University of Massachusetts Amherst

Town of Billerica, Massachusetts Master Plan Appendix A Community Socio-Economic Profile

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MULLIN ASSOCIATES
Incorporated

The State of the Town Data Report
Billerica, Massachusetts

June 2001

Long Range Master Planning Committee

Appointing Authority	Committee Members
Board of Selectmen	Ellen Rawlings and Peter Coppinger
School Committee	Robert Keough
	Maureen Collins Rea - Alternate
	Francis Fraine - Alternate
Planning Board	Sal Pasciuto, Jr.
	Lawrence Bavis (past member)
Town Planner	Peter Kennedy
Board of Appeal	Joseph Shaw
Conservation Commission	Jonathan Lyna
Billerica Plan	Malcolm McDowell
Chamber of Commerce	Stephen Dresser
Moderator Appointee	John Glennon
Finance Committee	Peter Greeley
Board of Health	Robert Reader
Recreation Commission	Paul Shibles
Residents	Donna Doucette
(Appointed by Selectmen)	Michael Tammaro
	Ted Clark
Volunteers	Ilana Freedman

The State of the Town Data Report
Billerica, Massachusetts

History and Profile

The Town of Billerica is a suburban community located 20 miles northwest of Boston and bounded by Lowell to the north, and Chelmsford, Carlisle, Bedford, Burlington, Wilmington, and Tewksbury in other directions. Incorporated in 1655, the town remained predominantly agricultural until the mid-nineteenth century when a major mill complex was sited on the Concord River in North Billerica. Although a number of smaller industries grew up over the next 100 years, it wasn't until the 1950's that the present day industrial base was established. Today Billerica is a major regional employer and home to several high technology firms, many of which are offshoots of companies along Route 128 to the south.

Currently Billerica has close to 40,000 residents, having grown rapidly from 10,000 residents in 1950. The majority of homes are located within residential subdivisions, although significant older neighborhoods exist in the town center, North Billerica, Pinehurst, and Nuttings Lake.

The town is within minutes of Route 3, Route 128 (95) and Route 495, all major limited access highways. The town has bus and train service provided by the Lowell Regional Transit Authority and the MBTA at North Billerica. The remnants of the historic Middlesex Canal, an outmoded mode of transport, traverse the town to the south.

Two rivers pass through town. The Concord River is a major regional water feature while the Shawsheen River meanders through the southerly part of town. The Concord River is Billerica's sole water supply.

Billerica is also the site of the Middlesex House of Correction, a significant town employer.

Even though much of Billerica has been developed, there are still large parcels of vacant land, which lend a certain rural character to many areas of town. Recent development pressure and growth in housing development are impacting this character. In 1996, buildable land amounted to only five percent of the Town's total area. That has decreased, and growth may now be found in less suitable areas.

Source: Town of Billerica

What Does this Mean: History and Profile

Billerica has a history typical of New England suburbs. The town has transformed from an agricultural community through a period of industrial growth to a combined technology employment center and residential suburban development. Water quality, for drinking water supply, flood capacity, and for aesthetic value, are extremely important to Billerica residents (as well as to the region).

Location, location, location … Billerica's regional placement means that there will continue to be pressure on land for development. This affects housing availability and costs, open space, and the provision of public services. Billerica has prided itself on quality of education and athletic programs.

Geography

Billerica is located in northeastern Massachusetts and is bordered by Carlisle and Chelmsford on the west, Lowell and Tewksbury on the north, Wilmington and Burlington on the east and Bedford on the south. Billerica is 19 miles northwest of Boston, 45 miles northeast of Worcester, and 205 miles from New York City.

Source: Massachusetts Department of Housing and Community Development

Land Area

Total Area: 26.39 square miles
Land Area: 25.89 square miles
Population Density: 1,453 people per square mile
Source: Massachusetts Department of Housing and Community Development

Climate

Normal Temperature in January	24.3° F
Normal Temperature in July	71.2° F
Normal Annual Precipitation	44.8"

Source: National Climatic Data Center Bedford Station

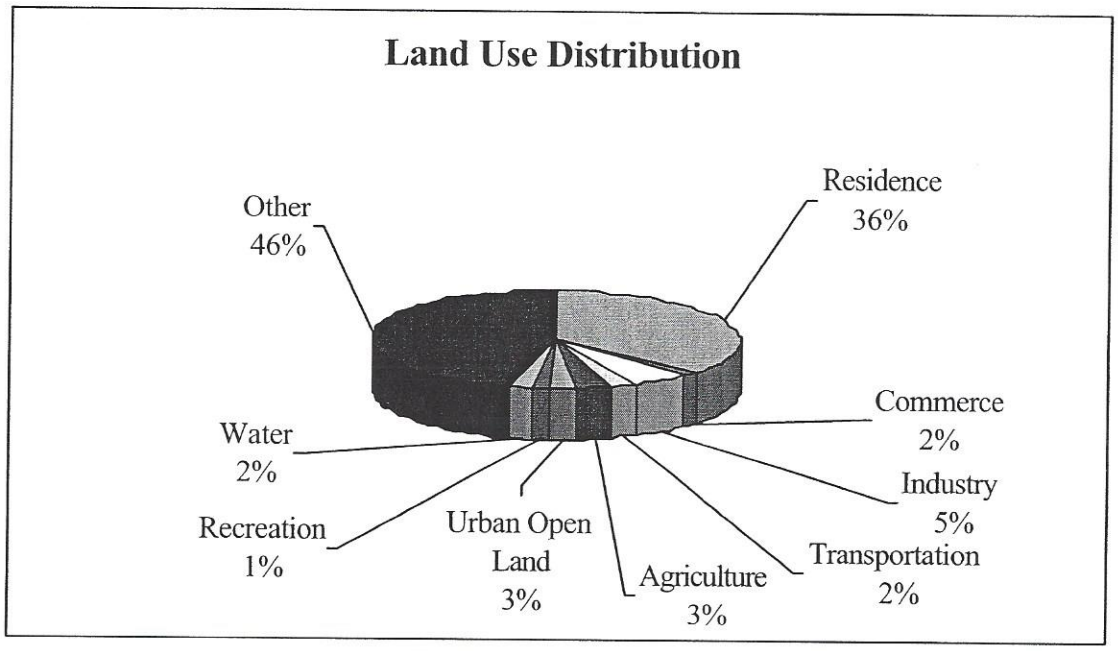
Land Use Data

The Land Use classification data given below have changed considerably since 1985, when they were last updated by MacConnell. Even an update given by NMCOG in 1990 showed that an additional 1,000 acres had been added to residential use. NMCOG has completed the buildout analysis sanctioned by the Executive Office of Environmental Affairs with more recent aerial photographic data of land use. This will give the community a more precise picture of the possibilities for future growth.

