**Chapter prepared jointly by the Montachusett Regional Planning Commission and the Franklin Regional Council of Governments**

# CHAPTER 5

# ECONOMIC DEVELOPMENT

When people speak about the economy, they may be talking about job availability and how well the nation's companies and industries are faring in the global market place. The indicators that Americans use to measure the national economy include the stock market, unemployment rates, consumer confidence indexes, and gross domestic product figures. Although it may be difficult to define, measure, or predict changes in the national economy, it is important to acknowledge they have an impact on our regional and local economies.

When the economy is doing well, worker productivity and wages may be increasing along with consumer confidence, and people may be more interested in investing money in new businesses. In general, when the economy is booming, people are likely working to make more money by initiating economic activities. When the national economy is strong, economic activities occur where people can invest time, labor, resources and capital to increase value and wealth. When the national economy is weak or in recession, businesses see demand for their products and services decline. Employees are laid off to lower overhead costs. Businesses with inventories delay reordering new supplies. The result is a cooling off period. The national economy is dynamic: industries and regions can survive these ups and downs by being flexible and competitive.

Communities that seek to improve their local economies do so to enhance the quality of life for residents with additional employment opportunities, more services, and lower property taxes. By increasing economic activities in a town, new employment opportunities may be created offering residents access to potential part- and full-time jobs. Full-time jobs paying a living wage with benefits, is usually the most sought after type of job. Often employers that offer these full-time positions indirectly support a mix of retail and service industries. The end result can be a dynamic mix of local businesses providing products and services residents require. Finally, as the value of commercial and industrial property increases, the relative amount of a community's tax levy supported by the residential assessed valuation may decrease in the short-term as may homeowners' local property taxes.

This Economic Development chapter includes a discussion of Athol's economic resources including its labor force, land, and infrastructure. It presents population estimates as a means of describing the current local and regional labor force. Measures of the relative wealth of Athol residents reflect the "health" of the local economy. Changes in population are estimated by age group to demonstrate the potential for changes in the size and age of Athol's future labor force. It is also important to determine the relative strength of the local industries as compared to the region and the State, to assess the diversity of the local economic base, and to explore characteristics which could be utilized to enhance the Town's position as a center of economic activity. These factors are presented throughout the Economic Development chapter. This chapter seeks to describe the local economy in a number of ways, to discuss the most important issues, and to offer potential recommendations to help Athol sustain and enhance local economic activities.

## Goals:

- To encourage economic development which is balanced with the preservation of natural resources and the cultural landscape in order to maintain and enhance Athol's economic, environmental, and cultural integrity.
- To provide an environment in which local businesses and industries can succeed and expand.
- To support and encourage new commercial and industrial enterprises that provide stable full-time jobs with living wages, and help diversify Athol's current economic strengths.
- To promote the vitality of the downtown area through redevelopment and increased tourism.

## Objectives:

- Encourage the development of local, owner-operated businesses, including those that sell local produce and products.
- Support the re-use of existing commercial buildings and industrial sites for redevelopment, especially in the downtown area, and encourage downtown revitalization in a way that fosters a mix of different types of businesses.
- Strengthen the infrastructure of Athol including the provision of water, sewer, transportation, and telecommunication services, to facilitate the expansion of existing businesses and industries and to support new economic development.
- Investigate the demand for, and the feasibility of, developing a new industrial park for commercial and industrial businesses; suggest potential locations for such development.
- Assist in the development and training of a regional labor force that is well equipped to perform in an increasingly complex and technology-based economy, and ensure that all residents have access to educational programs to enhance their employment skills.
- Diversify the types and sizes of businesses and industries in Town so that Athol may be better equipped to weather the cyclical nature of the national economy.
- Promote historic, cultural, entertainment, and recreational assets for residents and foster a market for tourism.
- Educate all residents about the importance of shopping locally.

## Historical Context

The founders of Athol subsisted on agriculture and hunting. From that agricultural beginning, Athol developed rather quickly. By 1791, it already had twelve mills along its waterways utilizing the waterpower technology of the time. With the advent of the railroad and less dependence on river transportation in the Connecticut River Basin, Athol prospered. Transportation and new forms of communication made Athol a developing partner in the regional industrial economy. Many prosperous manufacturing firms developed in the area, including a large number of tool companies producing iron vises, meat cutters, hardware, and machinists tools. This manufacturing strength led Athol to become known as "Tool Town USA."

Changes occurred in Athol as new inventions and technological developments reduced industries' dependence on waterpower and rail. Factories were no longer tied to the river for waterpower. Although Athol remained an important manufacturing center in the region, it suffered a series of setbacks beginning in the 1960's. Three significant closures or layoffs during the past ten years have dealt a severe blow to the economic and social fabric of the community. Eastern Furniture and Woodland Products closed their doors in 1990, resulting in the combined loss of one hundred and ten (110) jobs, and L.S. Starrett Tools laid off one hundred (100) workers in 1992. The decline of manufacturing has affected other sectors of the economy as well. The commercial vacancy rate rose from 12 percent in 1995 to 18 percent in 1998 surpassing both regional and statewide averages. In 1995, Stuarts Department Store closed resulting in the loss of twenty jobs. In an effort to reverse this trend by attracting new industrial and commercial enterprises, Athol launched a downtown revitalization program. One potential result of this program was a decrease in the downtown commercial vacancy rate to just 5 percent by 1999.

Today Athol has a blend of post-industrial characteristics such as old and underutilized factory space, and a great rural setting. Manufacturing facilities remain along with a small town shopping district and a wide range of recreational resources. Athol has been a regional commercial center for the nine-town North Quabbin Region[1] for many years. It represents an economic center that has traditionally provided employment opportunities for residents and the surrounding small towns. It also includes a blend of well-established and new businesses.

## Population and the Labor Force

Population and labor force information includes changes in the numbers of residents, measurements of wealth like average household income, and assessments regarding the relative preparedness of the labor force for skilled employment opportunities. These labor force figures describe the segment of Athol's total population that is either employed or seeking paid work, and includes residents who are not currently working. The Town's unemployment figures are discussed relative to the surrounding counties and the State of Massachusetts. Unemployment figures reflect residents' participation in the local and

[1] (Athol, Erving, New Salem, Orange, Petersham, Phillipston, Royalston, Warwick, Wendell).

regional economies and the ability of those who seek employment to find jobs. In addition, figures that estimate where residents travel to work help show how many depend on local businesses for their livelihood.

A business owner interested in expanding his or her operation may consider a number of factors before deciding to locate in Athol or any other location. One of these considerations may be the availability of land, which is properly zoned and has the necessary utilities. Another may be the availability of labor. Are there enough candidates for the new positions? Do they have the skills necessary for the jobs or can they be easily trained? These questions point to some of the characteristics of a community that can be assessed using population statistics such as population, labor force, unemployment, and educational attainment. Population information can also show changes in the potential labor force over time.

Another method of measuring the economy, which depends on population figures, is the relative wealth of residents. Population figures include measures of income and poverty. These figures reflect how well, or how poorly the local economy is serving all of Athol's residents.

Before discussing Athol's population and labor force figures, it is important to explore the relationships between population growth, municipal services, municipal finances, and the local and/or regional economy. Costs of community services are further discussed in the Issues section under "Property Taxes and the Unintended Consequences of Economic Development". Communities of different size populations require varying levels of municipal services. As population increases, towns may find themselves needing to keep pace by providing new schools, fire stations, police cruisers, and sewer and water lines. Municipal finances relate to the manner in which towns generate revenues to pay for these community services. The health of a town's finances may be reflected by the amount of money in the town's stabilization fund, the proportion of municipal funds used to support core government services, the bond rating, and the residential property tax rate. Most of the revenue generated by Massachusetts' towns is in the form of real estate and personal property taxes. If the local economy is strong and commercial and industrial businesses are expanding, one relatively immediate result may be that a larger proportion of the total revenues required to support these municipal services can come from the business sector, instead of from residential property taxes.

Growth in local economic operations that increase industrial property values may appear attractive as a goal. Having a growing population may also seem to be a positive trend especially if it is assumed that this would mean a larger labor force would be available for local business expansion. If industrial expansion were to occur and more manufacturing jobs were to become available, it is likely that people would choose to settle in Athol as service jobs tend to follow manufacturing expansion. The long-term results of economic development among major manufacturing employers tends to be localized population growth and further increases in municipal expenses for schools and public safety. Finding the right balance between economic development and population growth should result in stable municipal finances.

An opportunity exists for Athol to encourage the growth of small to medium-sized businesses. Creating jobs in a slow and steady manner would satisfy the employment needs of Athol's modest population growth. Slow and consistent growth would more likely permit the Town to ensure that municipal services could be covered in part through tax revenues generated by an expanding yet diversified economic base.

## Population

It is important to understand how many people live in Athol and whether the population is growing, in decline, or maintaining its numbers. According to the U.S. Census Bureau Decennial Census of Population & Housing, there were approximately 11,305 people living in Athol in the year 2000. Athol is more populated than surrounding communities including Orange but less so than Gardner. The overall or net change in Athol's population from 1970 to 2000 was very little. As shown in Table 5-1, in those thirty years, the population increased by only one percent. During the same period, the Massachusetts population expanded by 12 percent (12%). County-level data show over the same time period, the population of Franklin County grew by over 21 percent and the population of Worcester County by 18 percent.

### Table 5-1: Population Changes and Projections, 1970-2010

| | Population Change | Percentage Change in Population, 1970-2000 | | | | Projected Population Change | Projected Percentage Change |
|---|---|---|---|---|---|---|---|
| | 1970-2000 | 1970-1980 | 1980-1990 | 1990-2000 | 1970-2000 | 2000-2010 | 2000-2010 |
| **Athol** | **114** | **-4.9%** | **7.7%** | **-1.3%** | **+1.0%** | **348** | **3.1%** |
| Gardner | 1,022 | -9.4% | 12.4% | 3.2% | +5.2% | 2,011 | 9.5% |
| Orange | 1,414 | 12.1% | 6.8% | 2.8% | +23.2% | 514 | 6.7% |
| Worcester County | 112,849 | 8.6% | 9.0% | 2.1% | +17.7% | 64,739 | 8.5% |
| Franklin County | 12,302 | 1.3% | 9.8% | 5.8% | +20.8% | 5,550 | 7.5% |
| **Massachusetts** | **659,720** | **0.8%** | **4.9%** | **5.5%** | **+11.6%** | **349,897** | **5.5%** |

*Sources: 1970-2000 data: U.S. Census Bureau, Census of Population & Housing;
Population growth projections: MISER, August 1999, based on MISER's population estimates for 2000.*

Athol's one percent population increase (equal to 114 people) does not represent gradual, consistent growth over the past 30 years. The small new gain in population results from growth during the 1980s (8% increase from 1980 to 1990), and population declines during the 1970s (-5%) and 1990s (-1%). Table 5-1 indicates that of the comparison areas, only Gardner also experienced a population decrease during the 1970s and that none of the areas besides Athol had decreases during the 1990s. During the 1980s, Athol's population grew by 8 percent (or 817 people), more than Orange (7% growth) and the State overall (5%), but less than Gardner (12%), Worcester County (10%), and Franklin County (9%).

The Massachusetts Institute of Social and Economic Research (MISER) serves as the U.S. Census Bureau's main data center for Massachusetts. In this position, MISER develops population projections for all the towns in the Commonwealth by age and race. MISER's latest projections (1999) forecast population levels out through 2010. MISER develops high, low, and middle projections, each with slightly different assumptions. The middle projections are the focus of the discussion here.

During the next decade, MISER expects Athol's total population to grow by 3 percent (middle projection). This rate of growth is lower than that anticipated for Orange and Gardner, and Franklin and Worcester Counties. A relatively slow local population growth is not necessarily a negative trait. In light of the relationship between population growth, the cost of municipal services, and the local economy, a slowly growing community is probably more sustainable than a rapidly expanding one.

### *Age Distribution*

Age distribution information is used to describe the impacts and values associated with two population-related factors: (1) the types of community services required by Athol residents over time; and (2) the manner in which the labor force may change in the future. Table 5-2, Table 5-3, and Table 5-4 summarize changes in the distribution of population by age group for Athol, Worcester County, and the State, over the 1990-2010 period. Table 5-2 provides the number of people for each age group in 1990 and 2000, and the 1990-2000 population changes. Table 5-3 gives the projected total population and percentage changes between 2000 and 2010 for the same cohorts. Table 5-4 shows the relative shares of each age group as a percentage of the total populations in 1990, 2000, and 2010. The 1990 and 2000 population counts in these tables come from results of the Census of Population and Housing for each of the years, as provided by MISER. The 2010 forecasts and 2000-2010 changes are from MISER's most recent projections (1999).

