Astorino	County Executive	Westchester County		Ed Buroughs
	Michael B. Kaplowitz	Chair	Legislature		
	Catherine Borgia		Westchester County		
	Bruce Yablon		Private Sector		

Mid-Hudson Regional Co-Chairs

Dennis Murray, President of Marist College
Leonard S. Schleifer, MD, PhD, President & CEO, Regeneron Pharmaceuticals, Inc.

Mid-Hudson Representatives

James Bernardo, President & CEO, Candela Systems Corporation
John Bonacic, State Senate, 42nd District
Vincent Cozzolino, President & CEO, The Solar Energy Consortium
Robin L. Douglas, President & CEO, African American Chamber of Commerce Westchester & Rockland Counties
Jonathan Drapkin, President and CEO, Hudson Valley Pattern for Progress
Tom Endres, President & COO, Continental Organics
Carol Fitzgerald, President & CEO, Life Medical Technologies Inc.
Aleida Frederico, Senior Vice President, TD Bank
Marsha Gordon, President & CEO, Westchester Business Council
Maureen Halahan, President & CEO, Orange County Partnership
Wiley C. Harrison, Founder & President of Business of Your Business, LLC
Ken Kleinpeter, Director of Farm and Facilities, Glynwood Farm
Payal Malhotra, Vice President of Marketing, Café Spice GCT, Inc.
J. Gary Pretlow, State Assembly, 87th District
Mary Rodrigues, Owner, A.J. Rodrigues Group Inc.
Paul Ryan, President, Westchester/Putnam Central Labor Body
Al Samuels, President & CEO, Rockland Business Association
David Sorbaro, Co-CEO, Mavis Tire Supply
Ned Sullivan, President, Scenic Hudson, Inc.
James Taylor, III, CEO, Taylor BioMass, LLC
Terri Ward, President & CEO, Sullivan County Chamber of Commerce
Dr. Cliff L. Wood, President, SUNY Rockland Community College

²⁰⁶ <http://regionalcouncils.ny.gov/content/mid-hudson>

Appendix C. Mid-Hudson Regional Sustainability Plan Consortium List of Members

Consortium members are as follows:

- Dutchess County
- Orange County
- Putnam County
- Sullivan County
- Ulster County
- Town of Greenburgh
- Center for Research, Regional Education, and Outreach (CRREO)
- Hudson Valley Regional Council
- Pace Land Use Law Center - Mayors' Redevelopment Roundtable
- Northern Westchester Energy Action Consortium (NWEAC)
- Southern Westchester Energy Action Consortium (SWEAC)

Also, the following governmental and non-governmental partners contributed to the work of the Consortium.

- Rockland County
- Westchester County
- Mid-Hudson Regional Economic Development Council
- New York Council of Nonprofits (NYCON)

Appendix D: Links to County Demographic Profiles

To examine the demographics of each of the region's seven counties, the Hudson Valley Regional Council used data from the Cornell Program on Applied Demographics (PAD). PAD brings skills in demographics, economics, statistics, data gathering and data analysis together to provide a variety of organizations with data, information and advice. PAD works closely with the New York State Department of Economic Development, the U.S. Census Bureau and other organizations to assist them in their activities. PAD is part of the [Cornell Population Center](#), a university-wide program serving 96 affiliates from 24 different departments and is housed in the [College of Human Ecology](#) at Cornell University.

New York profiles are collections of recent demographic, social, economic and agricultural data

The county profiles for each of the region's county can be viewed by selecting the respective hyperlinks below:

- [Dutchess County](#)
- [Orange County](#)
- [Putnam County](#)
- [Rockland County](#)
- [Sullivan County](#)
- [Ulster County](#)
- [Westchester County](#)

