CRREO

CENTER FOR RESEARCH, REGIONAL EDUCATION AND OUTREACH

STATE UNIVERSITY OF NEW YORK AT NEW PALTZ

Agriculture Supporting Community in the Mid-Hudson Region

Discussion Brief #5 – Spring 2011

Brian Obach and Kathleen (KT) Tobin

REGIONAL WELL-BEING

The valley's farmers have been tenacious and entrepreneurial in finding ways to make a living from the land.

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THERE HAS BEEN SOME ENCOURAGING NEWS LATELY FOR THOSE WHO WISH TO PRESERVE THE RURAL CHARACTER OF THE MID-HUDSON VALLEY.

The growing vitality of small farms and Community Supported Agriculture (CSA) is helping farming to reclaim its central place in the economic and social lives of our region's communities. The valley's farmers have been tenacious and entrepreneurial in finding ways to make a living from the land. Moreover, environmental and health concerns among farmers and consumers have been driving forces supporting a renaissance in small-scale farming. Now the region's challenge, building upon its centuries-long agricultural legacy, is to make smart policy choices to reinforce these hard won successes.

Agriculture has long been central to the Mid-Hudson Valley's way of life, and farmers have played important leadership roles in our communities. In recent decades, however, changes in the industry and development pressures have combined to threaten this core enterprise. Although population is declining across rural New York State, this is not the case in Dutchess, Orange, Sullivan and Ulster counties. As technology has facilitated work at a greater distance from the metropolitan center, families have moved northward from New York City in search of secure and affordable homes. Meanwhile, the increased costs to sustain working farms have led to the sale of very productive farm land across our region for housing, commercial, and industrial uses. Too often this has challenged our agricultural economy, altered and damaged the natural environment, diminished the vitality of our cities and villages and threatened the rural character of our communities.

As we will show, farming brings with it not just economic and environmental benefits, but also strengthened community ties and increased civic engagement. Well established farmers and young new comers drawn to the agricultural lifestyle have made an enormous contribution to reinvigorating agriculture in the Mid-Hudson Valley. They have used innovative marketing strategies and business models that emphasize ecological sustainability and regional identity.

A century ago, ***74%*** of the land in our region was devoted to farming. In 2007, this was down to ***13%***.

This report will focus on ways to build upon existing achievements to further revitalize the Mid-Hudson Valley's agricultural economy and to preserve our rural character and working landscape.

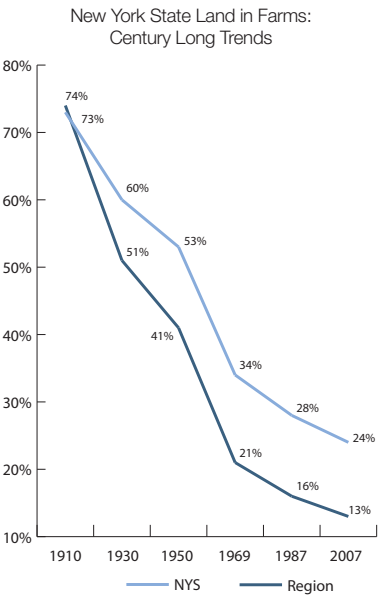
AGRICULTURE IN THE REGION: A CHANGING LANDSCAPE

Declining Farmland

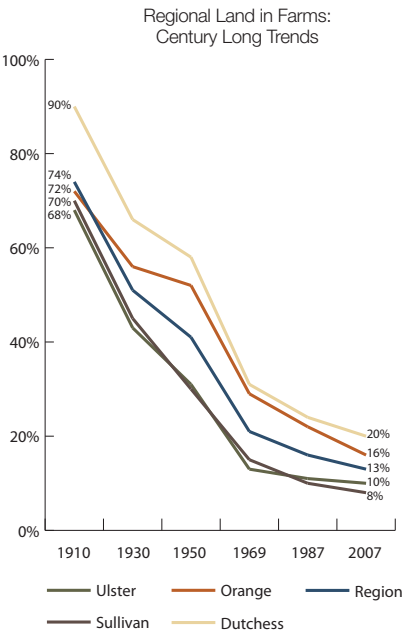
New York State has experienced a century long decline in the number of its farms and the proportion of its land under cultivation, as America's agricultural production has come to be concentrated in the mid-west and west. Following the Civil War, New York State led the nation in farmland acreage (Bills, 2010). In 1910, there were over 200,000 farms across our state; farms occupied nearly three quarters (73%) of state land. By 2007, there were fewer than 40,000 farms and only 24% of the state's land was agricultural.

Historically, the Mid-Hudson region has been particularly important in the state's agricultural landscape, both for the high quality of our soil and our proximity to markets. But in the past century, the percentage of land devoted to farming in our region has declined even more precipitously than in the state as a whole.

Nearly three quarters (74%) of the four-county region's land was farmland one hundred years ago, but by 2007 this had fallen to 13%. In 1910, there were over 16,000 farms in our region; in 2007 there were fewer than 2,200.



Source: USDA Census of Agriculture



Source: USDA Census of Agriculture

Dutchess County experienced the largest decrease in the percentage of land in agriculture, with a decline from 90% to 20%. Sullivan County's farm acreage decreased from 70% to 8%, Ulster County's from 68% to 10% and Orange County's from 72% to 16%.

Looking just at the last twenty years, in Orange County, the southernmost county in the region and the one with the highest net domestic population in-migration rate in all of New York State, the proportion of land devoted to farming dropped six percentage points, or more than 25%, from 22% to 16%.

Rising Agricultural Revenues

Despite the decrease in acreage under cultivation, the economic value of New York's agricultural products has been increasing in recent years; farming still represents an important element in our statewide and regional economy.

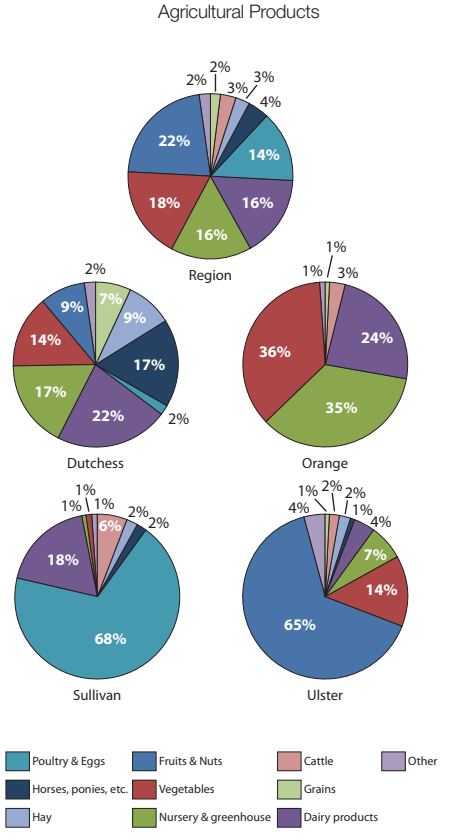
In 2007, the value of sales of agricultural goods in New York State was over $4.4 billion, up from $2.8 billion a decade earlier. When support industries and the processing of agricultural goods are factored in, the industry generates $31.2 billion annually. In our region, sales of

Annual sales of agricultural products total over ***$226 million*** in our region.

agricultural goods totaled over $226 million in 2007 (USDA Census of Agriculture, 2007).

Dairy production has the most overall economic importance statewide, constituting over half of all agricultural products sold. While dairy comprised over half of our region's farm output in the mid-twentieth century, it was down to a quarter at the close of the century, and today only represents 16% of our agricultural sales. Currently, in our region the distribution of farm output is more diverse compared with the statewide emphasis on dairy, with each county having its own unique mix and specializations.

