Finding Agreement in the Mid-Hudson Valley:
How We’re Doing, Where We’re Going -
Economy, Environment and Quality of Life
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INTRODUCTION

Three truths are compelling:

- we all live in our region’s communities;
- we all have a stake in our region’s environment; and
- we all benefit when the region’s economy thrives.

That is why we all share responsibility for bringing our social, economic and environmental goals into alignment.

In order to do this we must Find Agreement. This means identifying our shared goals, determining together Where We Are Going. And then we must commit to regularly measuring our movement toward realizing these goals, a way of telling us How We Are Doing.

Establishing agreement on where we are going and how we are doing is powerful. It will help us present our region and our communities to businesses and people interested in joining us. It will diminish conflict over particular proposals for change. Most important, it will remind us to readjust when we are stalled, or going too slowly, or getting off course in seeking our agreed goals in pursuit of our values.

The Mid-Hudson Valley is ready for recognizing its shared values and goals. Glenn Hoagland, the Director of the Mohonk Preserve, a nationally known environmental resource, has called for a “nexus between nature, culture and economy that recognizes the need for quality of life and a healthy environment as inextricably linked with vibrant, growing communities.” Regional and county economic development agencies have met with SUNY New Paltz leaders to express interest in measures beyond the conventional to guide and track their efforts. Pattern For Progress, a public policy research and planning institute in our region, sees the necessity for a forum in which conservationists and developers find agreement.

Though vital, the task of meaningfully specifying goals, values and measures is not easy. There are the polar dangers of either agreeing that everything is important - that is, not choosing – or settling for the lowest common denominator. In a 2005 essay on sustainable development, Professor Robert W. Kates and colleagues noted: “With many stakeholders, each with different definitions, achieving consensus often takes the form of “laundry lists” of indicators, and definitional differences are downplayed in favor of reaching a common set of indicators.” (Kates et al, 2005)

The Center for Research, Regional Education and Outreach (CRREO) at SUNY New Paltz is uniquely situated to advance agreement among environmentalists, advocates of development and key government decision makers on the identification and measurement of our region’s core values. The Center was established in 2007 to further engage the university and its people with communities, governments, not-for-profits and businesses across our region. CRREO conducts and publicizes research on regional topics; creates and directs select
institutes focusing on specific topics of regional interest; connects and partners with local governments, not-for-profits and businesses to initiate reforms and advocate for best practices; contracts to assess the performance of public and not-for-profit agencies and programs; and works to foster intergovernmental collaboration and community engagement.

With support from U.S. Senator Charles Schumer and funding from the U.S. Department of Education, CRREO launched the Regional Well-Being Project in 2008 to identify agreed values and goals and to develop ways of measuring our Mid-Hudson Valley communities’ social, economic and environmental character that are broadly accepted and allow the tracking of change over time.

Our study area includes four Mid-Hudson Valley counties: Dutchess, Orange, Sullivan and Ulster. SUNY New Paltz is the sole public comprehensive college in this region, in which we are joined by four public community colleges. Over one third of the SUNY New Paltz student body is from one of these four counties.

The research team and community advisory group assembled for this endeavor includes members of the CRREO staff, SUNY New Paltz faculty and students, and a diversity of community leaders. These leaders were recruited from among business persons, professional practitioners, environmentalists, economic developers, local governmental officials and educators.

This report is just one part, albeit a key part, of our project’s overall research effort. Faculty at SUNY New Paltz and two high schools in our region, in Monticello and New Paltz, are developing Regional Well-Being related teaching materials for use in courses and guiding students in project-related work.

Intensive faculty/student research projects to date have included:

**Faculty/Student Research Projects**

- Shafiul Chowdhury, Stream Bio-monitoring Assessment of Water Quality and Recommendations for Land-use Planning for the Plattekill Brook, New Paltz
- Brian Obach, CSA’s - Community Supported Agriculture: Local Food Purchasing and Civic Engagement in Dutchess, Orange, Sullivan and Ulster Counties
- KT Tobin Flusser, Democracy and Transparency: Use of Municipal Websites to Inform Citizens in the Four Regional Well-Being Counties
- Eve Waltermaurer, An Examination of the Social Impacts of Premature Mortality in Dutchess, Orange, Sullivan and Ulster Counties
- Alexandra McKinnon (New Paltz) and Leona Shaver (Monticello), Local Government Decision-Making: High School Projects

This report on measuring Regional Well-Being and the Regional Well-Being Index will be distributed to local government decision makers. Regularly appearing follow-up reports will be central to the continuing work of CRREO. Through these efforts we seek to inform decision making in the region, focus our efforts, identify
opportunities, highlight successes and bring attention where improvement is needed.

The principal author of and Project Director for this report is KT Tobin Flusser. Eve Waltermaurer is a co-author/Statistical Director for this project. Joshua Simons produced the maps and contributed general research support. Fredda Merzon, a consultant to CRREO, played a key role as our meeting facilitator in developing broad scale agreement on the values and goals underlying this report.

**History of the Project**

**FALL 2008**
- Compilation of a database of existing related work and an annotated bibliography with over 250 relevant citations and studies
- Assemblage of a database of 500+ measures

**WINTER 2009**
- First meeting of the research team and community advisory group
- Articulation of community values via a vision statement and prevailing values to guide the process
- Identification of critical elements for success

**SPRING 2009**
- Second and third meetings of the research team and community advisory group
- Prioritization and ranking of measures
- Selection of measures for inclusion in the index and this first report

**SUMMER 2009**
- Data collection
- Index development

**FALL 2009**
- Fourth meeting of the research team and community advisory group
- Revisions based on the group’s feedback

**WINTER AND SPRING 2010**
- Report writing
- Release of the first annual report
Our Project Team

CRREO

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Joshua Simons Research Associate
Layla Al Qaisi Student Assistant
Maria Davila Student Assistant
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Brian Obach Sociology
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Community Leaders

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Paul Brown Town of New Paltz Planning Board
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Kevin O’Connor Rural Ulster Preservation Company
Alma Rodriguez Workforce Development Institute
Barry Rothfeld Poughkeepsie Journal
Michell Speight The Dyson Foundation
Sue Sullivan St. Luke’s Hospital
Geddy Sveikauskas Ulster Publishing
Larry Wolinsky Jacobowitz & Gubits
Vision and Guiding Values

In four meetings over nine months during 2009 our diverse group of volunteers worked together to specify a vision and guiding values for our region.

We know that the resulting vision defines an ideal future. We also recognize that ideals are necessary for planning. A clear vision is essential for defining well-being for now and in our future.

Our Vision  The region is a terrific place, its economy robust, its communities diverse, its social, cultural and natural environment inspiring and sustaining.

For the future, when our vision is realized:

◆ People throughout the region enjoy ample opportunities in employment, education, enjoyment of the environment, and participation in community life. The region’s residents have access to quality affordable housing and health care, and a rich array of art, historical, cultural and recreational experiences.

◆ The region’s economy is robust and in harmony with its ecosystems, making it prosperous and attractive while providing residents with abundant opportunities for healthy, safe and fulfilling lives.

◆ People are empowered to reach their full potential. Students of all ages can gain the knowledge and life skills required to succeed at home, work and in their communities.

◆ Through conservation and preservation, the region’s environment is resilient, flourishing and provides the benefits necessary for a sustainable future. The impact of human activities stays within ecological limits, and scenic beauty is maintained. People have access to meaningful opportunities to enjoy the outdoors.

◆ There exists, and residents appreciate, a variety and diversity of people living in the region. People have mutual respect across group boundaries and have an established framework for constructive dialogue despite differences. Residents feel themselves to belong to their locality or group, in addition to feeling a strong sense of connection to the region. People are empowered to contribute and public engagement is characterized by inclusion, trust, integrity, civility and responsibility.
Responsive local governments embrace balanced land use, collaboration and shared services while accommodating economic growth and social, cultural and environmental priorities. There is open and collaborative political discourse between multiple taxing and legislative entities.

- The region is affordable, accessible and equitable in all areas. Regional challenges and successes are managed to assure fairness in the distribution of both burdens and prosperity across communities.

- The region is a magnet for people because it is a vibrant, fun, dynamic, cutting-edge, and environmentally inspiring place to live. Irrespective of age, gender, race, ethnicity, income, disability, family type and location, people want, and can afford to live here.

**The Regional Context**

The lines on maps that our predecessors drew more than a century ago are not in accord with contemporary life. We may live within one municipality, work in another and visit family in still another. Technology has transformed daily life and will continue to do so. Our defining geographic features, the Hudson River and the Catskill Mountains, do not divide us; they unite us. The need to compete in a rapidly changing world economy requires that we think and act regionally.

To succeed in the twenty-first century, we must better understand the **interdependence of our four counties and the region** they comprise.
A Snapshot

Our region has a total land area of 3,715 square miles. It is nearly twice the size of the state of Delaware. Ulster County alone is larger than the state of Rhode Island. Nearly one million people reside in our four-county region.


Sullivan County, with more than a quarter of the land (26%), is the least populous (8%). Ulster County has 30% of the land in our region and 20% of the population.

A few key statistics, summarized below, show some of the characteristics of the people of our region and how we use our land.

Dutchess County has almost a third (31%) of the region’s people, but less than a quarter (22%) of the land area. About two in five (41%) regional residents live in Orange County, where there is a land area about the same as in Dutchess (22%).
Age: About one quarter (23%) of our region’s residents are under the age of eighteen. Twenty-three percent are age 18 to 34, 30% are age 35 to 54 and 24% are 55 years of age or older.

Children, those under age 18, live in 36% percent of regional households. Seniors, those age 65 or older, reside in 23% of the households in our region.

Race: Seventy-five percent of residents in our region are white, 12% are Hispanic or Latino, 8% are Black or African-American, 3% are Asian and 2% reported some other race.

Land Use: Approximately one third (32%) of the region’s land is classified as residential. Just under a quarter (24%) of the land is deemed vacant and about one in every five acres (21%) is wild, forested, conservation lands or public parks.

Agricultural lands comprise 10% of the region. Each of the remaining categories – Commercial, Public Services, Recreation and Entertainment, and Industrial represent less than 5% of land use in our region.