**Table 5-2: Population Changes by Age Group, 1990-2000, for Athol, Worcester County, and the State**

| | Athol | | | Worcester County | | | Massachusetts | | |
|---|---|---|---|---|---|---|---|---|---|
| | # People 1990 | # People 2000 | % Change | # People 1990 | # People 2000 | % Change | # People 1990 | # People 2000 | % Change |
| **Ages 0-4** | 954 | 648 | -32.1% | 54,324 | 50,027 | -7.9% | 421,349 | 397,268 | -5.7% |
| **Ages 5-19** | 2,480 | 2514 | 1.4% | 143,700 | 162,638 | 13.2% | 1,139,668 | 1,277,845 | 12.1% |
| **Ages 20-34** | 2,668 | 1,877 | -29.6% | 183,326 | 145,478 | -20.6% | 1,615,844 | 1,331,067 | -17.6% |
| **Ages 35-44** | 1,528 | 1,881 | 23.1% | 106,936 | 130,804 | 22.3% | 914,546 | 1,062,995 | 16.2% |
| **Ages 45-64** | 1,926 | 2,439 | 26.6% | 124,547 | 164,047 | 31.7% | 1,110,013 | 1,419,760 | 27.9% |
| **Ages 65-84** | 1,667 | 1,605 | -3.7% | 86,040 | 84,236 | -2.1% | 724,666 | 743,470 | 2.6% |
| **Ages 85 +** | 228 | 335 | 46.9% | 10,832 | 13,733 | 26.8% | 90,339 | 116,692 | 29.2% |
| **Total** | **11,451** | **11,299** | **-1.3%** | **709,705** | **750,963** | **5.8%** | **6,016,425** | **6,349,097** | **5.5%** |

*Source: U.S. Census Bureau, Census of Population & Housing, 1990 & 2000.*

Both absolute population changes and shifts in the population distribution among cohorts can be significant for a town; together they can impact the town's economy, as well as its ability to provide for its residents. Absolute figures reveal shifts in the total number of residents who are children, elderly, and in-between, and potential changes in demand for particular services such as daycare, schools, senior services, and community transit programs. Population distribution numbers can indicate relative changes in births, deaths, and migration, and the number of people staying in place as they age. Population distribution patterns can also reveals shifts in the ratio of the working age population to the total population. If this ratio becomes too low, that is the relative number of working age residents (and presumably workers) decreases, it can become more difficult for towns to fund municipal and community services to meet the needs of its residents. This is because household incomes tend to be greatest among those of working age, particularly those in the 45-64 age cohort, and because the demand for services is often greatest among cohorts who are either younger or older than the general labor force.

### Table 5-3: Projected Population Change 2000-2010 by Age Group for Athol, Worcester County, and the State

| | Athol | | Worcester County | | Massachusetts | |
|---|---|---|---|---|---|---|
| | Population Change | % Change | Population Change | % Change | Population Change | % Change |
| **Ages 0-4** | 91 | 13.6% | -237 | -0.5% | -21,984 | -5.5% |
| **Ages 5-19** | -313 | -11.3% | 3,787 | 2.3% | -6,726 | -0.5% |
| **Ages 20-34** | 290 | 13.9% | 8,241 | 5.3% | 16,696 | 1.2% |
| **Ages 35-44** | -407 | -21.5% | -10,970 | -8.4% | -112,390 | -10.6% |
| **Ages 45-64** | 929 | 41.6% | 62,638 | 38.5% | 432,355 | 30.5% |
| **Ages 65-84** | -200 | -15.5% | 892 | 1.2% | 31,134 | 4.4% |
| **Ages 85 +** | -42 | -12.5% | 388 | 2.4% | 10,812 | 10.7% |
| **Total** | **348** | **3.1%** | **64,739** | **8.5%** | **349,897** | **5.5%** |

*Source: MISER, Population Projections for the Years, 2000, 2005, and 2010, released 1999. Middle projections used.*

### Table 5-4: Percentage of Total Population in Each Age Group, 1990-2010, for Athol, Worcester County, and the State

| | Athol | | | Worcester County | | | Massachusetts | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2010 | 1990 | 2000 | 2010 | 1990 | 2000 | 2010 |
| **Ages 0-4** | 8.3% | 5.7% | 6.5% | 7.7% | 6.7% | 6.3% | 7.0% | 6.3% | 5.7% |
| **Ages 5-19** | 21.7% | 22.2% | 21.2% | 20.2% | 21.7% | 20.7% | 18.9% | 20.1% | 19.4% |
| **Ages 20-34** | 23.3% | 16.6% | 20.4% | 25.8% | 19.4% | 19.8% | 26.9% | 21.0% | 20.5% |
| **Ages 35-44** | 13.3% | 16.6% | 12.8% | 15.1% | 17.4% | 14.6% | 15.2% | 16.7% | 14.1% |
| **Ages 45-64** | 16.8% | 21.6% | 27.2% | 17.5% | 21.8% | 27.3% | 18.4% | 22.4% | 27.6% |
| **Ages 65-84** | 14.6% | 14.2% | 9.4% | 12.1% | 11.2% | 9.2% | 12.0% | 11.7% | 11.0% |
| **Ages 85 +** | 2.0% | 3.0% | 2.5% | 1.5% | 1.8% | 2.0% | 1.5% | 1.8% | 1.7% |
| **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

*Sources: 1990 and 2000 population distribution: U.S. Census Bureau, Census of Population and Housing, 1990 and 2000; 2010 population distribution: MISER, Population Projections for the Years 2000, 2005, and 2010, released in 1999. Middle projections used.*

The labor force, which consists of all people who are currently employed or looking for paid work, is primarily comprised of the three cohorts: ages 20 to 34, ages 35 to 44, and ages 45 to 64. Across Worcester County and the State, the number of 20-34 year olds, the young worker and young family cohort, is declining both in actual numbers of people and in its share of the total population. Statewide, the number of 20-34 year olds decreased 18 percent in the past decade, and the group's share of total population shrank from 27 percent to 21 percent. In Athol, the population declines for this age group have been even more dramatic, falling by 30 percent (a decrease of 791 people) over the last ten years. During this time, 20-34 year olds' share of the population also declined, from 23 percent to 17 percent. Some of this decrease appears to result from a net out-migration, which may be related to the decrease and lack of employment opportunities for this group within Athol. For the coming decade, MISER projects an increase of 290 people in Athol's number of 20-34 year olds, which suggests some of the current out-migration may be halted. However, MISER also projects a one-fifth decrease (-407 people) in Athol for the 35-44 age group, many of whom are currently 20 to 34. This decline is much larger than expected for this age group at the County and State levels: 8 percent and 11 percent decreases respectively. It is important for Athol to develop strategies to halt the current and projected out-migration and retain these groups of residents.

Population trends in Athol for most cohorts besides the already mentioned working age groups are similar to those for Worcester County, and often to those for the State. For the Town, County, and the State, the number of people ages 45-64 grew significantly between 1990 and 2000 and is expected to continue to do so through 2010. The growth of this cohort is largely a result of the post-World War II baby boom, the youngest members of which will be turning 46 in the year 2010. Similarly, the number of people aged 85 and over grew in the past decade and is projected to continue to grow through 2010 and beyond for Athol, Worcester, and the State overall.

The main differences between the Worcester County and Athol population figures are for the 2000-2010 period. All of the 2000-2010 numbers come from MISER's latest population projections. These projections are based on 1990 U.S. Census data and intermediary population estimates produced prior to the 2000 Census. A comparison of MISER's 2000 (middle range) population projections with actual 2000 U.S. Census figures showed that MISER's overall population estimate for Athol for 2000 was close to the Census number. MISER predicted a population of 11,293 people, and the U.S. Census counted 11,299, a difference of only six people. However, by age groups, the counts and projections varied more. The MISER middle-level projections significantly over-estimated the number in people in the 0-19 and 20-44 age groups, and under-estimated the number of people in the 45-64 and 65 and over groups. It is likely that some of the differences between Athol and Worcester shown in the above tables for 2000 to 2010 primarily stem from difficulties of accurately predicting cohort-level populations for a small geographic area (Athol), and the resulting disparities between the actual cohort population counts and the cohort projections. It is also expected that many of these differences will be reduced when MISER revises its projections to reflect the data from the 2000 U.S. Census.

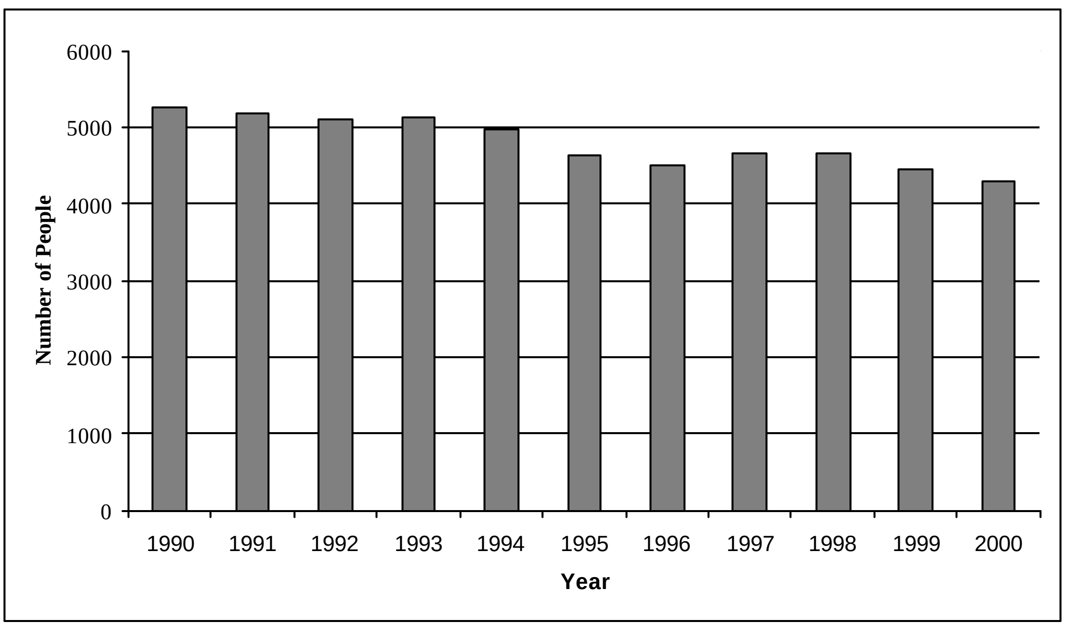
One significant trend for Athol that is reflected somewhat in the current figures and is expected to be seen more dramatically once the present projections are updated, is the growing number of elderly, especially the oldest elderly (those ages 85 and above). From 1990 to 2000, the proportion of oldest elderly in Athol's population grew only one percent (from 2% to 3%). However, the number of oldest elderly expanded by 47 percent, almost half. This trend clearly points to an increase in demand for all types of services that serve the oldest elderly population, including health care, assisted living, community transportation, and senior center programs.

As was mentioned above, in addition to expanding services for elders, it will also be important for Athol to encourage its working-age residents to remain in Athol and to halt current and projected out-migration of worker groups. To do so, Athol may need to increase in-town job opportunities for residents, as well as provide training and services to help potential workers develop sought-after skills and to find good jobs.

## Labor Force

Any business interested in expanding or locating in Athol will likely first research the availability of labor as well as appropriately zoned land. It is assumed that capital, the other major business requirement, is available through local, regional, state, and national banking enterprises. The labor force is the gross pool of people including the employed and the unemployed that are currently seeking jobs. Usually this includes adults between the ages of sixteen and sixty-five years of age. Figure 6-1 depicts an eighteen percent reduction in Athol's labor force from a high in 1990 of 5,258 to a low of 4,299 in the year 2000. This may be the result of the out-migration of the Athol residents between the ages of 20 and 34, as described earlier.

**Figure 5-1: Athol Labor Force, 1990-2000**




*Source: MA Division of Employment and Training, 2001.*

A reduction in the overall size of the local labor force may not be a concern to business owners if prospective employees are appropriately skilled and available at the salaries offered. In addition, business owners may not depend entirely on the local labor force, but instead expect employees to come from surrounding communities and states. The following are important characteristics of the labor force that are defined in the following section:

- Size of the regional labor force;
- Number of people in the local labor force already employed and therefore less available for work; and,
- Ability of the local labor force to provide skills desired by local companies, reflected in the level of educational attainment.