Ulster County is one of the nation's leading producers of apples; fruit, nuts, and berries comprise about two-thirds of its agricultural output. Sullivan County is among the state's leading poultry and egg producers; this category represents over two-thirds of its agricultural products. Orange County has a sizable vegetable and nursery industry in addition to dairy production. Dutchess County is the most diversified, with dairy and nursery products, vegetables, and horse farms representing the largest sectors.



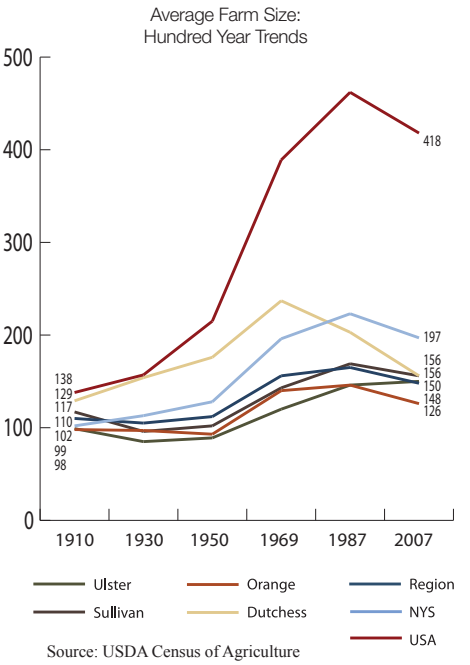
Source: USDA Census of Agriculture 2007. Percentages based on values of sales by commodity group.

Farm Size Trends

Reflecting a general pattern in the Northeastern United States, New York farms are smaller compared with the national average. While average farm sizes increased considerably during the mid- to late twentieth century, they have been decreasing in the past twenty years or so. In 2007, the average New York farm was 197 acres while the national average was 418 acres. Two decades earlier, the state average was 223 acres; nationally it was 462 acres. Using another measure, the median farm size in our state dropped from 131 acres in 1997 to 95 acres in 2007.

However, this focus on averages and medians obscures the story of growth on either end of the spectrum. The proportion of both large and small farms is growing in the United States; there are many fewer mid-sized farms. And despite an increase in the small farm sector, the increase in acreage was mostly concentrated in very large farms. Thus, overall, nationwide, agricultural production continues to be further concentrated in large agricultural enterprises.

Large farms are able to capture economies of scale that make



Source: USDA Census of Agriculture

Nationwide, and in our region, while the overall number of farms has decreased dramatically, the proportion of both large and small farms has grown, and mid-sized enterprises have been squeezed out.

it difficult for mid-sized farms to compete. The use of very costly advanced farm machinery that enables the efficient cultivation of huge tracts of land, typically dedicated to just one or a few crops, is confined to industrial scale farms. Improvements in transportation have created a single national, and for some crops, a global market in which individual farmers must compete against every other farmer in the world. Government subsidies have also tended to favor large operations, further weakening the competitive position of mid-sized farms (USDA Economic Research Service, 1984).

Many operations outside New York State and abroad often enjoy economies of scale, lower labor and production costs and more favorable soil and climactic conditions. This places farms in our state at a competitive disadvantage. In our region in particular, residential development pressures have driven up land values and property taxes. Faced with economic pressures and an attractive financial alternative, many farmers on mid-size farms have sold their land and left farming. Mid-sized New York farms have been finding it harder and harder to compete given the new structure of the market for agricultural goods.

In 1910, a majority of the farms in our state and in our region were medium sized farms, 55% and 54%, respectively. By 2007, these percentages had decreased to 38% and 35%. Further, while the proportion of small and very small farms (totalling about a third) remained stable across the state, in our region this grew from 31% to 43%.

Also, while the percentage of large farms doubled across the state, coming to represent three in ten, it increased by about half in our four counties, where only 22% of farms are categorized as large. With differences in detail, these hundred-year trends were consistent in all four of the region's counties.

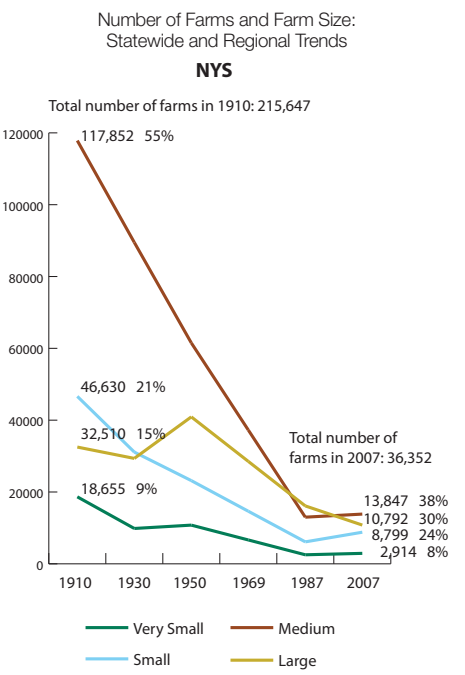
Looking at the most recent twenty years statewide and across our region, while the overall number of farms has continued to decline, the proportion of mid-size farms has been somewhat stable, with decreases in the percentage of large farms and increases in the proportion of very small and small farms.

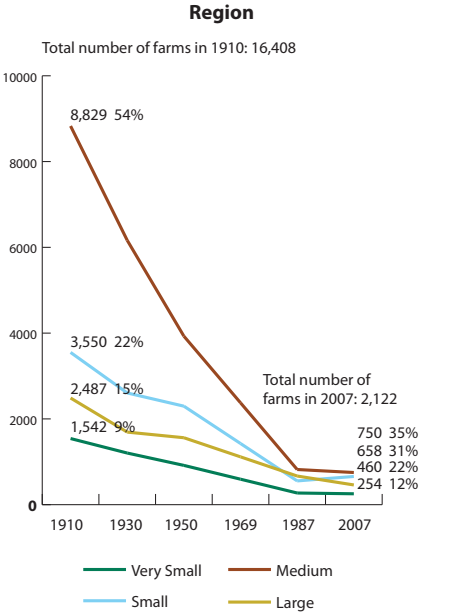
ORGANIC & LOCAL: THE REBIRTH OF SMALL SCALE FARMING

The Organic Food Movement

The growth in small farms is in part attributable to a national consumer movement favoring locally grown or "slow food,"

Number of Farms and Farm Size:
Statewide and Regional Trends



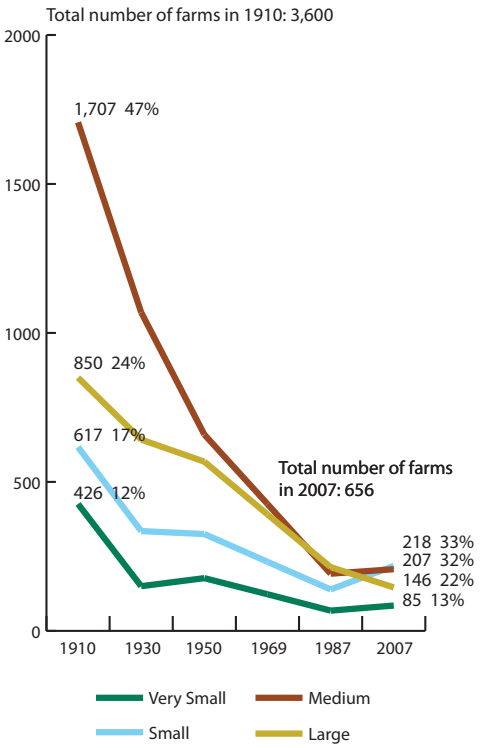


Source: USDA Census of Agriculture [1]