Of the four counties, Dutchess County has the most land dedicated to residential development (41%) and agriculture (18%). Sullivan County has the most vacant land (30%). In Ulster County, home of the Catskill Forest Preserve, over one third (34%) of the acreage is wild.
CREATING THE INDEX

With a shared understanding of the region, its critical elements for success, and vision and values in place, we proceeded to the measurement task. Our challenge was to select good indicators of our values, and — if possible — to develop a single Index of Regional Well-Being.

Indicators

The first step in creating an index is to select indicators and the individual measures that comprise them. An indicator is a compilation of a few measurable values that creates a simple and accessible - yet sufficiently complete - picture of a more complex, larger system. Indicators serve as markers, not direct measures, of abstract concepts. For example, we seek “public safety,” but we cannot measure this abstract idea. We can, however, measure “crime rates” and “ratios of crimes to police officers”, and by doing this know a good deal about public safety.

In general, consideration of large and broad research questions requires the use of a diverse and comprehensive array of indicators. This is balanced, however, by a countervailing concern for accessibility, accuracy and research continuity, all of which suggest the value of using the fewest indicators needed to “do the job”.

There are no absolutely perfect indicators. But there are several important characteristics of good indicators:

Relevance

Indicators reveal something either positive or negative about the matter under study. For our four-county region, good indicators measure where we are in terms of economic, environmental and social well-being.

Reflect Values

Indicators must illustrate, and be representative of, our values and vision for the region. The indicators we have selected reflect interests and concerns important to our community as identified by our research team and community advisory group.

Validity and Representativeness

Measures must legitimately represent the complex situation under study. We suggest that our indicators are bellwethers that reflect the fundamentals of long-term Regional Well-Being. We are counting on these measures to capture change - or reflect stability - as time goes on.

Familiar and Recognizable

Good indicators are expressed in imaginable numbers; they are not eye-glazing. They also have some intuitive value, resonating with all audiences, and providing information with which people can empathize. They are quickly understandable.

Statistically Measurable

Indicators must be assigned a quantitative value based on systematic observation. We must be able to track that value over time.
Logically or Scientifically Defensible
An understandable, defensible rationale must exist for using the specific indicator, and drawing general conclusions from it.

Reliable
An indicator must be reputable, so that we can trust it over time. It should be measured consistently, so that trend data is available.

Available
An indicator must be comprised of data that exists, or may be gathered with reasonable effort and cost, for our geographic area, and preferably for other comparable regions and communities. For most of this report we have utilized existing secondary data.

Policy Relevance
An indicator must have relevance for policy decisions: decision makers must be able to understand and act on it. Moreover, the consequences of their action should have a chance of “moving the needle.” The bottom line: “Good information presented in a neutral manner can move policy.” (Long Island Index, 2008)

We have selected measures for each indicator from a collection of those available that best represent the vision and values defined by our research team and community advisory group.

The Index
The index is constructed by combining selected measures for inclusion in eight indicators in a statistically valid and reliable way. We are all familiar with the use of indexes. Think of the regular reporting of the Consumer Price Index, a single number derived to track the changing buying power of the dollar in the economy. We have constructed a single number to track the social, economic and environmental well-being of our four-county region.

A dataset of New York State counties was compiled for all of the component measures. This dataset of thirty-three counties excluded the five boroughs of New York City and any county in the state that had fewer than 65,000 residents. Unless otherwise noted, all data for this report is from 2008.
Our Regional Well-Being Index is comprised of eight indicator categories: Economy, Education, Environment, Community & Equity, Governance, Health, Arts & Culture and Safety.

Each indicator category is comprised of multiple measures that are combined to generate a score from 0 to 100. Scores for each category and an overall score are reported, both for the region and each county. Data on both the component measures and additional measures deemed important by the group are included in each section.

We will track scores in each of these eight areas and on the Well-Being Index over time and report regularly, to document how our region is doing in moving towards its goals, in accord with its values. We seek to identify strengths and weaknesses, in order to inform our residents and decision makers and to shape policy.
The Results

The 2008 Regional Well-Being Index score is 50. The scores for the region’s constituent counties are: Ulster – 57, Dutchess – 51, Orange – 47, Sullivan – 41. Comparable New York State counties had a median overall score of 46.
Of the eight Regional Well-Being categories, the region's highest scoring areas were for Governance (64) and Safety (58). This was followed by Economy (54), Community & Equity (47), Environment (46), Education (45), Health (44) and Arts & Culture (40).

Dutchess County’s top three categories were Governance (71), Economy (60) and Safety (58). In Orange County, Economy (58), Governance (57) and Community & Equity (56) were the top three areas.

Sullivan County’s top three strengths were Governance (64), Environment (50) and Safety (48). In Ulster County, the top three categories were Arts & Culture (80), Safety (71) and Governance (70).

Our region scored lower than the median of the 33 comparative counties for Governance (-6) and Economy (-4). The region scored higher in Arts & Culture (+12), Environment (+8) and Safety (+7). We were on par with comparative New York State counties in the categories Community & Equity (+2), Education (+2) and Health (+1).
**ECONOMY**

**Overall Score**

WHY IS THIS IMPORTANT?
Our Vision: The region’s economy is robust and in harmony with its ecosystems, making it prosperous and attractive while providing residents with abundant opportunities for healthy, safe and fulfilling lives. People throughout the region enjoy ample opportunities in employment.

HOW DO WE MEASURE ECONOMY?
Our Regional Well-Being Economic Indicator includes measures of: Income, Costs, Jobs and Poverty. Also in this section is a discussion of Economic Development, Tourism and Agriculture. A Special Focus included in this chapter is Community Supported Agriculture.

HOW ARE WE DOING?
On a scale of 0 to 100, our region scored a 54 on the Economic Indicator. The median score for comparable New York State counties was a 58 in this category.

With a score of 60, Dutchess County ranked the highest of the four counties on this indicator. Orange County received a 58; Ulster County a 45; and Sullivan County a 37.

**Income and Costs**

Nearly four in ten households in our region (39%) earned less than $50,000 per year in 2008. Yet, over a quarter of regional households (28%) had a yearly income of $100,000 or more in 2008.
There is considerable range in the median incomes across our region. The highest was found in Orange County, $71,674. In Dutchess County the median income was $69,617, followed by $54,854 in Ulster County and $46,553 in Sullivan County.

When income is matched with costs, exactly half of the income of our region’s households was needed to cover housing and transportation-to-work expenditures.

Similar proportions of income in Dutchess (47%), Sullivan (45%) and Ulster (46%) counties were needed to pay for expenses incurred for housing and transportation.

In Orange County, where we find the highest income, we also found the highest proportion (56%) of a household’s income used to pay for these expenses.

Increases in housing costs in our region have outpaced increases in income. For example, while housing costs increased nearly 10% in Ulster County from 1996 to 2006, incomes only increased 3.8%.

Housing costs were greatest in Dutchess and Orange counties. When with median income is considered in relation to home values,
Orange County is at the bottom. In 2008, the median income in Orange County was 18% of the value of a median priced home in the county. This compares with 29% in Sullivan County, 23% in Ulster County and 22% in Dutchess County.

A report entitled A Three-County Regional Housing Needs Assessment: Ulster, Orange and Dutchess Counties from 2006 to 2020, recently released by three of our region’s county Planning Departments, estimated that the 2006 housing affordability unit gap in Dutchess County was 24,813 units, in Orange County 31,372 units and in Ulster County 15,953 units.

The unemployment rate in our region was similar to the rate found in comparable New York State counties and was consistent across the four-county region.

However, we did not create jobs at the same rates as comparable counties. In 2008, only .55 jobs were created for every person that was out of work in our region.

In our area, Orange County did the best at creating jobs. For every person that was unemployed in 2008, .66 jobs were created. In Ulster County, only .37 new jobs were created.
created for every person that was unemployed.

<table>
<thead>
<tr>
<th>Industries</th>
<th>Region</th>
<th>Dutchess</th>
<th>Orange</th>
<th>Sullivan</th>
<th>Ulster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>21%</td>
<td>20%</td>
<td>21%</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>15%</td>
<td>12%</td>
<td>17%</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Health Care, Social Assistance</td>
<td>15%</td>
<td>15%</td>
<td>14%</td>
<td>19%</td>
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<tr>
<td>Manufacturing</td>
<td>8%</td>
<td>11%</td>
<td>6%</td>
<td>5%</td>
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<tr>
<td>Accommodation, Food Services</td>
<td>7%</td>
<td>7%</td>
<td>6%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Construction</td>
<td>4%</td>
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<td>Administrative, Waste Services</td>
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<td>4%</td>
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<tr>
<td>Other Services</td>
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<td>4%</td>
<td>5%</td>
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<tr>
<td>Wholesale Trade</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
<td>2%</td>
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<tr>
<td>Transportation, Warehousing</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
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<td>Finance and Insurance</td>
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<td>Professional, Technical Services</td>
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<tr>
<td>Educational Services</td>
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<tr>
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<td>Arts, Entertainment, Recreation</td>
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<td>1%</td>
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<td>1%</td>
</tr>
<tr>
<td>Agriculture, Forestry, Fishing, Hunting</td>
<td>1%</td>
<td>1%</td>
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<td>1%</td>
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<tr>
<td>Real Estate, Rental, Leasing Management of Companies, Enterprises</td>
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<td>1%</td>
</tr>
<tr>
<td>Mining, Utilities</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
<td>1%</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Source: NYS Dept of Labor 2008

Retail trade provided 15% of our jobs; another 15% were in health care and social assistance.

About a third (35%) of the region’s workers needed to travel outside of their county of residence to get to work in 2008. Only 5% of the region’s workers commuted out of state.

Compared with Sullivan and Dutchess counties, people in Orange and Ulster counties were more likely to travel outside their home county for work. Those in Orange County were more likely commuting outside of the state (8%), while commuters in Ulster County were more likely to stay within the state but leave the county (36%).

Sullivan County’s workers were the least likely in the region to leave their county for work; 73% had jobs in Sullivan County.

We are highly reliant on government jobs in our region. In 2008, more than one in five jobs was in the public sector. In Sullivan County, 25% of workers were employed by a government.
Poverty

About one in ten residents in our region lived in poverty in 2008.

Sullivan County was particularly hard hit, where about one in six people (17%) had incomes below the poverty rate.