Land Use Classification

Type	1985 Acres	Percentage	1991 Acres	1991 %
Residential	6,067	36.0%	6,665	39.6%
Commercial	287	1.7%	397	2.4%
Industrial	845	5.0%	993	5.9%
Transportation	385	2.3%	673	4.0%
Agriculture	519	3.1%	543	3.2%
Urban Open Land	422	2.5%		
Recreation	224	1.3%		
Water	343	2.0%	340	2.0%
Other	7,750	46.0%	7.223	42.9%
Total	16,842	100.0%	16,834	

Source: Office of Environmental Affairs, 1985, MassGIS, 1991



Buildout Analysis

In 2000-2001, the Northern Middlesex Council of Governments performed a buildout analysis for Billerica using a methodology dictated by the Executive Office of Environmental Affairs. These analyses are being completed for all 351 communities in Massachusetts.

Some of the findings of the analysis are included below. The full analysis and accompanying maps and documentation are available at the Billerica Planning Department.

SUMMARY BUILDOUT STATISTICS
(New Development and Associated Impacts)

Developable Land (sq.ft.)	109,552,093.2
Developable Land (acres)	2,515.0
Total Residential Lots	1,748.0
Comm./Ind. Buildable Floor Area (sq. ft.)	18,197,516.0
Residential Water Use (gallons per day)	412,650
Comm./Ind. Water Use (gallons per day)	1,364,814.0
Municipal Solid Waste - Recyclable (tons)	819.8
Municipal Non-Recycled Solid Waste (tons)	2,007.0
New Residents	5,504.0
New Students	1,580.0
New Residential Subdivision Roads (miles)	36.7

Notes:

- "Residential Water Use" is based on 75 gallons per day per person.
- "Comm./Ind. Water Use" is based on 75 gallons per 1,000 square feet of floor space.
- "Municipal Solid Waste" is based on 1,206 lbs per person per year. All waste estimates are for residential uses only.
- "Non-Recycled Solid Waste" is a subset of Municipal Solid Waste and is based on 730 lbs per person per year ending up in a landfill or incinerator.
- The number of "Residents" at buildout is based on the persons per household figure derived from the 1990 US Census.
- The number of "Students" at buildout is based on a student per household ratio taken from 1990 US Census data.
- "New Residential Subdivision Roads" are based on the assumption that 60% of the new residential lots will have required frontage on new subdivision roads.

Percent of Land in various zoning districts (source NMCOG/EOEA analysis)

Zonecode	District	Percentage
RR	Rural Residence	43.12
VR	Village Residential	6.3
NR	Neighborhood Residential	14.78
GB	General Business	34.42
NB	Neighborhood Business	0.13
CM	Commercial	0.01
IND	Industrial	1.24

What Does It Mean: Geography, Land Area, Land Use

Billerica is ideally situated as a suburban and high tech community. The town has seen huge growth pressures from industry and residential development in the past ten to fifteen years. The Buildout Analysis presented to the Town by NMCOG offers more insight into the potential for the town to accept more growth. Further investigation into the "Other" land use category may be needed to determine its impact on future growth and alternative land uses.

The future growth of Billerica, as indicated by the EOEA buildout analysis, could allow for nearly 1800 new homes and 5,500 new residents, including 1,580 new students. A possible 18 million square feet of commercial or industrial space could be developed. The timeframe for this growth will depend on controls put in place by the community to direct the type of growth to occur.

The high pressure of growth on limited land resources competes with efforts to retain a quality of life expected by residents. The ability to have ample safe drinking water, affordable housing, open recreation and conservation areas are all impacted by the availability and use of the land.

Transportation Characteristics

Billerica is situated in the Merrimac River valley, which has excellent rail, air, and highway facilities. State Route 128 and Interstate 495 divide the region into inner and outer zones, which are connected by numerous "spokes" providing direct access to the airport, port, and intermodal facilities of Boston.

Highways

Principal highways are U.S. Route 3 and State Routes 3A, 4 and 129. Interstate 495, the "Outer Belt" around Boston, is easily accessible in the neighboring town of Chelmsford.

Rail

Commuter rail service is available from Lowell Gallagher Terminal and from North Billerica to North Station in Boston. Approximate travel time into Boston on the commuter rail is 37 – 41 minutes. There are 542 MBTA parking spaces available at the North Billerica station. The Springfield Terminal Railway offers freight service to Billerica and operates the Devens Tradeport Warehouse and Distribution Center.

Bus

Billerica is a member of the Lowell Regional transit Authority (LRTA), which provides fixed bus service between Lowell and Billerica. In addition paratransit services, including medical trips to Boston and special work trips, are available for the elderly and disabled through LRTA's Road Runner program. The LRTA route connects to the MBTA route at Chestnut St., Burlington with bus connection to Alewife station.