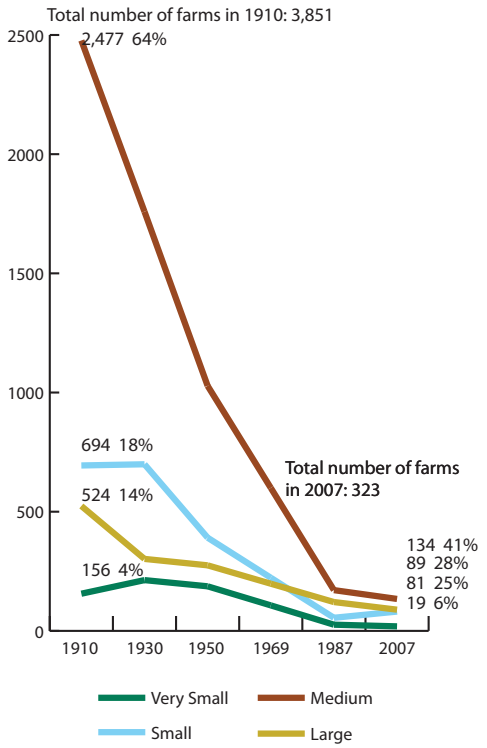
[1] For 1910 and 1930 USDA Census of Agriculture figures: very small farms are less than 10 acres; small farms are 10-49 acres; medium size farms are 50-175 acres; large farms are 176 acres or more. For figures 1940 or later: very small farms are less than 10 acres; small farms are 10-49 acres; medium size farms are 50-179 acres; large farms are 180 acres or more. Data for 1969 was unavailable and values were imputed.

Number of Farms and Farm Size:
County Trends

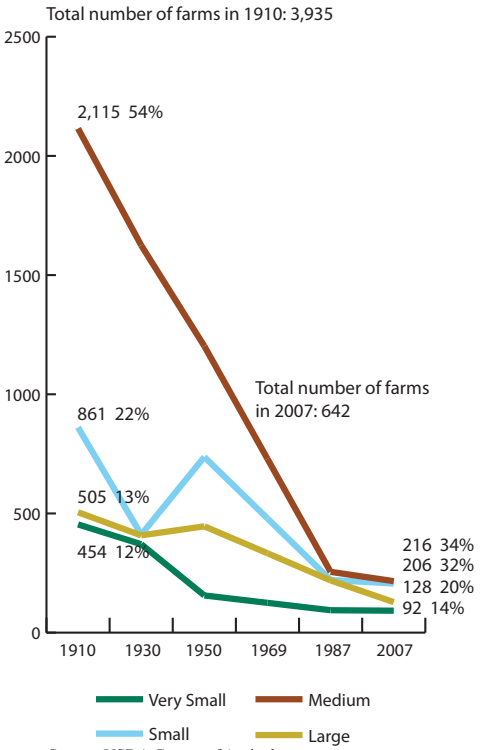
Dutchess County



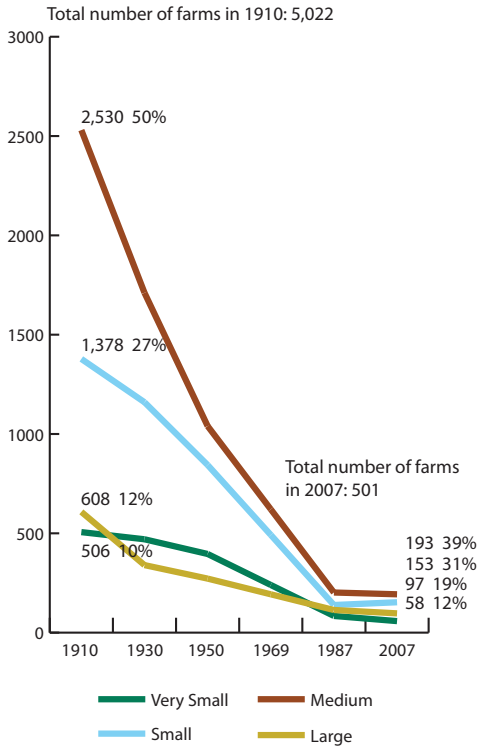
Sullivan County



Orange County



Ulster County



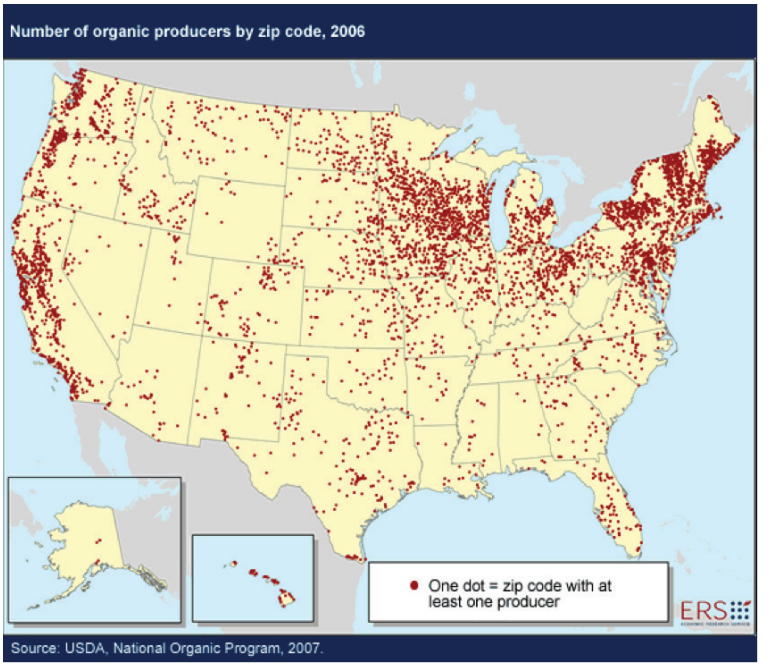
Source: USDA Census of Agriculture

In 2008, New York State was ranked ***#3*** in the nation for the number of certified organic operations, and ***#10*** for the total number of acres dedicated to organic farming.

rooted in health considerations, environmental concerns and a growing interest in regional identity. Initially, the focus of this "alternative agriculture" movement was on organic foods, those produced in ways more compatible with natural systems and which shunned the use of synthetic pesticides and fertilizers. Proponents of alternative agriculture were reacting to the feared negative effects of synthetic chemicals used in the large-scale monoculture farming that became widespread in the United States following World War II.

By 1983, the North East Organic Farming Association of New York (NOFA-NY) was established, operating in affiliation with six other NOFA chapters in the northeastern United States. This provided a stronger organizational base for proponents of alternative agriculture. Occasional scares about food safety elevated interest in organic products, moving it beyond its counter-cultural roots. For example, in the late 1980s, a widely publicized report linked the plant growth regulator, Alar, to cancer. Because Alar was commonly used on apples, this had a major impact in the Hudson Valley. There was a dramatic boost in organic consumption nationwide. Responding to these market trends, more regional farmers began to use more natural, less chemically-based approaches to agricultural production.

During this era some states (but not New York) assumed a regulatory role in regard to organic practices and marketing claims. They passed laws to assure that products so labeled were produced in accordance with certain criteria, yet the specific standards that defined organic varied nationwide. In 1990, the federal government initiated a process to create national standards for organic agriculture. Twelve years later, after much debate and deliberation, the US Department of Agriculture launched the National Organic Program, ensuring a single nationwide standard and federal oversight of organic production. This provided another significant boost to the organic food sector. As a result of this heightened interest and institutional support, existing organic farms flourished. Many conventional small and medium sized farms converted to organic production to capture the price premiums that consumers were willing to pay for food considered healthier and produced under more ecologically sound conditions. Yet, some of these benefits were lost as some organic enterprises grew in size and started to adopt industrial style methods.



