

A STRATEGIC ANALYSIS OF APPALACHIAN NEW YORK:
ASSESSING CHALLENGES TO LONG TERM COMPETITIVENESS

Governor

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NEW YORK'S SOUTHERN TIER

Appalachian New York is made up of fourteen counties as specified by the Appalachian Regional Development Act of 1965, as amended. These are: Allegany, Broome, Cattaraugus, Chautauqua, Chemung, Chenango, Cortland, Delaware, Otsego, Schoharie, Schuyler, Steuben, Tioga, and Tompkins. Together, they give definition to the region in New York State most commonly referred to as the Southern Tier. This area is unique within the State for its relative isolation, poverty, and underdevelopment. These characteristics are in large part a result of the historical-cumulative impact of structural factors special to the region. The most significant such factor is the area's rugged terrain. Structural disadvantage stemming the region's natural position ultimately accounts for many of the social and economic problems facing this area.

Much of New York State is covered by rugged terrain. However, a good portion of the State's mountainous land is sparsely populated and contained within the State's vast state park system. This system includes the famous Adirondack and Catskill State Parks as well as the Allegany State Park. New York State does contain some significant stretches of gently sloped and fertile land. These stretches can be understood as natural development corridors. These are comprised of the Great Lakes Planes, the Mohawk Valley, and much of the Hudson Valley. Located within these natural and connected corridors are the State's largest and most economically developed metropolitan areas. These communities, many of which initially expanded around the Erie Canal system, have long benefitted from naturally easier transportation and high quality arable land.

Appalachian New York, or the Southern Tier, constitutes the northern most extension of the Federally designated Appalachian Region. The Southern Tier is unique within New York State in a number of respects.

The Appalachian Regional Commission has recently identified five strategic goals for the region. The over-arching purpose of each goal is to advance the region towards the long term, sustainable strength and competitiveness of its individuals, communities, and economies. Progress towards any individual goal in important ways translates to advancing the other four. An analysis of the key social and economic challenges facing the region is therefore best made in light of the imperatives of each of these five individual but interrelated goals. Upon analysis, it becomes obvious that there is considerable variation across Appalachian New York. Sparse populations and geographic isolation from metropolitan centers are strongly associated with higher levels of social and economic stress. These problems indicate not only redoubled developmental efforts in the more rural areas, but also efforts towards increasing the access of more poor and isolated residents to opportunities in the more developed areas.

GOAL 1: APPALACHIAN RESIDENTS WILL HAVE THE SKILLS AND KNOWLEDGE NECESSARY TO COMPETE IN THE WORLD ECONOMY IN THE 21st CENTURY.

The quality, availability, and attainment levels of education in the Southern Tier are critical to regional competitiveness and individual success. Also, education contributes multidimensionally to the quality of local leadership and community vitality.

New York State has long made education a high priority. This is in part reflected in the fact that New York's Appalachian Region has had a higher percentage of high school graduates among the adult population (aged 25 and older) than has the nation as a whole, for 1980 and 1990. In 1990, Appalachian New York's adult high school attainment was 77.3 percent compared to 75.2 percent for the United States.

However, the proportional distribution of high school graduates throughout the Southern Tier is predictably uneven. In 1990, the six worst counties had adult attainment rates which were lower than the national average. The county with the poorest graduation rate was Schoharie, with a 73.7 percent attainment rate in 1990. Delaware, Schuyler, Chautauqua, Cattaraugus, and Steuben also had adult high school attainment rates below the national rate of 75.2 percent for 1990. These counties are mostly among the more rural and poor in the area.

On the other hand, the more developed counties performed relatively well. Chemung, Otsego, Broome, Tioga, and Tompkins counties all had attainment rates in 1990 that were higher than 77%. These counties, among the most populous and urbanized, account for the Southern Tier's relatively high regional average. Indeed, the top performer, Tompkins County, far exceeds most of the rest of Appalachian New York with an 87.2 attainment rate for 1990.

While residents of the Southern Tier, overall, graduate from High School at rates which are comparable to national levels, those Appalachian New York students who graduate are less likely than their cohorts in New York State or on the national level to attend college. The United States Department of Education estimates that in 1992, nationally, 76.6 percent of high school graduates began a college program. The New York State Department of Education estimates that in 1995, 79.8 percent of all New York State high school graduates entered college. According to the New York State Department of Education, the Southern Tier performed well below both the above New York State and national figures. In 1995, approximately 70.8 percent of the Southern Tier's 1995 high school graduates were expected to attend college.

Also, of those going to college, Southern Tier high school graduates were less likely than New York State graduates to enter four year institutions. In 1995, approximately 52 percent of Appalachian New York's high school graduates who began college went to four year schools. However, in the same year, over 66 percent of New York State's high school graduates entering colleges opted for four year institutions.

This fact probably represents the working of multiple factors. There are several two year community colleges and technical institutes spread throughout the Southern Tier. Geographic proximity and low tuition make these institutions financially and logistically accessible to relatively more students in the Southern Tier than are the generally more expensive and remote four year schools. Also, many two year state institutions focus on skills based education culminating in state certification for skilled professions such as Dental Hygiene and Mechanical Technology. Many students recognize that such degrees have a relatively high market value in the region. Therefore, the high proportion of students in the Southern Tier entering two year institutions, as opposed to four, should not necessarily be interpreted in a negative light.