Appendix E: Commutation Patterns by County

**Commutation Patterns
DUTCHESS COUNTY**

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	138,358	100.0%	Total Persons Working in the County	119,958	100.0%
Worked in New York State	133,394	96.4%	Lived in New York State	117,468	97.9%
Worked in County	93,389	67.5%	Lived in County	93,389	77.9%
Worked outside County	40,005	28.9%	Lived Outside County	24,079	20.1%
Rensselaer County	9,517	6.9%	Rensselaer County	31,971	26.7%
Schenectady County	7,149	5.2%	Saratoga County	24,832	20.7%
Saratoga County	4,374	3.2%	Schenectady County	24,179	20.2%
Greene County	1,302	0.9%	Greene County	3,342	2.8%
Columbia County	784	0.6%	Columbia County	2,619	2.2%
Schoharie County	490	0.4%	Montgomery County	2,362	2.0%
Montgomery County	336	0.2%	Schoharie County	2,268	1.9%
New York County	334	0.2%	Washington County	1,476	1.2%
Ulster County	288	0.2%	Fulton County	1,375	1.1%
Dutchess County	213	0.2%	Warren County	1,116	0.9%
Other	15,218	11.0%	Other	-71,461	-59.6%
Worked outside of New York State	4,964	3.6%	Lived outside of New York State	2,490	2.1%
Total outcommutation	44,969	32.5%	Total incommutation	26,569	22.1%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 18,400

Commutation Patterns ORANGE COUNTY

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	170,425	100.0%	Total Persons Working in the County	141,445	100.0%
Worked in New York State	155,721	91.4%	Lived in New York State	135,446	95.8%
Worked in County	109,987	64.5%	Lived in County	109,987	77.8%
Worked outside County	45,734	26.8%	Lived Outside County	25,459	18.0%
New York County	10,971	6.4%	Ulster County	9,630	6.8%
Rockland County	9,888	5.8%	Sullivan County	5,390	3.8%
Westchester County	7,068	4.1%	Dutchess County	4,556	3.2%
Dutchess County	5,545	3.3%	Rockland County	2,093	1.5%
Bronx County	3,979	2.3%	Westchester County	1,024	0.7%
Ulster County	2,706	1.6%	Queens County	426	0.3%
Kings County	1,441	0.8%	Bronx County	376	0.3%
Sullivan County	1,416	0.8%	Putnam County	370	0.3%
Queens County	1,230	0.7%	Kings County	286	0.2%
Putnam County	455	0.3%	New York County	174	0.1%
Other	1,035	0.6%	Other	1,134	0.8%
Worked outside of New York State	14,704	8.6%	Lived outside of New York State	5,999	4.2%
Total outcommutation	60,438	35.5%	Total incommutation	31,458	22.2%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 28,980

Commutation Patterns PUTNAM COUNTY

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	47,539	100.0%	Total Persons Working in the County	27,869	100.0%
Worked in New York State	44,153	92.9%	Lived in New York State	25,266	90.7%
Worked in County	15,391	32.4%	Lived in County	15,391	55.2%
Worked outside County	28,762	60.5%	Lived Outside County	9,875	35.4%
Westchester County	19,600	41.2%	Dutchess County	5,504	19.7%
New York County	4,186	8.8%	Westchester County	2,880	10.3%
Bronx County	1,792	3.8%	Orange County	455	1.6%
Dutchess County	1,438	3.0%	Bronx County	283	1.0%
Orange County	370	0.8%	Ulster County	264	0.9%
Queens County	315	0.7%	Suffolk County	66	0.2%
Kings County	297	0.6%	Rockland County	64	0.2%
Rockland County	282	0.6%	Columbia County	62	0.2%
Nassau County	88	0.2%	Kings County	59	0.2%
Albany County	85	0.2%	Sullivan County	55	0.2%
Other	309	0.6%	Other	183	0.7%
Worked outside of New York State	3,386	7.1%	Lived outside of New York State	2,603	9.3%
Total outcommutation	32,148	67.6%	Total incommutation	12,478	44.8%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 19,670