Air

L.G. Hanscom Field, a reliever Airport with Commercial Service (CR) has 5,106' asp asphalt and concrete runway. Precision and non-precision approaches are available. Billerica is within easy trucking distance of the Boston docks and Logan International Airport (20 miles). *Source: Massachusetts Department of Housing and Community Development*

What Does It Mean: Transportation

Billerica is well served by the different modes of transportation. It is situated near key state arterial routes and rail lines. However, as the congestion at local intersections continues to grow, can Billerica make changes to maintain the level of service? Are residents willing to change commuting habits? Nearly 85% of residents commute to work in single occupant vehicles, while only 2% use public transportation and 9% carpool.

Easy access to transportation systems has contributed to the type of growth Billerica has seen in the past twenty years. In addition to its rapid growth as a suburb, it has also been a key factor in attracting industry and economic growth.

Are any transportation components missing? Will the coming bike trail improve transportation or be primarily a recreational facility? Is public transit adequate within the region? Is it adequate within the town?

The Northern Middlesex Council of Governments provides valuable resources in the planning and implementation of the region's transportation systems. Does Billerica optimally use this resource?

Population Characteristics

Billerica's population was 37,609 in 1990 and is currently, according to recently released 2000 Census Bureau counts, 38,981. Projection's made by M.I.S.E.R. predict that the population will shrink in the next ten years by 1,388, while the buildout analysis performed by NMCOG and EOEA predict steady increases in Billerica's population. According to the Census and M.I.S.E.R. Middlesex County's population will continue to increase over the next decade.

The majority of Billerica's population is between 30 and 45 years old and most (99.0%) of the people living in the town are white, non-Hispanics. More information will become available about the demographics of Billerica's citizens as the Census Bureau releases information.

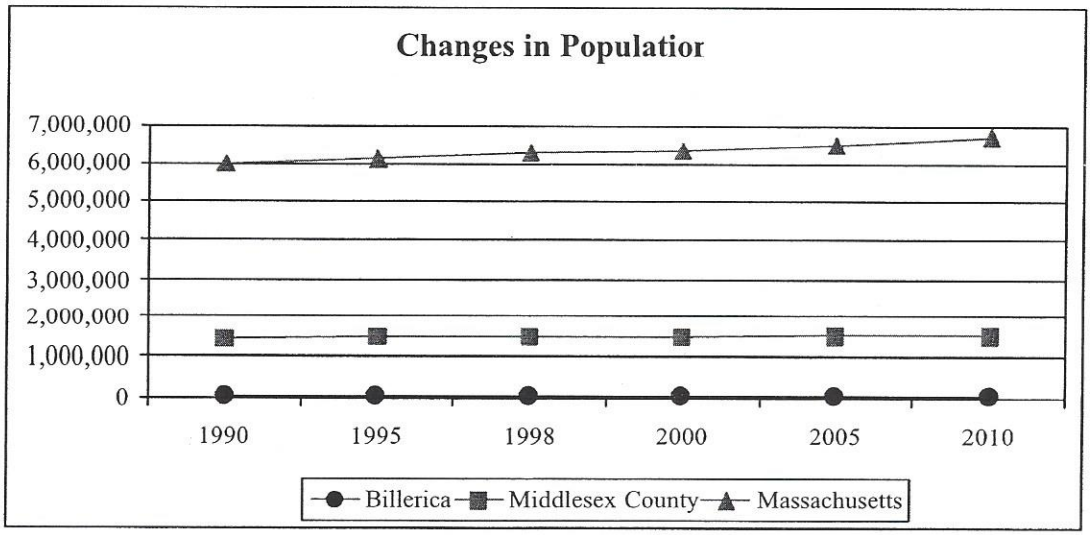
Population Trends

1950	1960	1970	1980	1990	2000
11,001	17,867	31,480	36,727	37,609	38,981

Population Counts

Location	1990 *Census*	1998 *Estimation*	2000 *Census*	2005 *Projection*	2010 *Projection*
Billerica	37,609	38,304	38,981	37,686	36,916
Lowell	103,439	106,449	108,093	113,046	119,627
Middlesex County	1,398,468	1,464,685	1,465,858	1,473,332	1,489,180
Massachusetts	6,016,417	6,291,263	6,340,843	6,505,160	6,690,740

Source: United States Census and M.I.S.E.R.



Population by Age, 1998

	Billerica	*Lowell*	*Middlesex County*	*Massachusetts*
0 to 4	2,875	8,105	93,093	399,860
5 to 9	2,690	9,187	90,482	414,810
10 to 14	2,762	7,044	84,050	391,860
15 to 19	2,716	7,692	88,973	418,478
20 to 24	2,713	9,852	107,391	465,352
25 to 29	3,077	10,722	125,780	502,345
30 to 34	3,236	9,766	128,941	502,992
35 to 39	3,545	9,254	129,654	522,796
40 to 44	3,270	7,049	117,813	496,569
45 to 49	2,750	5,193	103,074	442,352
50 to 54	2,569	4,071	88,165	376,308
55 to 59	1,840	3,408	64,619	275,482
60 to 64	1,343	2,949	52,690	220,073
65 to 69	998	3,253	53,426	224,578
70 to 74	797	3,021	48,879	217,425
75 to 79	550	2,490	37,597	178,254
80 to 84	348	1,751	24,675	121,228
85 Plus	225	1,642	25,383	120,501

Source: M.I.S.E.R.

Population by Sex

Location	**1990**		**1998**	
	Census		*Estimation*	
Gender	Male	Female	Male	Female
Billerica	19,139	18,470	19,571	18,733
Lowell	50,403	53,036	52,123	54,326
Middlesex County	673,172	725,296	710,687	753,998
Massachusetts	2,888,724	3,127,693	3,039,964	3,251,299

Source: United States Census and M.I.S.E.R.