Indeed, technical degrees, often built on prior skills training in high school at local BOCES (Board of Cooperative Educational

Services) campuses, are a key ingredient of regional economic competitiveness.

Conditions vary across the region, of course. The four counties with the lowest overall college going rates, in order, are Allegany, Steuben, Tioga, and Schuyler. These rates range from 62.1 percent for Allegany to 65.3 percent for Schuyler. These are among the poorest and most rural of the Southern Tier's counties. For Schuyler, Steuben, and Tioga counties, the number of students entering two year institutions substantially exceeded those entering four year colleges. For Allegany, those going to college in 1995 were as likely to enter two as four year schools. The four counties with the highest college going rates among graduating high school students, for 1995, were, in descending order, Tompkins, Broome, Chenango, and Otsego. Broome and Tompkins counties topped the list with college going rates of nearly 81 percent. These are both developed counties with significant urban centers. Chenango and Otsego are largely rural counties, but they rank in the middle per capita range for the Southern Tier.

Education faces several challenges in the Southern Tier. Geographic isolation presents obvious logistical hurdles to students and educators, and thin populations frequently translate into limited demands, and thus less justification and impetus, for varied curriculum options. Too often, as the aggregate statistics above have suggested, rural education is limited education.

Poor socioeconomic conditions result directly in fewer material resources available within a community for the support of education. More seriously, poverty prevents students from arriving at school ready to learn. Poverty is related to educational advancement in a complex fashion. Poor families are likely to suffer from dysfunction and are often less able to, or even less concerned with, raising children who have the preliminary cultural and communicative skills, physical readiness, familial support, and motivation to take the fullest advantage of what resources are available.

These children are disadvantaged and, because so many require special educational attention of varying degrees, their presence in the school system taxes the material resources of schools and the personal resources, such as time and attention, of individual instructors and administrators. The problem of individual level poverty, then, becomes a challenge for the whole community, threatening its educational quality and opportunities for advancement and the development of community

capacity. The sociological problems associated with poverty are essentially the same for children raised both in rural poverty and in the Southern Tier's small inner-urban areas. Unfortunately, children raised within dysfunctional and socio-economically marginalized families are likely to continue the cycle and are unlikely, for lack of knowledge, skills, and concern, to become supportive members of the community and education in adulthood. Poor socioeconomic conditions and poor educational quality then are in a complex relationship with each other.

The physical and socio-economic structural challenges facing the Southern Tier must be met. Distances can be bridged, increasing the effective use of resources and the demand for courses, through distance learning via an advanced and broadly accessible telecommunications infrastructure. Here, New York State is leading the way with the ARC supported Strategic Telecommunications Initiative. BOCES (Board of Cooperative Educational Services) campuses are linking together as telecommunications hubs and reaching out to area schools and other educational, health, business, and governmental institutions. Telecommunications augments the traditional role of BOCES in New York, which is to gain an efficiency of scale in the provision of educational services across school districts, particularly in the realm of vocational education. In this, BOCES represents a major structural advantage for the region.

Also, programs must be considered in light of the socioeconomic challenges to education. Intervention through parent counseling, child care services, neonatal care, reproductive and parenting educational instruction, all can have a positive impact on the physical health and mental/emotional preparedness of the region's students.

Finally, the Southern Tier faces the challenge of providing the regional economy with sufficient individuals with advanced skills training, particularly in the more developed counties that have extant industrial facilities. Here, many industrial corporations, facing high employee retirement rates presently and for the foreseeable future, are concerned with finding enough future employees with the skills they need. This problem may lead to a situation whereby the conditions that plagued the Southern Tier in the 'seventies and 'eighties (declining industrial employment and high unemployment rates) are replaced by a serious labor shortage which threatens local industrial competitiveness.

BOCES districts are the region's most important resource towards filling the need for skilled labor. BOCES campuses provide a wide variety of skills training to high school students and adults. Industrially relevant skills such as machine shop, sheet metal fabrication, welding, et cetera are important for the long term economic competitiveness of the region's industries. However, other individual and community skills education needs are met by BOCES. BOCES trains, towards state certification, child care aids, medical and dental assistants, food preparation workers, automotive mechanics, computer operators, and a number of other types of skilled employees, the selection of which varies by campus according to area and participating local school needs. A BOCES degree in a program such as Agricultural Technology, Child Care, or Industrial Technology will not only prepare the student immediately for useful and gainful employment, it may also launch the students with the most ability and desire towards college and perhaps advanced degrees in Agricultural Science, Education, or Industrial Engineering. Therefore, BOCES must be viewed in its cooperative role, practically or administratively coordinating the functions of area schools, businesses, community colleges, universities, and organizations which promote industrial and commercial competitiveness more generally, such as the Local Development Districts. In this perspective, BOCES directly fills needs for skills training and indirectly helps to knit the community together in cooperative effort.

BOCES districts, in cooperation with the Local Development Districts, are working to fill the impending industrial labor shortage in order to preserve local employment in this sector. A significant hurdle is convincing the better area high school students of the possibilities of modern skilled industrial employment. Too many better students now believe they must leave the region to find promising careers. This "brain drain" is having a negative impact on the local economy and community structures. Therefore, BOCES and the community face not only material structural challenges, but also "public relations" challenges insofar as the best area youths are concerned. It is not enough to educate individuals, they must also be encouraged to take full advantage of local opportunities in order that the region remains economically competitive and for its community capacity to be developed to fullest potential.