At 18%, Sullivan County also had the highest rate of children living in poverty. Across the region, 14% of children were living in households with incomes below poverty level.

Economic Development

In our region in 2008 there was $17 spent per capita by counties on economic development. We spent a fifth less than comparable New York State counties. Dutchess County spent the most at $18 per capita, and Ulster County the least at $14 per capita.

Tourism

Tourism is integral to our regional economy. In 2008 it was a $1.7 billion industry across our four counties.

In 2008, $1.7 billion was spent on tourism in our region.

Twenty-six percent of regional tourism dollars were spent on lodging, 21% on food
and beverages, 19% on retail and services, 18% on transportation, 11% on second homes and 5% on recreation.

Sixty percent of spending on second homes in the region occurred in Sullivan County. The largest proportion of lodging dollars was spent in Ulster County.

Minimal transportation dollars are spent in Sullivan and Ulster counties; the bulk of these dollars are spent in Orange and Dutchess counties. Nearly half (48%) of spending on recreation is done in Dutchess County.

**Agriculture**

At the time of the last United States Department of Agriculture Census in 2007, sales of agricultural goods in New York State were valued at over $4.4 billion. In our region, agriculture represented over $226 million in sales that same year. There were 2,122 farms covering 235,373 acres in our four-county area.

Dairy was the predominant agricultural product for New York State, representing over half (52%) of the total sales of agricultural goods in 2007. Dairy products were also the largest agricultural product in Dutchess County. Greenhouse and nursery, and vegetables were the leading agricultural products in Orange County. Poultry and eggs led the list in Sullivan County and in Ulster County the biggest commodity was fruit.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Farms</th>
<th>2007 Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYS</td>
<td>36,352</td>
<td>$4,418,634,000</td>
</tr>
<tr>
<td>Region</td>
<td>2,122</td>
<td>$226,326,000</td>
</tr>
<tr>
<td>Dutchess</td>
<td>656</td>
<td>$44,866,000</td>
</tr>
<tr>
<td>Orange</td>
<td>642</td>
<td>$73,748,000</td>
</tr>
<tr>
<td>Sullivan</td>
<td>323</td>
<td>$42,117,000</td>
</tr>
<tr>
<td>Ulster</td>
<td>501</td>
<td>$65,595,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent of Total</th>
<th>Total Acres</th>
<th>Number of Parcels</th>
<th>Average Parcel Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>10%</td>
<td>235,373</td>
<td>4,984</td>
<td>47</td>
</tr>
<tr>
<td>Dutchess</td>
<td>18%</td>
<td>88,576</td>
<td>1,243</td>
<td>71</td>
</tr>
<tr>
<td>Orange</td>
<td>15%</td>
<td>80,055</td>
<td>2,497</td>
<td>32</td>
</tr>
<tr>
<td>Sullivan</td>
<td>4%</td>
<td>27,433</td>
<td>415</td>
<td>66</td>
</tr>
<tr>
<td>Ulster</td>
<td>5%</td>
<td>39,308</td>
<td>829</td>
<td>47</td>
</tr>
</tbody>
</table>

In 2008, one out of every ten acres in our region was classified as agricultural. In Dutchess County, 18% of acreage was devoted to farming. In Orange County the proportion was 15%. Single digits were found in Ulster County and Sullivan County, 5% and 4%, respectively.

In our region, on average, a farm was 47 acres in size. The largest average agricultural parcel (71 acres) was in Dutchess County. The smallest typical size (32 acres) was found in Orange County.
Across our region, people have joined Community Supported Agriculture (CSA) farms in order to provide more local or organic food for their households and to support local farmers and the local economy.

<table>
<thead>
<tr>
<th>Community Supported Agriculture</th>
<th>Number of CSAs</th>
<th>Number of Shares</th>
<th>Percent of Total Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>25</td>
<td>2142</td>
<td>.7%</td>
</tr>
<tr>
<td>Dutchess</td>
<td>5</td>
<td>830</td>
<td>.8%</td>
</tr>
<tr>
<td>Orange</td>
<td>7</td>
<td>391</td>
<td>.3%</td>
</tr>
<tr>
<td>Sullivan</td>
<td>2</td>
<td>35</td>
<td>.1%</td>
</tr>
<tr>
<td>Ulster</td>
<td>11</td>
<td>886</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Source: CRREO CSA Research Team. The counts reported here only include CSAs that offer produce to regional residents.

Ulster County’s eleven CSA farms was the highest number offering shares to the general public in our four-county area. There were seven in Orange County, five in Dutchess County and two CSAs in Sullivan County.

The Regional Well-Being community advisory group noted the abundance of Community Supported Agriculture as something particularly beneficial to our region. As a result, a survey research project was designed by Professor Brian Obach and KT Tobin Flusser to examine the reasons behind people’s food purchasing decisions, especially as they related to local and organic food and participation in CSAs. The study also sought to understand the relationship between the values that inform food consumption and civic engagement (another important well-being element identified by the group). We expect that the results of their study will not only contribute to the scholarly literature on consumption, civic engagement and food systems, but will also yield relevant findings for state and municipal policy makers focused on agriculture and economic development.

This study employed three SUNY New Paltz students: Caroline Burgess, Jenna Dern and Chris Utzig. Food purchasing sites from throughout the region, including health food stores, farmers markets and community supported agriculture programs were selected as locations for data gathering. During the summer of 2009, 877 surveys were collected at targeted locations selected to capture the population of “alternative” food consumers. In the spring of 2010, in order to draw comparisons between “alternative” food consumers and conventional food consumers, the Siena Institute was contracted to conduct a telephone survey of a random sample of the general population. Lastly, the team inventoried CSAs from across the country in order to determine if our region was especially rich in these types of farms.

Preliminary analysis reveals that CSAs are plentiful in our region compared with other regions in the country. The survey data shows CSA members and “alternative” food consumers in our region to be more motivated by buying locally than by a commitment to organic products. The main reason CSA members cited for buying local food was to support local farmers and the local economy, followed by: to get higher quality, better tasting food; to get healthier food; and because it was better for the environment. CSA members are also more inclined to volunteer time and be civically engaged compared with residents in the population as a whole. A CRREO Discussion Brief on the complete results of this study will be released in the fall of 2010.

In addition to Regional Well-Being/CRREO funds, Obach and Tobin Flusser were awarded United University Professional (UUP) grants and Obach utilized a grant from the National Science Foundation to complete this work.
EDUCATION

Overall Score

WHY IS THIS IMPORTANT?
Our Vision: People are empowered to reach their full potential. Students of all ages can gain the knowledge and life skills required to succeed at home, work and in their communities.

HOW DO WE MEASURE EDUCATION?
For the Regional Well-Being Index, our Education Indicator includes measures of: School Preparedness, College and Work Readiness and Higher Education. This section also includes a discussion of Funding and Accountability.

HOW ARE WE DOING?
Out of a possible 0 to 100, our region received a score of 45 for Education. The median score for comparable New York State counties was 43.

At 53, Dutchess County scored the highest in our region on the Education Indicator. Ulster County ranks second at 45. Orange County received a 40, followed by Sullivan County at 37.

School Preparedness

Thirty-five percent of children under age 5 in our region attended Pre-K in 2008. In Sullivan County, four of ten children were able to participate in pre-kindergarten schooling.

There are forty-six school districts in our region. In the 2009-2010 school year, all but three districts offered full-day kindergarten. However, a majority (52%) of these districts did not offer pre-kindergarten; and of those that did, only sixteen – about a
third of districts in the region (35%) - provided it for all the children in the district.

**Work and College Readiness**

**High School Education**

<table>
<thead>
<tr>
<th>NYS Counties</th>
<th>Orange</th>
<th>Sullivan</th>
<th>Ulster</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>9%</td>
<td>9%</td>
<td>%</td>
</tr>
</tbody>
</table>


Nearly *nine in ten* people in our region have at least a high school education.

Nationally, 85% of people age 25 or older have at least a high school education. Here in our region, in 2008, 88% of our residents had a high school diploma or its equivalent. Similar rates for high school graduation are found across our region.

In 2008, in 22% of the region’s school districts 90% or more of high school seniors received a Regents or Local diploma. In two thirds (67%) of districts, 80% or more did so.

In Orange and Ulster counties, all of the school districts had high school graduation rates with Regents or Local diplomas of 70% or higher.

In Orange and Ulster counties, all of the school districts had high school graduation rates with Regents or Local diplomas of 70% or higher.

<table>
<thead>
<tr>
<th>Students with Regents or Local Diplomas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
</tr>
<tr>
<td>0%</td>
</tr>
</tbody>
</table>

Source: NYS Department of Education 2008. Percent of students graduating with either a Regents or Local diploma.
Higher Education

**Four-Year College Education**

<table>
<thead>
<tr>
<th>NYS Counties</th>
<th>Region</th>
<th>Dutchess</th>
<th>Orange</th>
<th>Sullivan</th>
<th>Ulster</th>
</tr>
</thead>
<tbody>
<tr>
<td>6% 7% 3%</td>
<td>7% 2% 1%</td>
<td>6% 8% 2%</td>
<td>7% 3% 2%</td>
<td>6% 6% 2%</td>
<td>7% 8% 2%</td>
</tr>
</tbody>
</table>

Twenty-four percent of people in the United States age 25 or more have at least a four-year college degree.

In our region, in 2008, nearly one in three residents (29%) age 25 or older had graduated from a four-year college. Dutchess County residents were the most educated in our area, where 32% of people had attained a college degree.

In addition to the public institutions mentioned above, there are five private institutions in our region: Mount St. Mary College in Newburgh, Bard College in Red Hook, the Culinary Institute of America in Hyde Park and Vassar and Marist Colleges in Poughkeepsie. The region also is the home of the U.S. Military Academy at West Point.

Funding Education

In a 2007 public opinion survey of Dutchess and Ulster county residents, a majority (51%) believed the state had primary responsibility for funding local school districts.

Fifty-three percent thought federal funding to education should increase, and 56% said we needed a major overhaul of how we fund our public schools (Marist, 2007).