Population by Race/ Ethnicity

	1990				1995				1998				2000				2005				2010			
	Census				*Estimation*				*Estimation*				*Count*				*Projection*				*Projection*			
	White, Non-Hispanic	Black, Non-Hispanic	Asian & American Indian	Hispanic	White, Non-Hispanic	Black, Non-Hispanic	Asian & American Indian,	Hispanic	White, Non-Hispanic	Black, Non-Hispanic	Asian & American Indian,	Hispanic	White, Non-Hispanic	Black, Non-Hispanic	Asian & American Indian,	Hispanic	White, Non-Hispanic	Black, Non-Hispanic	Asian & American Indian,	Hispanic	White, Non-Hispanic	Black, Non-Hispanic	Asian & American Indian,	Hispanic
Billerica	36,119	399	615	476	36,320	411	763	521	36,454	413	880	557	36,906	432	1,113	600	35,650	431	936	669	34,750	426	1,002	738
Lowell	79,390	2,097	11,453	10,499	75,921	2,251	13,706	12,248	76,890	2,470	14,605	12,484	74,164	2,433	16,788	14,708	72,466	2,598	20,466	17,516	71,212	2,803	24,926	20,686
Middlesex County	1,260,327	37,815	52,942	47,384	1,268,899	41,581	63,959	57,937	1,294,245	41,497	68,215		1,465396	1,258,476	93,891	66,707	1,259,960	47,334	85,716	80,322	1,248,248	50,193	97,847	922,892

Source: United States Census and M.I.S.E.R.

Housing Characteristics

In preparing this report, regional planners and realtors were surveyed about the current housing market, both for homebuyers and renters. The situation painted was one of high demand, skyrocketing prices, and in some cases desperation. With the town and region's employment base continuing to rise with the expansion of technology and communications firms, it is anticipated that this trend will continue.

The Billerica Housing Authority oversees 259 subsidized housing units according to the Town's 1999 Annual Report. This number is less than three percent of the total units in the town. The state goal established under the Dukakis administration was that each community would maintain ten percent of its units as affordable to persons of low and moderate income. The town's 1988 Housing Strategy Plan recognized the shortfall and established a goal of developing 56 low and moderate income units per year in order to catch up. This has not occurred.

The current number of units listed for sale in Billerica (41) is the lowest available since 1985. If and when a home goes on sale for below $200,000, realtors talk of an immediate interest and offers from 20-30 prospective buyers. However, homes at these sales prices are very rare. New homes being built are typically selling for at least $350,000.

One realtor relayed an anecdote of a single mother with three children who were forced to move from a home she was renting. She purchased a bungalow for $180,000. It has one bedroom.

Homebuyers are not the only ones being priced out. Realtors report that rents in one apartment complex have doubled in the past three years from $650 to $1,300. Some of these apartments have had rents go up to $3,000 because of demand. The vacancy rate is near 0%.

Governor Cellucci issued Executive Order #418 in 1999. It calls for the development of homes affordable to the average household in Massachusetts. Each town and city may be certified annually that efforts are being made to provide affordable housing. Several state agencies including Environmental Affairs, Economic Development, and Housing and Community Development have linked housing certification to discretionary funding. Billerica has just been certified. The certification acknowledges the efforts Billerica has made to provide for affordable housing through real estate resources, financing and regulatory provisions. For example, the Town adopted a bylaw that allows the sale of tax possession land for construction of low and moderate income housing at 25% of the land's assessed value.

Occupied Housing Units, 1990

Location	Total Units	Owner Occupied		Renter Occupied		Vacant Housing Units			
		Total	Median Value	Total	Median Rent	Total Units	Seasonal	Vacancy Rates	
Billerica	11,695	9,630	$162,400	2,065	$676	310	18	0.50%	6.86%
Middlesex County	519,527	309,800	$192,800	209,727	$598	24,269	1,652	1.23%	5.39%

Source: M.I.S.E.R.

Housing Units (source-U.S. Census, CACI):

1970	1980	1990	2000
8,184	10,884	12,005	13,160

Median Household Income (source-U.S. Census, CACI)

1970	1980	1990	2000
$11,331	$23,267	$47,830	$63,278

Median Home Sale Price (source- Banker & Tradesman)

1991	1993	1995	1997	1999 (Jan – June)
$134,000	$134,500	$142,000	$150,000	$180,000

Housing Unit Permit Data:

1990 (sewer morotorium)	1992	1994	1996	1998
60	120	171	138	107

Residential Building Permits, January, 2000-November, 2000
Reported data plus Data Imputed for Non-Reporters and Partial Reporters:

Location	*SF Bldg.*	*SF Units*	*SF Valuation*	*2-Fam Bldg.*	*2-Fam Units*	*2-Fam Valuation*	*3 + 4 Fam Bldg.*	*3 + 4 Fam Units*	*3 + 4 Fam Valuation*	*5+ Fam Bldg.*	*5+ Fay Units*	*5+ Fam Valuation*
Billerica	78	78	$10,804,144	0	0	-	0	0	-	1	7	$252,656
Middlesex County	2,073	2,073	$385,021,298	52	104	$8,246,399	37	133	$15,672,572	41	1,099	$92,226,144
Massachusetts	11,947	11,947	$1,945,662,617	272	544	$41,682,475	105	358	$34,680,752	128	2,498	$234,219,883

Source: M.I.S.E.R.

All Building Types:

Location	*Total Buildings*	*Total Units*	*Total Valuation*	*Average Valuation Per Unit*
Billerica	79	85	$11,056,800	$130,080
Middlesex County	2,203	3,409	$501,166,413	$147,013
Massachusetts	12,452	15,347	$2,256,245,727	$147,015

Source: M.I.S.E.R.

What Does It Mean: Population and Housing

Billerica's population size is stable. The median household size is currently 3.0 and continues to decline. Like the rest of Massachusetts, the median age is getting older. Housing units, on the other hand, continue to be built. New homes are large and expensive. Apartments and starter homes are not being constructed. Because the housing supply and land availability are limited, it is likely that the upward trend of housing prices will continue.

As the community continues to mature and industries continue to expand (locally and regionally), providing housing will become an issue for residents. Will the children of Billerica residents be able to afford to live in Billerica? This is an issue not unique to Billerica. Other communities are faced with the same pressures and constraints. Can a regional approach be considered?