GOAL 2: APPALACHIAN COMMUNITIES WILL HAVE THE PHYSICAL INFRASTRUCTURE NECESSARY FOR SELF-SUSTAINING ECONOMIC DEVELOPMENT AND IMPROVED QUALITY OF LIFE.

New York's Southern Tier faces many infrastructural challenges owing to difficulties presented by the rugged terrain of the area and the related accumulated impact of long term economic underdevelopment. Growing the area's economy; breaking the isolation of rural communities throughout Appalachian New York; and bringing vital social and educational services otherwise unavailable to many residing in remote areas, can all be advanced through infrastructural development. Modern transportation, communications, and utilities infrastructures will enable transcendence of many of the economic and social challenges faced by the area's communities.

The Southern Tier Expressway, or New York State Route 17 (Appalachian Development Highway Corridor T) is The Southern Tier's greatest transportation asset. While not yet complete, this highway has already enabled enough progress to suggest that its cumulative impact on the future will be to the immense material and social benefit of the region's communities and individuals.

Route 17 has benefitted the region's metropolitan and rural areas, and has given those in heretofore isolated areas access to social contacts and economic opportunities in the region's metropolitan centers and beyond. State Department of Transportation officials confirm that Route 17 has generated a substantial amount of traffic flow both through the region and within it, much of it commercial, and that the flow continues to increase. The highway is on its way to becoming one of the major east-west routes in the North East. It has helped corporations already located in the region to remain competitive and has enabled and encouraged new development. Several new retail and industrial sites now exist in large part due to the highway.

In the sense that the road has helped to generate economic activity throughout the region; that it has enabled broad access on the part of the region's residents to social and economic resources; that it has substantially mitigated social and economic isolation and connected Southern Tier communities with each other and the world beyond, Corridor T has made a dramatic contribution towards the development and integration of the region.

Progress has yet to be made, however, before Route 17 can reach its full potential. Achieving interstate comparable conditions along the entire corridor is prerequisite to maximizing the thoroughfare's safety, efficiency, and attractiveness to

visitors, industry, and commerce. On the western most portion of the corridor in New York, the last remaining two lane sections are being upgraded to four. The New York State Department of Transportation estimates that this work will be completed in 1997. Pennsylvania is undergoing a similar effort in its short section of the corridor running east from Erie.

Save this, there are only two remaining portions which are deficient. Westbound from Elmira, in Horseheads and Big Flats, there are several at-grade intersections and direct access points which make this the most dangerous stretch of road in the Central Southern Tier. The resolution of this problem is the regional DOT office's highest priority. Meeting this challenge, however, will cost tens of millions of dollars and will probably require re-routing a few miles of the existing road. Eastbound from Elmira, towards Tioga County, is a section containing one very dangerous at-grade intersection and a number of direct access points for local roads, homes, and small commercial enterprises. Any solution to these safety threats will also cost millions.

These areas, then, account for the remaining deficiencies on Corridor T. However, Route 17 cannot become an Interstate until other at-grade intersections and direct access points east of Binghamton are eliminated. These problems, though not on Corridor T, are located mostly within the Appalachian Region. Their resolution, though running perhaps to \$200 million, would greatly benefit the region as a whole. Aside from the immediate benefits of increasing the road's safety and efficiency, Interstate status, as an attraction, would provide a great boost to the region's economy.

The other Appalachian Development Highway in New York is the northern most end of Corridor U. This is eventually to connect Williamsport, Pennsylvania with Route 17 north of Elmira. A rerouting of the original plan, approved by the Commission in April, 1966, will bring the road through the center of the City of Elmira and some of its satellites, making it a local express thoroughfare through its last few miles. The major thrust of this change has been to respond to local concerns and logistical problems associated with the original termination point south of the city, as well as to more substantively fulfill the broad agenda articulated in ARC's economic, infrastructural, community development, and transportation goals. The construction of this expressway, referred to locally as the Arterial, has resulted in badly needed infrastructural improvements beyond the road itself. Corridor U is already generating commercial and

industrial development downtown and in the poorest, most decayed sections of the city.

This expressway promises to repeat and expand on this success throughout its run, giving this older area a heretofore absent modern commercial and industrial development strip with all of the infrastructural accoutrements.

Eventually, this expressway will compound the positive impact of Route 17 on the city. Construction on the connection between the extant portion of Corridor U and the completed section of the Arterial is underway in Elmira and Southport. Construction of the northern connection to Route 17, running through Elmira Heights, must await the resolution of the access and intersection problems on at its eventual terminus on Route 17 in Horseheads. When Corridors U and T are finished and connected, Elmira will benefit dramatically from being at the center of a modern transportation hub.

Aside from the Appalachian Development Highways, the Southern Tier faces other highway transportation challenges, such as deteriorated bridges and inadequate roads. These must be met for the full benefit of the Appalachian Corridors to be realized.