Thus while organic farming was originally the province of small scale farmers selling fresh produce directly to consumers through farmers markets and local coops, today organic foods of all sorts are produced on a large scale and distributed through conventional national and international supply chains. Large national retailers specializing in natural and organic foods, such as Whole Foods, moved in and captured a significant share of the retail market. These chain stores can mostly be found in densely populated urban and suburban centers, e.g. New York City and on Long Island.

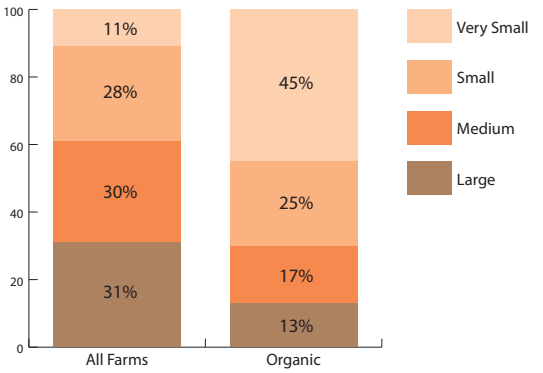
Although there are still no national natural foods retailers located in our region, organic goods may now be found in virtually all conventional supermarkets and in a number of smaller independent natural foods retailers.

Despite the "conventionalization" of organic agriculture, a great majority of organic farms in the US still tend to be very small or small (70%), whereas a majority of farms in general are medium or large (61%). And given the overall growth in the organic sector, there are indicators that traditional small scale organic farmers are able to survive even in the face of competition from industrial scale organic producers.

In some instances, small scale farmers may have reaped a comparative advantage as a result of the conventional food industry's migration into the organic market. Many long time proponents of organic have reemphasized the local component that was inherent to organic production before the entrance of the conventional food industry. Thus, perceived shortcomings of organic production as currently practiced have bolstered a new movement that focuses specifically on the benefits of local, small scale production. Mid-Hudson Valley farmers stand to reap the rewards of this development.

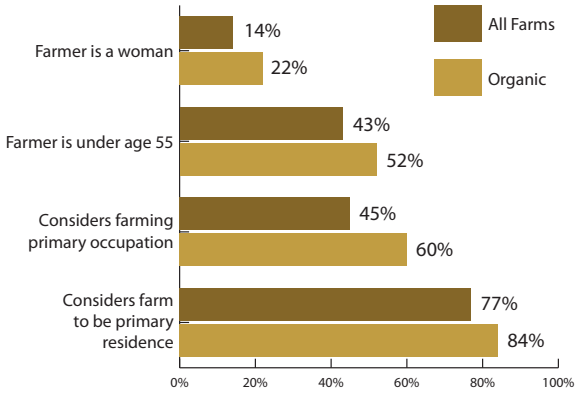
A promising sign for the future of small scale farming is that, compared with farmers in general, organic farmers tend to be younger, and are more likely to consider their farm their primary residence and farming their primary occupation. There are also a larger percentage of female farmers entering this segment of the industry.

National Farm Size: Organic 2007



Source: USDA Census of Agriculture

Sociodemographic Characteristics of Organic Farms



Source: USDA 2007

The Benefits of Local Food

Popular interest in local food, partly arising from the organic movement, offers additional hope for small farmers. Local food appeals to consumers not only for the perceived health and environmental benefits, but also because it advances community values and invigorates regional economies. When consumers of both local and organic foods in our region were asked about which they prioritize, a majority indicated that buying local was more

People choose to buy local food to support local farmers and the local economy.

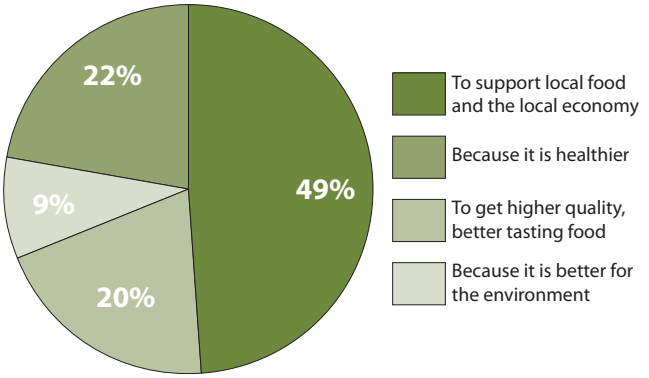
important to them than buying organic.

Supporting Local Economies
Many people want to support their local economy through their food purchases. In our survey of local and organic food consumers (further detailed below), "to support local farmers and the local economy" was cited by 49% of consumers as their primary reason for purchasing local food.

There is clear evidence of the economic benefits of local consumption. One recent study found that for every $100 spent in local stores, $68 stays in the community while for every $100 spent in a national chain, only $43 stays within the local economy (Baxter, 2010). With regard to agriculture specifically, on average, farmers receive only twenty cents of every dollar spent on food (USDA, 2010). But when they sell directly to consumers, farmers are able to capture virtually all of the return on their products, thus bolstering the economic viability of their farms.

Agricultural tourism also benefits local economies. Tourists from New York City and its surrounding suburbs love to pick apples and pumpkins in our fields, wander through our corn mazes, tour our vineyards and taste our wines (the first wineries in the country were established in our region during the 1600s). In 2008, tourism was a $1.7 billion industry in our four-county region. Our farms and farm-scapes are one big reason for this success.

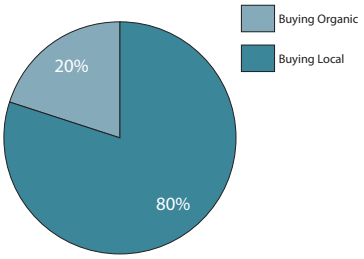
Reasons for Purchasing Local Food



Source: CRREO/Siena Research Institute survey March 2010. Question wording: "Please rank the following reasons for purchasing local food from 1 to 4 in order of their importance to you." Percentages reported are for those who responded #1 for each reason.

Connection to Place
Proponents of "slow food" tout the virtues of enjoying in-season local foods and the sense of place and identity that such consumption fosters, compared with the anonymity associated with homogenous mass produced fare available internationally through the conventional food industry. Eating local keeps people in touch with the change of seasons, an awareness that is lost when relying on food provided at a supermarket, imported from all over the globe. Growing interest in regional foods locally is evident from several cookbooks based on Hudson Valley foods that have been published in the last decade (Malouf, 1998; Pensiero, 2009; Rose, 2009).

Alternative Food Consumer Priorities



Source: CRREO/Siena Research Institute survey March 2010. Asked of regional residents who purchase both local and organic food. Question wording: When buying food, which is more important to you: buying local or buying organic?

Curtailing Overdevelopment
Nationally, on average, in 2002, two acres of farmland were lost to development per minute. New York State was in the top five states "that have lost the greatest percentage of their best farmland" (Becker, 2002). Having witnessed this loss throughout the downstate region, and now experiencing it closer to home, many Mid-Hudson Valley communities are seeking

ways to preserve open space and the scenery represented by working farms. Buying locally produced goods is one way to do this.

Moreover, farms require fewer municipal services than residences, and place a lesser burden on local tax bases. Low density residential development, or sprawl, in traditionally rural areas not only increases the cost of government, but contributes to traffic congestion and environmental degradation.

Energy Efficiency
Consuming local food decreases "food miles," the distance goods have to travel from farm to table. This means less reliance on fossil fuels, a concomitant reduction in the amount of energy used to transport food and less of the types of pollution associated with transportation. In short, eating local foods reduces our carbon footprint.

Air and Water Quality
Although there is no necessary connection between local small scale food production and the usage of synthetic pesticides and fertilizers, many small farmers targeting local markets utilize organic techniques or integrated pest management for environmental reasons. Such methods reduce the negative air and water-borne impacts associated with most conventional food production.

