The increasing trend of suburbanization in the Catskills has led to a number of wider issues in the region. Patterns of urbanization in the region have shifted. There are significant differences in terms of income and housing values between those communities tightly integrated with New York City and those that are not. This study examines the development patterns found in the Catskill Mountain region, its relationship with metropolitan area growth, and potential issues should such patterns continue.

Endangered Mountains:
Emerging Development Patterns in the Catskill Mountain Region

In the mountains north of New York City a number of cities and towns are being absorbed by the suburbs of one of the largest cities on the planet. The existence of independent communities has created some confusion in terms of classification in the past. Since 1970, Orange County has variously been classified as part of the Newburgh-Middletown Metropolitan Area, the Poughkeepsie-Newburgh Metropolitan Area, as a component county of the New York Consolidated Metropolitan Area, and today as a component of the New York Combined Statistical Area. In 2003, Ulster County was reclassified as metropolitan Kingston, a component of the New York Combined Statistical Area. The increasing trend of suburbanization in the Catskills has led to a number of wider issues in the region.

Specifically, we find:

- Patterns of urbanization in the region have shifted. In suburbs nearer New York City, settlement patterns were more dense than those found in newer regions. In distant suburbs such as those of Orange and Ulster Counties, a pattern of “large lot” development combined with a desire on the part of homeowners to live near nature has contributed to urbanization being spread over great distances.

- There are significant differences in terms of income and housing values between those communities tightly integrated with New York and those that are not. In general, communities of all types—rural, industrial, and suburban—nearer to New York City have higher income and housing values.

Introduction & Method

While much of the economic and demographic news in New York State has centered on the dismal performance of upstate metropolitan areas, an often overlooked story is the generally healthy performance of the New York Metropolitan Area. New York City has added nearly a million new residents since 1990, a quarter of whom have moved to the city since 9/11. The metropolitan area as a whole continues to expand as well, with Ulster County being added to the New York Combined Statistical Area in 2003 and significant growth in Sullivan County making it possible that this county will be added early in the next decade. These northern counties are not only increasingly metropolitan, but they are also home to the Catskill Mountains. With the continued growth of the metropolitan area and further expansion into these counties, the pattern of development will have a major impact on the Catskills. This study
Endangered Mountains: Emerging Development Patterns in the Catskill Mountain Region

examines the development patterns found in the Catskill Mountain region, its relationship with metropolitan area growth, and potential issues should such patterns continue.

In order to ascertain the patterns of development found in the Catskill Region, an Urbanization Scale was designed to reflect the predominantly rural character of the region. As urbanization, and its counterpart rurality, is a phenomenon measured by the perception of the individual, the scale is based on the degree of urban development contained in an individual township. The scale ranges from 0 to 9, with 0 corresponding to a nearly entirely natural environment and 9 to one that is completely urbanized. Townships were coded by centering on aerial photography of the town center and measuring the type and level of development surrounding the center for five miles in any direction, augmented by site visits to each town in the study area. The codes are as follows:

0 – Natural: A landscape where nearly the entire area is lacking any urban development. A natural environment may have some low density residential development and small pockets of agricultural land, but the vast majority (over 75 percent) of the landscape will be forest, swamp, or some other natural environment.

1 – Light Agricultural: A landscape where agricultural uses are found in major corridors and immediately around the town center, but over half of the land is still devoted to a natural landscape.

2 – Heavy Agricultural: A landscape where agricultural uses are widespread enough that the effect is one of pockets of natural landscape.

3 – Light Industrial: A landscape that features secondary sector industrial facilities, normally found in a town center. Although in principle a light industrial town may not be heavily agricultural, towns in the study area tended to be heavily agricultural as well.

4 – Heavy Industrial: A landscape that features a grouping of industrial facilities in an urbanized town center.

5 – Rural Suburb: A predominantly rural (natural or agricultural) town with a town center and a recent development pattern that is not oriented toward the town center. This recent development may be residential or commercial.

6 – Minor Suburb: A community in which most development is oriented toward residential purposes, most of whose residents must commute elsewhere for employment. Compared to a rural suburb, there is higher population density but most (over half) of the landscape remains rural.

7 – Major Suburb: A community in which most development is oriented toward residential development, but over half of the landscape is urbanized.

8 – Minor Urban: A self-contained community with residential, commercial, and industrial functions characterized by detached single and multiple family residential structures.

9 – Major Urban: A self-contained community with residential, commercial, and industrial functions characterized by a large area of high-density residential development.

Towns were further coded based on their distance to New York City and whether or not they are classified as part of the New York Combined Statistical Area (CSA, formerly CMSA).