### *The Regional Labor Force and Journey to Work Statistics*

Most of the people who work in Athol have a very short commute, though some come from further away. According to the U.S. Census *(see Table 5-5)*, in 1990, 59 percent of Athol workers lived in Athol while another 18 percent lived in Orange. Most of the remaining Athol workers lived in other Massachusetts towns or in New Hampshire. Fourteen percent of workers lived in the surrounding communities of Gardner, Royalston, Petersham, Templeton, New Salem, Winchendon, Phillipston, and Warwick. If we are to assume that these 1990 Journey to Work Statistics hold true today, it may substantiate efforts to increase training for residents because of several factors. These factors include the importance of Athol workers' salaries and employment's multiplier effect on the economy, the value of the Athol and Orange labor forces to local businesses, and the impacts that quality and types of local businesses have on the well-being of the community.

**Table 5-5: Journey to Work Statistics, Where Athol Workers Commute from, 1990**

| Area | County | Number of Workers | % of Total Workers |
|---|---|---|---|
| **Athol** | **Worcester** | **2,603** | **59.1%** |
| **Orange** | **Franklin** | **774** | **17.6%** |
| Gardner | Worcester | 118 | 2.7% |
| Royalston | Worcester | 110 | 2.5% |
| Petersham | Worcester | 84 | 1.9% |
| Templeton | Worcester | 79 | 1.8% |
| New Salem | Franklin | 67 | 1.5% |
| Winchedon | Worcester | 61 | 1.4% |
| Phillipston | Worcester | 60 | 1.4% |
| Warwick | Franklin | 49 | 1.1% |
| | | | |
| **Rest of MA** | | **344** | **7.8%** |
| NH | | 35 | 0.8% |
| NY | | 9 | 0.2% |
| VT | | 5 | 0.1% |
| All other areas | | 9 | 0.2% |
| **Totals** | | **4,407** | **100.0%** |

*Sources: Town and MA figures: MA Division of Employment & Training;*
*Other figures: U.S. Department of Commerce, Bureau of Labor Statistics.*

We can assume that approximately 60 percent of the salaries earned are by Athol residents even though these figures deal in workers and not positions. Most of these earnings stay in Athol and are used to purchase local goods and services. Conversely, because roughly 40 percent of Athol workers live outside of Town, a significant share of those workers' salaries may be spent elsewhere. It is true that part of the earnings for the workers residing outside of Athol are spent on Athol goods and services. However, the majority of those salaries is likely to be spent in the towns where the workers live, on basic items such as housing, utilities, and groceries.

Clearly, from the Journey to Work figures, Athol businesses attract employees from across the region. Nearly 40 percent of Athol employees travel to work from Worcester and Franklin Counties locations. Massachusetts Division of Employment and Training (DET) statistics indicate that in Franklin and Worcester Counties, there is a regional labor force of close to 400,000 people in Franklin and Worcester Counties *(see Table 5-6).* Businesses interested in locating in Athol or in expanding existing operations there could seek candidates from this large pool of workers. The challenge would be to find workers with the skills and experience required.

**Table 5-6: Labor Force Size and Unemployment Level, 2000**

| | Labor Force | Employed Persons | Unemployed Persons | Unemployment Rate |
|---|---|---|---|---|
| **Athol** | **4,299** | **4,111** | **188** | **4.4%** |
| Franklin County | 37,441 | 36,480 | 961 | 2.6% |
| Worcester County | 359,527 | 349,229 | 10,298 | 2.9% |
| **Franklin and Worcester Counties Combined** | **396,968** | **385,709** | **11,259** | **2.8%** |

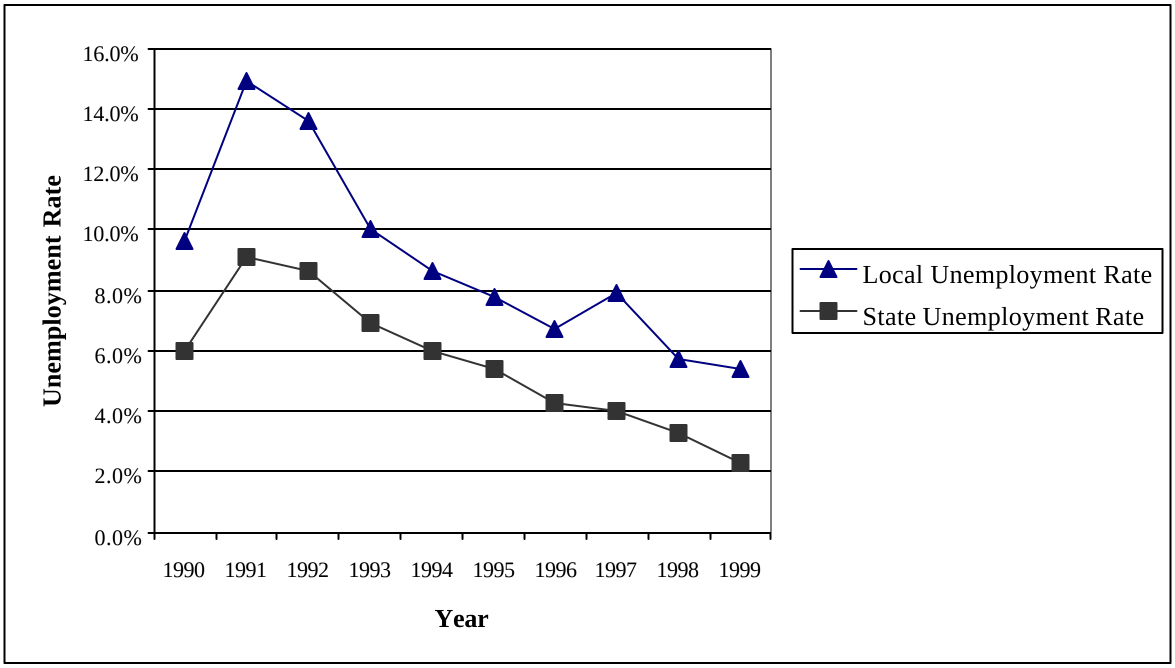
*Source: MA Division of Employment and Training, 2000. Local Area Unemployment Statistics.*

The Journey to Work, and Labor Force figures also point to the importance of local workers to Athol businesses: the majority of their staffs come from Athol, and Athol has a higher unemployment rate than surrounding areas. Local businesses depend on Athol for both skilled and unskilled labor. Municipal officials in cooperation with educational institutions such as community colleges and vocational schools should work with local businesses to invest in the advancement of workers through education and training.

### *Unemployment Statistics for Athol's Labor Force*

Unemployment figures are often reported as a means of reflecting the status of national and State economies. Unemployment rates depend on changes in population and in the level of job creation. Out-migration of workers can artificially lower unemployment rates. The out-migration of the 20-34 year old age group in Athol may be keeping its unemployment rate lower than it would be without the loss of young people. Between 1990 and 1999, Athol's unemployment rates have risen following job losses in the manufacturing sector *(see Figure 5-2 and Table 5-10).* By diversifying its economy with the addition of small and medium-sized firms in different sectors, Athol would probably experience less dramatic shifts in total employment in the future.

**Figure 5-2: Unemployment Rates for Athol and Massachusetts, 1990-1999**




*Source: MA Division of Employment and Training, 2001.*

Unemployment figures can point to both opportunities and concerns for businesses. More information may be gained by comparing local or regional unemployment figures with a larger control area, like the State. A business may not want to locate a new operation in a community with very low unemployment as compared to the State as a whole. This would mean that very few local people would be available for filling new jobs. A town with a high unemployment rate as compared to the State may be targeted by businesses because of a relatively larger pool of potential job candidates. On the other hand, a very high local unemployment rate might also infer a gap between the skills of the labor force and those in demand by local and regional employers.

Other differences between Athol and the State of Massachusetts are the variety of skills exhibited by the labor force and the different types of positions requiring workers. Massachusetts contains a far greater range of both people with different skills and positions requiring specific experience and knowledge. This could be impacting the local unemployment rate, which in 1999 was at 5.4 percent versus 2.3 percent for the State. The new jobs being created may require different types of education and training than current Athol employers need, and Athol workers may not have the necessary skillsets for these new jobs without further training.

### *Level of Educational Attainment*

It is important to assess the ability of Athol's labor force to tackle new employment opportunities in light of a dynamic national economy. In the past, employment was often limited to operations that were physically located in Town such as manufacturing plants along the Millers River. The tap and die industry used to be a major source of employment in Franklin and Worcester Counties, and continues to be for Athol. However, manufacturing is in decline all across America, and service industries are replacing manufacturing as the largest segment of the national economy. The type and level of skills service-related jobs call for, coupled with the common use of computer and telecommunications technologies in today's workplace, provides both opportunities and potential pitfalls for future economic development planning.

Town officials are likely in support of existing industries becoming as competitive as they can be. They may also recognize the importance of supporting actions that help residents gain the skills needed to be able to retain employment over the long-term. This might require close cooperation with local and regional employers to determine the skills needed and with regional training institutions and schools to determine whether those skills could be provided locally. Another method may simply involve broad scale investment in education and training in a manner that could attract businesses seeking a more educated, yet relatively inexpensive labor pool. Greater investments in education and training could help halt the apparent out-migration of Athol's young worker cohort (20-34 years) occurring as young workers leave Athol for better employment and training opportunities elsewhere.

The current status of educational performance in Athol can in part be measured by the level of access to computer technologies in the Athol schools as well as by educational attainment figures. The importance of computers and computer skills in the workplace has grown in recent years and is expected to continue to expand in the coming decades. As such, the level of computer access and use provided by the schools is one to measure how well a community is providing its young residents and future labor force with the skills needed in many current and upcoming jobs.

The Massachusetts Department of Education (DOE) compiles statistics on computer and Internet resources by school district. Access to the Internet is a somewhat different matter. Access to the Internet is measured in terms of the percentage of classrooms with internet connections. While the Montachusett Vocational Technical School, with 100 percent of classrooms connected to the internet, well exceeds the State average of 77 percent, the Athol-Royalston school district does not. The latest figures available for Athol-Royalston, for the 1998-1999 school year, show that less than one-quarter of classrooms (23%) have internet connections. This is less than half the Massachusetts rate for the same school year, 51 percent, and lower than many neighboring schools as well. For example, in 1998-1999, the Ralph C. Mahar school district in Orange had internet capabilities in 49 percent of its classrooms, and the Franklin County Vocational Technical School has internet access in all (100%) of its classrooms.

Table 5-7 shows the DOE's figures for many school districts in Western Massachusetts for the 1997-1998 and 1999-2000 school years. For the first school year, the number of students per computer for both the Athol-Royalston school district (6.4 students per computer) and the Montachusett Vocational Technical School (2.5) bettered the State average of 7.2 students per computer.

Access to the Internet is a somewhat different matter. Access to the Internet is measured in terms of the percentage of classrooms with internet connections. While the Montachusett

Vocational Technical School, with 100 percent of classrooms connected to the internet, well exceeds the State average of 77 percent, the Athol-Royalston school district does not. The latest figures available for Athol-Royalston, for the 1998-1999 school year, show that less than one-quarter of classrooms (23%) have internet connections. This is less than half the Massachusetts rate for the same school year, 51 percent, and lower than many neighboring schools as well. For example, in 1998-1999, the Ralph C. Mahar school district in Orange had internet capabilities in 49 percent of its classrooms, and the Franklin County Vocational Technical School has internet access in all (100%) of its classrooms.

**Table 5-7: Computer and Internet Access in Western Massachusetts School Districts, 1997-1998 and 1999-2000 School Years**

| | Students per Computer* | | % of Classrooms with Internet Access | |
|---|---|---|---|---|
| **School District** | **1997-1998** | **1999-2000** | **1997-1998** | **1999-2000** |
| **Athol-Royalston** | **6.4** | **5.6**** | **15%** | **23%**** |
| Amherst-Pelham | 5.6 | 4.9 | 59% | 100% |
| Franklin County Vocational Tech | 2.4 | 2.3 | 100% | 100% |
| Frontier Regional Vocational Tech | 10.0 | 1.9 | 39% | 100% |
| Gill-Montague | 10.0 | 6.0 | 88% | 100% |
| Greenfield | 4.7 | 10.4 | 33% | 80% |
| Mohawk Trail | 6.6 | 4.5 | 48% | 99% |
| Montachusett Vocational Tech | 2.5 | 3.0 | 100% | 100% |
| Northampton | 5.7** | 7.0 | 39%** | 100% |
| Northern Berkshire Vocational Tech | 3.0 | 1.7 | 30% | 100% |
| Pioneer Valley | 9.5 | 8.3 | 5% | 52% |
| Ralph C. Mahar | 4.9 | 6.2 | 6% | 94% |
| **Massachusetts Average** | **7.2** | **5.7** | **10%** | **77%** |

** Only computers with recent high-speed processors are included in these figures. ** For the 1998-1999 school yr.*
*Source: MA Department of Education, 2000.*

Athol, like many districts, has been working to increase internet access for its students. Between 1997-1998 and the following school year, the number of classrooms with internet connections grew from 15 percent to 23 percent (an increase of one-half). It is likely that when figures for more recent years become available, they will show a continuation of this trend. Increasing the amount of computer-related access and training available to students, as well as to those people already in the workplace, may help build a more highly skilled work force in Athol. More training and higher levels of computer and internet access may be viewed positively by the business community as an indicator of advancing computer and technological skills among the current and projected labor force for the Athol area.