In reality, most of the funding for K-12 education in our region is collected via local property taxes. On average, 4% of our local school budgets are financed from federal dollars, 37% from state funds and the remainder (59%) from the local tax base. As a result of state funding formulas, communities in Dutchess and Ulster counties are on average somewhat more reliant on local tax dollars than are those in Orange and Sullivan counties.
School district budgets – as opposed to local, county, state and federal spending – need yearly voter affirmation. In 2008, nine school districts in our region did not receive public approval at the first vote and either needed to present a second budget to the voters or go straight to a state-specified contingency budget. These school districts are noted in bold in the chart below.

School Budget Votes

**Dutchess**
- Arlington
- Beacon
- Dover
- Hyde Park
- Millbrook
- Northeast
- Pawling
- Pine Plains
- Poughkeepsie
- Red Hook
- Rhinebeck
- Spackenkill
- Wappingers

**Orange**
- Chester
- Cornwall
- Florida
- Goshen
- Highland
- Falls
- Middletown
- Minisink
- Monroe-Woodbury
- Newburgh
- Pine Bush
- Port Jervis
- Tuxedo
- Valley Central
- Warwick
- Washingtonville

**Sullivan**
- Eldred
- Fallsburg
- Liberty
- Livingston Manor
- Monticello
- Roscoe
- Sullivan West
- Tri-Valley

**Ulster**
- Ellenville
- Highland
- Kingston
- Marlboro
- New Paltz
- Oneonta
- Rondout
- Saugerties
- Wallkill
- West Park


Remarkably, voters in our region approved every school district budget at the first opportunity in May 2009. In 2010, six districts did not pass their budgets in May (Arlington, Pawling, Minisink Valley, Poughkeepsie, Rondout and Saugerties); and Highland Falls postponed its first vote till June.

On average, school districts in our region spent just under $20,000 per pupil for K-12 education in 2008. Dutchess County, the county that was most dependent on the local tax base, spent the least per pupil, $17,419. In Sullivan County, the average cost per each student was the highest at $25,224.

New York State law does not require properties to be valued on the same basis for tax purposes across communities, as long as they are fairly valued within communities. Therefore, the state must adjust these values to put communities on the same basis for levying school taxes. We can use this adjusted value for comparison purposes.
In our region, in 2008, the highest per $1,000 median full value tax rate was found in Orange County, $15.38. At $12.12, Sullivan County had the lowest such median tax rate in our region.

Accountability

A majority of our region’s residents have trust and confidence in their local school district.

In the 2010 Siena Institute survey, 20% of people in our region voiced a great deal of trust and confidence in their local public schools. Forty-five percent of residents had a fair amount, 19% not very much and 16% had no trust or confidence in their school district.

Only three school districts in our region received a “Needs Improvement” in their 2008 New York State Department of Education School District Report Card assessments: Middletown, Newburgh and Poughkeepsie. The remaining districts all received a “Good Standing” score on their state accountability reports (NYS Department of Education, 2008).

The New York State Contract for Excellence (C4E) accountability program grants increased state aid to school districts that sign a contract committing to the use of targeted programs for students with the greatest need and an increased reporting of performance measures. In 2008, we had seven school districts in our region participating in the C4E program: Arlington, Hyde Park, Middletown, Monticello, Newburgh, Northeast and Wappingers (NYS Department of Education, 2008).

In a 2007 Marist College survey, two thirds of Ulster and Dutchess residents rated their local public schools as excellent or good. However, 74% of the populace did voice a need for greater accountability from their school district (Marist, 2007).
Newsweek magazine ranks high schools across our nation based on the number of Advanced Placement, International Baccalaureate or Cambridge tests and the number of graduating seniors. In 2008, nine schools in our region were on the list, which only includes the top 6% of high schools in the country. Five of the eight districts were in Dutchess County.

<table>
<thead>
<tr>
<th>Newsweek 2008 Rank</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>310.</td>
<td>New Paltz</td>
</tr>
<tr>
<td>353.</td>
<td>Red Hook</td>
</tr>
<tr>
<td>469.</td>
<td>Spackenkill</td>
</tr>
<tr>
<td>898.</td>
<td>Arlington</td>
</tr>
<tr>
<td>987.</td>
<td>Cornwall</td>
</tr>
<tr>
<td>1063.</td>
<td>Rhinebeck</td>
</tr>
<tr>
<td>1080.</td>
<td>Tuxedo</td>
</tr>
<tr>
<td>1083.</td>
<td>Highland Falls</td>
</tr>
<tr>
<td>1339.</td>
<td>Wappingers</td>
</tr>
</tbody>
</table>

New Paltz Central School District in Ulster County, the highest ranked in our region in 2008, was in the top 2% of the entire country. No other districts in Ulster County have made the top 6% in the past five years. Only five in our region – New Paltz, Red Hook, Arlington, Highland Falls, Tuxedo – have consistently been in the top 6% for the past three years.
WHY IS THIS IMPORTANT?
Our Vision: Through conservation and preservation, the region’s environment is resilient, flourishing and provides the benefits necessary for a sustainable future. The impact of human activities stays within ecological limits, and scenic beauty is maintained. People have access to meaningful opportunities to enjoy the outdoors.

HOW DO WE MEASURE ENVIRONMENT?
The Regional Well-Being Environmental Indicator is comprised of measures of: Energy and Footprint, Natural Resources, Land Use and Water Quality. Data is also presented here about Transportation, Recreation, Biodiversity, Hazardous Materials and Air Quality. We also have a Special Focus on Stream Bio-Monitoring in this chapter.

HOW ARE WE DOING?
On a scale of 0 to 100 for this indicator, our region received a 46 for Environment. Comparable New York State counties received a median score of 38.

Ulster County scored a 52, Sullivan County a 50 and Orange County received a 47. At 41, Dutchess County scored the lowest in this category.

Energy and Footprint

In 2008, a large majority, over three quarters (77%) of our region’s workers, drove alone to get to work every day. Nine percent carpooled, 5% worked at home, 4% used public transportation and
3% walked to their jobs. Compared with workers in Orange and Sullivan counties, the workforce in Dutchess and Ulster counties was more likely to rely on driving alone.

Source: NYS Energy Research and Development Authority (NYSERDA) 2008 (Gasoline Usage) and US Census American Community Survey 2008 (18+ Population)

Our region’s drivers each used about 576 gallons of gasoline in 2008. Dutchess County had the lowest per capita gasoline usage, 498 gallons. This is in contrast to the 619 gallons per capita used by residents in Orange County that year.

In 2008, a slim majority (51%) of homes in our region relied on fuel oil for heat. Twenty-nine percent of homes relied on utility gas, 11% on electrical heat, 5% on propane and 3% burned wood. Alternative sources, like solar, were utilized by less than 1% of households.

Orange County was the only county where natural gas was the primary home heating fuel. In contrast, only 2% of homes in Sullivan County used gas provided by a utility, while 27% relied on wood or propane heat.

The goal of New York State Energy Research and Development Authority (NYSERDA) is to “help New York meet its energy goals: reducing energy consumption, promoting the use of renewable energy sources, and protecting the environment.”

Source: US Census American Community Survey 2008
Our region received about $15 in NYSERDA funding per capita in 2008. This exceeds that received by comparable New York State counties. Sullivan County was funded at the highest rate, $22 per capita.

To date, seven of the 116 municipalities in our region have adopted the DEC Conservation Climate Smart Communities pledge: Beacon, Red Hook, Rhinebeck, Woodbury, Kingston (City), Rosendale and Saugerties. By signing on, local governments make a commitment to:

- Combat climate change by becoming a Climate Smart Community
- Set goals, inventory emissions, and 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

**Transportation**

Since Sullivan County is the most sparsely populated county in our region, the miles of road per residents there is highest: 349 per 10,000 residents. This is in contrast to the 137 miles of road for every 10,000 residents in the region as a whole.

In 2008, about four in ten workers in our region (41%) needed to travel thirty minutes or more to get to their place of employment; only 16% had a commute that took under ten minutes. In Orange County, one in five commuters needed to travel an hour or more to get to work.
Regional Well-Being

Source: NYS Department of Transportation 2008 (Road Miles) and US Census American Community Survey 2008 (18+ Population)

Natural Resources

Source: NYS Office of the Comptroller 2008 (Natural Resources Spending) and US Census American Community Survey 2008 (18+ Population)

According to the New York State Comptroller, our county governments spent just over four dollars, $4.16, per capita in 2008 on Natural Resources. At $6.44 per capita, Orange County spent the most in our region. Sullivan County, at $.42 per capita, spent the least in this category.

Land Use and Open Space

Source: NYS Office of Real Property Taxes 2008

In 2008, 21% of the land area in our region was still wild, forested or classified as conservation or public park land. The
average size of these parcels was 109 acres. Ulster County had the largest proportion of this type of land, with over one third (34%) of it in this category. In contrast, only 6% of Dutchess County parcels were classified as wild, forested or conserved.

Land use and development decisions greatly impact our environment. There are a variety of environmental documents and studies that communities integrate into their comprehensive master plans and that are referenced in the State Environmental Quality Review (SEQR) process, such as local wetlands maps, viewshed maps, stream monitoring studies, carbon and water footprint audits, biodiversity and habitat assessments, soil tests, natural resource inventories (NRIs) and open space indices.

The Code and Ordinance Worksheet (COW) covers many of these issues. Originally developed by the Center for Watershed Protection, and tailored to New York by the DEC Hudson River Estuary Program and NYS Water Resources Institute, the COW "allows an in-depth review of the standards, local laws, ordinances, and codes (i.e., the development rules) that shape how development occurs in [a] municipality."

To date, only a handful of communities in our region have completed this worksheet.

### Recreation

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent of Total</th>
<th>Total Acres</th>
<th>Number of Parcels</th>
<th>Average Parcel Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>2%</td>
<td>48,844</td>
<td>1,219</td>
<td>40</td>
</tr>
<tr>
<td>Dutchess</td>
<td>2%</td>
<td>9,882</td>
<td>329</td>
<td>30</td>
</tr>
<tr>
<td>Orange</td>
<td>1%</td>
<td>5,985</td>
<td>267</td>
<td>22</td>
</tr>
<tr>
<td>Sullivan</td>
<td>3%</td>
<td>20,058</td>
<td>329</td>
<td>61</td>
</tr>
<tr>
<td>Ulster</td>
<td>2%</td>
<td>12,919</td>
<td>294</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: NYS Office of Real Property Taxes 2008

Two percent of the land area in our region was classified as Recreational in 2008. Sullivan County had over 20,000 acres of land dedicated to recreation. On average, recreation parcels in Sullivan County were much larger than those in the region as a whole. The average parcel size for recreation land in our region was 40 acres; in Sullivan County the mean size was 61 acres.