Past Planning and Growth Management

Billerica has created and adopted several key plans, but these plans are beginning to age. Several of the plans have not been updated to reflect growth pressures, yet still recognized the need for growth management, open space, affordable housing.

The Master Plan Update (1986), the Housing Strategy Plan (1988) and the Growth Management Plan (1989) should all be revisited in this Long Range Master Planning process. Rather than reinventing strategies that were sound 10-15 years ago, appropriate action steps may just need re-tooling or re-energization. There is a great deal of information contained in the reports that can be used to highlight mistakes as well as achievements.

The Housing Certification Application (2001) details several steps the Town has taken or will take in order to preserve or develop affordable housing stock. These steps include bylaws for assisted living, the acquisition of land, density bonuses, and flexible development types.

The Open Space Plan (1997) is a superb document. As this is the most recent plan, it provides valuable insight to the community's priorities and values. However, this plan, too, is coming up on its five-year lifetime and should be updated.

An important plan that should be reviewed and used regularly in developing the Master Plan is "2020 Vision: Planning for Growth in the Northern Middlesex Region". This is a regional Growth Management Action Plan that was based on regional "charrettes" to gather public issues and establish priorities. The Plan was issued in June 1999. The Plan recommends tasks for the preservation of community character, the development of affordable housing, economic growth, and environmental concerns. A local plan should set goals and actions that parallel those of the Region.

Finally, as mentioned earlier, the Executive Office of Environmental Affairs and NMCOG's Buildout findings will provide valuable visual tools to the Town and Long Range Master Planning Committee for seeing where development has occurred historically and where future growth may go.

What Does It Mean: Planning and Growth Management

Planning is an ongoing process and is valuable when used for short and long-term goals, actions, and policies. What are the achievements since the creation of the last plans? What mistakes were made? What are good ideas that haven't been addressed, and therefore should be included in future plans? In what ways should local plans be linked to regional plans?

Growth management encompasses many subjects. What is the best way Billerica can plan and manage in order to maintain its community character? How can Town resources be used to guide change? What is the proper balance for Billerica between economic development, housing and open space?

Open Space and Recreation Characteristics

The Open Space Plan was written in 1996 and accepted by the Division of Conservation Services in 1997. The purpose of the Plan is to:

- Preserve Billerica's small town character, while respecting its commercial and industrial base.
- Increase opportunities to enjoy open space and recreation.
- Maintain and actively manage existing open space and recreation areas.
- Protect the water quality of the water resources.
- Protect the unique, scenic and historic resources.

The Plan includes fifty primary and secondary actions for the protection of resources and a five-year action plan running through 2002.

Watershed

The SuAsCo River Basin is approximately 377 square miles with some 365,000 people and is part of the larger Merrimack River Watershed. The subwatershed include the Shawsheen Watershed and the Ipswich Watershed. The SuAsCo is comprised of three major rivers (Sudbury 28.8 miles, Assabet 29.8 miles, and Concord 15.5 miles). The SuAsCo Watershed Team priority projects for the next year include:

- Conduct Phase 1 and 2 TMDL Study for the Sudbury and Concord Rivers.
- Determine priority habitat for protection and management within the SuAsCo watershed.
- Conduct regional land use planning strategy and MassGIS mapping.
- Conduct "shoreline survey/ storm-water discharge identification of Sudbury, Assabet, and Concord Rivers

The Recreation Department offers year-round programs, trips and special events for all residents and employees of Billerica.

Recreational Facilities

Recreational sites/facilities include:

Great Meadows National Wildlife Refuge (55 acres)
Hiking, nature observation, cross-country skiing, canoeing.

Billerica State Forest (145 acres) and *Warren Manning State Forest* (183 acres)
Hiking, nature observation, horseback riding, cross country skiing, bicycling, picnicking, and walking/jogging.

Vietnam Veterans Park (200 acres)
Located off Treble Cove Rd., this park was deeded to the Town from Middlesex County in 1995 via a legislative act. Features include Concord River frontage, walking trails, show horse rink, soccer fields, radio control airport, BMX race track (in development), fishing, canoeing, cross country running trail, cross country skiing, community garden, special events, nature observation and the first in the nation Vietnam Veterans Memorial.

Kohlrausch Neighborhood Park

In North Billerica, children's playground, multi-use fields, and walking trails

Lampson Recreation Complex
Basketball courts, tennis courts, football field, softball fields, multi-use field, ice skating, recreation office.

Akeson Park
Soccer fields, canoe put-in/take-out site for Shawsheen River

Pollard Park
Kids Konnection (children's playground), picnicking, baseball field, and the planned Korean War Veterans Memorial

Micozzi Beach
Swimming, picnic area, playground, sand volleyball court, basketball, handicapped accessible fishing pier, canoe put-in/take-out, and nature observation

Billerica Public Schools
Many of the Town's athletic fields are located on school property. At the Marshall Middle School facilities include an out-door hockey rink. All elementary schools have children's playground.

Country Club of Billerica
Eighteen hole public golf course, driving range, Barrie Bruce Golf School

Rangeway Golf
Driving range, miniature golf course

Minuteman Sportsman Club
Rifle target range, target archery

Boys & Girls Club of Greater Billerica
Gymnasium, pool, ropes course, game rooms, before/after school program, special events

Fishing or Canoeing
Nuttings Lake, Winning Pond, Concord River, Shawsheen River

What Does It Mean: Recreation and Open Space

It is apparent that Billerica takes great pride in its recreation programs and facilities. Similarly, the Open Space Plan reflects community commitment to preservation of character through protection of natural and historic resources.

What are Billerica's achievements under the Open Space Plan? Are there new priorities? Does Billerica have adequate fiscal resources to assure long-term protection of priority properties? An Open Space Update is currently underway to review progress and make revisions for future open space planning.