Development Patterns

The Catskill Region is composed of nine counties: Chenango, Otsego, Schoharie, Delaware, Ulster, Greene, Sullivan, Orange, and Rockland. Four of the counties are metropolitan, three of which (Rockland, Orange, and Ulster) are part of the New York CSA and one of which is in the Albany CSA (Schoharie). Each of the other counties is non-metropolitan, and one (Otsego) is defined as the Oneonta Micropolitan Area. Not surprisingly, the Catskill region is rather populated when compared to other regions within the Appalachian Mountains.

Although treated as a single region, there have been multiple points of entry for the population. The Delaware River valley has been a source of immigrants in the past, primarily along the western border and central region. The northern counties experienced significant population movement from the north during the eighteenth and early nineteenth centuries as migrants filtered south from the Mohawk Valley. The Hudson Valley has historically been an important entry point as well, and two of the region’s major population centers (Newburgh and Kingston) are located along the river.

By the early twentieth century, the basic development pattern of the region had been established. The Catskills were most populated in a circular region surrounding the “core” mountainous region of western Ulster and Greene Counties, southern Schoharie County, and eastern Delaware and Sullivan Counties. These regions were marked by extraction industries (e.g., lumber) and some limited agriculture. The surrounding regions were more populated and marked by agriculture and manufacturing. Whereas in the core region small communities providing central place functions of less than 1,000 residents were common about every 15 miles, in the more populated regions the settlement pattern was more complex. Agricultural hamlets of perhaps one to two hundred residents were spaced, on average, about every three to five miles, interspersed by larger villages of about 500 to 1,000 residents every eight to ten miles. Every 25 to 30 miles were found larger communities of two to five thousand residents, with a handful of industrial towns achieving larger populations in the range of ten to twenty thousand. There were some industrial corridors that had developed in Orange County between Port Jervis and Middletown, along the Hudson Valley, and in the northern Susquehanna Valley between Bainbridge and Oneonta. Even in these areas, however, populations rarely exceeded five thousand residents, and the cities of the region remained relatively small.

Since World War II, much of the region’s growth has been the direct consequence of the encroachment of the New York City suburbs into the region. While Rockland County has unquestionably been part of the New York metropolitan area for

http://mumford.albany.edu/mumford/UpstateProject/
decades, Orange County has been alternatively defined and re-defined as its own independent metropolitan area (typically Newburgh-Middletown), as attached to Poughkeepsie across the Hudson River, and more recently as part of the New York Combined Statistical Area (CSA). This reflects growth coming from the south and absorption of a number of formerly independent agriculture villages and market towns into the wider metropolitan framework. In fact, the primary social division within the region today is between the area now being subsumed by the metropolitan area and those towns that are not. As shown in Figure 1, the communities in the southeast of the region are the most urbanized.

According to the scale, communities that are the most “rural” are shown in darker green, with the most “urban” in red. The pattern discussed above is evident in the darker green in the Catskill Core, with predominantly agricultural landscapes from the Susquehanna and north (lighter greens) and the growing suburbs to the southeast (non-greens). This pattern is also evident when examining the pattern of towns with an overall “agricultural character” in Figure 2.

In Figure 2, townships with a number of operating farms, as opposed to an occasional farm, are coded in blue. Much of the region to the north, including Delaware, Schoharie, Otsego, and Chenango Counties presents an agricultural character, although some decline was evident in most towns visited. The Catskill Core, particularly in Ulster and Sullivan Counties, has comparatively little agriculture as this region is quite mountainous and difficult to farm. In the southeast, much of the region has relatively little productive farming, and that which exists tends to be qualitatively different. The Hudson Valley, for instance, presents a higher number of apple orchards, for instance. In several of the townships not coded as presenting an agricultural character, much farmland has been converted to residential development, often with large (3 acres or more) lots, and to “hobby

In Figure 3, the towns coded in blue are those that have an infrastructure devoted to tourism, in particular major attractions. Two major regions of tourism are shown in this map. The first and largest is a “belt” that runs from the Hudson Valley to the Pennsylvania border from northeast to southwest. The towns in this belt are approximately two hours from New York City. A small area of the Catskill Core in Sullivan and Ulster Counties is coded in yellow, signifying a lack of such attractions, but these areas are “natural” areas where the landscape itself is the attraction and thus should be considered part of the tourist belt. To the north of this region, a small strip of towns along the Susquehanna River from Oneonta to Cooperstown is another region of tourism activity.
Types of Development

Even a casual perusal of the types of development in the towns reveals a sort of development anomie. Closer to New York City as well as in established larger communities in and out of the metropolitan area, a typical urban pattern of housing on relatively small lots is evident. There is variation within this high density pattern, with both large and small multiple unit developments (apartments and condominiums) interspersed among detached housing, but most new development follows the pattern of single-family housing built in relatively dense settlements that dates to the 1950s and earlier. This pattern is shown in Figure 4, a typical suburban tract along Interstate 87 in Rockland County. Further to the north, however, in the suburbs of Orange and Ulster Counties, the predominant cultural theme of many communities is that of “Small Town America,” a theme referred to by Charles Springwood as the “pastoral ideal.” In these communities, the selling point of real estate is “life in the country” that offers access to the metropolitan area as a whole. In these communities, the preservation of a rural aesthetic has been a guiding point of local policy. An example of one result of this concern is shown Figure 5.