### Biodiversity

Biodiversity is the array of life forms in an ecosystem. According to the NYS DEC,

“Biodiversity is important to us all, because it provides the ecological services on which we depend. Healthy, naturally vegetated areas clean our drinking water, ensure our water supply, provide pollinators for crops, and buffer and reduce storm damage. These services are often provided by nature’s ‘green infrastructure’ at a lower cost than built systems. If we conserve biodiversity, we are less likely to suffer disruptions of these essential services as our climate continues to change” (NYS DEC, 2010).
There are fourteen DEC identified significant biodiversity areas in our region. The largest is the Hudson River Estuary area of biological concern. Also included are the Catskill Mountains, the Shawangunk Ridge, the Shawangunk Kill and Grasslands, the Highlands, Dutchess County Wetlands, the Esopus/Lloyd Wetlands and Ridges, the Harlem Valley Wetlands, the Hudson Valley Limestone and Shale Ridges, the Delaware/Mongaup Rivers, the Neversink River, and a small portion of the Taconic Mountains.

### Hazardous Materials

In 2008, there were 1,387 chemical and petroleum spill incidents in our region reported to the NYS DEC.

#### DEC Reported Hazardous Spill Incidents (per 1,000 Residents)

<table>
<thead>
<tr>
<th>Region</th>
<th>DEC Reported Spill Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYS Counties</td>
<td>1.4</td>
</tr>
<tr>
<td>Region</td>
<td>1.9</td>
</tr>
<tr>
<td>Dutchess</td>
<td>1.8</td>
</tr>
<tr>
<td>Orange</td>
<td>1.8</td>
</tr>
<tr>
<td>Sullivan</td>
<td>2.7</td>
</tr>
<tr>
<td>Ulster</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: NYS Department of Environmental Conservation 2008 (Spill Incidents) and US Census American Community Survey 2008 (18+ Population)

On average, in our region, we experienced 1.9 hazardous spill incidents for every 1,000 residents in 2008. This is higher than the rate in comparable New York State counties (1.4). The Sullivan County rate (2.7) was the greatest in our region.

In 2008 there were 96 DEC monitored Superfund sites in our four-county region, 1.3 for every 10,000 residents. In our region, Dutchess County had the highest number of Superfund sites, 1.7 per every 10,000 residents.
Source: NYS Department of Environmental Conservation 2009 (Superfund Sites) and US Census American Community Survey 2008 (18+ Population)

Water

There are seventeen NYS Department of Environmental Conservation defined watersheds in New York State. The majority of our region is encompassed in the Lower Hudson River watershed. Also in our region are parts of the Delaware River, Housatonic River and Ramapo River watersheds.

The New York State Department of Environmental Conservation (NYS DEC) evaluates water quality based on a water bodies’ ability to support its designated uses, for example drinking water supply, sustaining aquatic life, or providing a location for public swimming or secondary recreation. The DEC reports that 40% of the water bodies in our region are threatened, had minor negative impacts or are impaired.

One third of the water bodies in our region have suffered negative impacts.

Source: NYS Department of Environmental Conservation 2008

DEC Monitored Superfund Sites (per 10,000 Residents)

| NYS Counties | 1.2 |
| Region       | 1.3 |
| Dutchess     | 1.7 |
| Orange       | 1.4 |
| Sullivan     | 0.3 |
| Ulster       | 1.2 |

Source: NYS Department of Environmental Conservation

Water Body Inventory

<table>
<thead>
<tr>
<th>Region</th>
<th>Dutchess</th>
<th>Orange</th>
<th>Sullivan</th>
<th>Ulster</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td>Possibly Threatened</td>
<td>Threatened</td>
<td>Minor Impact</td>
<td>Impaired</td>
</tr>
<tr>
<td>11%</td>
<td>8%</td>
<td>13%</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>22%</td>
<td>26%</td>
<td>33%</td>
<td>11%</td>
<td>17%</td>
</tr>
<tr>
<td>7%</td>
<td>12%</td>
<td>23%</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>48%</td>
<td>43%</td>
<td>36%</td>
<td>51%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Source: NYS Department of Environmental Conservation 2008
According to the DEC, as of 2008, 12% of water bodies in our four counties were possibly threatened but further study was needed, 7% were threatened, 22% had minor impacts, and over one in ten (11%) were impaired.

Ulster County had the healthiest water bodies in our region; 62% had no impacts. This compares with the 36% of water bodies in Orange County in similar standing.

An alternative process for evaluating water quality is stream bio-monitoring. This involves the collection of macro invertebrates that are highly sensitive indicators of contamination and pollution and therefore may be used to inform us about local land use.

Based on an analysis of thirty years of bio-monitoring data, over half (53%) of the Hudson River watershed streams have impacts. There are over 300 streams in the portion of the watershed that is in the estuary. For them the statistics are worse. Sixty-four percent have impacts: 47% slight, 15% moderate and 2% severe.

According to a recent presentation prepared for CRREO by the Hudson River Estuary Program, the historical trend is that “high quality streams have slipped to slightly impacted, while the poorest quality have improved a bit. Most impaired streams are slightly impacted by non-point sources of nutrients, pesticides and related factors.”
Regional Well-Being

Special Focus: Stream Bio-Monitoring

The Regional Well-Being community advisory group identified Stream Bio-Monitoring as an important tool for measuring environmental well-being – both water and land health – in our region. In June 2009, CRREO partnered with the NYS DEC Region 3 Hudson River Estuary Program and Hudson Basin River Watch to train sixteen participants from our four counties in stream bio-monitoring techniques. Over the summer of 2009, as a continuation of that workshop, Professor Shafiul Chowdhury mentored three SUNY New Paltz students: Anthony Schwind, Kevin Kolvenbach, and Emily Davis, and one New Paltz High School student, Johanna Cohen, in a focused study of the Plattekill Creek in the Town of New Paltz.

Stream monitoring involves the collection of macro invertebrates that are highly sensitive indicators of contamination and pollution and therefore may be used to inform us about local land use. These organisms are large enough to be seen and counted with the naked eye (although identification may need to be done using a microscope). Each taxa (or variety) has different tolerances for different physical and chemical conditions. For example, using techniques taught to our students, one could deduce that if stream “A” exhibits taxa concentrations “X”, “Y” and “Z” at one location, there must be a new pesticide being used at an apple orchard upstream. Documenting the presence or absence of certain macro invertebrates provides a simple, yet elegant, rich, and reliable data source for both a snapshot of current water health and a baseline for future comparisons.

For this project, the testing followed the NYS DEC Tier 3 biological, chemical and physical analysis framework which provides information on whether a water body is impacted, and specifically details the impacts. The average score for the Plattekill Brook was on the border between “slightly-impacted” and “non-impacted.” Although the river has impairments in terms of water quality, the brook is not terminally contaminated, and may still provide a viable trout spawning habitat. The team recommended that annual monitoring be continued, to ensure that further contamination be avoided. Furthermore, they concluded that simple changes in the land use of the Plattekill Brook watershed would help improve and maintain a healthy stream. This is important, on a larger scale, too, since the Plattekill Brook is a tributary to the Hudson River. Thus, through monitoring smaller tributaries, possible sources of contamination can be identified before they impact larger water bodies. Also, proactive planning, the incorporation of this data into future land use decisions, would be beneficial to the environment and the community.

In November 2009, the research team presented their results to the New Paltz Town Board. They recommended a buffer project at the study site to keep local cows out of the stream, and suggested that the town explore the DEC Trees for Tribs Program, which provides free trees and shrubs for riparian restoration projects. They also encouraged the board to fund more stream bio-monitoring and to integrate this type of data into public policy and decision-making, for example, as reference material for comprehensive plans and planning board decisions. The team was also selected for the very competitive April 2010 “Showcase of Scholarly Posters at the Capitol” program. This event provides an opportunity for undergraduates from throughout the state to present their research findings to legislators in Albany.
Air

About *nine in ten* days in our region are EPA identified “Good” air days.

The US Department of Environmental Protection Agency (EPA) Air Quality Index ranks daily air quality from “Good” to “Hazardous” for five major air pollutants. On average, in 2008, about one out of every ten days in our region was recorded as a “Bad” air day by the EPA.

In Orange County, air quality was ranked in the worst category for 20% of days, whereas in Ulster County only 4% of days fell into the moderate, sensitive, or unhealthy classification.
COMMUNITY & EQUITY

Overall Score

WHY IS THIS IMPORTANT?
Our Vision: There exists, and residents appreciate, a variety and diversity of people living in the region. The region is affordable, accessible and equitable in all areas. Regional challenges and successes are managed to assure fairness in the distribution of both burdens and prosperity across communities.

HOW DO WE MEASURE COMMUNITY & EQUITY?
Our Community and Equity Indicator incorporates measures of: Population characteristics, People in Need and Income Inequality. In this section we also discuss Homeownership, Minority Experiences and Volunteerism.

HOW ARE WE DOING?
On a scale of 0 to 100, our region scored a 47 on the Community and Equity Indicator. Comparable New York State counties received a median score of 45.

Orange County ranked highest at 56, followed by Ulster County with a 45. Dutchess County was at 42 and Sullivan County received a 27.

Population
Seventy-one percent of the people in our region were born in New York State; all but 12% were born in the United States.

In our region, Ulster County has the highest proportion of residents born in New York State (76%). Orange County has the largest share of residents who were not born in the United States (13%).

Source: US Census American Community Survey 2008
Eighty-six percent of our region’s residents kept the same residence in 2008. Seven percent moved within their own county, 4% moved from within New York State and 3% were new to our country or state.

Source: US Census American Community Survey 2006-2008

From 2000 to 2008, 1,538,274 more people moved out of New York State than moved in from elsewhere in the United States, producing a net domestic population loss of 8.1%.

In contrast, all four counties in our region, due to balancing in-migration, had net population increases from 2000 to 2008. This is particularly significant in light of the fact that only nineteen counties in New York State (31%) showed a rate of net increase in population during the same time period.