Educational attainment in a community reflects the current level of academic training in the local labor force. Educational attainment is one factor that companies consider when deciding where to locate, and can influence the types of businesses that a community attracts. A local labor force with a high percentage of people with a college degree is likely to support and attract a different set of industries and businesses than one with mostly high school graduates.

According to the 1990 U.S. Census *(see Table 5-8)*, approximately 75 percent of Athol's adult population aged 25 and over has at least completed high school. Unless some significant changes have occurred in Athol in the past ten years, these figures depict a lower level of traditional educational attainment in Athol than in Worcester County or the State as a whole. The proportion of adults with a high school diploma or higher is over three-fourths (77%) in Worcester County and four-fifths (80%) in Massachusetts. One factor contributing to Athol residents' lower level of high school completion is the relatively high drop-out rate for the Athol-Royalston High School (4.4% in 2000) compared to other high schools. Statewide, in 2000, the drop-out rate was 3.8% percent.

Because less teenagers in Athol than in other places finish high school, fewer also go on to earn college degrees. According to the 1990 U.S. Census, only 12 percent of Athol adults aged 25 and over have a bachelor's degree. This percentage is much lower than that for Worcester County (22%), Franklin County (24%), or the State overall (27%). The Census figures show that statewide, residents earn bachelor's degrees at more than twice the rate they do in Athol.

Athol could expect its educational attainment figures to rise if it were to create demand for the skills typically gained through higher-education programs. In some cases, statewide standardized testing may help produce shifts in student and future worker skill levels. However, it may ultimately take local and regional businesses working with Town officials and with higher educational institutions such as community colleges to produce both greater support of, and demand for more educational opportunities and higher learning in Athol.

**Table 5-8: Educational Attainment for Adults Ages 25 & Over, 1990, in Athol, the Region, and the State**

| | **High School Diploma or Higher** | **Bachelors Degree or Higher** |
|---|---|---|
| **Athol** | **75.1%** | **12.3%** |
| Gardner | 67.9% | 14.3% |
| Orange | 75.0% | 10.1% |
| Franklin County | 82.4% | 24.2% |
| Worcester County | 77.4% | 22.2% |
| **Massachusetts** | **80.0%** | **27.2%** |

*Source: U.S. Census Bureau, Census of Population & Housing, 1990.*

### *Measures of Wealth*

There are measures of wealth that reflect the health of the local economy by describing the incomes of local residents: per capita, median household and median family incomes, as well as the percent of people for whom poverty status was determined. According to the 1990 U.S. Census, Athol residents earn less annual income than those in Gardner, Worcester County, and Massachusetts overall.

Per capita income is equal to the total incomes generated by a population divided by the number of persons in that area. Communities with higher number of persons per household or smaller household incomes would likely have smaller per capita income figures. The per capita income for the State of Massachusetts, using the 1990 U.S. Census, was $17,224, while that of the Athol was $12,444, nearly 30 percent below the State average *(see Table 5-9).*

Another measure of wealth in a community describes the median income based on the type of household. In Table 5-9, family incomes are differentiated from the larger set of household incomes. A single student living alone is considered a household but not a family. A community with a relatively high percentage of family households would have a higher median household income than one with a lot of student housing. According to the 1990 U.S. Census, 70 percent of Athol's households are considered to be families, which is in line with the Worcester County (71%) and State (68%) figures. Therefore, the fact that Athol's median incomes are significantly below those for Worcester County and the State may simply reflect lower incomes for all residents.

There are several potential reasons why incomes in Athol are lower than those for the State or County as a whole. One cause may be the decline in the number of manufacturing jobs. A second may be shrinking household size *(See Table 3-9 in the Housing chapter)*, which may, in part, reflect more single-parent households or more elders living alone.

### Table 5-9: Measures of Wealth for Athol, Gardner, Worcester County, and the State, 1989

| | **Athol** | **Gardner** | **Worcester County** | **Massachusetts** |
|---|---|---|---|---|
| **Per Capita Income** | **$12,444** | $13,207 | $15,500 | $17,224 |
| **Median Household Income** | **$27,095** | $28,035 | $35,774 | $36,952 |
| **Median Family Income** | **$33,263** | $35,430 | $42,057 | $44,367 |
| **% People Living in Poverty** | **13.2%** | 11.0% | 9.0% | 8.9% |

*Source: U.S. Census Bureau, Census of Population & Housing, 1990.*

If we are to assume that the 2000 Census figures will show that Athol residents are continuing to earn less than the Worcester County and State averages, any effort to increase economic activity in Athol should focus on increasing wages and creating new jobs for the Athol labor force. There are several ways in which economic development efforts can support these goals. They include attracting and retaining businesses with good-paying jobs; stabilizing residential property tax rates; encouraging local entrepreneurship, and providing social services, such as subsidized daycare and pre-schools to support single-parent families and households with two working parents.

The more economic development and business growth that occurs, the greater share of the tax levy that the business sector of the community will likely pay. This is one short-term benefit that Athol and other communities can expect from expanding its current commercial and industrial activities. However, increased residential construction and costs for a town often follow new economic development, as workers move to town to fill the newly-created positions. Further, several extensive Massachusetts-based cost-of-community services studies (COCS) demonstrate that the property taxes generated by new residential development, of even single-family homes, fails to pay for the expense of expanded municipal services such as education that population increases necessitate. The result is a financial loss for the town. This is why it is important to consider ways in which Athol can encourage economic development which will bring the most value to the community while balancing residential growth to avoid negative impacts.

One strategy that is explored in the next section of the Economic Development chapter is to support locally-owned businesses, local entrepreneurship, and linkages between local producers and retailers. Any means of encouraging cottage industries, expansion of small businesses, and connections between products made in Athol and Athol retailers provide ways to expand local ownership and build business development capacity within the community. If the owners of Athol's businesses live outside of Athol, most of the profits from these businesses are likely going to outside of Athol as well. Also, current businesses are also less likely to relocate outside of Athol if they are locally-owned. Keeping wealth in the hands of residents and local merchants by supporting local businesses can be another tool used to improve the resiliency of Athol's economy.

## Employment and the Local Economy

This section of the chapter explores the local economy by measuring changes in local employment over time as a whole and by industry type. Employment, used as a measure of productivity, is used to compare the value of different types of industries in Athol as a means of determining the businesses that are most competitive and worthy of the Town's support. In addition, the types of employment provided by those employers with at least twenty employees are listed.

### Employment Summary

Between 1985 and 1999, the general employment trends in Athol were the following: (1) a steady increase in total annual payroll except for a slight dip in 1991 and in 1999, and a strong rise in 1996; (2) steady growth in the average annual wage except for a slight dip in 1999; (3) a cyclical, yet continual, increase in the total number of establishments; and (4)) a cyclical, but continual, decline in the total number of employees.

Total annual payroll has steadily increased. In the period from 1985 to 1999, the total annual payroll for Athol grew from $62 million to $103 million, an expansion of 65%. This growth occurred steadily, with one notable contraction in the early 1990s and an abrupt increase by $10 million in 1988. Two changes that paralleled the sudden, $10 million increase in payroll in 1988 were the peak in establishments for the period and the significant combined expansion of employment in the manufacturing sector.

The movement of average annual wages followed a somewhat similar pattern, with average annual wages increasing 68 percent between 1985 ($15,895) and 1999 ($26,693). The only year when there was a decrease in average annual wages was in 1999 when the number of total businesses expanded. This might infer that the majority of those new establishments provided lower paying jobs. Although Athol has seen an overall increase in wages over the past fourteen years, the average annual wage in 1999 ($26,693) was still less than the median household income of 1990 ($27,095), suggesting that the majority of households have more than one person working outside of the home, or have other sources of income besides wages.

Athol has been known for its manufacturing industries for more than a century. Over the 1985-1999 period, manufacturing jobs in Athol, annually provided 35-42 percent of the total employment base. Employment in manufacturing ranged from 1,431 in 1985 to a high the next year of 1,708, and then dropped steadily to 1,366 in 1991. After that, jobs fluctuated upwardly until 1999 when they dipped to the lowest amount in the time period, of 1,355 employed.

### Table 5-10: Athol Employment and Wages in Sum and by Industry Sector, 1985-1999

| | | | | Employment by Industry Sector | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | **Total Annual Payroll** | **Average Annual Wage** | **Establish -ments** | **Total** | **Agricul-ture Forestry Fishing** | **Govern-ment** | **Const-ruction** | **Manufac-turing** | **TCPU*** | **Trade** | **FIRE**** | **Services** |
| **1985** | $62,374,398 | $15,859 | 229 | 3,933 | 24 | 444 | 43 | 1,431 | 178 | 648 | 153 | 684 |
| **1986** | $64,344,301 | $15,942 | 244 | 4,036 | 28 | 434 | 58 | 1,708 | 181 | 767 | 163 | 697 |
| **1987** | $67,307,203 | $16,924 | 258 | 3,977 | 41 | 460 | 79 | 1,605 | 181 | 739 | 118 | 755 |
| **1988** | $77,169,398 | $19,205 | 273 | 4,018 | 24 | 465 | 91 | 1,641 | 204 | 732 | 140 | 722 |
| **1989** | $81,818,643 | $20,393 | 269 | 4,012 | 20 | 462 | 71 | 1,628 | 195 | 705 | 143 | 788 |
| **1990** | $86,904,742 | $20,574 | 262 | 4,224 | conf | 431 | 50 | 1,536 | 170 | 809 | 130 | 1,084 |
| **1991** | $80,348,574 | $20,676 | 246 | 3,886 | conf | 438 | 35 | 1,366 | 148 | 655 | 121 | 1,108 |
| **1992** | $84,429,969 | $21,772 | 233 | 3,878 | 49 | 434 | 22 | 1,373 | 129 | 648 | 124 | 1,099 |
| **1993** | $86,059,271 | $22,123 | 246 | 3,890 | conf | 458 | 23 | 1,377 | 115 | 597 | 145 | 1,130 |
| **1994** | $85,322,517 | $22,400 | 243 | 3,809 | conf | 488 | 34 | 1,359 | 120 | 599 | 146 | 1,018 |
| **1995** | $89,689,838 | $23,467 | 248 | 3,822 | 48 | 483 | 42 | 1,383 | 139 | 593 | 109 | 1,025 |
| **1996** | $92,691,938 | $24,548 | 227 | 3,776 | conf | 487 | 39 | 1,431 | 181 | 548 | 114 | 929 |
| **1997** | $101,334,142 | $26,010 | 223 | 3,896 | conf | 567 | 46 | 1,459 | 182 | 558 | 116 | 925 |
| **1998** | $104,011,820 | $27,051 | 226 | 3,845 | conf | 545 | 55 | 1,415 | 177 | 559 | 116 | 932 |
| **1999** | $102,821,319 | $26,693 | 243 | 3,852 | conf | 561 | 77 | 1,355 | 194 | 570 | 119 | 929 |

**TCPU=Transportation, Communication and Public Utilities; ** FIRE=Finance, Insurance and Real Estate; conf=data suppressed due to confidentiality.*
*Source: MA Division of Employment and Training.*

Government employment includes positions at the local, state and federal levels. Employment in this sector followed a pattern that was replicated in many other industries.

Government employment increased from four hundred and forty-four (444) in 1985, to four hundred and sixty-five (465) in 1988. Then it declined to four hundred and thirty-four (434) in 1992. Then from 1993, it increased steadily from four hundred and fifty-eight (458) to five hundred and sixty-one (561) in 1999. One reason for the overall increase in government workers over the 1985-1999 period is that Athol has become a central location for a number of public social service agency offices.

Agriculture and forestry employment doubled between 1985 and 1995, though the actual change in total workers, from 24 (1985) to 48 (1995), appears to be small.