Appalachian New York is served by Conrail freight service via the Southern Tier Main Line. This carries a great deal of traffic and has been substantially upgraded in the last year. This rail route provides valuable service to the region's coal power plants and several heavy industries. And, it appears secure despite recent attempts by other railroads to purchase Conrail. This line is augmented by several small independent spur carriers which provide vital services to specific outlying customers. Their financial security is important to the region.

While, unfortunately, there is no passenger rail service in the Southern Tier, intercity bus transportation and local transit services, along with specialized ambulatory services, are provided by a variety of public and private carriers and are voluntarily coordinated, for most of the region, with the New York State Department of Transportation, through the Southern Tier Bus Network. Because of low population densities and isolated poverty, affordable and accessible multimodal transportation is vital towards bringing opportunities to individuals and achieving the gamut of ARC's goals. While some counties provide good county wide transit service, others, such as Steuben, do not. Unfortunately, where the need is greatest, such as in counties with extensive rural areas like Steuben, the services are often the most limited. ARC goals cannot be

satisfactorily met until efficient, attractive, and inexpensive multimodal transportation is broadly available. The quality of service and financial security of private and public bus carriers and other ambulatory service providers must be preserved and augmented in order to gain full advantage from economic development. Accessibility and economic development would be truly advanced through the addition of modern passenger railroad service to the area.

Scheduled flight service is limited to the large airports serving the Elmira, Jamestown, and Binghamton metropolitan areas. This service is limited and costly relative to that provided in major metropolitan airports. Several smaller cities such as Hornell have municipal airports which, while not providing scheduled flight service, have proved prerequisite to attracting economic development. Funding and constructing these facilities is key to bringing industrial and commercial interests into the furthest removed small population centers. The two most significant barriers to constructing and improving these small airports are a local lack of financial resources and the failure of many residents and local leaders to fully recognize the importance of these facilities.

There are other infrastructural challenges facing the region. The social and economic function of a modern telecommunications infrastructure is in some ways analogous to the positive role which transportation plays in mitigating structural disadvantage. Access to, and proper use of, appropriate telecommunications technology can increase the efficiency, availability, and quality of health care; governmental administration and service provision; business; and, especially, education. This technology, bringing access to otherwise difficult or impossible to obtain resources, and enabling communication across challenging distances, helps to level the playing field between otherwise isolated rural areas and metropolitan centers.

New York has been a leader in developing a comprehensive approach to telecommunications in the Appalachian Region. This is manifest in the State's Initiative on Telecommunications in Appalachian New York. This effort involves the cooperation of relevant interested public and private groups in the region, such as BOCES, medical service providers, corporations, and local development groups, especially the Local Development Districts. Importantly, appropriate State agencies, such as the Office of General Services and the State Education Department, have also made valuable contributions.

Educational institutions and health service providers have pressed hard for increased information transfer and teleconferencing capacity. Regional BOCES campuses have taken the lead in constructing a telecommunications network, with individual BOCES campuses interconnected as hubs. This network is already reaching local public schools and having an impact on education through distance learning and teleconferencing. Many businesses have also shown interest in the potential of modern communications. However the full value of such a resource to local government in mitigating logistical challenges caused by distance and poverty, and in bringing access to expert resources, has yet to be fully appreciated. New York State is working to integrate the development of a flexible and technologically compatible and expandable telecommunications network with efforts towards improved leadership; community capacity; administrative efficiency and effectiveness on several levels; economic development; and excellence in education.

On a final infrastructural note: In some areas, particularly in the region's poorest and most remote communities, inadequate water and sewerage facilities present barriers to economic development and may result in direct threats to the health and quality of life of the residents of afflicted areas. The primary challenge to resolving these problems is two fold. Poverty and resultant low tax bases are an objective challenge. However, a lack of appreciation on the part of many local residents of the importance of resolving such problems, is too often a compounding obstacle.

GOAL 3: THE PEOPLE AND ORGANIZATIONS OF APPALACHIA WILL HAVE THE VISION AND CAPACITY TO MOBILIZE AND WORK TOGETHER FOR SUSTAINED ECONOMIC PROGRESS AND IMPROVEMENT OF THEIR COMMUNITIES.

The capacity of the people and organizations of the Southern Tier to recognize problems and to work cooperatively, creatively, and effectively towards solutions, as well as towards the continued strengthening of community, cannot be quantified. However, it is clear that if the rugged terrain of the region is the most fundamental physical-structural impediment to development in the area, the quality and strength of the local community fabric, and the structure, coordination, competence, and caliber of the political-economic leadership, must, taken together, constitute the most critical social-economic challenge. The communities of the rural and metropolitan portions of the Southern Tier are being seriously challenged on several fronts and this represents a great danger

facing the area. Community and leadership are integrally related to development. Without vibrant community structures and strong and organized leaders, Appalachian New York will forever lag behind the rest of New York State in all measures of social and economic development.

Communities set the broad context for a host of factors which are significant to attracting and sustaining development. If they are strong, communities, through multiple socialization, reproduce and sustain strong civic societies. Communities which are vital and well organized have higher standards for their area's aesthetic, educational, economic, cultural, civic, environmental, social, infrastructural, and leadership qualities. Strong communities make greater demands on leaders, who, in turn, are more likely to be committed themselves to the goals of the community.