The greatest rate of increase in our region was in Orange County where there was a net domestic migration rate of +5%, the highest rate of increase for any county in the state. In Dutchess County the net increase in domestic population for the same time period was +2.1%; in Sullivan County it was +1.6% and in Ulster County it was +1.4%.

<table>
<thead>
<tr>
<th>Region</th>
<th>Total</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutchess</td>
<td>5,992</td>
<td>+2.1%</td>
</tr>
<tr>
<td>Orange</td>
<td>17,259</td>
<td>+5.0%</td>
</tr>
<tr>
<td>Sullivan</td>
<td>1,165</td>
<td>+1.6%</td>
</tr>
<tr>
<td>Ulster</td>
<td>2,446</td>
<td>+1.4%</td>
</tr>
</tbody>
</table>

Source: The Empire Center for New York State Policy 2009
Regional Well-Being

The median age in New York State was 38 in 2008. In Orange County it was 35, in Dutchess County 39, in Ulster County 40 and in Sullivan County 41.

One measure of a healthy population is the presence of a strong potential workforce in place to support the expected retired population. Using 2008 as a baseline, we can project that there will be just under three workers in our region for every retired individual as we move forward over the next five to ten years. Orange County has the strongest potential support for its upcoming retiree population with nearly three and a half workers for each retiree. Two of our counties, Orange and Dutchess, had a balance far more weighted to workers than our sample of comparable New York State counties.

Homeownership

Nationally, 67% of residents owned their homes in 2008. In our region, 72% of housing units were owner-occupied. Sullivan County had the lowest rate (66%) of homeownership in our region. At 74%, Dutchess had the greatest concentration of homeowners.
People in Need

While there were varying rates of need across our region in 2008, overall, a low proportion of people in living in poverty (less than one third, 32%) were actually receiving public assistance. In Orange County, the rate was highest (39%) but still less than half the population in need; in Sullivan County it was the lowest (15%).

In 2008, less than one third of people living in poverty in our region received some type of public assistance.

Many households in our region required food stamps to pay for the food they needed to feed their families. Approximately 19,500 households (6%), received food stamps across the four counties in 2008.

Source: US Census American Community Survey 2008. Proportion of the population with income below poverty level and was receiving public assistance.

Income Inequality

The Gini Index is a measure of income inequality. A Gini score of 0 represents perfect equality: all income is distributed equally across all households. A Gini score
of 1 represents perfect inequality: all the income is earned by only one household.

Nationally, the Gini Index was .47 in 2008, just under the midpoint. In our region, it ranged from .40 in Orange County to .43 in both Sullivan and Ulster counties. That is, income was somewhat more evenly distributed here than it was nationally.

Minority Experiences

Members of racial minorities experience our communities differently than do others. There are racial inequalities in educational, employment and income outcomes.

<table>
<thead>
<tr>
<th>Race</th>
<th>Region</th>
<th>White</th>
<th>Non-white</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No College Degree</td>
<td>71%</td>
<td>70%</td>
<td>76%</td>
</tr>
<tr>
<td>College Degree</td>
<td>29%</td>
<td>30%</td>
<td>24%</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Employed</td>
<td>6%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Employed</td>
<td>95%</td>
<td>95%</td>
<td>90%</td>
</tr>
<tr>
<td>Poverty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income Below Poverty</td>
<td>10%</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>Income Above Poverty</td>
<td>90%</td>
<td>91%</td>
<td>86%</td>
</tr>
</tbody>
</table>


In 2008, while 30% of white residents age 25 or older had a college degree, this proportion was 24% for non-white residents. The unemployment rate for white residents was 5%, whereas one in ten non-white people in the labor force were without a job. The poverty rate for white residents was 9%, in contrast to 14% for non-white residents in our region.

Volunteerism

According the March 2010 Siena Institute survey, nearly half of the residents in our region (48%), volunteered their time in the past year. On average, people volunteered 90 hours a year, that is, about 7 ½ hours per month.

The most frequent contributions were made in the areas of social or community service (33%). Many people (30%) gave their time to educational or youth services. Also popular were religious organizations or sport, hobby, culture or the arts; about one fifth volunteered in these areas.
GOVERNANCE

Overall Score

WHY IS THIS IMPORTANT?
Our Vision: People are empowered to contribute and public engagement is characterized by inclusion, trust, integrity, civility and responsibility. Responsive local governments accommodate economic growth and social, cultural and environmental priorities.

HOW ARE WE DOING?
On the Governance Indicator, our region scored a 64 on a scale of 0 to 100. Dutchess County ranks highest at 71, closely followed by Ulster County with a 70. Sullivan County scored a 64; Orange, 57. The median score for comparable New York State counties was 70.

In addition to our federal, state and county levels of government, there are 116 local municipalities in our region: six cities, seventy-four towns and thirty-six villages.

Engagement

In 2008, about three in four adults age 18 or older in our region (74%) were registered voters and classified as active voters by the NYS Board of Elections.

HOW DO WE MEASURE GOVERNANCE?
The Regional Well-Being Governance Indicator is comprised of measures of: Engagement, Representation, Tax Burden and Public Debt. In this section we also discuss Funding Government, Contested Elections and Trust & Confidence. There are two Special Topics in this chapter: Women in Government and Websites Informing Citizens.

Voter Enrollment

Source: NYS Board of Elections 2008 (Voter Enrollment/Active Voters) and US American Community Survey 2008 (18+ Population)

At 78%, Sullivan and Ulster counties had the highest rates in our region of active voter enrollment.
The region had a key characteristic of a competitive polity; close party division in voter registration. A plurality (35%) of registered voters in our region was enrolled as Democrats. Thirty-two percent were Republican, 26% had no political party affiliation and 7% had chosen an alternative (or “third”) party.

The region's residents reported engaging in some type of political activity in the past year. The most often cited way of participating was to write a check. Seventy-six percent of people reported contributing money to a cause. Nearly half of residents (45%) said they signed a petition.

Source: NYS Board of Elections 2008

Voter turnout in the 2008 presidential elections was high compared with that in off-year elections. In our region, 57% of age-eligible voters cast a ballot. The rate of participation was highest in Ulster County, where voter turnout was 62%.

Many of our region’s residents reported engaging in some type of political activity in the past year. The most often cited way of participating was to write a check. Seventy-six percent of people reported contributing money to a cause. Nearly half of residents (45%) said they signed a petition.

Source: Siena Research Institute survey March 2010. Question wording: “Which of the following things did you do in the past year?”
Thirty-four percent wrote a letter to a legislator or policy maker, 32% worked on a community project and about one-fifth of the population (21%) said they attended at least one political meeting.

Writing letters to newspaper editors and participating in demonstrations, protests, boycotts or marches were the least reported activities, indicated by 13% and 9% of residents, respectively.

**Representation**

**Women in Government**

![Pie charts showing the proportion of women in government across different regions.]

Source: County websites, results for 2008. Proportion of county legislature seats held by women. For counties without legislatures, boards of supervisors were substituted.

While women comprise about half our population, in 2008 only 22% of county legislators in our region were women.

In Sullivan County, one in three legislators was female. In Orange County, only one in ten county legislators was a woman.

**Contested Elections**

![Pie charts showing the proportion of contested elections across different regions.]

Source: County websites 2008. Proportion of county legislature seats held by women. For counties without legislatures, boards of supervisors were substituted.

The prevalence of contested elections is a common indicator of healthy democracy. Of the most recent county legislator elections in our region, 83% included more than one candidate. The lowest proportion of contested elections was in Orange County (76%).
Special Focus: Democracy - Women in Government

There remains a gender gap in elected political representation in the United States, widest at the national level but still significant at the state level. In 2008, women held 16% of the seats in Congress – 16 of 100 in the Senate and 72 of 435 in the House. At the state level, 24% of legislative and statewide executive offices were held by women. While still not demographically representative of the population (51% of which is female) these totals reflect dramatic increases over the last thirty years.

One of New York State's two U.S. senators is a woman, Kristen Gillibrand. She replaced Hillary Clinton, the state's first woman U.S. senator. In 2008, six of our state's twenty-nine house members were women (21%). Currently, our governor is male, and none of our NYS statewide elected officials are women. New York State has never elected a woman for governor. We have had three female Lieutenant Governors: Mary O. Donohue, Elizabeth McCaughey Ross and Mary Anne Krupsak. Sixteen percent of our state senators in 2008 were women, as were 28% of the state's assembly members. Thus, overall, a quarter of state legislative seats were held by women. New York State's ranking for the proportion of female political representation at the state level was 23 out of the 50 states (Center for American Women and Politics, 2008).

In our region, there were 297 women in elected political local government office in 2008. They represented 28% of the elected political leaders in county, city, town or village governments in the four counties. The counties had similar levels of female representation in their political leadership. In Ulster County, 31% of leaders were women. In Orange County, the proportion was 27%, in Dutchess County it was 26% and in Sullivan County it was 25%.

<table>
<thead>
<tr>
<th>Women in Government</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutchess</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>Orange</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>Sullivan</td>
<td>27%</td>
<td>73%</td>
</tr>
<tr>
<td>Ulster</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>City</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>Town</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>Village</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County Executive</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>County Comptroller/Manager/Treasurer</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>District Attorney</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Sheriffs</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Highway Superintendent</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>City and Village Mayor</td>
<td>8%</td>
<td>92%</td>
</tr>
<tr>
<td>Town Supervisor</td>
<td>16%</td>
<td>84%</td>
</tr>
<tr>
<td>Judge</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>County Legislator</td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td>Town Council</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Village Trustee</td>
<td>26%</td>
<td>74%</td>
</tr>
<tr>
<td>City Council</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>Tax Collector/Receiver of Taxes</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Clerks</td>
<td>93%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: County and local government (cities, towns and villages) websites 2008.

In 2008, 21% of county government elected leadership seats were held by women. In city governments in our region, 28% of leaders were women. Twenty-nine percent of elected town government officials and 25% of their peers in village government were women.