Fresher, Healthier, Better Tasting Food
In many cases local food can be purchased on the same day as it is harvested and consumed shortly thereafter. This reduces the loss of nutritional value that can occur when food must be shipped or stored for long periods. The application of chemicals designed to forestall ripening is rendered unnecessary, thus reducing exposure to potentially harmful substances. Many slow food advocates point out that less time from field to table and less chemical usage also translates into tastier food.

Food Security
According to the World Health Organization, a large portion of the worlds' people lack access to sufficient, safe, nutritious food to maintain a healthy and active life. We think about this as mostly an issue in less developed countries, yet the absence of access to nutritious food in many communities in the United States is an emerging national issue. Access to local farm products can provide the urban and rural poor with fresh nutritious foods that are often unavailable through the conventional food distribution system.

Emergency Preparedness
The further food has to travel, the greater the opportunity for bio-terrorism. Many recent policy recommendations regarding emergency preparedness include plans for regional foodsheds, so that in the event of a crisis that impedes travel or communication over long distances, food will be readily available to local populations.

Getting Back to Local
When independent locally owned grocery stores dominated the market, many foods, especially fresh produce, were locally sourced when in season. Modern techniques for preserving and quickly transporting perishables across the globe led consumers to expect access to all foods at any time of year. National food distributors established year-round supply networks and close ties with supermarkets while connections between retailers and local farmers declined. Still, some independent grocers and even supermarkets carry some locally produced goods. As interest in local foods has grown, larger scale retailers routinely tout the local origin of some of their products. But for these actors, price remains a dominant concern, and in the international food market, smaller local producers cannot always compete against low cost bulk importers. This has led some farmers, especially small ones, to focus on other marketing approaches.

Farmers markets are a traditional outlet for locally produced goods. Their popularity has grown in recent years as interest in local foods has risen. Selling directly to consumers on their farms, and in now well-established greenmarkets in heavily populated areas, allows Mid-Hudson farmers to capture almost 100% of the retail sale price of their goods. The number of farmers markets in the United States rose from 1,755 in 1994 to 6,132 in 2010. In our four-county region, there were over 40 farmers markets in 2010.

Many farmers markets now include much more than just fresh produce. They offer a host of locally processed and prepared ready-to-eat foods. In addition to summer markets featuring fresh produce, year

round farmers markets have begun to appear in the region, selling items such as cheeses, honey, maple syrup and, sometimes, frozen locally produced fruits and vegetables. Today farmers markets attract not just consumers looking for items to buy, but those who want an experience that connects them to their food, their communities and their region. Farmers market shoppers value meeting the people who grow their food and want to learn more about what they are eating. There shopping is not just routine, but a recreational activity that may include having a meal on site, live entertainment and informational tables about local agriculture, events or community issues.

COMMUNITY SUPPORTED AGRICULTURE

Perhaps the most significant agricultural marketing innovation in recent decades is community supported agriculture, or "CSAs". The origin of this approach can be traced to Japan during the 1970s. Residents in rural areas, seeking to maintain traditional access to fresh locally grown food, formed *teikeis* in response to the increasing departure of farmers to take up employment opportunities in nearby urban areas (Parker, 2005). Their approach was to pay farmers for a share of the harvest in advance. This arrangement provided security for farmers. It also gave them access to the resources they needed at the beginning of the growing season without the cost and risk of bank loans, which might plunge them into debt and force them out of operation in the event of a bad season or two.

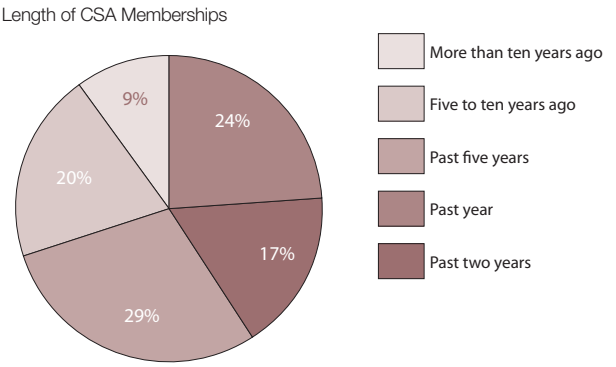
This approach was soon emulated in the United States through the creation of CSAs. Here, too, CSA members are offering small farmers a kind of insurance, sharing the risk that the farmer would otherwise fully bear. An occasional poor season may mean a smaller single year return, but this loss is distributed across many people. Farmers are thus able to continue in the next season. In addition, because of the greater diversity of crops that CSA farmers commonly grow, losses in one or a few crops due to weather or adverse growing conditions still represents relatively little risk for members.

The first CSAs in the United States began to appear in the early 1980s (Adam, 2006). They now abound. In 1990, there were approximately 60 CSAs in the country. Today there are an estimated 12,549 (US Department of Agriculture, 2010). Over 350 of these are in New York State, 54 in our four-county region.

The Mid-Hudson Valley has 5% of the state's population and 16% of its CSAs. Farms more often than not have waiting lists for new memberships. An estimated 2150 regional households hold CSA memberships; of these, nearly one in ten first joined a CSA more than ten years ago, while seven in ten have become members just in the past five years.

About two in three CSAs report that while they use organic growing practices, they are not officially certified by the USDA (Woods et al, 2009). (Farms grossing less than $5,000 annually are allowed to use the term organic even without official certification.) But due to their small size and the direct personal trust relationships established between CSA farmers and members, outside oversight of organic practices is considered less essential.

CSA farms tend to be very small; in New York the median size is three acres (Northeast Organic Farming Association, Inc.). Some specialize in particular products such as meat



Source: CRREO Alternative Food Consumer survey Summer 2009. Asked of CSA members. Question wording: "When did you first join a CSA: within the past year, in the past two years, in the past five years, five to ten years ago, or more than ten years ago"?

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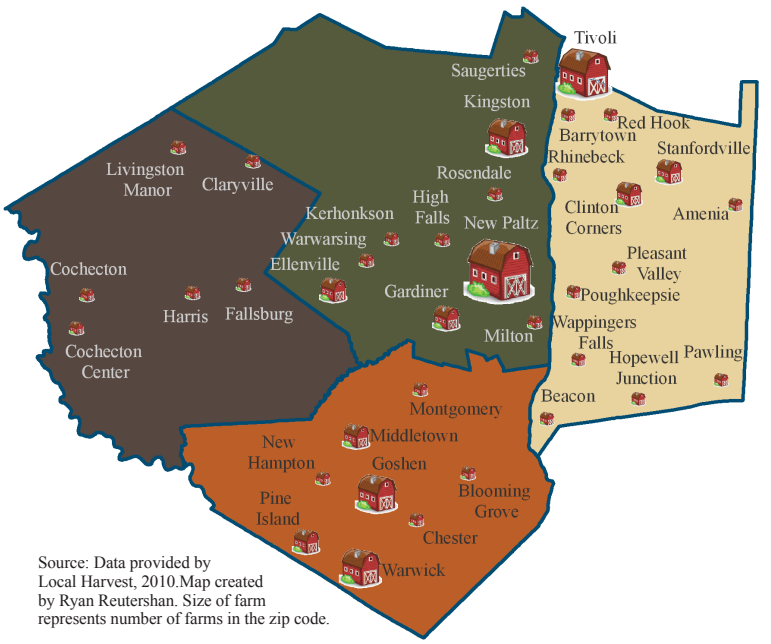
Community Supported Agriculture (CSA) Farms



Source: Data provided by Local Harvest, 2010.Map created by Ryan Reutershan. Size of farm represents number of farms in the zip code.

Farming as Social Policy

Many CSAs in our region have programs designed to address the needs of those in poverty. In 2004, Cheryl Rogowski, of Orange County, was the first farmer ever awarded a MacArthur Foundation fellowship, in recognition of her creation of a CSA targeted to provide low income households with local produce. The Phillies Bridge Farm Project, in Ulster County, has a "Farm to Families" program that provides free or subsidized shares to low income families. The program also hosts farm visits and provides cooking demonstrations for participants in order to raise awareness about nutrition and agriculture in underserved communities.