The finance, insurance and real estate (FIRE) sector started with an employment high in 1986 of one hundred and sixty-three (163), and fluctuated up and down to a low of one hundred and nine (109) in 1995, and one hundred and nineteen (119) in 1999. It may be that the consolidation of the banking industry, rather the real estate, was the main driver in this sector and accounted for most of the employment reduction in this sector.

Trade, wholesale and retail, experienced more employment fluctuations than other categories. In 1986, the sector employed seven hundred and sixty-seven (767) workers; by 1989, that number has dropped to seven hundred and five (705). Then, there was an increase of over one hundred (100) jobs the next year. In the following year, 1991, there was a decrease of over one hundred and fifty (150) jobs, to six hundred and fifty-five (655), followed by further declines. In 1999, the sector had five hundred and seventy (570) workers. The decreases in employment over time may be a reflection of the changes which have taken place in the downtown area, and the replacement of retail and wholesale trade businesses with service establishments.

Service sector employment expanded by thirty-six percent over the fourteen-year period, growing from 684 (1985) to 929 (1999). The sector provided a significant number of jobs each year. The total number of service sector jobs peaked in 1993, at 1,130, which is over four-fifths of the manufacturing sector employment for the same year. There has been a decline in the number of employees in the services sector since 1995.

Changing businesses are a sign of a dynamic economy. The total number of businesses in Athol changed only slightly over the 1985-1999 period. The total number of business establishments went from two hundred and twenty-nine (229) in 1985, to a high of two hundred and seventy-three (273) in 1988, fluctuating to a low of two hundred and twenty-three (223) in 1997, and returning to two hundred and forty-six (246) in 1999. Over the fourteen years, the total number of businesses grew by only fourteen overall, and total employment decreased slightly.

Encouraging small businesses in Athol could be a way to consistently create new businesses and jobs. Across the nation, a significant percentage of new employment is created by businesses with under twenty employees. By supporting local entrepreneurship and business development, Athol could increase the number of locally owned companies and build the capacity of the Town's economy to create and retain jobs. Locally owned businesses are less likely to relocate. Also, increasing the number of small businesses in Athol will help make the local economy more resilient.

The quantity and type of businesses in Athol may have a direct relationship on the degree to which total local employment changes over time. Although total employment declined by one hundred and two (102) employees between 1985 and 1999, the degree of change was significantly abrupt between 1989 and 1991, when employment in Town grew by two hundred and twelve (212) in the first year, but then declined by three hundred and thirty-eight (338) in the second year.

This abrupt rise and loss in employment may be blamed on the national recession during this period. A recession can provide a useful test of the resiliency of the local economy. In this case, given Athol's lower than average median household, family, and per capita income figures, the high percent of persons below the poverty level, and the decline in employment, one could argue that the local economy is less resilient and in need of redirection. Athol's cyclical employment is partially accounted for by job losses and gains in the manufacturing sector. Because a few large employers in the manufacturing sector have represented a significant share of total employment in the community, and made Athol more vulnerable during periods of national economic downtowns, it seems logical that Athol may want to diversify the sizes and types of businesses in its economy. The next section explores the strength and resiliency of the different types of businesses in Athol to help determine an appropriate economic development strategy.

## Economic Base Analysis

Economic Base Analysis is used in this chapter to explore the strength and resiliency of Athol businesses and to assess the productivity of particular industry sectors in relation to other sectors and to other regions. The number of employees is used as the measure of production. The most productive businesses can be determined in part by comparing employment figures in different industries in a particular region such as Athol, Worcester County, or the State of Massachusetts. A related analysis compares a particular industry's number of employees within a small region to the number within a larger region (i.e. Athol compared to Worcester and Franklin Counties and the State of Massachusetts). Finally, changes in employment over time can be compared between towns and counties, and between counties and states to ascertain economic trends, strengths, weaknesses, and opportunities for a local community and a region overall.

The classification system used in the economic base analysis is the North American Industry Classification System (NAICS) developed by the Executive Office of Management and Budget. For our purposes, it includes the seven most commonly analyzed industry sectors: agriculture, construction, manufacturing, TCPU (transportation, communication, and public utilities), trade, FIRE (finance, insurance, and real estate), and services.

In an economic base analysis, it is important to know which sectors of the statewide, and countywide economies are dominant, and which are increasing in employment. Table 5-11 shows the number of employees for each of the seven industry sectors, by area and year. The table is based on the county business pattern data collected by the U.S. Census, which includes only private sector businesses and excludes employers and workers in the public sector.

A comparison of the employment levels in the seven industry sectors in Table 5-11 shows that the top three most important sectors (from first to third) in terms of total employment for each of these regions and the State are:

- Franklin County - Services, Manufacturing, and Trade
- Worcester County - Services, Trade, and Manufacturing
- Massachusetts - Services, Trade, and Manufacturing

Three sectors (services, trade, and manufacturing) employ the majority of workers in the State of Massachusetts. The unique importance of manufacturing in Franklin County (27% of total employment in 1996) is probably due to the historical presence of waterpower related industries along the Connecticut and Millers River.

How has the total employment in each of these sectors changed during this six-year period for the two counties and for the State as a whole? Only the services sector increased in employment among all three. In addition, Worcester County saw its agricultural sector increase in employment and Massachusetts saw an increase in TCPU. Therefore, one could conclude that while services, trade, and manufacturing have the most employment, during the six-year period between 1990 and 1996, only the services sector grew, and the other two were in decline.

**Table 5-11: Employment by Industry Sector for Worcester and Franklin Counties and the State, 1990 and 1996**

| | **Franklin County** | | **Worcester County** | | **Massachusetts** | |
|---|---|---|---|---|---|---|
| **Industry Sectors** | **1990** | **1996** | **1990** | **1996** | **1990** | **1996** |
| **Agriculture** | 140* | 128 | 1,022* | 1,165 | 11,881 | 11,747 |
| **Construction** | 884 | 612 | 13,383 | 10,837 | 108,187 | 91,989 |
| **Manufacturing** | 5,587 | 5,540 | 73,097 | 64,294 | 536,369 | 461,610 |
| **TCPU**** | 1,006 | 805 | 13,029 | 11,810 | 131,374 | 132,712 |
| **Trade** | 5,367 | 5,022 | 73,921 | 69,205 | 720,257 | 693,005 |
| **FIRE***** | 1,258 | 1,013 | 19,051 | 16,770 | 246,920 | 234,972 |
| **Services** | 6,555 | 7,453 | 82,227 | 100,487 | 1,009,359 | 1,151,071 |
| **All Sector Total** | **20,797** | **20,573** | **275,730** | **274,568** | **2,764,347** | **2,777,106** |

** These figures are approximations determined from figures for total employment and those for other sectors.*
***TCPU=Transportation, Communication and Public Utilities; ***FIRE=Finance, Insurance and Real Estate;*
*Source: U.S. Census Bureau, County Business Patterns, 1990 and 1996.*

The economic base analysis identifies the local industry sectors that produce more (employ more people) than the region's average for the particular sector. For example, if all the manufacturers in Athol together 35 percent of all employment in Town, while in Worcester County, the same sector supplies only 23 percent of the total jobs in the County, one could conclude that manufacturing is a very important sector in Athol. In addition, whenever a local sector produces more than its regional average, it is said to be exporting products outside of the local boundaries. A secondary assumption is that exporting products results in importing money. For example, when a business in Gardner purchases an item that is made in Athol, the product goes out and the money comes in. When a local sector is producing less than its regional average, an opportunity may exist to make up that difference by supporting the business to expand to the size it should be able to become, given the County or State average.

**Table 5-12: Industry Sector Shares of Total Employment, for Worcester and Franklin Counties and the State, 1990 and 1996**

| | Franklin County | | Worcester County | | Massachusetts | |
|---|---|---|---|---|---|---|
| **Industry Sectors** | **1990** | **1996** | **1990** | **1996** | **1990** | **1996** |
| **Agriculture** | 0.67%* | 0.62% | 0.37%* | 0.42% | 0.43% | 0.42% |
| **Construction** | 4.25% | 2.98% | 4.85% | 3.95% | 3.91% | 3.31% |
| **Manufacturing** | 26.87% | 26.93% | 26.51% | 23.42% | 19.40% | 16.62% |
| **TCPU**** | 4.84% | 3.91% | 4.73% | 4.30% | 4.75% | 4.78% |
| **Trade** | 25.81% | 24.41% | 26.81% | 25.21% | 26.06% | 24.95% |
| **FIRE***** | 6.05% | 4.92% | 6.91% | 6.11% | 8.93% | 8.46% |
| **Services** | 31.52% | 36.23% | 29.82% | 36.60% | 36.51% | 41.45% |

** These figures are approximations determined from figures for total employment and those for other sectors.*
***TCPU=Transportation, Communication and Public Utilities; ***FIRE=Finance, Insurance and Real Estate;*
*Source: U.S. Census Bureau, County Business Patterns, 1990 and 1996.*

An analysis comparing the changes in the shares of total employment per sector in each of the counties with the changes that occurred in the same sector for the State from 1990 to 1996, results in the following:

- The manufacturing sector in Franklin County increased slightly, but decreased in the State, while in Worcester County it decreased at a slower rate than the State.
- The TCPU sector in Franklin County declined two times as fast as in Worcester County, while it increased slightly in the State.
- The trade sector was in decline almost equally between both Worcester and Franklin Counties and the State.
- The services sector increased almost twice as fast in Worcester County than it did in Franklin County or the State.

Only the services sector grew in its share of employment in Worcester County, Franklin County, and the State between 1990 and 1996. The opportunities that may exist in Franklin and Worcester Counties based on this analysis relates to the industries that show promise in the State. In addition, unique attributes in some counties may facilitate sustainable growth in an industry that is unique to that region (like farming in the Connecticut River Valley). The TCPU sector is currently a growth sector for the State overall, but not in Worcester or Franklin Counties. Thus, the TCPU sector may represent industries with opportunities for growth in either or both of these counties.

How did changes in employment in the seven industry sectors in Franklin and Worcester Counties compare to changes in Athol? Changes in Athol employment by industry sector between 1990 and 1996 are given in Table 5-13. The figures in this table are not entirely equivalent to the figures presented earlier in Table 5-11 and Table 5-12, because the data come from the ES-202 industry surveys, not county business patterns, and because these numbers include government employees, which the country business pattern data do not.

## Table 5-13: Employment by Industry Sector for Athol, 1990 and 1996

| | 1990 | | 1996 | |
|---|---|---|---|---|
| **Industry Sectors** | **Number of Employees** | **Percentage of Total** | **Number of Employees** | **Percentage of Total** |
| **Agriculture** | 14 | 0.35% | 47 | 1.25% |
| **Construction** | 50 | 1.18% | 39 | 1.03% |
| **Manufacturing** | 1,536 | 36.36% | 1,431 | 37.90% |
| **TCPU**** | 170 | 4.02% | 181 | 4.79% |
| **Trade** | 809 | 19.15% | 548 | 14.51% |
| **FIRE***** | 130 | 3.08% | 114 | 3.02% |
| **Services** | 1,084 | 25.66% | 929 | 24.60% |
| **Government** | 431 | 10.20% | 487 | 12.90% |
| **Totals** | **4,224** | **100.00%** | **3,776** | **100.00%** |

*Source: MA Division of Employment and Training, ES-202 data, 1990 and 1996.*
***TCPU=Transportation, Communication and Public Utilities; ***FIRE=Finance, Insurance and Real Estate.*

Table 5-13 and comparisons to the earlier presented figures for Franklin and Worcester Counties and the State show the following significant trends for the 1990-1996 period:

- Athol's manufacturing sector share of total employment increased, while decreasing in both counties.
- Athol's TCPU sector share of total employment increased at a rate greater than even the State, while it decreased in both counties.
- Athol's trade sector share of total employment decreased at a rate roughly four times that experienced by the same sector in both counties.

According to this economic base analysis, for the 1990 to 1996 period, the main potential economic development opportunities for Athol include developing the agricultural and TCPU sectors and reducing reliance on the manufacturing sector. From 1990 to 1996, statewide growth occurred in the services and TCPU sectors. At a county-level, for both Worcester and Franklin Counties, the TCPU sector experienced declines. These declines suggest that an opportunity may exist for Athol to experience growth in this field. In contrast, between 1990 and 1996, the trade sector shrank in both Franklin and Worcester Counties and the State. If the trend has continued over the past few years, investment in the trade sector may be inadvisable, especially if it is being sought as a way to create long-term sustainable employment for Athol residents.