Women were more likely to hold legislative than executive positions. There were no women county executives, comptrollers, managers, treasurers, district attorneys or sheriffs in 2008. Ninety-six percent of highway superintendents were men. Most chief executives - town supervisors (84%) and city and village mayors (92%) - were male. Seventy-eight percent of the county legislators and about four in five (81%) elected judges were men. Twenty-eight percent of city council members were women, as were 26% of village trustees and 24% of town council members. Most elected tax collectors (88%) and nearly all clerks (93%) were women.
Funding Government

The average residential real property tax bill in our region was $5,138 in 2008. This includes all property taxes: county, local (city, town and/or village), school district, fire district and other special districts. This was higher than the level in comparable New York State counties, $4,641.

The highest average residential tax in our region was found in Orange County, $5,608, and the lowest in Sullivan County, $3,910.

In 2008, the average residential tax burden in our region was **$5,138** per year.

However, as a proportion of income, tax burdens are similar across all four counties in our region.

County governments in our region collect most of their funds from the local tax base.

In 2008, 76% of county budgets were derived from local sources, 15% from New York State, and 9% from Federal sources.
York State and 9% from the federal government. Dutchess County was the least reliant on local taxes; Orange County, in contrast, was the most dependent on community based tax revenues.

Government Jobs

As noted earlier, a significant proportion of our workforce is employed by the public sector. In 2008, 21% of our region's workers were public workers; 79% were employed in the private sector.

Sullivan and Ulster counties had the greatest proportion of government jobs, 25% and 24% respectively. This compares with a notably lower rate across New York State, 17%.

Social Services spending comprised the largest portion of our region's county government budgets in 2008. Twenty-eight percent of county level spending in our region was in the Social Services category. This was followed by General Government at 17% and the Employee Benefits at 15%. Health (11%) and Public Safety (10%) rounded out the list of categories which encompassed at least double-digit percentages of county government spending in our region.

<table>
<thead>
<tr>
<th>County Government Spending</th>
<th>Region</th>
<th>Dutchess</th>
<th>Orange</th>
<th>Sullivan</th>
<th>Ulster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Services</td>
<td>28%</td>
<td>28%</td>
<td>26%</td>
<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>General Government</td>
<td>17%</td>
<td>18%</td>
<td>18%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>15%</td>
<td>10%</td>
<td>17%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Health</td>
<td>11%</td>
<td>14%</td>
<td>11%</td>
<td>16%</td>
<td>7%</td>
</tr>
<tr>
<td>Public Safety</td>
<td>10%</td>
<td>13%</td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Education</td>
<td>6%</td>
<td>3%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Transportation</td>
<td>6%</td>
<td>8%</td>
<td>3%</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Economic Development</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>&lt;1%</td>
<td>1%</td>
</tr>
<tr>
<td>Culture and Recreation</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Community Services</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Sanitation</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Public Debt

As compared with New York State counties, the county government debt in our region is relatively low. In 2008, the average debt per capita in comparative counties was $229, whereas in our region the average was $76. With $146 per capita, Sullivan County had the region's greatest per capita county government debt.
However, four in ten thought decision makers saw things differently than the public did.

Of all the levels of government, people here have the most trust and confidence in county, city, town or village governments and school districts. About two thirds of residents in the region voiced a great deal or a fair amount of trust these levels of government.

Assessment of our state government was the worst, only 3% of people had a great deal and 30% had a fair amount of trust and confidence in Albany.

In the March 2010 Siena Institute survey, a majority of our region’s residents (60%) felt their leaders’ perspectives on issues were congruent with the public’s viewpoint.
Special Focus: Democracy - Websites Informing Citizens

Our advisory group of community leaders identified open government as a critical component to Regional Well-Being. In order to evaluate the ways in which local government is communicating with citizens via the Internet, in the fall and winter of 2009, CRREO Student Assistants Layla AlQaisi, Maria Davila and Charis Orzechowski - directed by KT Tobin Flusser - inventoried whether or not local governments in our region had websites, and if so, what types of information were being posted by municipalities on these sites.

Our checklist included thirty-eight types of information in nine categories: Contact Information, Forms or Departmental Information, Law, Recent Activities, Public Access, Planning, Environment, Financial and Elections.

All four county governments had their own websites, and all of these contained at least half of the information on our checklist. Ninety-three percent of the 116 city, town or village governments in our four-county region had a website. All local municipalities in Dutchess County had websites. In Ulster County, 96% of the local municipalities had websites, as did 93% in Orange County and 81% in Sullivan County.

Contact Information: The most common type of information found on local governments’ websites was contact information: any type of contact information (94%), phone numbers for elected officials (81%), or email addresses for elected officials (57%).

Forms, Departments: Many of these websites were posting forms like building permits or complaint forms (76%). Nearly three in four (74%) had information about departments, committees and/or commissions along with meeting calendars (72%).

Law: Over two thirds (69%) of municipalities were utilizing E-Code, a web interface that hosts municipal codes. Forty-two percent of municipal sites made available information about “how to” FOIL, that is, retrieve documents via the Freedom of Information Law. Only 28% of municipalities had an ethics policy posted.

Recent Activities: Board or council meeting minutes (64%), agendas (45%), and press releases (59%) were often posted. Sometimes formal resolutions (22%), public hearing notices (16%) or committee vacancies (13%) were found on the web for our region’s local governments.

Public Access: A majority (55%) of municipalities included information about public access on their website. Eleven percent posted meeting videos. Only one municipality was providing live streaming of its meetings.

Planning: Over half (53%) of municipalities had a comprehensive master plan on their website. Nearly half (48%) included Planning Board information; just over a third (36%) had Zoning Board of Appeals postings.

Environment: About one third (34%) of municipalities posted water quality reports; less than a third (31%) included State Environmental Impact (SEQR) information, forms or statements; and only 20% posted Open Space plans.

Financial: Just under half (45%) of municipal websites provided costs such as a schedule of fees. Posting budgets is uncommon (28%); providing labor contracts is very rare (6%).

Elections: Only about one in four municipal websites had some election-related information (24%). It is rare to find election results (13%) or an election district map (11%). (County Board of Elections websites do make available election information and data for counties, cities and towns, but not for villages.)
HEALTH

Overall Score

WHY IS THIS IMPORTANT?
Our Vision: The region’s residents have access to quality affordable health care and abundant opportunities for healthy, safe and fulfilling lives.

HOW DO WE MEASURE HEALTH?
Our Regional Well-Being Health Indicator includes five New York State Department of Health Death Rate measures: Cancer, Heart Disease, Accident, Respiratory Disease and Stroke. Also included in this section is an analysis of Affordability, Accessibility, Unhealthy Behaviors and Environmental health conditions. A Special Focus included in this chapter is on Premature Mortality.

HOW ARE WE DOING?
On a scale of 0 to 100, our region scored a 44 For Health. Our comparable New York State counties received median score of 43.

With a score of 47, Dutchess County ranked the highest on this indicator, closely followed by Ulster County with 46. Orange County attained a 42 and Sullivan County a 39.

Death Rates

Across our state in 2008 the cancer death rate was 160 per 100,000 residents. In all four counties of our region the cancer death rate exceeded this level; the highest rate, in Sullivan County, was 216 per 100,000 residents.

Cancer Death Rate (per 100,000 Residents)

Source: NYS Department of Health 2008. NYS includes all counties in the state.

Dutchess County, at 165 cancer cases per 100,000 residents, had the lowest rate in our area.
In contrast, heart disease death rates were generally lower in three of our counties - Ulster, Sullivan and Dutchess - when we compare to other counties in New York State. Orange County reflects statewide rates.

In 2008, the respiratory disease death rate was far more prevalent in our region than in comparable jurisdictions statewide. The New York State rate was 31 per 100,000 compared with 40 or higher in all of the counties in our region.

Orange County had the highest rate of death by stroke in our region, 33 for every 100,000 residents. Stroke death rates in the three other counties in our region – Sullivan, Ulster and Dutchess – were more in line with statewide rates.
Three quarters of residents (75%) in our region had health insurance in 2008. But, 12% were not able to rely on continuous coverage and 13% of adults had no health insurance at all.

In Ulster County, 16% of households were not insured in 2008 and 15% had a gap in their coverage. Dutchess County had the highest rate of coverage (78%).

An estimated 92,500 adults living in our region skipped a doctor’s appointment because of cost in 2008.
Special Focus: Premature Mortality

Professor Eve Waltermaure and her student Stephanie Marie LaScala conducted an examination of the impact of premature mortality in Dutchess, Orange, Sullivan and Ulster Counties. This study examined the fourteen primary causes of death: AIDS, asthma, breast cancer, coronary heart disease (CHD), chronic obstructive pulmonary disease (COPD), cervical cancer, prostate cancer, colorectal cancer, diabetes, falls, homicides, lung cancer, motor vehicle-related deaths and suicides. Using Department of Vital Statistics data for the years 2000 through 2007, they examined each cause of death in our four counties. An eight-year period was chosen to provide the most stable estimates. The data provided allowed them to calculate two outcomes: Years of Potential Life Lost (YPLL) and Total Potential Earnings Lost (TPEL).

YPLL provides an alternative method of looking at death rates that is sensitive to premature deaths. The YPLL measure is useful for public health policy as it provides a way to examine which programs would most increase the life expectancy of a population. After calculating the YPLL for each cause of death in each county, these data are used to calculate the indirect economic cost of each cause of death using the TPEL measure. The TPEL measures the economic impact on society resulting from the loss of potential earnings due to premature death. It is based on the assumption that each individual has the potential of productive work force participation through the age of 70. Considered a human capital approach, this measure sees each person as producing a stream of output that is valued at market earnings. The approach provides a social perspective of cost of premature death (as opposed to the alternative perspective that looks at the cost of care related to mortality) and has the advantage of using data that are reliable and readily available. The estimated mortality economic loss is the product of the number of deaths and the expected value of a person’s future earnings, based on US Census 2007 median income data across gender and age.

When considering the total number of potential years lost due to mortality, the YPLL calculation provides greater weight to those deaths that occur at younger ages. The high prevalence of coronary heart disease overall keeps this type of mortality ranking high even though it occurs primarily among those aged 75 and older. Lung cancer deaths, though fewer, affect a younger population (age groups from 45 and up). This results in a high YPLL for lung cancer, drawing it very close to CHD. Motor vehicle accidents, while found in the middle rankings when raw numbers are used, moves up to the third (second in the case of Sullivan County); this is the second highest source of years lost due to premature death. Suicides also occur more often among younger people, much like motor vehicle deaths.
Accessiblity

Seventeen percent of adults in our region did not have a regular doctor in 2008.