Educational Characteristics

Summary

The percentage of children attending public schools in Billerica has increased by 0.4% and the percentage of children attending public schools for the state increased by 0.8%. The annual dropout rate has remained the same in both the state (1995-3.6%, 1998-3.4%) and in Billerica (1995-1.5%, 1998-1.7%) over the past few years, but the rate in Billerica is significantly lower than the state's rate. The number of graduates attending four-year schools is higher in Billerica (66.0%) than in the state (53.2%) and has increased over the past few years. The number of graduates deciding to work after leaving high school is higher in the state (16.2%) than in Billerica (15.5%).

Billerica conducted an Enrollment and School Facilities study in 1996. This should be re-visited. The expected growth in enrollment appears to have slowed, but it should be noted that the elementary school enrollments are higher than the secondary schools indicating possible future growth rather than decline in annual class sizes. Deficiencies in school facilities may still need to be addressed, particularly in the older elementary schools.

General Information:

	Grade Span	*School*
Total Public Schools	K-12	9
Total Private Schools	N/A	NE Pediatric Care
Total Elementary Schools	K-5	Eugene C. Vining
		Frederick J. Dutile
		Hajiar Elementary
		John F. Kennedy
		Parker Elementary
		Thomas Ditson Elementary
Total Middle/Junior High Schools	6-8	Locke Middle School Marshall Middle School
Technical High School	9-12	Shawsheen Valley
Total High Schools	9-12	B. Memorial High School

Source: Massachusetts Department of Education

Technology

	Billerica	*Massachusetts (1999)*
Students per Computer	**5.1**	6.3
Classrooms wired for the Internet	**100%**	65.9%

Source: Massachusetts Department of Education

Enrollment by Grade

	K	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
1994-1995	478	561	523	539	497	457	504	449	484	365	359	357	355	5,928
1998-1999	500	586	516	575	518	568	524	549	491	341	380	348	359	6,255
1999-2000	512	603	512	551	496	549	510	540	499	414	365	328	332	6,213

Source: Massachusetts Department of Education, Billerica Superintendents Office

In 2001, 481 students from Billerica attend Shawsheen Valley Technical School.

Note: School enrollments, like population, have leveled off in the past decade

Number of Students per Teacher, 1997-1998

Billerica: 19.3
Massachusetts: 18.0
Source: Massachusetts Department of Education

Children Attending Public Schools

Billerica		*Massachusetts*	
1994-1995	1997-1998	1994-1995	1997-1998
97.0%	97.4%	89.2%	90.0%

Source: Massachusetts Department of Education

Annual Dropout Rate

Billerica		*Massachusetts*	
1994-1995	1997-1998	1994-1995	1997-1998
1.5%	1.7%	3.6%	3.4%

Source: Massachusetts Department of Education

Attendance Rate

Billerica: 95.1%
Massachusetts: 93.9%
Source: Massachusetts Department of Education

AP Test Results, 1999
Students Scoring 3 or Higher on AP Test

	English Literature & Composition	*English Language & Composition*	*Calculus*	*US History*	*Physics*
Billerica	100%	100%	88%	53%	65%
United States	68%	62%	63%	51%	62%

Source: Billerica Public Schools

Plans of High School Graduates, 2000

Billerica			*Massachusetts*		
4-Year College	2-Year College	Work	4-Year College	2-Year College	Work
66.0%	17.0%	15.5%	53.2%	18.6%	16.2%

Source: Massachusetts Department of Education

Per Pupil Expenditures

	Billerica		*Massachusetts*	
	1993-1994	1998-1999	1993-1994	1997-1998
All Day programs	$4,493		$5,235	
Regular Education	$3,974	$5,077	$4,369	$5,487
Special Education	$6,957	$11,230	$7,666	$10,249
Bilingual Education	0	0	$5,539	$7,495
Vocational Education	N/A	$9,562*	$7,843	$9,404

Source: Massachusetts Department of Education
**FY2001, Source: Shawsheen Business Office*

Billerica School System Highlights

- 1999 SAT student participation and results significantly higher than state and national averages
- 1999 Advanced Placement scores well above national averages in English and Mathematics
- 1999 Massachusetts Grade 3 reading test above State and National averages
- 1999 MCAS scores above State averages
- System extensive Technology Program selected as state model

- Billerica Memorial High School awarded full 10 year accreditation in 1993
- All staff K-8 trained in "Talents Unlimited" Critical Thinking Model
- Enrichment Program for over 350 exceptionally motivated students grades 4-8
- Exceptional award winning athletic, music and art programs
- Extensive Professional Development Program including six field based masters
- Nationally recognized elementary "Hands-On-Science" Program
- Active support from business community including the Billerica Partners for Education, Inc.
- Comprehensive Health Education program selected as State model

What Does It Mean: Education

Billerica has demonstrated a commitment to the school system and the education of children. A strong and diverse tax base contributes to stable funding. There is potential for continued economic growth to generate a higher demand on school facilities and personnel. Capital improvements, therefore, must be continued, and Facilities Plans kept up to date in the event there is a need for expansion.

It appears that if Billerica maintains its course on education spending that testing numbers will continue to improve and be favorable when compared to the State.

Economic Characteristics

Summary

The total annual payroll, the average annual wage, and the number of total establishments have increased substantially over the past decade. The labor force has also increased, but the unemployment rate has decreased from 6.0% to 3.1%. The unemployment rate in Billerica has decreased slightly more than the decrease in Massachusetts. Trade is the largest industry in Billerica, employing 6,784 people, followed by manufacturing with 6,763 employees. Agriculture, Forestry, and Fishing have the fewest number of employees with 142.