Some CSAs have policies or programs, like sliding scale pricing, designed to provide low income people with access to quality food. About four in ten CSAs report donating excess product to food banks (Woods et al, 2009). Often, as well, farmers will allow their members to donate part of their shares to food pantries and soup kitchens.

or herbs, but most offer a wide variety of fresh produce that is distributed weekly at some central location or from the farm itself. Often, groups of farmers will collaborate to distribute their food at one location. For example, at Taliaferro Farms in New Paltz, members can pick up their produce share as well as purchase local cheeses, meats, and wines from other vendors. CSAs also have close ties to farmers markets. About six in ten report selling excess product at such venues (Woods et al, 2009).

Building Community

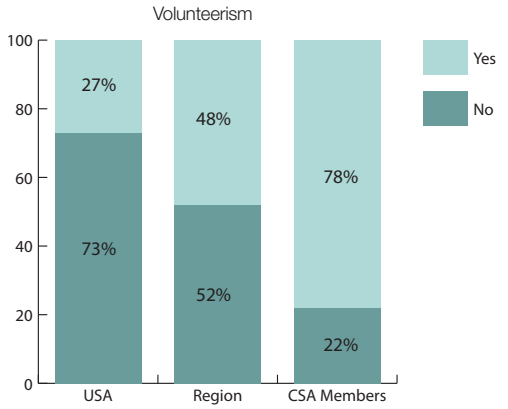
Sociologist Thomas A. Lyson coined the term "civic agriculture", to describe the linkages between local agriculture and a community's social and economic development (Lyson, 2004). Civic agriculture, Lyton posits, is epitomized by community supported agriculture. Like farmers markets, CSA "pick-up days" provide an opportunity for consumers to interact directly with those who grow their food and to socialize and cultivate a sense of community among members. So does the element of shared risk among members; if the weather impedes the harvest and the "loss" must be spread across all shares.

Our abundance of Community Supported Agriculture led CRREO's Well-Being Project to test some ideas about the civic effects of this development in the Mid-Hudson region. Surveys were conducted

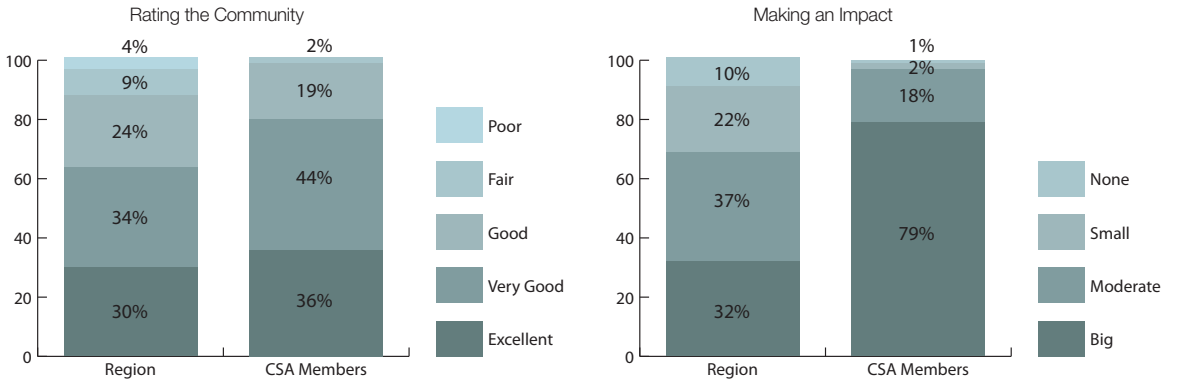
Nearly eight in ten CSA members feel they can have a big impact in making their community a better place to live.

in the four counties to examine the reasons behind people's food purchasing decisions, especially as they relate to local and organic food and participation in CSAs. We also sought to understand the relationship between the values that inform food consumption and civic engagement, another important well-being element.

In order to measure CSA members' connectedness to community and civic engagement, we conducted two surveys. The first was done at CSAs, health food stores, and farmers markets. 887 people were surveyed in this portion of the study, 440 of whom were CSA members. The second survey involved telephone interviews of 423 randomly selected residents from throughout the region. In our region, CSA members rate their communities and their own personal efficacy more positively compared with residents of the region as a whole. Four fifths of CSA members, but fewer than two thirds (64%) of regional residents, rate their communities as an excellent or very good place to live. About the same proportion of CSA members, nearly eight in ten (79%), feel that they can make a big impact on their communities, compared to about one third (32%) of regional residents in general. We also found that CSA members have significantly higher rates of voluntarism and participation in local politics. Nationally, 27% of the population volunteers at least some of their time through or for an organization. Our region has a considerably higher rate of civic engagement; nearly half of our residents (48%) volunteer their time. However, CSA members in our area are particularly involved, with 78% reporting that they engage in volunteer work.

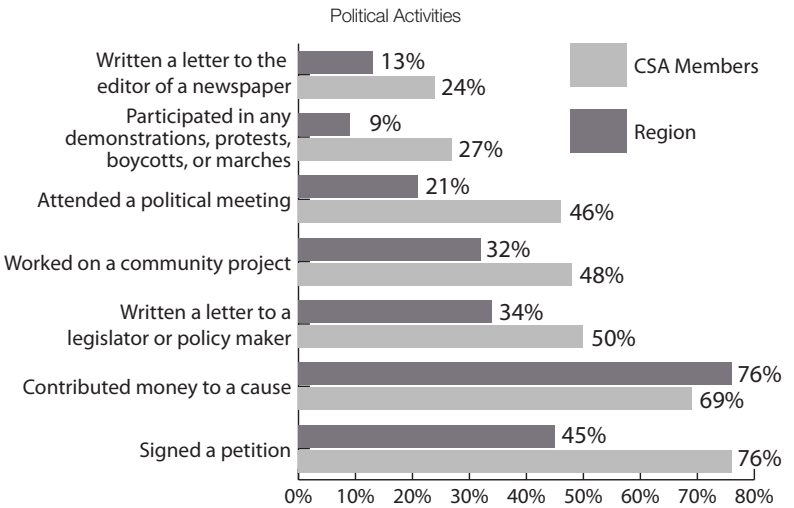


Source: CRREO/Siena Research Institute survey March 2010. CRREO Alternative Food Consumer survey Summer 2009. Question wording: In the past year have you done any volunteer activities through or for an organization?



Source: CRREO/Siena Research Institute survey March 2010. Question wording: Overall, how would you rate your community as a place to live? Would you say it is excellent, very good, good, fair or poor? Overall, how much impact do you think people like you can have in making your community a better place to live: a big impact, a moderate impact, a small impact, or no impact at all?

CSA members have high rates of volunteerism and political participation.



Source: Siena Research Institute survey March 2010. CRREO Alternative Food Consumer survey Summer 2009.
Question wording: In the past year have you done any volunteer activities through or for an organization?

The CRREO Regional Well-Being Project is focused on measures of 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 Dutchess, Orange, Sullivan and Ulster counties. The research team includes members of the CRREO staff, SUNY New Paltz faculty and students, and community leaders. Community leaders were recruited from among business persons, professional practitioners, environmentalists, economic developers, local governmental officials and educators. As part of this research we are guiding students in project-related work and working with faculty in the development of related teaching materials for use in courses. The first report, which includes a Regional Well-Being Index, was released in June 2010 and was distributed to decision makers in the region. Regularly appearing follow-up reports will be central to the continuing work of CRREO. The project is funded by a grant from the United States Department of Education, obtained with the assistance of New York's United States Senator Charles Schumer.