According to national standards, no fewer than one primary care physician is required to serve approximately 2,400 people (American Academy of Family Physicians). In 2007, in our region, there were 708 primary care physicians, resulting in a ratio of 1 primary care physician to 1,327 persons.

Although this bird’s eye view implies no shortage, there remains a mal-distribution of doctors in our four-county region. There are clusters of doctors in the urban and suburban places and shortages in more rural areas.

In fact, parts of all four counties have been federally designated as either health professional shortage areas (HPSA), medically underserved areas (MUA) or places with medically underserved populations (MUP).


Source: Annual New York Physician Workforce Profile 2008. Ratio of the number of primary care doctors to the total population. Data only includes FTE doctors.

Source: United States Department of Health and Human Services Administration
Nationally, 21% of people smoked cigarettes in 2008. In our region, one in five adults was a regular smoker.

Eighteen percent of our region’s adults reported binge drinking in 2008. This compares to a national rate of 16%.
Only 29% of our region’s residents regularly consumed five or more servings of fruits and/or vegetables on a daily basis.

Nationwide, in 2008, the obesity rate was 34% and 34% of adults were overweight. In our region, 27% of adults were obese and 37% were overweight. About one third (36%) had a healthy weight.

Environmental

Certain ailments and diseases are environmentally related. Here we report Lyme, Asthma and Lead Poisoning incidence rates.

Lyme Disease is a major regional concern. In comparable New York State counties, there were 74 confirmed or probable Lyme Disease cases per 100,000 residents in 2008. In our region, this rate was more than...
four times as high, 342 per 100,000. Rates of Lyme Disease were highest in Ulster and Dutchess counties, 538 and 499 per 100,000 residents, respectively.

Asthma is another environmentally related diagnosis. About one in ten (9%) of adults in our region were diagnosed with asthma in 2008. Nationally, 7% of people had asthma that same year.

Lead poisoning rates among children under age six in our region were highest in Orange County and lowest in Sullivan County, 15.1 and 8.5 per 1,000 children, respectively. The statewide rate was 10.4 per 1,000 children. Dutchess County at 8.6 and Sullivan County at 8.5 had rates of lead poisoning incidence lower than the statewide rates.
ARTS AND CULTURE

Overall Score

WHY IS THIS IMPORTANT?
Our Vision: The region is a magnet for people because it is a vibrant, fun, dynamic, cutting-edge, and environmentally inspiring place to live. The region’s residents have access to a rich array of art, historical, and cultural experiences.

HOW DO WE MEASURE ARTS AND CULTURE?
For our index, the Arts and Culture Indicator consists of measures of: Arts Jobs and Art Funding. This section also includes an analysis of access to and the types of art businesses found in our region.

HOW ARE WE DOING?
On a scale of 0 to 100, our region received a 40 for Arts and Culture. Comparable counties in New York State had a median score of 28 in this category.

With a score of 80, Ulster County ranked at the top, reflecting its extensive arts community. Dutchess County scored 39. Orange and Sullivan counties both received a 25 in this category.

Jobs
For every 100,000 adults in comparable New York State counties, there were 957 Census designated workers employed in the “Arts, entertainment, recreation, accommodation and food services” category. In Ulster County, this number was more than double: 2,173.

Arts Funding
In their 2009 report The Mid-Hudson Valley Creative Ecosystem in a Time of Crisis, the Community Creativity Foundation estimated that as a result of the recent recession, the budgets of arts-related organizations in
Ulster and Dutchess counties were reduced by 20% in 2008, “a decline more than three times steeper than the economy as a whole.” They found that most of these organizations were cutting staff, reducing pay and benefits and establishing shorter work weeks. They predicted, “A significant number of the Ulster and Dutchess County arts organizations will find it difficult to sustain their current level of operation into 2010 without substantial infusions of capital.”

In 2008, three of the counties in our region received more per capita state arts funding compared with other New York State counties; only Orange County garnered less. Other counties in our state received $2.11 per capita New York State Council on the Arts (NYSCA) funding in 2008; we received $2.55 per capita. Ulster County was funded at nearly double the level for comparable counties, $4.21 for every adult resident.

County governments in our region spend, on average, $27 per capita on Culture & Recreation. Nevertheless, at the county level, our region spent considerably less than comparable New York State counties on Culture and Recreation in 2008. Peer New York counties spent about $41 for every adult while our region spent approximately $27. At $45, Sullivan County was the only county in our region that spent more than the average in this category.

Access

Many different types of arts and culture endeavors are funded by NYSCA. In 2008, the most common in our region were state
and local partnerships. This was followed by presentation arts, arts in education and musical endeavors.

<table>
<thead>
<tr>
<th>Funding Categories</th>
<th>Region</th>
<th>Dutchess</th>
<th>Orange</th>
<th>Sullivan</th>
<th>Ulster</th>
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<tbody>
<tr>
<td>State &amp; Local Partnerships</td>
<td>19%</td>
<td>9%</td>
<td>27%</td>
<td>30%</td>
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<tr>
<td>Presentation Arts</td>
<td>16%</td>
<td>24%</td>
<td>27%</td>
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<td>Music</td>
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<td>6%</td>
<td>20%</td>
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<tr>
<td>Architecture Planning &amp; Design</td>
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<td>12%</td>
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<td>Literature</td>
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<td>Special Arts Services</td>
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<td>Individual Artists</td>
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<tr>
<td>Stabilization</td>
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<td>&lt;1%</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Source: NYS Council on the Arts (NYSCA) 2008

Over one third (36%) of the 2008 arts businesses in Dutchess and Ulster counties were visual arts or photography related. One quarter did design or publishing, 18% were engaged in performing arts and 12% were film, radio or television related. Fewer than one in ten was an art school, museum or historical society.

A 2007 Business Week survey ranked Kingston, New York in Ulster County as fifth in the country in art establishments per capita, and sixth in its overall ranking of “best places to live for artists.” Their Arts & Culture Index included “the number and size of local area resources such as museums, philharmonic orchestras, dance companies, theater troupes, library resources, and college arts programs.” On a scale of 0 to 100, Kingston received an 87.

Of the nine Hudson River cities that are part of the Arts Along the Hudson consortium, seven are in our region: Beacon, Kingston, New Paltz, Newburgh, Poughkeepsie, Rhinebeck and Woodstock. Each month these communities celebrate the arts with exhibitions and performances, opening receptions, studio tours, music, poetry readings and awards.
SAFETY

Overall Score

WHY IS THIS IMPORTANT?
Our Vision: The region provides residents with abundant opportunities for healthy, safe and fulfilling lives.

HOW DO WE MEASURE SAFETY?
The Regional Well-Being Safety Indicator consists of measures of: Crime Rates and Police/Crime Ratios. Information is also presented in this section on Hate Crimes and Vehicle Accident Rates.

HOW ARE WE DOING?
Our region received a 58 on a scale of 100 for Safety. New York State comparable counties attained a median Safety score of 51.

Ulster County scored a 71, Dutchess County was at 58 and Orange County received a 54. At 48, Sullivan County ranked the lowest in the region for Safety.

Crime

Index crimes are divided into two categories: Violent and Property crimes. Violent crimes include murder, forcible rape, robbery and aggressive assault. Burglary, larceny and motor vehicle theft are property crimes.

![Index Crime Rates graph]

The index crime rate in our region in 2008 was 2,238 per every 100,000 residents. The statewide rate was 2,374.

At 2,011, Ulster County had the lowest rate of index crimes in our region. The highest rate was in Orange County, 2,400.

The vast majority (88%) of index crimes committed in our region in 2008 were property crimes. Twelve percent of index crimes in the region were violent crimes.

Source: NYS Division of Criminal Justice Services 2008
The index crimes committed in our region are much more likely to be property crimes as opposed to violent crimes.

In 2008, there were 8.4 index crimes recorded per police officer in our region. In Sullivan County, the ratio was the highest, 12.4. The lowest ratio, 6.6, was in Ulster County.

There were seventeen hate crimes committed in our region in 2008. Eight such crimes were reported in Orange County. In that same year, there were two hate crimes reported in Sullivan County and one recorded in Ulster County.
In 2008, the motor vehicle accident mortality rate in our region was approximately 11.5 deaths per 100,000 residents. The lowest rate, 8.9, was found in Dutchess County. The highest was in Ulster County, 17.0. The statewide rate was 7.3 and the national rate was 12.3 per 100,000 residents.
DATA SOURCES

- American Academy of Family Physicians
- The Center for Health Workforce Studies (CHWS)
- County and local government (city, town and village) websites
- Dutchess County Arts Council
- The Empire Center for New York State Policy
- General Social Survey (GSS)
- Mid-Hudson School Study Council
- National Center for Education Statistics (NCES)
- National Highway Traffic Safety Administration
- New York Physician Workforce Profile
- New York State Board of Elections (NYS BOE)
- New York State Council on the Arts (NYSCA)
- New York State Department of Education
- New York State Department of Environmental Conservation (NYS DEC)
- New York State Department of Health (NYS DOH)
- New York State Department of Labor (NYS DOL)
- New York State Department of Transporation (NYS DOT)
- New York State Division of Criminal Justice Services (NYS DCJS)
- New York State Economic Development Council (NYS EDC)
- New York State Energy Research and Development Authority (NYSERDA)
- New York State Office of Real Property Services (NYS ORPS)
- New York State Office of the State Comptroller (NYS OSC)
- New York State School Boards Association (NYSSBA)
- Newsweek Magazine: Nationwide Public School Rankings
- Siena Research Institute. The Siena Research Institute survey cited in this report was conducted April 7-20, 2010 via telephone calls to 423 residents in the region, proportional to county populations. It has a margin of error of ±4.8%.
- U.S. Census: American Community Survey (ACS)
- U.S. Census: Quarterly Workforce Indicators (QWI)
- U. S. Department of Agriculture
- U.S. Environmental Protection Agency (EPA)
- U.S. General Services Administration (GSA)
- U. S. Department of Health and Human Services Administration

Please refer to the separate document, Methodological Documentation for a detailed description of the methods used to construct the Regional Well-Being Index.
REFERENCES


NYS Department of Environmental Conservation. (2009). Adopt the Climate