Further, members of strong communities respond individually in innumerable ways to micro-level social problems and prevent them from adding up to major difficulties. Having a sense of ownership or stake in larger affairs, these individuals contribute in numerous and invaluable ways to the social structure through participation in group institutions, volunteer activities, work with the local schools, and by demanding action and accountability from local leaders. And, all things being equal, such persons are likely to make more attractive employees and prospective entrepreneurs. members of healthy communities are less likely to find themselves debilitated by serious individually-felt challenges because they can draw strength from a strong social fabric.

While government, private agencies, and corporations can make valuable efforts to lift an area out of poverty, there is no substitute for what communities can do for themselves. Ultimately, if a community is not strong, it will not be able to sustain or take full advantage of gains made with the help of larger organizations and governmental programs, and will likely not compete effectively in the future for further types of assistance, should that be necessary. Therefore, programmatic action should be tailored towards the long term goal of building strong communities and leadership.

The health of a community and the quality of its leadership are related to other social structuring mechanisms, such as the stability and prosperity of the local economy and the nature of its distribution of jobs and goods as relates to the social structure. That economic stability and prosperity are vital to a viable community are obvious. Poverty has a

multidimensionally negative impact on community capacity through its direct effects - the reduction of group-level material and intellectual resources, and through its affect on individuals and their outlook.

Poverty, then, represents the most serious challenge that New York's Southern Tier communities face. Poverty's effects on community are insidious. In more isolated rural and poor areas, fewer individuals, as a result of the cumulative effects of poverty, are willing and prepared to take leadership positions. Living in such conditions tends to stunt the community's ability to deal with fundamental problems. Beyond this, poverty and isolation negatively affect socio-politically relevant attitudes on the part of the citizenry. One result is a basic lack of recognition that effective local leaders are important community resources.

These attitudes can go so far as to manifest themselves in progressive degrees of alienation. Such attitudes are destructive because they work to further reinforce the very isolation which causes them. Individuals living in a milieu of rural poverty, removed from opportunity and alternate perspectives, are often less likely to understand and respect the need for competent local leadership, education, and other prerequisites of development. Such a view-point, in itself, is a fundamental handicap to development.

The challenge which poverty poses to community and leadership structures is especially serious for small communities living in isolated rural municipalities. Unfortunately, challenges posed to communities and leadership structures by poverty and isolation are faced within a context of a growing structural need for competent local governmental leadership affecting all local governments within the region. To begin with, New York State, with multiple levels of local government, including separate special governments or districts, has a "home rule" constitution which gives proportionately more responsibility to local governments for the determination of their activities and governmental structure. And, increasingly, county, city, and town and village governments are having to assume responsibility for the complex issues facing their communities. This trend is being accentuated by the devolution of responsibility for making allocations of community assets and for overall community development, from centralized governmental decision-making levels to local governments.

The structural quality of the local economy, in the general distribution and quality of the jobs and goods it provides, is

an important ingredient in the community/leadership/economy dynamic. Assistance in the form of economic development, infrastructure construction, the improvement of education and other social resources, and leadership training will all help to reconnect rural areas.

The problems facing Appalachian New York's metropolitan communities go beyond poverty and isolation effects. For more metropolitan areas, there are two important structural dimensions of the local economy which most directly relate to the quality of the local community and its leadership. Assuming a base level of prosperity, these dimensions are defined by the economy's distributional qualities and the level of local economic control. The two may coincide, but not always. For instance, a locally dominated economy centered on very low end industry is not necessarily in itself conducive to the development of good community structure and leadership. An externally controlled economy with many more professional and skilled jobs would likely serve a community better. All things being equal, then, the best economic structure for a community is one where there is a broad distribution of economic benefits and quality positions, as well as a favorable level of local decision making.

Increasingly, many of the economic structural leadership positions in the more sizeable Southern Tier communities are either disappearing altogether or being replaced by relatively subordinate positions in out of town firms. This is happening as local industries and commerce are either disappearing or being replaced by the operations of much larger corporations. This fundamental social-structural factor, resulting in part from national and international economic restructuring trends, is related to community expectations, norms, and educational focus and quality. It is associated also with the area's general level of socioeconomic marginalization. The area's metropolitan centers are relatively small and isolated, which makes the decline of local leadership all the more worrisome.

The effects of this restructuring can be devastating to local culture and community. When out of town corporations replace local firms too often, relatively speaking, critical intellectual capital, commitment to community, and local level accountability, in the persons of managers, skilled employees, and other professional talent, and local merchants and other business owners, and their skilled help, are removed from the area. What professional or managerial employment remains may be relatively less effective for or committed and accountable to the local community.

This problem represents a direct and immediate loss of leadership, resulting in less local support for culturally critical community institutions such as libraries, museums, and other cultural centers, as well as for hospitals and schools. These institutions decline as their patrons, defenders, and members leave the area or become marginalized within it. Professionals, and highly skilled and educated workers, are the most likely to support these institutions and to demand high standards from local government and education. As opportunities for professionals shrink, the area also suffers a brain drain, exporting its best youth, further exacerbating the underlying leadership problem. It is likely that this in part accounts for the region's zero percent growth rate. The effects of this should be taken seriously. As young individuals with professional potential leave the area, the residual population is that much more handicapped in its ability to create opportunities for the future. And so, the cycle of decline continues, only it is further exacerbated because, as the opportunity shortage worsens, fewer young people with leadership prospects will arise in the first place, owing to the continuing decline of the socializing environment which nurtures such individuals.