CSA members also tend to be more politically engaged. In the past year, 76% of them have signed a petition, and 50% have written a letter to a legislator or policy maker, also nearly half (48%) worked on a community project and 46% attended a political meeting. While CSA members and regional residents were similarly likely to contribute money to a cause, a larger proportion of CSA members were inclined to take action in other ways.

CSA membership is likely to be, at least in part, a product of the greater community orientation found among those who self-select into this relationship. But, the effect of CSA participation on community engagement should not be underestimated, and is present irrespective of income or education levels.

It should not come as a surprise that CSA members are more engaged in their communities. CSA food distribution brings local members together on a regular basis. It is an opportunity for people to converse and share information about the community that is not found to the same degree in a supermarket setting, or even at a local grocery store. Farmers markets have been found to generate more social interaction than conventional food shopping, but the effect of CSA membership is even greater. Regular social interac-

tion in groups builds social ties and networks that facilitate, or at least reinforce, community engagement. Social clubs, political parties and civic organizations have been in decline for decades and social theorists have linked this with diminished civic engagement generally (Putnam, 2001). There are few other environments that foster the type of interaction that is common among CSA members. The evidence presented here suggests that CSAs may be a means of providing a new civic engagement pathway.

In fact, many CSAs consider it part of their organizational mission to build community identity and involvement. In addition to educational materials about local agriculture found in CSA newsletters, pick-up locations may also include tabling and literature distribution by other community groups. In short, CSAs both offer a viable model for economically and ecologically sustainable development, and serve as incubators for civic engagement and community building.

SUPPORTING SMALL FARMS, LOCAL FOOD, & CSAs

The many social, economic, health, environmental and community benefits of small farms and CSAs in our region suggests that these efforts should be supported through individual and organizational action and public policy.

Institutional Buying

Individuals can support local agriculture by shopping at farmers markets, joining CSAs and purchasing locally produced goods from retailers that carry them. Institutional buyers can also play an important role in strengthening the sustainable agriculture industry. Schools, colleges, hospitals, retirement communities and others institutions that provide food service represent a significant untapped market for locally produced goods.

One challenge associated with the transition to local foods for institutional buyers in the region is that they often subcontract food service to national corporations such as Sodexo and Aramark. These firms typically have their own national supply networks and standardized menus. Decentralized local purchasing threatens established relationships with national food distributors with whom food service providers have profitable financial ties. Variability in the availability of local goods in different regions also impinges upon their ability to offer standardized products throughout their national or international operations.

In order for local institutional buyers to increase their use of locally produced goods they will either have to shift to smaller independent food service companies willing to work with local farmers or else apply pressure on their corporate food service providers to amend policies in order to allow more local purchasing. Commitments to buying local goods by these institutions will provide both existing local farms and prospective farmers with assurance that there will be a market for their products.

There have been successful initiatives in our region to foster more local food provision through institutional food service providers. Local food activists have organized meetings among famers, institutional food service managers and wholesalers. Local food wholesalers provide a crucial link between small growers and large buyers. In some cases it is simply the absence of a local wholesaler that prevents institutional buyers from utilizing more local goods. Local food advocates at SUNY New Paltz were successful in substantially increasing local food provision in the campus cafeteria once a wholesaler was found to serve as a bridge between small local farms and the institutional buyer.

Some parents and other child advocates in the region have also been seeking ways to link schools and local farms. “Healthy Food, Healthy Kids” in New Paltz and “From the Ground Up” in the Rondout Valley have pressed school districts to provide more nutritious food options for students, including more fresh local and organic produce. Research on student learning has shown that a sense of place is central to students’ awareness about environmental issues and their budding connections to community. Curriculum and field trips that involve local farms facilitate the “teaching of place”, binding students to the origins of their food.

Yet local food advocates have faced barriers in their attempts to get more local food incorporated into school lunch menus. This is rooted in current school

Working on the Farm

Farms in the Mid-Hudson region rely on a variety of sources for labor. Small organic and CSA farms are typically run by a single grower aided by interns seeking an educational experience who may only receive room and board and a small stipend as compensation. Other small farms are family owned and operated with family members doing much of the labor, supplemented with hired workers who are often seasonal migrant laborers from Mexico or the Caribbean. Larger operations rely more heavily on the migrant labor population, many who entered the country legally as guest workers with pre-arranged employment, but some of whom are undocumented.

Long hours and hard work typify agricultural labor. The motivations for the adoption of this lifestyle by family members who wish to maintain a multi-generational business or by young farming interns drawn to "voluntary simplicity" are clear. The situation for migrant laborers is more complex. These workers come from less developed countries seeking economic opportunity and wages that are relatively high based on the standards of their homelands. Many are well treated. However, their status makes them vulnerable to exploitation and there have been cases of labor abuse.

Beginning in the 1990s a campaign by farm workers along with allies in the religious community has led to some changes in the rules governing agricultural labor, including requirements that farm workers be given access to fresh water and sanitary facilities in the fields and a minimum wage equal to that of other workers in the state. Farm worker advocates have so far been unsuccessful at securing legislation that would provide overtime pay, a weekly day of rest or collective bargaining rights. The New York Farm Bureau has opposed such measures, claiming that they would place New York's agricultural industry at a competitive disadvantage with Canada and neighboring states. Legislation designed to extend these rights to farm workers is routinely proposed, but has yet to garner a majority in both houses of the state legislature. As we seek to encourage viable economically, socially and environmentally sustainable agriculture in our region both the need for a reliably affordable labor supply and the ethics and economics of labor have to be included in policy considerations.

photo credit: Brook Frm Project

district budget constraints, coupled with federal agricultural policy that makes available inexpensive foods subsidized in ways that favor large commodity crop producers. This is one indication that optimizing local agriculture will necessitate policy reforms at the national, as well as the state level.

Policy Reform

Taxation and Agricultural Subsidies

Reform of federal agriculture policy is needed. Over the past ten years, an increased proportion of federal farm subsidies (76% in 2008) has gone to support large scale commodity production. Federal government support for agriculture should be shifted away from industrial scale commodity crop production and redirected towards small scale community based farming. Policies should be developed that allow local schools and anti-hunger programs to benefit from local ecologically-sound production.

Food advocates in the Mid-Hudson Valley have the opportunity to be a powerful voice in federal policy reform. U.S. Senator Kristen Gillibrand is the first senator from New York to serve on the Agriculture Committee in forty years. A new Farm Bill is scheduled for adoption in 2012. The Senator has initiated a series of listening sessions across the state, focusing on changes that should be considered in national agricultural policy. She has stated, "If the only farms that exist in this country are on the west coast, we are in a national security crisis because we need to produce food in every part of this country." Local residents need to encourage Senator Gillibrand to

be a voice for increasing federal emphasis on small farms, farm-to-school efforts, and community supported agriculture.

Policy makers at the state level can also do much to support local agriculture. Tax credits and abatements are common ways to encourage desirable economic activity. The first tax provisions designed to support farming in New York State were enacted by the state legislature in 1969. The Agricultural Districts Act passed two years later allowing for the creation of districts in which farmland is subject to reduced property tax assessments. Over eight and a half million acres of land are currently in agricultural districts. Approximately 71% of this land is actively farmed (Bills, 2010).

Properties included in an agricultural district in New York State must be at least seven acres in size, farmed for at least two years, and generate a minimum of $10,000 in yearly income. There is also a farmer's school tax credit through which the state funds a portion of the school tax owed to local school districts by farm owners (Bills, 2010). A recent report released by the New York State Comptroller on the economic benefits of open space suggested consideration of additional tax abatement programs that recognize the value that undeveloped land contributes to storm water control and water purification (NYS Comptroller, February 2010). Tax reforms that specifically support very small scale agricultural production, such as that commonly practiced by CSA farmers, should also be considered.