### Major Employers

Table 5-10 earlier showed the changes in Athol's total employment between 1985 and 1999. Some of these changes might have been reduced through greater support for businesses in industry sectors that appear to have solid futures. The dynamic nature of business growth and decline shown in Table 5-10 through Table 5-13, stresses the importance of building a resilient economy. How resilient is the local economy today? We know from the 1990 Journey to Work figures that almost 60 percent of the people employed in Athol in 1990, lived there as well. If we can assume these ratios are the same today, then any large layoffs for Athol businesses will have a deep impact on the whole community.

Maintaining a more consistent level of total employment, with less dramatic, cyclical job losses is a valuable goal. This will most likely occur by supporting existing manufacturing businesses and by diversifying the economic base. It is important to determine if the major manufacturing and service businesses in Athol today are in need of infrastructure upgrades or land for expansion of their operations, and if so, to work with these businesses to facilitate these improvements. In this way, Athol can support growth in the manufacturing sector businesses, which provide a major share of the total jobs in Town.

Diversifying Athol's economic base is an economic development strategy that could provide consistent growth in jobs overall. There are at least three ways of diversifying the economic base, which appear to be appropriate for Athol at this time: (1) encourage recreational tourism that takes advantage of the town and region's recreation and open space resources; (2) reuse vacant space downtown for a small business incubator; and, (3) support the development of information-based service industries. These strategies would help develop small to medium-sized businesses and create growth in total numbers of employees, help spread employment across different economic sectors, encourage local ownership and entrepreneurship, and take advantage of recent telecommunications upgrades in order to build a more resilient economy.

The level of resiliency of Athol's current economy is reflected by the Town's current employment patterns and how the full-time and part-time work force is spread across the Town's different businesses and sectors. If only a few employers provide a majority of the employment, then periodic layoffs, or the departure of the business all together, could be disastrous to the community.

### Table 5-14: Athol's Major Employers, 1997

| **Company name** | **Industry** | **Employees** |
|---|---|---|
| The LS Starrett Co | Manufacturing | 500+ |
| Athol Memorial Hospital | Services | 250-499 |
| Athol Table Mfg Co | Manufacturing | 100-249 |
| Quabbin Valley Convalescent Center | Services | 100-249 |
| Athol Daily News | Manufacturing | 50-99 |
| Bunz Extrusion | Manufacturing | 50-99 |
| Castine Movers | TCPU | 50-99 |
| Victory Market | Retail Trade | 50-99 |
| **Total** | | **1,650-2,343** |

*Source: MA Division of Employment and Training, 1997.*

According to the Massachusetts Division of Employment and Training (DET), Athol had eight employers with at least fifty workers in 1997 *(see Table 5-14)*. L.S. Starrett is the largest of these employers, and the list also includes three other manufacturers, two companies in health services, one in transportation, and one in retail trade. In total, for 1997, these eight companies provided between 1,650 and 2,343 jobs, and employed between 42 and 60 percent of the approximately 3,900 people who worked in Athol at that time. Another twenty-five businesses had between 10 and 19 employees, and forty-seven others had between 5 and 9 workers. Table 5-15 follows up on and expands the 1997 DET data. The table lists all Athol employers with at least twenty employees according to a employer telephone survey conducted in the Fall of 2001. In Table 5-15, the number of Athol employers with more than fifty employees has increased to twelve, and the Athol-Royalston School District, the Town of Athol, Athol Savings Bank, and Niagara Cutter have been added to the list.

If we assume that total Athol employment in 2001 is close to the 1999 figure of 3,852 presented in Table 5-10, then the twenty-six employers listed in Table 5-15 provide more than three-fourths (76%) of all the Town's jobs.

Several key factors, which may be important in the process of deciding on economic development strategies, are apparent from Table 5-15. The following percentages relate to the total employment and total full-time employment for the table's twenty-six employers:

- Seven employers, or more than one-quarter of the total, are in manufacturing; they provide 41 percent of the surveyed employers' jobs and 59 percent of their full-time jobs;

- Six employers, or one-quarter of the total, are in the services sector; they account for 20 percent of the surveyed employers' jobs, but only 11 percent of their full-time jobs;

- Three employers are in government; they provide 19 percent of the surveyed employers' jobs and 20 percent of their full-time jobs;

- Three employers are in TCPU; they account for only 5 percent of the surveyed employers' jobs and 3 percent of their full-time jobs.

- One employer is in agriculture/forestry; it provides less than one percent of the survey group's jobs, and all but one of the employer's jobs are full-time.

## Table 5-15: Athol Employers with at least Twenty Employees, by Industry Sector, 2001

| Employer | Industry | Total Employees | Full Time Employees | Part Time Employees | % Full Time |
|---|---|---|---|---|---|
| The L.S. Starrett Co. | Manufacturing | 897 | 880 | 17 | 98.1% |
| Bunz Extrusion | Manufacturing | 105 | 100 | 5 | 95.2% |
| Athol Table Manufacturing Co. | Manufacturing | 85 | 84 | 1 | 98.8% |
| Niagara Cutter Athol Inc. | Manufacturing | 59 | 48 | 2 | 96.0% |
| Athol Daily News | Manufacturing | 42 | 30 | 12 | 71.4% |
| Whipps Inc | Manufacturing | 30 | 28 | 2 | 93.3% |
| Cambium Corp. | Manufacturing | 25 | 22 | 3 | 88.0% |
| | **Manufacturing Sub-Total** | **1,243** | **1,192** | **42** | **96.6%** |
| Athol Memorial Hospital | Services | 245 | 80 | 165 | 32.7% |
| Quabbin Valley Convalescent Center | Services | 215 | 86 | 129 | 40.0% |
| North Quabbin Family Physicians | Services | 51 | 39 | 12 | 76.5% |
| YMCA | Services | 38 | 8 | 30 | 21.1% |
| Ellinwood Country Club | Services | 25 | 4 | 21 | 16.0% |
| Athol Dental | Services | 21 | 9 | 12 | 42.9% |
| | **Services Sub-Total** | **595** | **226** | **369** | **38.0%** |
| Athol-Royalston Regional School District | Government | 315 | 275 | 40 | 87.3% |
| Town of Athol | Government | 243 | 111 | 132 | 45.7% |
| Athol Post Office | Government | 34 | 21 | 13 | 61.8% |
| | **Government Sub-Total** | **592** | **407** | **185** | **68.8%** |
| Shop n' Save Supermarket | Trade | 125 | 38 | 87 | 30.4% |
| McDonald's | Trade | 45 | 9 | 36 | 20.0% |
| Cinnamon's Restaurant | Trade | 22 | 1 | 21 | 4.5% |
| Girardi Distributors Corp. | Trade | 21 | 20 | 1 | 95.2% |
| | **Trade Sub-Total** | **213** | **68** | **145** | **31.9%** |
| Castine Movers | TCPU | 70 | 66 | 4 | 94.3% |
| EH Merrifield Bus Co. Inc. | TCPU | 44 | 4 | 40 | 9.1% |
| Mass Electric Co. | TCPU | 20-49 | | | |
| | **TCPU Sub-Total** | **151** | **77** | **44** | **63.6%** |
| Athol Savings Bank | FIRE | 87 | 69 | 18 | 79.3% |
| Athol Clinton Cooperative Bank | FIRE | 23 | 19 | 4 | 82.6% |
| | **FIRE Sub-Total** | **110** | **88** | **22** | **80.0%** |
| Vegetation Control Service | Agriculture, Forestry, Fishing | 27 | 26 | 1 | 96.3% |
| | **Agriculture, Forestry, Fishing Sub-Total** | **27** | **26** | **1** | **96.3%** |
| **Total for all 26 Employers** | | **2,931** | **2,077** | **808** | **72.0%** |

*Source: Telephone survey of Athol employers conducted by FRCOG Planning Department staff in the Fall of 2001.*

All of Athol's businesses provide value to the community whether they employ one person or three hundred. However, as Athol plans for the future and continues to encourage businesses to expand or to locate in town, officials may want to focus their efforts. The previous sections of this chapter identified several potential strategies for new economic development: support the agriculture/forestry and the TCPU sectors, lower the Town's dependency on manufacturing, and increase employment opportunities for the 20-34 age cohort. This section provided several more strategies including the reuse of a building in the downtown area for a small business incubator, encouraging recreational tourism, satisfying space and infrastructure needs of existing manufacturing and service sector employers interested in expanding operations, and developing more information and technology-based businesses. Another factor that may be important to consider is the type of employment created from economic development. Although a diversity of employment opportunities is appealing, full-time positions with benefits create a level of wealth and demand for services that are likely to promote the need for part-time positions in the retail trade and service sectors.

Clearly, manufacturing is a sector of the economy Athol will continue to support. The fact that manufacturing is declining in employment across the State may motivate Town officials to listen to and address the needs of local manufacturers to make sure that they stay in Athol. Both TCPU and agriculture/forestry are sectors that show promise but are a long way from being major employers on par with manufacturing. Service and government sectors together represent forty percent of the jobs in the survey group. The service sector employers are not unique to any big town: a YMCA, a hospital, a convalescent home, physicians' office, and a newspaper. The government entities are the school district, all town departments, and the post office.

Resiliency in Athol's economy may be increased through encouraging a diverse set of competitive industries of all sizes: small, medium, and large. In Athol, there are twelve major employers with over fifty employees and fourteen medium sized companies with twenty to forty-nine employees. Another forty businesses have at least five employees. Although this appears to be a balanced allocation of employment, the continued dominance of large manufacturing-based employment in the age of declines in the manufacturing sector may be a concern.

Economic development efforts should encourage the creation of full-time employment in those industry sectors that are likely to grow. What is the difference between full-time positions and part time positions? A difference may be that full-time positions usually require the employee to possess or become trained in a set of needed skills that are in demand. Full time positions normally involve employee benefits such as paid vacation and health care and infer an investment by the employer in the employee. According to the recent phone survey of Athol businesses, skilled employees were in demand in the following fields: registered nurses and clinicians, mechanics, machinists, foresters, lumberman, plastic extrusion workers, and wood mill workers. These fields are both trade and professional service related careers.

Directed economic development can create wealth from labor, land, and capital. Economic development involves the building of capacity within a community to further the financial goals of the people and to improve the quality of life for all residents. Based on the analysis presented in this chapter, economic development could:

- Support existing manufacturing industries to expand and create full time positions through providing adequate infrastructure;
- Support existing TCPU, service, and agriculture and forestry operations to grow;
- Develop the capacity of smaller and medium-sized companies;

- Encourage the creation of recreational tourism businesses;
- Support the development of information-based industries; and,
- Nurture local entrepreneurship and local ownership by establishing a small business incubator.

The premise of having an economic development chapter in the Master Plan is that municipalities and citizens can have a positive impact on their local business community. Through its planning, zoning, policies, and expenditures, the Town of Athol already influences its local businesses. The economic development strategies bulleted in this section need to be implemented with the understanding that there may be unintended and potentially negative impacts to growth. The following section of this chapter discusses issues involved in creating sustainable economic development in Athol and answers the question, "How can Athol grow and diversify its employment base while at the same time protecting its rural character, open space, and valuable natural resources?"

## Issues Involved in Creating Sustainable Economic Development in Athol

The next section of this Economic Development chapter focuses on some of the elements necessary to create sustainable economic development in Athol, and issues surrounding them. These important elements include: available land and buildings, supporting infrastructure, training and educational attainment, local ownership and entrepreneurship, and property taxes and the unintended consequences of economic activities.

### Available Land and Buildings

Expansion in almost any industry requires additional inputs of land, labor, or capital. Farmers and sawmills can purchase more land and timber contracts to expand their operations. Mills can put on an addition to allow for the expansion of their manufacturing process. When small businesses in Athol need to expand, they may need to move into a vacant or new structure, zoned for commercial or industrial uses.

A dynamic economy is at work when businesses close and others move into the newly available space. When commercial space remains vacant over time, it may signal an opportunity to shift the ways that Town officials and businesses cooperate to bring about the reuse of buildings and structures.

Research by Cambridge Economic Research and Ernie Zupancic in 1996, looked at downtown Athol's business community. They found that over the past several decades traditional retailing on Athol's Main Street has steadily declined as malls and discount merchandisers have developed. Malls tend to provide broader selections and lower prices than small retailers are able to offer. The Town faced a recent challenge with the introduction of a huge Walmart store just three miles from downtown Athol in the Town of Orange. A number of small local businesses that had endured in hard times went out of business.