While additional employment of almost any sort represents a net gain for most areas. The best and most sustainable development is that which provides higher end industry and commerce with a significant proportion of local control. This, in the long run, strengthens the community's ability to compete and improve. Finally, local concerns are more likely to hang on through tough times, providing further stability to an area's economy and community.

There are other social structuring factors which impact the quality of a local community and its leadership. Beyond the obvious demographic factors of size, diversity, and density are included the level and quality of the education of the local citizenry; the quality and accessibility of the social resources available to a community's members; and, the level by which a community is either isolated or connected to a larger political society.

Quality education does not only give local citizens and leaders the intellectual means and articulation skills necessary to tackle problems. It also determines whether such problems will be recognized and accurately interpreted in the first place. Ominously, low levels of education can actually breed a contempt or mistrust of formal education and an anti-professional attitude which mitigates against the appreciation of the need

for quality leadership responses to problems. Education should both include the development of skills which will directly provide material opportunities for individuals and communities, and also take into consideration a broader agenda which would work towards the connecting of individuals living in isolation and poverty with others in their community, as well as to the intellectual life of the world outside.

Finally, access to social resources also plays an important role in the community dynamic. Access to health care, emergency assistance, child and elder care, and other social resources does not simply relieve immediate stresses on the individual living in poverty or enable economic development. Properly managed programs can also work to alleviate the sense of mistrust, isolation, hopelessness, and alienation so destructive to communities.

As communities and their leadership are part of a complex dynamic, interrelated with many other factors, so must be the approach to strengthening them. All efforts to strengthen an isolated and poor area's connections to the broader society and economy, to make it more competitive, to improve the quality of education and opportunity, and to appropriately adjust the quality and availability of social resources, must have a positive if non-quantifiable impact on the community. In this sense, the gamut of the ARC strategic goals and programs relate, directly and indirectly, to this one over-arching issue of vital and sustainable community structure and leadership. Individual project proposals aimed towards any other strategic goal should also be explicitly judged as to their prospective qualitative impact on the area's community. Such a priority is based on the recognition that communities and their leadership structure are complex entities which are impacted by a multiple of structural factors and not just by programs targeted specifically at their development.

While community and leadership are indirectly addressed through a host of various activities, there are also ways in which government can have a direct positive influence on leadership and community development. New York State, independently and through its ARC programs, has worked towards the development of leadership capacity in the Southern Tier. These efforts have been focussed by the State Initiative on Leadership and Civic Development. These efforts aim to nurture, through several approaches, community leadership with the capacity to identify and deal with local problems. Efforts include civic leadership training and efforts to encourage leadership potential among

youth. These projects are managed by the local development districts, to suit the special needs of their areas.

Programs under this initiative as well as the indirect impact of other ARC development efforts are vital assets to community and leadership development in Appalachian New York.

GOAL 4: APPALACHIAN RESIDENTS WILL HAVE ACCESS TO FINANCIAL AND TECHNICAL RESOURCES TO HELP BUILD DYNAMIC AND SELF SUSTAINING LOCAL ECONOMIES.

Assessing Appalachian New York's condition relative to Goal 4 is a matter of looking at both appropriate statistical indicators and considering the impact of a number of other factors, including programs directed towards development. Clearly, achieving dynamic local economies is tied to all of the goals which precede it and insofar as these are achieved, progress towards Goal 4 is furthered. The economies of Southern Tier communities constitute a mixed bag for the region as a whole. While the entire region lags behind the nation and New York State in many economic respects, there is also notable disparity within the Southern Tier.

According to ARC's designation criteria, no counties in Appalachian New York currently qualify as distressed. Allegany County comes closest, with a per capita income for 1994 of \$14,285, which is less than 67% of the U. S. average for that year. Allegany's unemployment rate in 1995 was 7.7 percent. While well above the 1995 national rate of 5.6 percent, Allegany's figure did not exceed 150 percent of the national rate. Similarly, Allegany County's poverty rate for 1990 was 14.8 percent, which was higher than the U. S. rate for that year but not in excess of 150% of that rate.

Presently, no Southern Tier counties have achieved ARC attainment status. None matched the U. S. per capita income figure in 1994. Though with per capita incomes of \$19,933 and \$18,886; Broome and Chemung counties respectively approached the 1994 national per capita income of \$21,696. Several counties fell well below the national figure. The four counties with the lowest per capita incomes in 1994 were Allegany, Schuyler, Cattaraugus, and Delaware. These counties had per capita incomes ranging from \$14,285 to \$15,705. Several Appalachian New York counties have higher poverty and unemployment rates relative to the nation. Eight counties, Allegany; Cattaraugus; Chenango; Cortland; Steuben; Schoharie; Schuyler; and Chautauqua, had unemployment rates in 1995 that were higher than

the national rate of 5.6 percent. The highest unemployment rate was suffered by Allegany and Cattaraugus counties at 7.7 percent each. And, six Appalachian New York Counties exceed the national poverty rate of 13.1 percent for 1990. These are Tompkins; Allegany; Cattaraugus; Otsego; Chautauqua; and Steuben counties.