Employment and Wages

Year	*Total Annual Payroll*	*Average Annual Wage*	*Total Establishments*
1990	$616,280,525	$30,800	920
1995	$1,000,568,308	$40,792	982
1997	$1,094,374,518	$45,112	1,015
1999	$1,312,072,306	$53,558	1,077

Source: Massachusetts Division of Employment and Training

Labor Force, Employment, and Unemployment

Year	*Labor Force*	*Employment*	*Unemployment*	*Unemployment %*	*Statewide Unemployment %*
1990	22,731	21,361	1,370	6.0%	6.0%
1995	21,735	20,567	1,168	5.4%	5.4%
1997	23,181	22,318	863	3.7%	4.0%
1999	24,056	23,309	747	3.1%	3.2%

Source: Massachusetts Division of Employment and Training

Local Area Unemployment Statistics

	1997		1998		1999	
Location	*Labor Force*	*% Unemployed*	*Labor Force*	*% Unemployed*	*Labor Force*	*% Unemployed*
Billerica	23,181	4.0%	22,584	3.3%	24,056	3.2%
Lowell	49,602	4.0%	49,904	3.3%	50,774	3.2%
Middlesex County	796,256	3.4%	809,926	3.0%	815,178	2.7%
Mass.	3,202,200	4.8%	3,253,900	4.3%	3,269,500	3.2%

Source: Massachusetts Division of Employment and Training
In 2000, the Billerica unemployment rate continued to drop to 3.0%.

Workers by Employment, 1999

Industry	*Number of Employees*
Agriculture, Forestry, and Fishing	142
Government	2,050
Construction	1,712
Manufacturing	6,763
Transportation, Communications, and Public Utilities	1,331
Trade	6,784
Finance, Insurance, and Real Estate	180
Service	5,536
Total	*24,498*

Source: Massachusetts Division of Employment and Training

What Does It Mean: Economy

Billerica's economy and employment base should be the envy of many communities. Billerica is a regional employment center within a suburban community. With many acres of land zoned for industry and industrial parks, there is the opportunity for continued growth. Commerce and industry provide for nearly 24% of the assessed value of the community. This strong base allows Billerica to have a split tax rate, which means that industry carries a large share of the costs of government services and education.

When looking at the Town planning efforts over the years, much thought went into providing for economic development in Billerica. However, there has not been much recent planning discussion on this issue. Is this needed? Is there enough space for growth? Is there any reason to manage industrial growth? Should there be linkage between industrial growth and community needs such as affordable housing?

Is Billerica meeting the needs of industry? Are there enough homes for employees? Is there proper infrastructure, from water and sewer to roads to high speed internet access? Should the Town be offering more or less incentives to businesses for expansion?

Within the Long Range Master Plan, action steps to address these and other questions should be included.

Governmental Structure

Billerica has a Select Board/Town Manager form of government with a Representative Town Meeting.

Registered Voters, 2001

Party	*Number of Voters*	*% of Population*
Democrats	7,584	33.1%
Republicans	3,027	13.2%
Unenrolled	12,123	53.0%
Conservative	1	0%
International Second Party	24	0.1%
Libertarian	117	0.5%
Massachusetts Green Party	1	0%
New Alliance	1	0%
Reform	16	0%
Socialist	1	0%

Source: Billerica Town Registrar

Elected Officials

Governor:	Jane Swift
US Senators:	Edward M. Kennedy and John F. Kerry
State Senator:	Robert Havern, III, 4th Middlesex District
US Congressman:	Martin Meehan
State Representative:	William Greene, Jr., Billerica District

Town Services

Public Water System:
100% of the community is serviced by town water. During FY99, 1,569 million gallons of water were pumped from the Town's Treatment Plant on the Concord River and distributed throughout the community. The average daily volume of usage was 4.69 million gallons.

Trash Collection:
The Town has curbside trash collection and recycling. Total recycled waste collected in FY99 was 1,956.51 tons; total trash collected was 4.69 million gallons.

Sewer:
The Town is currently implementing an aggressive $15 million sewer expansion program. When completed, this project will bring the public sewer system to over 70% of the community. The Town operates a Wastewater Treatment Plant with design capacity of 5.4 million gallons per day (MGD). Average daily flow for 1999 at the plant was 3 MGD.

Library:
Library expansion project was completed in May 2000. The Billerica Public Library in FY2000 had circulation of 241,582 and was visited by 189,904 patrons. The number of patrons in the FY 2000 was much lower then previous years due to the library being closed for renovations for a month. With the expansion complete, the circulation is growing rapidly.

Schools:
Billerica public school system is made up of six K-5 elementary schools; two middle schools and one high school. Billerica students also attend Shawsheen Valley Technical School. 1999-2000 school enrollment: 6,604 pupils.

Public Safety:
Billerica Police Department has 66 permanent uniformed officers. Billerica Fire Department is staffed by 73 firefighters. Billerica EMT Division is staffed by 8 officials.

Other Services:
The *Recreation Department* is always conducting many programs through-out the year for youth and adults of Billerica. The Billerica *Council on Aging* sponsors programs designed to meet the needs and problems of the aging. The senior center is just one of many programs offered to Billerica seniors. Both senior citizens and all others in the community who may be handicapped or in financial need are eligible for services. Billerica also offers *Veterans Services*.

Financial Characteristics

FY01 Tax Classification

	Tax Rate	*Tax Levy*	*Assessed Values*	*% of Total Value*
Residential	13.36	29,754,561	2,227,137,833	70.9%
Commercial	28.34	5,538,823	195,441,886	6.2%
Industrial	28.34	16,265,846	573,953,629	18.3%
Personal Property	28.34	4,042,046	142,626,900	4.5%
Total		*55,601,276*	*3,139,160,248*	

Source: Massachusetts Department of Revenue

FY01 Revenue Sources

Source	*Total*	*Percent of Total*
Tax Levy	55,601,276	56.3%
State Aid	22,498,632	22.8%
Local Receipts	12,630,000	12.8%
Other Available	7,979,249	8.1%
Total	*98,709,157*	

Source: Massachusetts Department of Revenue

FY01 Proposition 2 1/2 Levy Capacity

New Growth	4,034,302
Debt Exclusion	96,175
Levy Limit	57,002,441
Excess Capacity	1,401,165
Ceiling	78,479,006
Override Capacity	21,572,740