Athol's commercial vacancy rate, like many of the major employment centers in the region, has improved from the mid-to late 1990s. Vacancy rates are the relationship between the amount of vacant space and the total space in the market area. As of 1999, commercial vacancy rates ranged from a low of 5 percent in Athol to a high of 22 percent in its adjacent neighbor, the Town of Orange. Of particular note is the dramatic decrease in the vacancy rate for the Town of Athol, which went from 18 percent following the establishment of Walmart, down to 5 percent. in 1999. Similarly to many town centers, Athol is experiencing a shift from retail and manufacturing to service and office markets. However, it is unclear whether the relatively low commercial vacancy rate in Athol is due to an expansion of professional services, or if other factors have resulted in the lowering of available space. Other factors that may be resulting in a reduction in the commercial vacancy rate could include building abandonment or demolition, and the use of space by social services present due to the economic slowdown.

### Table 5-16: Commercial Vacancy Rates for Major Employment Centers in Region

| **Area** | **1995** | **1996** | **1997** | **1998** | **1999** |
|---|---|---|---|---|---|
| **Athol** | **12%** | **15%** | **18%** | **18%** | **5%** |
| Amherst | 5% | 5% | 5% | 5% | 5% |
| Deerfield | 12% | 8% | 6% | 6% | 8% |
| Greenfield | 12% | 9% | 9% | 13% | 11% |
| Orange | 25% | 32% | 24% | 27% | 22% |
| Shelburne Falls Village (Shelburne / Buckland) | 12% | 5% | 5% | 8% | 5% |
| Turners Falls (Montague) | 14% | 8% | 19% | 17% | 20% |

*Sources: 1995-1998 figures: Franklin Regional Council of Governments, Greater Franklin County Comprehensive Economic Development Report, 2000; 1999 figures: K. Levitch Associates, Real Estate Appraisers, Greenfield, MA, 1999.*

Out of the 195 businesses in Athol's downtown, almost ten percent are social, health, and community services, which are likely present because the demand for these services are high. These uses provide valuable services for the entire region and may act as a traffic generator for other retail and service businesses in the downtown area. However, due to their presence, the commercial vacancy rate reflects a potential lack of space for other types of businesses, including retail and professional services. It is important for Athol officials to determine the availability of vacant space for local small business expansion. This could be accomplished through a detailed parcel-level analysis of all lands within the downtown area of Athol. Some research into availability and feasibility of properties for reuse and new development has already been conducted by Town committees. It will be important for any new analysis to build upon these existing studies.

Vacant space may also be available for manufacturing and professional services businesses on land outside of the downtown area, but near the central core where sewer and water infrastructure is already concentrated. Vacant buildings and brownfield sites, properties contaminated with hazardous materials or waste, may be eligible for clean-up and redevelopment using state or federal funding. The reuse of historic buildings in Athol Center may be a more attractive location for a business incubator or small manufacturing firm than developing open space beyond the fringes of downtown. On the other hand, a well-situated industrial park could provide Athol's medium and large businesses with space to expand in the future. A survey of these businesses' expansion needs combined with an analysis of existing commercial and industrial zoned land in Athol could determine the demand for, and potential supply of, a new industrial park site. The Industrial Park Committee has already investigated a number of potential sites for locating an industrial park, and supports the development of three different sites. Ideally, a new industrial park would be located near existing infrastructure but outside of the drinking water supply well's recharge areas.

Recreational tourism businesses would be dependent on access to open space, surface water, and remote forestland and could take advantage of Athol's central location within the North Quabbin Region's unique natural resource base. There are thousands of contiguous and protected forested acres between the Quabbin Reservation and vast tracts of open land in Petersham, New Salem, Orange, Warwick, and Royalston. Athol provides unparalleled access to remote stretches of the Millers River in the Bearsden Conservation Area.

The North Quabbin forest guides is an example of a recreation-based tourism business that is being developed as part of a training program by the New England Forestry Foundation (NEFF). The New England Forestry Foundation (NEFF), with offices in Orange and Groton, has initiated a five-year community forestry project in the nine-town North Quabbin region. The goal of the project is to revitalize the North Quabbin economy based on the wealth of natural resources located in the region. With the support of community members and existing local institutions, NEFF has started several initiatives as a part of the project. A community task force has been working to develop a marketing strategy for forest-based tourism in the North Quabbin that would support these guides as well as existing local businesses such as restaurants and bed-and-breakfasts. In addition to its tourism initiative, NEFF has been offering marketing assistance to local woodworkers in hopes of improving local awareness of these businesses and increasing both sales and jobs. Finally, NEFF is working to support the local forestry industry while encouraging sustainable forestry through extensive outreach and education about forestry to the region's hundreds of small landowners.

## Supporting Infrastructure

Most manufacturing and commercial uses require certain municipal services: police and fire protection, general highway maintenance, and drinking water and wastewater treatment. Businesses also need housing for their employees (See the section titled "Property Taxes and the Unintended Consequences of Economic Activities"). Economic development in Athol may require the expansion of community infrastructure. New or growing commercial and industrial companies could require more drinking water, wastewater treatment, and telecommunications infrastructure.

Sustainable economic development in Athol should not drain or pollute the existing drinking water supplies. The Town's drinking water comes from an aquifer with a recharge area that lies underneath Athol Center (See Chapter 2, Community Facilities and Services). The water supply and its recharge area is vulnerable to three types of threats: too much demand, a reduction in recharge due to impervious surfaces, and contamination from hazardous waste use, disposal, or storage.

The drinking water supply in Athol comes from two main sources: the South Street Well and the Tully Well field. Currently, the supply is above the demand. This is presently a favorable situation for Athol as several communities in Western Massachusetts are experiencing water supply problems. Athol might consider encouraging water conservation by its residents and businesses. If Athol were to attract a business that required a lot of water for processing, the gap between demand and supply could shrink. An ample yet sustained drinking water supply could be a future lure for industry and businesses.

In general, aquifers can be recharged with water from surface waters and from precipitation that permeates the soil during a storm event. If a large percentage of the recharge area is comprised of hard, impermeable surfaces like parking lots, roofs, and roads, then a rainstorm could result in run-off. Run-off collects in ditches and small tributaries, which ultimately flow into rivers by way of storm water pipes and small streams. If water consumption were to increase at the same time that more of the recharge area's land surface was covered with impermeable surfaces, the result would be a reduction in the amount of water within the aquifers. Runoff can also deposit pollutants including fertilizers, road salt, and pesticides into streams and other bodies of water. Ideally, any new development within the recharge area should result in little net gain of impermeable surfaces and minimize non-point sources of pollution.

Development that uses, stores or disposes of hazardous waste can contaminate aquifers. There are many examples of water supplies and aquifers in Massachusetts that have become contaminated by hazardous materials. Athol's South Street Well has a granular activated carbon filter that removes phenol, a volatile organic compound, which had been found to contaminate the aquifer in 1964. The Town of Athol should encourage economic development that does not require the use or storage of significant quantities of hazardous materials. Athol needs to continue to support existing commercial and industrial uses that work with hazardous materials to use best management practices. In addition, Town officials need to educate residents about the importance of participating in Athol's annual hazardous waste collection program.

Although the direct costs of new municipal services are normally covered by tax revenues there are other possible indirect and potentially negative impacts that may be accelerated by the expansion of support infrastructure. Sewer infrastructure, for example, may need to be extended to support industrial park expansion. A result of extending sewer lines may be the increase in residential development pressure on adjoining open space. Unless the rapid development of residential uses surrounding new commercial and industrial expansion is considered by the town to be desirable, targeting currently undeveloped land for protection may be warranted. In addition, new growth should be directed to currently underutilized or vacant parcels with infrastructure already in place. Telecommunications is another type of infrastructure that may induce the development of new TCPU, information technology businesses, and cottage industries. There are regional efforts, such as Franklin-Hampshire Connect in Franklin and Hampshire Counties, that are seeking to encourage the provision of high speed Internet access to the area. Athol may want to consider how this level of infrastructure could support new businesses and growth sectors that appear to be most competitive for the future.

## Training and Educational Attainment

Economic development that builds capacity within the local labor force by investing in education and skills training may be another strategy for sustaining Athol's local economy. Increasing the educational attainment figures from their current levels, which are significantly below Worcester County, Franklin County, and State averages, may encourage expansion of existing businesses and attract new operations that require skilled candidates. Athol officials may want to consider whether having a community college offer classes downtown would be a worthwhile resource. Increasing the amount of training and education that residents have, or that they can get access to, may also result in improving the employment outlook in Town.

The economic base analysis points to the importance of manufacturing, services, and TCPU industries as well as agriculture/forestry. Providing the labor force of today and tomorrow with the technology and skills necessary to adapt to changing markets could help to sustain more of the economic development (i.e. technology-based industries) that is desirable to many communities.

## Local Ownership and Entrepreneurship

There is a difference between a downtown that is filled with national chains and one that contains locally owned shops. One difference is that at the end of the day, when the money is being counted, the national chains may wire their money out to a branch that could be in another state. If the money is not deposited in a local bank, it may not be used to support small business development, and further employment creation. Thoughtful economic development that pays attention to the relationship between local ownership and the multiplier effect has been modified in many ways and is reflected in the popular message, "Buy Local."

Continuing to support and encourage local business ownership and entrepreneurial development would help satisfy Athol's need to diversify the local economy by building small and medium sized businesses. It would also help sustain the local economy by keeping more income in Athol.

One form of local business ownership that needs to be specifically addressed is in the sector agriculture/forestry. There is no better example of bringing home the message of local ownership than one that involves a natural resource-based business, such as farming. A small organic farmer that can sell his/her food locally benefits the community by being a source of fresh produce, a low energy user, and a maintainer of open space.

Another example from this sector is the forest products industry. Local ownership of forestlands can, when well managed, result in periodic income for the landowner. Imagine if a lumber company owned forestland in Athol. The business could harvest the raw timber from Athol land, process the logs in a local mill, and sell the lumber to residents and even better, to people from surrounding communities. This occurs in Sunderland and Orange already. Creating wealth from local resources, using local labor and ingenuity may be another strategy for bringing about sustainable economic development in Athol.

Finally, recreational-based tourism services could be another type of locally grown industry. Demand for this type of service could be on the rise as more people in southern New England seek recreation sites closer to home. A professional guide service using the entire North Quabbin Region as their territory is one example of a tourism-based business that is being organized locally by the Millers River Environmental Center and the New England Forestry Foundation. By getting involved with this effort at the ground level, Town officials may be able to ensure the initiation of this new service industry in Athol.

## Property Taxes and the Unintended Consequences of Economic Development

One way of providing an inviting economic climate for new development, as well as existing commercial and industrial establishments, is through a favorable property tax rate. Athol's tax rate is similar to comparable communities in the region, and lower than its neighbor, the Town of Orange. In Athol there is a single property tax rate classification system for residential, commercial, and industrial property. Athol's property tax rate has been between $14.30 and $15.63 per $1,000 valuation from 1997 to the present. At least 248 of the 351 municipalities in Massachusetts maintain a single rate for all property classifications (residential, commercial, industrial and personal). However, towns are permitted to set different rates for residential, commercial, and industrial properties. Commercial and industrial property tax rates in communities with "split" tax classifications are usually higher (101 out of the 103 municipalities in Massachusetts with "split" tax rate classification have higher rates for commercial and industrial land uses – Massachusetts Division of Local Services, FY 2001). Maintaining a single property tax rate is one positive tool for attracting new commercial and industrial development.

Property tax rates are set based on the total valuation of all real estate property divided by the annual municipal budget. As the costs of community services increase, the Town's annual budget will grow out of necessity and in turn, property tax rates will also rise. Obviously, sustainable economic development would not result in soaring property taxes rates. Unfortunately, an unintended consequence of expansion of the manufacturing base in a community may be more residential development. Residential development by itself is not necessarily a bad thing, but it does often produce a negative fiscal impact.

Different land uses in Massachusetts result either in negative or positive net fiscal impacts to the community. A positive fiscal impact would occur with a use that provides more tax revenues than it costs in services. A negative fiscal impact occurs when the expense of the services provided are not covered by the tax revenues generated by that land use. For instance, permanently protected open space (e.g. forest/farmland), residential, and commercial/industrial development each have a different fiscal impact depending on the relationship of property tax revenues generated to municipal services consumed. There is a process by which the fiscal value of these three different land uses are compared within a town to determine whether a use has a positive or negative fiscal impact. This process is called a Cost of Community Services (COCS) analysis.

In 1992, the American Farmland Trust (AFT) conducted a COCS analysis for several towns in the region. The results of that study showed that protection of open space is an effective strategy for promoting a stable tax base. In all the towns studied by AFT, residential development was found to cost more in town service expenditures than it generated in property tax revenues, resulting in a negative net fiscal impact, and commercial and industrial development and open space were found to generate more tax revenues than they cost in terms of municipal services. For example, the AFT results for Deerfield found that for every dollar generated by open space, the municipal services required by that land cost, on average, only twenty-nine cents ($0.29) resulting in a positive fiscal impact to the town. Similarly, for every dollar generated by commercial and industrial tax revenues, only thirty-eight cents ($0.38) on average were spent in municipal services. In contrast, the AFT study found that for every dollar generated by residential development, the municipal services required by that land cost one dollar and sixteen cents ($1.16) on average.