Unfortunately, ARC distressed county designation criteria are based on comparisons with national figures. This does not take into consideration regional variations in economic standards and costs of living. This is problematic because compared to New York State, the Southern Tier is even less competitive than it at first appears in the light of national figures. Areas within the Southern Tier such as Allegany are, indeed, substantively, if not technically, distressed.

While no counties in Appalachian New York had per capita incomes lower than 2/3 the national figure in 1990, about half had less than 2/3 the New York State figure. And, the Southern Tier's 1990 per capita income, at \$15,459, was less than three fourths that of New York's \$22,068. Appalachian New York is, then, very poor by New York State standards, and that relative poverty translates into greater objective deprivation. This is the case because the Southern Tier must compete within a social and economic market whose monetary and substantive standards are markedly higher than those of the nation's, making it more difficult for the region and its residents to buy goods and services, to compete educationally and economically, to lure development, to obtain medical care at market rates, et cetera. Thus, relative disadvantage can translate into greater objective deprivation.

A casual statistical analysis of relative aggregate economic conditions in the region's counties gives us a picture of uneven economic conditions. In looking at the poverty, unemployment, and per capita income rates, we find that the more urbanized counties are doing significantly better, on average, than are those that are rural and isolated. Counties that have the lowest population densities and are farthest removed from metropolitan centers have the weakest local economies.

In many ways, Chemung and Broome Counties are the most developed in the region. They are the most urbanized, each containing one of the region's three Metropolitan Statistical Areas. They accordingly have the highest county-wide population densities. Based on the 1990 U. S. Census, Chemung and Broome Counties have 233 and 300 residents per square mile respectively. This compares to the most rural counties of Appalachian New York,

such as Allegany and Delaware, which range from 30 to 60 or so residents per square mile. While Chautauqua has a sizeable population and contains the City of Jamestown, it is geographically quite large and has, proportionately, a higher rural population. This reduces Chautauqua's population density to 134 residents per square mile. In evidence of the positive correlation between low population density and isolation with weak local economies, Chautauqua, along with other marginally urbanized counties, tends to perform with less economic consistency across categories than do those counties which are either highly urbanized or more thoroughly rural and isolated.

Broome and Chemung then, consistently rank among the counties with the lowest aggregate poverty and unemployment rates and highest per capita incomes. They also have among the best educational attainment rates. These two counties, along with Tioga, are the only counties in Appalachian New York to have achieved ARC "competitive" status. At first, these counties appear to be relatively prosperous. However, just as there is quite a bit of variation between counties in economic and social conditions, there are also extreme disparities within these counties in terms of income levels, and poverty and unemployment rates.

Aggregate statistics mask distressed areas or pockets of poverty within these counties. The Southern Tier East Regional Planning Development Board has identified several communities within Broome and Tioga Counties which, if considered individually, fall short of competitive status. Indeed, several municipalities in these counties would qualify as distressed with respect to their unemployment rates. With the exception of the City of Binghamton, the communities in the worst shape in these counties were the most rural.

Predictably, Binghamton's suburbs performed the best, following a common American metropolitan pattern. This suburb effect explains why Broome county, with so much poverty in the city of Binghamton and the outlying rural towns, still qualifies as competitive. It also undoubtedly contributes to Tioga County's relatively positive overall economic standing. Though it is essentially a rural county, it is close to larger metropolitan centers and it contains some relatively affluent Binghamton suburbs. This suburban effect then masks, on an aggregate level, the extent and concentration of poverty in these counties. The same applies to Chemung County which has pockets of serious poverty, such as Millport.

Aside from the "Competitive" counties, other counties, that are relatively urban, or adjacent to developed areas, including Tioga County, tend to rank more positively on measures of economic competitiveness, but no county performs as consistently well as Chemung and Broome. The poorest performers are the counties which tend to be rural and isolated, having low population densities, and little metropolitan concentration. Allegany, again, exemplifies this problem.

An anomaly appears when one looks at comparative job creation in the Southern Tier. Here, Broome and Chemung Counties appear to have lost a considerable number of jobs between 1990-1995 while some of the most rural counties have gained significantly, including Allegany. Broome's loss is at least in part due to challenges faced recently by its high-technology employers including IBM. However, job creation and loss from 1990-1995, mild for most counties, does not appear to be strongly associated with poverty, unemployment, or per capita income figures and rates of change. To interpret this statistical problem without more contextualizing data would be speculative.

A final note on Tompkins county seems in order. Tompkins's aggregate economic statistics should be considered anomalous and not used in comparison with other counties in the region. They are heavily skewed by the effects of Ithaca College, Cornell University, Tompkins County Community College, and the close proximity of Cortland State College. The nature of employment driven by educational institutions and the school calendar, and the large number of students in the area, many of whom fall below the poverty line but are not substantively poor, skew Tompkins's employment and economic statistics to the point where a separate analytical framework of that county would be in order.

Aside from anomalous Tompkins County figures and the apparent lack of correlation between the number of jobs available and trends for other indicators, we can conclude that, as a rule, poor economic conditions in the Southern Tier are strongly associated with rural isolation. This structurally driven fact legitimizes both efforts towards transportation and communications infrastructural development aimed at providing access to outside opportunities, and efforts towards bringing opportunity directly into isolated areas.