In the area of Central Valley, shown in figure 5, one notices an increased emphasis on preservation of trees and larger housing lots. The larger housing lots, often as large as two acres or more, spread development over a wider area and contribute to a more “rural” aesthetic. As the main roads, particularly New York Route 32, are heavily wooded even in settled areas, and as the new subdivisions feature streets that meander left and right, a driver on these roads would experience the psychological feel of driving down a country road. From Route 32, a handful of roads leave the highway and ascend to housing developments, a large one at left and a smaller one at right. This emphasis on preserving rural character is found elsewhere in the region with similar effect: it preserves the aesthetic qualities of the countryside. Interviews suggest that many people in these areas, despite leading a typical “suburban” lifestyle, proclaim themselves to be residents of “small towns” rather than suburbs. Residents of Rockland County (Figure 4) are more likely to identify themselves as suburbanites.

Another strategy is the requirement of a minimum building lot size of several acres, such as the minimum 3 acre lot size found in Woodstock, near Kingston, shown in Figure 6. In Woodstock, the urban pattern typical of most American communities is found in the lower part of the photograph. It is the Woodstock town center and the densely settled residential
area of the village. Looking south (toward Kingston), a series of roads cutting through the forest interspersed with large residential lots with houses poking up through the trees is evident. A similar pattern is evident in the town of Middlefield, south of Cooperstown, in Figure 7. In this case, there is not a minimum lot size, but the settlement pattern is nevertheless composed of large lots. The six houses on the road in the foreground take up about 25 acres of land; if they were built according to a traditional urban settlement pattern, only about 2 acres would have been utilized.

Figure 6: Development in Woodstock

Figure 7: Large Lot Residential Development near Cooperstown

Income Patterns

Patterns of income and housing value vary by the type of community and by its inclusion in the New York metropolitan area. This is shown in Figure 8 and Table 1.

In terms of median income, townships closest to New York have the highest incomes, with a noticeable gradient as one gets further from the city. The major exceptions to this trend are found in towns with some level of integration with the metropolitan area: several tourist towns such as Cooperstown, Gilbertsville, and Andes, and a string of towns in Schoharie County within commuting distance to metropolitan Albany. Across all types of towns, inclusion in the New York CSA translates into higher median incomes, with suburban towns doing best. Within the suburbs, those nearest New York (particularly in Rockland County) that are solidly suburban and those in more natural environments have the highest median incomes.

The pattern for median housing value shows a similar gradient to median income: the further from New York, the lower the housing value. The major exceptions to this trend include a stretch of Interstate 88 in Schoharie County used for commuting to metropolitan Albany; the area around Oneonta, home to SUNY Oneonta and Hartwick College; and the area

Table 1: Median Income, by type of Town

<table>
<thead>
<tr>
<th>Type of Town</th>
<th>Part of NY CSA</th>
<th>Not Part of NY CSA</th>
<th>Total of Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>49,686.92</td>
<td>35,797.72</td>
<td>37,485.20</td>
</tr>
<tr>
<td>Industrial</td>
<td>40,257.67</td>
<td>33,538.25</td>
<td>35,370.82</td>
</tr>
<tr>
<td>Suburban</td>
<td>55,838.64</td>
<td>35,032.17</td>
<td>52,166.91</td>
</tr>
<tr>
<td>Urban</td>
<td>44,297.60</td>
<td>29,555.67</td>
<td>38,769.38</td>
</tr>
<tr>
<td>TOTAL</td>
<td>52,074.96</td>
<td>35,424.79</td>
<td>40,523.91</td>
</tr>
</tbody>
</table>

Source: U. S. Census, 2009
around Cooperstown, a tourist town that is also home to Bassett Healthcare. In essence, the non-metropolitan areas with higher housing values are integrated with the metropolitan economy, either through commuting, higher education, or healthcare and tourism.