In 1995, the Southern New England Forest Consortium (SNEFC) commissioned a study of eleven southern New England towns that confirmed the findings of the earlier AFT study. The purpose of the SNEFC study was to evaluate the fiscal contribution of developed land versus that of open space using the methodology developed by the AFT. This study was based on allocating one year's worth of income and expenses to different land use sectors to show the impact of these land uses on the local economy. The results of the study concluded that for eleven southern New England towns, the conversion of open space for residential development is not advisable on a financial basis alone. For every dollar of tax revenue raised from the residential sector, these towns spent on average one dollar and fourteen cents ($1.14) on residential services, which is a negative fiscal impact. The commercial and industrial development sectors on average cost the towns only forty-three (43) cents on services for each dollar of tax revenues received generating a positive fiscal impact. This figure does not, according to the study, take into account other costs associated with commercial and industrial development such as the potential for increased residential development, increased traffic and noise pollution, the loss of open space to filter water and air, or the need to provide recreation opportunities. Forestland and open space in comparison costs on average forty-two (42) cents in municipal services for each dollar of generated tax revenues. That left fifty-eight (58) cents to pay for municipal services for the residential sector. The study also found that there is a correlation between a town's population characteristics and cost of community services. Towns that have larger and growing populations experience greater financial losses on their residential development than towns that had smaller or shrinking populations.

Athol's slow population growth has allowed the Town to keep up with demand for services and maintain a relatively low property tax rate. Economic development that creates jobs may also encourage residential development. However, if the new jobs are well suited to the skills of existing residents who are unemployed or underemployed, they will maximize the benefits of economic development to the Town. In addition, there should be complimentary efforts between economic development and maintaining working open space as in farming and forestry. As the Town of Athol pursues economic strategies, it will be important for the community to conserve those natural resources, which will act as a buffer between economic vitality and secondary impacts.

## Conclusion

Athol has experienced a good deal of change over the last several decades, following trends that are not unlike those seen by similar areas across the country. In recent years, the national economy has been undergoing a permanent structural change, marked by a shift away from manufacturing to the service sector. Given that the economy of Athol has long been based on manufacturing and has recently been experiencing a slow down, this shift needs to be addressed. Fortunately for Athol there are still local manufacturing interests that are viable, and that provide 40 percent of the jobs in the community. To increase the stability of the local economic base for the long term, Athol needs to encourage the creation of and growth of small- and medium-sized services businesses as well as continue to support its large manufacturing firms.

It is important to ensure that these existing and future businesses have the water, sewer, and telecommunications services they require to remain competitive. It is also vital to determine if these businesses are going to require additional land for expansion. If so, is Athol able to deliver with properly zoned, available land and/or space? For medium to large service and manufacturing firms, this future development could take place in a new industrial park. For small home businesses needing to expand, a vacant building or lot in Athol Center, may be more appropriate. Redeveloping a brownfields site as a small business incubator focusing on the application of the recent telecommunications upgrades in Athol could have multiple benefits: renovation of a potential historic structure, bringing potential high technology employment opportunities to Athol's young adults, and the creation of locally owned businesses and jobs. An analysis of available parcels and vacant buildings would be a good first step towards implementing this strategy.

Recreation-based tourism is a way for Athol to diversify its economic base even further by encouraging small business creation that exploits the value of local and regional natural resources within a vast quasi-wilderness landscape. Athol should work with the New England Forestry Foundation's Ecotourism Task Force to research and develop an effective model for encouraging local growth in this industry.

The challenge for Athol is to improve its low per capita income and its quality of life through improved employment opportunities that require higher levels of training. The key factor for creating and expanding a skilled labor force is education. Developing a market for higher learning in Athol may require cooperation between the municipality, local business partnerships, local schools, and a community college. Athol officials could begin by exploring the potential for establishing a local branch of a regional community college in the downtown area.

## Recommendations

- **Promote the diversification of Athol's economy by encouraging the development of new businesses in the TCPU (transportation, communications, and public utilities), services, and agriculture/forestry sectors, in part to support and compliment existing business activities.**

  These three sectors have been identified as potential growth sectors for the region. Some growth in these industries, particularly communications, could compliment existing business activity. Computers and quality telecommunications connections are becoming increasingly important for businesses to remain competitive in today's marketplace. Investments in this area could help make Athol businesses more effective and more able to compete with other businesses in their sectors, and could encourage those businesses who have considered relocating to remain in Athol. Another advantage of promoting the TCPU sector is that TCPU wages are often higher than those in other industries.

  Encouraging development in the local agriculture/forestry sector could also produce positive town-wide impacts. Increasing the number of locally-based agriculture and forestry businesses could help to expand the supply of local farm and forestry goods, and expand the visibility of these enterprises in the community. This could then create more demand for local products. A primary benefit of Athol residents buying products that are made in Athol is that more of the revenues generated by these sales stay in the community and go to other Athol residents and businesses, than do revenues from businesses that are not locally-based.

- **Identify which technical skills are most in demand by Athol employers, and develop more opportunities and programs for residents to develop these skills.**

  Current businesses will be encouraged to remain in Athol if their technical staffing needs can be met using local or regional workforces. It is important that outreach to businesses be conducted to better understand what their staffing needs are, and what technical skills are in the greatest demand in their employees. It is also essential that programs be developed to increase the job skills and the educational attainment of the present work force. The Athol-Royalston High School has a higher drop-out rate (4.4%) than the state average (3.8%). Additionally, the 1990 U.S. Census showed that only three-quarters (75.1%) of Athol adults ages 25 and over have finished high school, and that only 13 percent have a bachelor's degree or higher; in contrast, statewide, 80 percent of adults have finished high school and 27 percent have bachelor's degrees or higher. Strategies to encourage more students to finish high school could include mentoring programs and one-on-one intervention with students who have dropped out or are most at-risk to do so. Programs to increase job skills could include continuing education and technical training courses taught at an in-town or nearby location, and expanded internship and apprenticing opportunities through local businesses.

- **Support the future expansion of Athol businesses by assessing and addressing their anticipated demand for commercial and industrial-zoned land and for infrastructure, including water, sewer, transportation, and telecommunications.**

  Assess local businesses anticipated future business expansion and technology needs. This assessment could be conducted through a variety of avenues including discussions with local businesses and business associations, or through a survey. Another option could be the hiring of a paid liaison between businesses and local government whose focus would be helping Athol businesses and encouraging them to stay in Athol. This liaison could also help to inform businesses about Athol's current business promotion and redevelopment efforts, and about potential funding sources for redevelopment or business improvement projects.

  In addition, in the short term, the current zoning bylaws that affect redevelopment, new development, and other business activity should be reviewed, and changes to create a more favorable business climate should be considered. For example, the current setback and lot size requirements should be examined to see if they could preclude the renovation of potential redevelopment sites in the downtown.

  In the longer term, work should be undertaken to strengthen and expand local infrastructure including the provision of water, sewer, transportation, and telecommunications services as local businesses need and request, and to do so in a way that will most protect and preserve the Town's environmental resources and open space. Also, options for Athol businesses to increase their telecommunication capabilities should be investigated. In addition, the current supply of industrial and commercially zoned land should be evaluated to see if it can meet the anticipated future demand, and business expansion needs. If not, an investigation and analysis should be undertaken to determine what sections of Athol might be most appropriate for expansions of the commercial and industrial zoning districts, or for a planned industrial park. This analysis should be build upon the work and recommendations of the Industrial Park Committee, which recently developed a list of three primary potential economic development sites near and along Route 2.

- **Support and initiate grants to rehabilitate vacant or underutilized buildings, particularly in the Town Center, for commercial or industrial uses.**

  Before applying for any rehabilitation or redevelopment grants, it will be essential first to fully evaluate downtown parcels and buildings in terms of their current uses, as well as their redevelopment and rehabilitation potential. The latest figures on Athol vacancy rates *(see Table 5-16)* indicate that Athol's commercial vacancy rate fell from 18 percent in 1998 to 5 percent in 1999. It is unclear whether the decrease in vacancies indicates a true expansion in the number of downtown businesses, or if other factors, such as building demolition or new uses that are underutilizing rented space are responsible. In recent years, downtown rents have declined due to a lack of retail demand, and as a result, more social service agencies have moved into former downtown retail space.

Maintaining a mix of service, office, and retail uses will result in a more vibrant downtown than if one type of use dominants the downtown's commercial spaces.

Any revitalization or redevelopment efforts should focus on ways to attract more people, both residents and visitors, to the downtown. Potential strategies should include options for creating a more vibrant streetscape along Main Street through uniform signage, visually interesting storefront windows displays, and additional streetscaping improvements. Strategies should also include ways to encourage mixed retail uses, including eating establishments and stores, which could potentially develop a large, core, base of customers who would travel to the downtown on a regular basis. Part of the downtown business mix should ideally include establishments that are open at nights and on weekends, when many other stores and businesses may be closed.

- **Develop strategies for encouraging heritage and recreational tourism-related businesses in Athol. This could be done in conjunction with marketing activities that promote Athol as "The Gateway to the North Quabbin" or as "Tool Town."**

Expanded tourist-oriented activities in Athol and increased marketing of the Town's and region's attractions, could attract many more visitors to Athol and could complement other proposed business expansion. Centrally located within the North Quabbin Region, and with easy access to the Bearsden Conservation Area, Athol is ideally situated for attracting more recreational and heritage tourism. The New England Forestry Foundation (NEFF) is working to revitalize the North Quabbin economy through initiatives that increase the public's access to the region's wealth of natural resources. NEFF has developed marketing strategies to promote these resources and has some programs already underway. One of NEFF's initiatives is the development of a curriculum for a recreational-tourism guide program to be offered through the Greenfield Community College (GCC). Another recreational initiative, which is being pursued by a local citizens group, is the New England Equestrian Center being proposed for South Athol. This center could potentially attract visitors from throughout the greater New England region.

Athol could also further promote its history as an industrial center and its early Native American and colonial settlement. The Athol History Trail, which highlights many of the most noteworthy historic sites in Athol, has a brochure detailing these sites. This brochure could be more widely distributed, and other brochures or signs could be developed to promote the Town's other significant historic resources. Marketing could also include expanded web and internet-based materials on Athol that potential visitors could access from their own computers.

Any tourism planning which occurs as part of the Athol Master Planning process should incorporate and build upon the current initiatives. It should include collaboration with other local towns and coordinated promotion of all the North Quabbin's recreational and heritage assets and attractions. An increase in tourism in the region could not only help attract visitors to Athol, but could have the added benefit of creating new opportunities and new clientele for locally-based retail companies and visitor-related businesses such as bed and breakfasts, motels, and restaurants.

- **Develop and implement a "Buy Local" campaign to support local businesses and industries.**

  Many of the people who have participated in the Master Plan Committee indicated that they would buy more local goods and services if they were available, and they knew where to get them. A "Buy Local" campaign could promote Athol businesses, and also tie into other efforts to encourage new local businesses, such as NEFF's work to develop markets for local finished wood products. The campaign could help inform residents about local companies and farms, the goods and services that they produce, and where residents can purchase local products. It could also help educate residents about the economic benefits to the community of more locally-owned businesses and the relationships between business activity, jobs, property taxes, farms, and future development.

- **Establish a small business incubator and adult education and training center in downtown Athol.**

  One idea that could build upon, and incorporate many of the above recommendations, would be the creation of a small business incubator and adult education and training center in downtown Athol. The center could be developed in a rehabilitated or currently underutilized downtown building. As a business incubator, the center could offer fledging businesses a facility in which to get started and could provide basic services such as voicemail and a fax machine, as well as educational and financial assistance to help get a business up and running. The training center, which could serve as the business incubator's main tenant, could offer education and training classes though Mount Wachusett Community College and/or other sponsors. Some of these classes could be job-related and teach specific, technical skills being sought by Athol area employers. Similarly, classes could be held in NEFF's program to train recreational tourism guides. Other classes could be less technical and more leisure services-oriented and focus on crafts and hobbies.

  There are a number of advantages to creating a business incubator and educational center in the downtown as opposed to somewhere else in Athol. These advantages include the easy access and good transit service to a downtown location, and the role that the center could have in contributing to downtown revitalization. In addition, the center could possibly generate greater demand for downtown retail activity, and could also bring more people into the downtown area during the evening hours and weekend hours when many of the classes might be held.