The above analysis suggests that many individuals and communities in the Southern Tier do not have access to the financial and technical resources necessary to build sound modern economies. This may be further evidenced in the fact

that the region's population growth has flatlined. Though unquantified, it appears that immigration into the area is minimal and that many of the best and brightest young people are leaving the region, seeking professional opportunities elsewhere. This drain exacerbates challenges to building dynamic and sustainable economies and community capacity in the region.

New York State has taken efforts, in cooperation with the Region's Local Development Districts, to encourage economic opportunity in the area through job training, creation, and retention via educational, infrastructural, and community investment. Directly, New York State is encouraging economic modernization and competitiveness, through the LDDs and the New York State Department of Economic Development via the State Initiative on Trade Development in Appalachian New York.

Along with some special local and more general state-wide efforts, New York State, the LDDs, and the communities of the Southern Tier are working together towards meeting the demands of the changing international economic structure, which includes new technologies and the imperatives of freer trade. Business, technological, and skills development cooperatives such as the Ceramics Corridor, linking private, public, and industrial efforts towards the development of future economic advantage, exemplify such efforts. Structural isolation and underdevelopment in Appalachian New York, along with a rapidly changing economy, demand continued efforts. In the current dynamic environment, such work is prerequisite at least to preventing decline, let alone enabling progress. Failure to take proactive steps towards economic development would not lead to stagnation but, rather, would ensure a devastating economic and social decline.

GOAL 5: APPALACHIAN RESIDENTS WILL HAVE ACCESS TO AFFORDABLE, QUALITY HEALTH CARE.

The quality and accessibility of health care in the Southern Tier can be partially assessed by looking at two statistical categories: The concentration of non-federally supported physicians among the population as a whole and infant mortality rates. The number of doctors practicing in the counties is distributed in a manner which is quite predictable. The most developed counties tend to have the most doctors per capita. Nationally, there were estimated to be 20.9 physicians per 10,000 individuals in 1994. Broome County exceeded the national

average slightly with 22.1 physicians per 10,000 individuals in 1994, while Chemung County just missed that figure with 19.4 doctors per 10,000. The exception is Otsego, which is quite rural but has a major medical facility. Otsego's Bassett Hospital accounts for the county's remarkable 33.3 physicians per 10,000 residents. Counties which have the fewest doctors, proportionally, fall into two categories - the truly disadvantaged, such as Allegany, where poverty, and isolation, along with only 7.2 doctors per 10,000, translate into a serious medical delivery shortfall, and counties which are economically more advanced and in close proximity to well served metropolitan areas. Tioga is one such county. It, along with Schoharie County, has only about 6 doctors per 10,000 residents. The level of poverty and isolation in Tioga County, while high in several towns, does not translate into as serious a health care accessibility crisis as it does in a county like Allegany, because Tioga's residents are partly served by significant medical facilities in surrounding metropolitan areas.

While three counties (Chemung, Broome, and Otsego) exceeded the physician/resident density figures for the Appalachian Region and Two (Broome and Otsego) exceeded national figures, many counties fell very short. Six counties (Schoharie, Tioga, Allegany, Schuyler, Chenango, and Delaware) had doctor/resident ratios which were less than half the Appalachian Regional average of 15.8 doctors per 10,000. The serious shortage in the region's most rural counties accounts for the fact that the Southern Tier has a lower physician density than does the Appalachian Region as a whole. This is a problem whose seriousness is compounded by the fact that the residents of the Southern Tier, for the most part, are not served by medical facilities and communities outside of the region due to long distances to New York's other metropolitan centers and the fact that Pennsylvania's Northern Tier, with few significant population centers, has very little with regard to advanced medical facilities or personnel.

Infant mortality rates for the Southern Tier counties are mostly moderate over the last three year period for which data is available. The region as a whole and most of its counties have comfortably lower infant death rates than either the Appalachian Region or the nation. However, Chemung county has an apparently alarming rate of 12 infant deaths per thousand averaged over three years. This, however, according to the Chemung County Department of Health, does not represent a health care crisis. Arnot Ogden Hospital, in Elmira, has the only neo-natal intensive care unit within a very great area of Twin Tiers of Pennsylvania and New York. It serves a large portion of the

Southern Tier and Northern Tier of Pennsylvania and as such, attracts to the county many problem pregnancies which statistically, have a higher chance of failure, thus boosting the county's figures far out of proportion to what any other determinant could explain.

Clearly, New York's Southern Tier faces health care challenges. As the discussion above suggests, the lack of physical accessibility to health care providers is a serious problem. Allegany county has only one non-federally funded physician for every 1,389 of its residents. Other counties and areas within large counties face similar shortages. This problem can only be resolved by both increasing the dispersion of general practice medical personnel and facilities throughout the region and by working on transportation accessibility. The lack of affordable and adequate transportation in more rural areas only exacerbates the accessibility problem.

The financial accessibility of medical care is also a challenge which may worsen for some portions of the region's population. Beyond these there are specific medical challenges, such as high teen pregnancy rates and the increasing need for elder care. These problems must be addressed not only to ensure the physical health of the residents of the region, but also to ensure that the other ARC Strategic Goals are substantively met.