Agricultural Easements

Tax provisions do not ensure the long term protection of farmland. Owners may be inclined to sell if other financial incentives encourage development. Conservation or agricultural easements, which have become more common in New York State, can provide more permanent protection for agricultural lands (Bills 2010). Through this approach, development rights are purchased from farmers in order to ensure that land remains in agricultural use. Land owners receive payment for the value of their property if developed, in exchange for foregoing development and permanently dedicating the land to agricultural purposes. This restriction then transfers with the property if sold, ensuring that new owners will keep the land in agricultural production.

Since 1996, the New York State Department of Agriculture and Markets has run a program through which development rights have been purchased for 29,000 acres in New York State. Local municipalities have purchased rights to an additional 46,300 acres (Bills, 2010). Federal funding is also available for this purpose. A $440,000 matching grant from the US Department of Agriculture's Natural Resources Conservation Service was recently secured to purchase development rights for a farm in the Town of Gardiner in Ulster County (Finger, 2010). But federal grant programs are highly competitive and the funds available through the state program have been insufficient to meet the demand. According to the New York State Comptroller's October 2010 report, "Bet on the Farm: Farmland Protection as a Strategy for Economic Growth and Renewal", between 1996 and 2008 farmland protection projects totaling $547 million in value went unfunded. And of the $205.6 million Farmland Protection Program funds available, only $95.5 million has been distributed. Half of the remaining dollars are allocated, but awaiting approval from either the local municipality or the Department of Agriculture and Markets (48% of the contracts are three years old or older). The process needs to be accelerated to keep farms intact and otherwise undeveloped. Private land trusts also play an important role in protecting farmland. These organizations also purchase easements in order to ensure that agricultural uses of the land are protected. The Open Space Institute, working in conjunction with The Wallkill Valley Land Trust, purchased an easement for two farms in New Paltz in Ulster County. The easement project, named the Two Farms Campaign, protects 180 acres of farmland and the future of local food production in the New Paltz area.

State policy makers can do even more to support local initiatives designed to protect agricultural land from development. In New York almost all land use decisions are made at the local level. Though localities may use general revenues or issue bonds to purchase easements that protect agricultural land, the state lacks a general law that permits the creation of on-going municipal funding streams dedicated to this purpose. The state legislature has granted

the right to create "Community Preservation Funds" to a handful of local governments through specific legislation, including two municipalities in our four-county region: the towns of Red Hook in Dutchess County and Warwick in Orange County. Financed through monies generated by the real estate transfer tax, these programs were instituted after approval at the polls by local residents. A general law extending the right to create such funds and/or to implement them at a county or regional level would greatly enhance the ability of municipalities to protect and preserve local agriculture, and other open space.

Further, these funds need to be granted conditional upon an agreement that goes with the land binding current and future landowners to continue to farm. For example, the Massachusetts Agriculture Preservation Restriction (APR) Program pays farmers, "between the 'fair market value' and the 'agricultural value' of their farms in exchange for a permanent deed restriction which precludes any use of the property that will have a negative impact on its agricultural viability."

Other State Policy Support

In addition to facilitating local land protection initiatives, state lawmakers can institute other policies that support small farm enterprises. For example, Governor Andrew Cuomo has proposed the "Share NY Food" program which would allow low-income food purchase support programs to be integrated into CSA memberships. Thus, for example, Special Supplemental Nutrition Payments (SNAP) and Women, Infants and Children (WIC) benefits would be accepted at CSAs. "Share NY Food" would also support CSA development on site at public schools, pave the way for more and easier CSA distribution at public institutions (e.g. colleges, hospitals, prisons), and assist with building partnerships between CSAs and non-profits or government agencies such as community organizations, housing authorities, and food banks.

Local agriculture may also benefit from still other forms of public support. The federal land grant university system was designed to provide states with a number of research and support services. In New York State, the Cornell Cooperative Extension provides such services. Among its other responsibilities, the Extension provides support to farmers and to the state's agriculture industry as a whole. Extension programs have only recently begun to offer assistance to small scale farmers seeking to operate as CSAs. Cornell Cooperative Extension can play a very important role in strengthening sustainable agriculture, and its efforts in this regard should be encouraged.

Although local agriculture is experiencing a renaissance of sorts, these kinds of public policies will be needed to sustain this development and to correct the policy imbalance that has long favored large scale industrial food production at the expense of small scale, local, sustainable agriculture.

Marketing to the Metro Region

Increasingly, local agricultural producers in the Mid-Hudson Valley are marketing their goods based upon their regional identity. Some have even organized more concerted marketing campaigns. For example, the Rondout Valley Growers Association is an alliance of local farmers and their supporters formed in 2003 to more aggressively market regional goods and to promote agri-tourism. Given the Mid-Hudson Valley's proximity to one of the most densely populated metropolitan areas in the country, there is great potential for small and midsized farmers to market regional goods in the New York City area. "Local food" has been defined in various ways. By many definitions (e.g. the popular "100 Mile Diet" and "Eat Local Food" programs) the entire four-county region would be within the definition of "local" for those residing in New York City. A concerted "Hudson Valley Local" branding campaign could greatly strengthen the market downstate for agricultural goods from the region.

Indeed, New York City is becoming increasingly aware of the breadbasket in its backyard. In November 2010, New York City Council Speaker Christine Quinn released "FoodWorks: A Vision to Improve NYC's Food System." Her plan includes initiatives to strengthen urban-rural linkages and regional food supply chains to help farmers bring and sell their food in city markets. She also supports legislative action to revise procurement regulations to facilitate city government purchasing from Mid-Hudson Valley farms.

CONCLUSION

The long-term perspective we have taken in this review shows agriculture to be a still vital part of our economy, though challenged by development pressures. This industry produces hundreds of millions of dollars annually, and contributes very importantly to our identity and the vitality of our communities. Our farms are smaller than in the past, but more diverse in their output and more productive. Community supported agriculture has brought renewed energy to making use of our land for farming while also strengthening community and civic engagement. For numerous reasons, we want local food and the benefits that accrue from its production.

Regional Well-Being involves commitment to a "Triple Bottom Line": social, economic, and environmental outcomes that are not mutually exclusive, but are complementary. Supporting small farms, local food, and CSAs adds value to the triple bottom line. That is why we must support local, statewide, and national initiatives to preserve and nurture our small farms.

Photo Credit (front cover):
Brook Farm Project

Sources
For a complete list of sources for this paper please reference the electronic version on the SUNY New Paltz CRREO website: www.newpaltz.edu/crreo

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The Center for Research, Regional Education and Outreach (CRREO) conducts studies on topics of regional interest; brings visibility and focus to these matters; fosters communities working together to better serve citizenry; and advances the public interest in our region.

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The State University of New York at New Paltz is a highly selective college of about 8,000 undergraduate and graduate students located in the Mid-Hudson Valley between New York City and Albany. One of the most well-regarded public colleges in the nation, New Paltz delivers an extraordinary number of high-quality majors in Business, Liberal Arts & Science, Engineering, Fine & Performing Arts and Education.

SUNY

The Power of SUNY, the State University of New York's Strategic Plan adopted in 2010, has as one major purpose reinforcing SUNY's role as an enduring enriching presence in communities across our state. In SUNY, "We want to create a broader sense of common ground and make a lasting difference for everyone in the places we call home." Publication of this Discussion Brief is one way that CRREO at New Paltz seeks to contribute to the further development of a vibrant community in our region.

Independently and in collaboration with local governments, business and not-for-profits **across the Hudson Valley,** CRREO: conducts **independent research** on topics of **regional interest;** brings **visibility and focus** to these matters; fosters communities **working together** to better serve the citizenry; and seeks to **advance the public interest** in our region.

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