Figure 9 Median Housing Value, 2000

Table 2: Median Housing Value, by type of Town

<table>
<thead>
<tr>
<th>Type of Town</th>
<th>Part of NY CSA</th>
<th>Not Part of NY CSA</th>
<th>Total of Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>131,738.46</td>
<td>77,669.15</td>
<td>84,238.32</td>
</tr>
<tr>
<td>Industrial</td>
<td>94,466.67</td>
<td>68,387.50</td>
<td>75,500.00</td>
</tr>
<tr>
<td>Suburban</td>
<td>157,092.86</td>
<td>84,500.00</td>
<td>144,282.35</td>
</tr>
<tr>
<td>Urban</td>
<td>118,240.00</td>
<td>75,600.00</td>
<td>102,250.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>142,567.35</strong></td>
<td><strong>77,313.51</strong></td>
<td><strong>97,297.50</strong></td>
</tr>
</tbody>
</table>

Source: U. S. Census, 2009

Conclusions

The basic pattern found in the urban-rural interface between New York City and the Catskill Mountain region reveals a complex arrangement of zones. In the southeast, as would be predicted by most theories of urbanization, is a zone of densely populated but not particularly nucleated suburbs, particularly in Rockland County. These areas are more prosperous than the region as a whole, and are also home to a “greenbelt” that extends from the New Jersey state line to the Hudson River and, ultimately, to Connecticut. On the other side of this belt of state parks are the suburbs of Orange County which have a more “rural” feel but are nevertheless in the social functions and overall orientation of New York City. As one goes further north and west in this region, which also extends into portions of Ulster and Sullivan Counties, a distinct agricultural aesthetic becomes dominant in the countryside between sizeable towns, but upon closer examination many of the farms have been given over to horses and other “hobby” type functions. Beyond these last suburbs is the “tourist belt,” a line of communities stretching from the Hudson Valley to the Pennsylvania line about 2 hours from New York. These communities have infrastructures oriented toward tourism that include some of the most desired skiing in the northeast, a string of arts communities, and natural amenities such as the Catskill Park and the various activities found there (e.g., hiking, camping, etc.). In both the tourist belt and the exurban communities there has been considerable pressure to preserve the “rural character” through both market mechanisms and local government policy. Beyond the tourist belt is a predominantly rural region characterized by agricultural lands and small towns, although economic conditions in many of these communities has been in decline.

Although much of the region has been characterized by relatively independent small towns in the past, it has never been completely independent of the larger global economy channeled to it through the New York metropolitan area. This is nowhere more evident than in the string of reservoirs scattered throughout the region that provide New York with much of its drinking water, but agriculture and extractive industries have also been quite developed because of the presence of New York and the upstate cities. In other words, the Catskills represent a good example of a rural region with historically tight ties to the urban economy. Many of the “independent” small towns were characterized not only by agricultural economies producing for the urban economy, but by small manufacturing centers that traded in the global economy through the port of New York. The dominant story in the last half of the twentieth century, however, was the restructuring of this economy as manufacturing in the region has declined and agriculture has faced increasing competition from other regions in the United States and the world. As the economy has been restructured, the economic health of a community is increasingly reliant on its integration with the metropolitan area.

Whereas at one time the communities that grew fastest in the region were those with industrial bases that traded with New York, today it is those communities that provide services for the city. Such manufacturing centers as Walton and Sidney have been losing population since 1990 as local firms close or restructure their workforces in a manner similar to that faced by larger manufacturing cities. Communities that serve metropolitan area residents, such as the towns in the tourist belt, the Otsego County tourism area, and the college towns have been the most resilient in terms of population growth, income, and housing value. Of course, the communities most integrated with the metropolitan area — the suburbs and exurbs of Rock-
land, Orange, and Ulster Counties – have experienced the most
growth and prosperity.

It is interesting and significant that the region is ringed by sev-
eral inland metropolitan areas – Albany, Utica, Syracuse, and
Binghamton – that seem to exert little influence over the re-

gion. Except for a small area extending along the Interstate 88
corridor in Schoharie County, which is technically part of the
Albany metropolitan area, there is little evidence in the statis-
tics examined that metropolitan areas other than New York
influence the region. This is perhaps best understood as a func-
tion of the weakness of upstate metropolitan areas: every ad-
joining metropolitan area except Albany lost population during
the 1990s and first half of this decade. This has translated into a
northern Catskill region by and large left to its own devices in a
search for social prosperity in stark contrast to the conditions
found in the southeast.

The settlement pattern found in the region should be cause for
concern. In the short run, large lot residential patterns will pre-
serve the rural aesthetic of the region – this is found in areas of
Orange and Ulster Counties. However, in the long run the di-
vide between town and country that has for centuries segre-
gated the wild from the town will break down. With so many
households moving into forested areas and former farmland,
the effect is to spread development over a greater area result-
ing in places that are neither rural nor urban, places that rely on
the automobile for transportation, and a loss of economies of
scale to maintain highways and other public infrastructure.
While the rural aesthetic may fool some humans, it is doubtful
that wildlife see the small patches of woods between houses as
viable habitats except to the degree that they no longer see the
suburban-style yards as off limits. The result is and will continue
to be increased contact between animals and humans, and this
will lead to potentially tragic results for both.

6 Although we use townships, or minor civil divisions, as the unit of analysis, this scale can in theory be applied to other such units as census tracts or block groups.