Commutation Patterns ROCKLAND COUNTY

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	137,728	100.0%	Total Persons Working in the County	113,123	100.0%
Worked in New York State	118,875	86.3%	Lived in New York State	101,141	89.4%
Worked in County	81,337	59.1%	Lived in County	81,337	71.9%
Worked outside County	37,538	27.3%	Lived Outside County	19,804	17.5%
New York County	14,894	10.8%	Orange County	9,888	8.7%
Westchester County	9,882	7.2%	Westchester County	3,809	3.4%
Bronx County	5,681	4.1%	Bronx County	1,516	1.3%
Orange County	2,093	1.5%	New York County	1,175	1.0%
Queens County	1,525	1.1%	Dutchess County	762	0.7%
Kings County	1,501	1.1%	Ulster County	543	0.5%
Nassau County	499	0.4%	Kings County	537	0.5%
Dutchess County	360	0.3%	Sullivan County	332	0.3%
Sullivan County	223	0.2%	Putnam County	282	0.2%
Richmond County	171	0.1%	Queens County	274	0.2%
Other	709	0.5%	Other	686	0.6%
Worked outside of New York State	18,853	13.7%	Lived outside of New York State	11,982	10.6%
Total outcommutation	56,391	40.9%	Total incommutation	31,786	28.1%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 24,605

Commutation Patterns SULLIVAN COUNTY

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	33,143	100.0%	Total Persons Working in the County	28,928	100.0%
Worked in New York State	32,233	97.3%	Lived in New York State	27,730	95.9%
Worked in County	23,713	71.5%	Lived in County	23,713	82.0%
Worked outside County	8,520	25.7%	Lived Outside County	4,017	13.9%
Orange County	5,390	16.3%	Orange County	1,416	4.9%
Ulster County	883	2.7%	Ulster County	871	3.0%
New York County	730	2.2%	Delaware County	592	2.0%
Rockland County	332	1.0%	Rockland County	223	0.8%
Westchester County	244	0.7%	Kings County	101	0.3%
Queens County	174	0.5%	New York County	87	0.3%
Bronx County	147	0.4%	Queens County	82	0.3%
Dutchess County	144	0.4%	Chenango County	67	0.2%
Delaware County	95	0.3%	Herkimer County	60	0.2%
Kings County	73	0.2%	Bronx County	43	0.1%
Other	308	0.9%	Other	475	1.6%
Worked outside of New York State	910	2.7%	Lived outside of New York State	1,198	4.1%
Total outcommutation	9,430	28.5%	Total incommutation	5,215	18.0%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 4,215

Commutation Patterns

ULSTER COUNTY

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	86,995	100.0%	Total Persons Working in the County	70,398	100.0%
Worked in New York State	85,975	98.8%	Lived in New York State	69,883	99.3%
Worked in County	58,340	67.1%	Lived in County	58,340	82.9%
Worked outside County	27,635	31.8%	Lived Outside County	11,543	16.4%
Dutchess County	9,935	11.4%	Dutchess County	4,099	5.8%
Orange County	9,630	11.1%	Orange County	2,706	3.8%
New York County	2,078	2.4%	Greene County	1,402	2.0%
Westchester County	1,452	1.7%	Sullivan County	883	1.3%
Sullivan County	871	1.0%	Columbia County	581	0.8%
Greene County	713	0.8%	Delaware County	373	0.5%
Albany County	561	0.6%	Albany County	288	0.4%
Rockland County	543	0.6%	Westchester County	187	0.3%
Putnam County	264	0.3%	New York County	147	0.2%
Queens County	240	0.3%	Suffolk County	102	0.1%
Other	1,348	1.5%	Other	775	1.1%
Worked outside of New York State	1,020	1.2%	Lived outside of New York State	515	0.7%
Total outcommutation	28,655	32.9%	Total incommutation	12,058	17.1%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 16,597

Commutation Patterns WESTCHESTER COUNTY

County Residents At Work	2010	% of Total	Persons Working in County	2010	% of Total
Total County Residents at Work	439,931	100.0%	Total Persons Working in the County	432,419	100.0%
Worked in New York State	413,250	93.9%	Lived in New York State	397,101	91.8%
Worked in County	278,400	63.3%	Lived in County	278,400	64.4%
Worked outside County	134,850	30.7%	Lived Outside County	118,701	27.5%
New York County	82,796	18.8%	Bronx County	37,586	8.7%
Bronx County	29,908	6.8%	Putnam County	19,600	4.5%
Queens County	5,452	1.2%	Dutchess County	15,560	3.6%
Kings County	3,818	0.9%	Rockland County	9,882	2.3%
Rockland County	3,809	0.9%	New York County	9,415	2.2%
Putnam County	2,880	0.7%	Queens County	8,670	2.0%
Nassau County	2,200	0.5%	Orange County	7,068	1.6%
Dutchess County	1,128	0.3%	Nassau County	3,190	0.7%
Orange County	1,024	0.2%	Kings County	3,137	0.7%
Suffolk County	775	0.2%	Ulster County	1,452	0.3%
Other	1,060	0.2%	Other	3,141	0.7%
Worked outside of New York State	26,681	6.1%	Lived outside of New York State	35,318	8.2%
Total outcommutation	161,531	36.7%	Total incommutation	154,019	35.6%
(county residents working outside county)			(county nonresidents working in county)		

Net Outcommutation: 7,512

Appendix F: CEDS Survey

To develop the CEDS this survey was sent to each of the county's in the region. It was sent to the County Planning and County Economic Development offices and one response was requested from each county. Six of the seven counties responded. Rockland County did not respond to the survey.

1. Please identify the County for which you are responding and describe the County's economic priorities, goals and objectives?

2. What are your expanding industries, your shrinking industries and growth opportunities?

3. What do you see as your counties greatest economic strengths/assets – please list up to three?

4. What external forces and trends have been the greatest barriers to economic development?

5. What are your major infrastructure issues?

6. Please identify the top workforce development issues facing your county?

7. Please rank the Industry Clusters for your county (1 being most important for economic development, If Not applicable-NA)

_____ Education & Knowledge Creation

_____ Arts, Entertainment, Recreation & Visitor Industries

_____ Business & Financial Services

_____ Hi- Tech (Computer & Electronic Manufacturing, IT & Telecommunications)

_____ Biomedical/Biotechnical/Life Sciences

_____ Agriculture

_____ Distribution

_____ Retail

Other _____

8. Please provide us with a list of the partners (business, government, non-profit, academic) you work with on economic development and planning issues and concerns.

**9. The HVRC is currently addressing the following issues.
Please rank these in order of importance to your county.**

- _____ Economic Development
- _____ Water Resources/Water Quality/Green Infrastructure
- _____ Solid Waste/Food Recovery and Composting
- _____ Domestic Violence
- _____ Transportation
- _____ Sustainability Planning and Governance

10. What other issues would you like to see the Hudson Valley Regional Council address at the regional level?

Appendix E: CEDS Outreach

To develop the CEDS Hudson Valley Council staff met with representatives from each of the seven counties as well as the Hudson Valley AgriBusiness Development Corporation and the Hudson Valley Economic Development Corporation.

The meeting dates and attendee:

August 26, 2013 Dutchess County Kealy Salomon, Planning Commissioner and Ron Hicks, Economic Development

August 27, 2013, Ulster County, Dennis Doyle, Planning Director, Suzanne Holt, Office of Business Services Director

September 3, 2013, Hudson Valley AgriBusiness Development Corporation, Todd Erling, Executive Director, MaryAnn Johnson, Project Director

September 4, 2012, Putnam County, Bruce Walker, Deputy County Executive, Meghan Taylor, Economic Development Corporation, Vincent Tamagna, Planning/Development/Public Transportation

September 5, 2013, Orange County, David Church, Planning Commissioner, Maureen Halahan (Orange County Partnership/Office of Economic Development

September 5, 2013, Westchester County, Ed Buroughs, Planning Commissioner, Patrick Natarelli , WCC Chief Planner, Joseph Kenner, Senior Advisor, Governmental Operations, Jim Coleman Executive Director, Industrial Development Agency

September 6, 2013, Hudson Valley Economic Development Corporation, Laurence Gottlieb, President and CEO

September 9, 2013, Rockland County, Thomas B. Vanderbeek, Planning Commissioner

September 10, 2013, Sullivan County, Jill M. Weyer, Acting Commissioner and other staff, Division of Planning and Environmental Management

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