Source: Massachusetts Department of Revenue

FY01 Cherry Sheet

	Estimated State Aid
Education Aid	14,421,424
General Government	8,059,579
Total Receipts	22,481,003
Total Assessments	745,099
Net State Aid	21,735,904

Source: Massachusetts Department of Revenue

FY01 Average Single Family Tax Bill

Number of Single Family Parcels	10,519
Assessed Value of Single Family	1,945,798,580
Average Single Family Tax Bill	2,471

Source: Massachusetts Department of Revenue

FY00 Schedule A – Actual Revenues and Expenditures

	General Fund	Special Revenue	Capital Projects	Trust Revenue	Total, All Funds
Revenues	**81,384,301**	**5,917,166**		**457,815**	**87,759,282**
Expenditures	**77,776,555**	**5,052,481**	**2,291,490**	**295,883**	**85,416,409**
Police	4,934,720				4,934,720
Fire	4,842,958				4,842,958
Education	40,354,920	3,347,813	2,291,490		45,994,223
Public Works	8,913,736				8,913,736
All Other	18,730,221	1,704,668		295,883	20,730,772

Source: Massachusetts Department of Revenue

Public Safety accounts for 12% of the budget, Education 54%, Public Works 10%, and Other (General Government, Cultural, Health, Insurance) 25%.

What Does It Mean: Government/Financial

Billerica is in strong financial condition according to the above data. With revenues exceeding the annual expenditures, the Town should be able to see growth in its stabilization and reserve funds (for rainy days which are bound to come), while continuing to move forward with capital improvements.

The proportion of revenue generated from commercial, industry, and personal property grew from 2000 to 2001. The Town experienced over $4 million in new growth revenue. These, too, are signs of a strong financial position.

It appears that capital improvements are being made, though perhaps at a rate less than 10% of total budget, a standard goal. The Town should be sure to keep an up-to-date Capital Improvements Plan (reviewed and revised annually). This Plan should include needed improvements to the school infrastructure as well. Infrastructure needs to areas of Industrial growth should be anticipated in the Capital Plans.

Spending Potential Indexes for Billerica, Massachusetts

The following profile is provided by CACI Marketing Systems, Standard Rate and Data Service (SRDS) and the National Demographics and Lifestyle (NDL) Marketing firms. They use standard acceptable statistical analysis to extrapolate community profiles. The profile for Billerica is compared to that of the United States as well as its Area of Dominant Influence, which is Greater Boston.

Summary

Of the categories in "The Good Life" section, the highest percentage (21.9%) of people are interested in gourmet cooking. The lowest number of people (7.6%) are interested in money making

opportunities. In comparison to Boston, the area of dominant influence, Billerica differed most significantly in the number of people interested in fine arts and antiques (-47%).

Of the categories in the "High Tech Activities" section, the highest percentage of Billerica residents are interested in stereos and record tapes (45.9%). The least number of people (9.6%) are interested in science fiction. In comparison to Boston, Billerica differs most significantly (57%) in the level of enthusiasm for electronics.

Of the categories in the "Sports and Leisure Activities" section the highest percentage (35.2%) of Billerica residents are interested in watching sports on TV. The category with the least level of interest (7.4%) among Billerica residents is playing tennis. In comparison to Boston, Billerica differs most significantly in the level of interest in golfing (25%).

Of the categories in the "Outdoor Activities" section the highest percentage (22.1%) of Billerica residents are interested in camping and hiking. The category with the least level of interest (7.9%) among Billerica residents is an interest in motorcycles. In comparison to Boston, Billerica differs most significantly in the level of interest in recreational vehicles (59%).

Of the categories in the "Domestic Activities" section, the highest percentage (36%) of Billerica residents are avid book readers. The category with the least level of interest (3.9%) among Billerica residents is veteran's benefits and programs. In comparison to Boston, Billerica residents differ most significantly in the level of interest in automotive work (46%).

The Top (Overall) Spending Interests for Billerica

1. Stereo/Record Tapes (45.9% of Billerica households)
2. VCR Recording/Viewing (39.7%)
3. Cable TV (38.6%)
4. Avid Book Reading (36.0%)
5. Gardening (35.9%)
6. Pets (35.4%)
7. Watching Sports on TV (35.2%)
8. Walking for Health (34.9%)
9. Physical Fitness/Exercise (32.7%)
10. Home Workshop (27.4%)
11. Personal Home Computers (27.0%)
12. Crafts (25.8%)
13. Golfing (24.7%)
14. Camping/Hiking (22.1%)
15. Gourmet Cooking (21.9%)

1. The Good Life

	Actual Percentage	Higher (Lower) Percentage than Boston
Attend Cultural Events	11.9%	(38%)
Career Oriented Activities	11.6%	(12%)
Fine Arts/ Antiques	7.7%	(47%)
Foreign Travel	14.1%	(29%)
Gourmet Cooking	21.9%	(14%)
Real Estate Investments	7.9%	16%
Stock/ Bond Investments	11.3%	(15%)

2. High Tech Activities

	Actual Percentage	Higher (Lower) Percentage than Boston
Electronics	12.4%	57%
Home Video Games	11.6%	33%
Personal/ Home Computers	27.0%	14%
Science Fiction	9.6%	33%
Science/ New Technology	11.6%	23%
VCR Recording/ Viewing	39.7%	16%

3. Sports and Leisure Activities

	Actual Percentage	Higher (Lower) Percentage than Boston
Bowling	12.9%	12%
Golfing	24.7%	25%
Physical Fitness/ Exercise	32.7%	(13%)
Running/ Jogging	11.7%	(11%)
Tennis	7.4%	(22%)
Walking for Health	34.9%	(12%)

4. Outdoor Activities

	Actual Percentage	Higher (Lower) Percentage than Boston
Camping/ Hiking	22.1%	24%
Fishing	15.5%	13%
Hunting/ Shooting	8.4%	11%
Motorcycles	7.9%	40%
Recreational Vehicles/ 4-WD	8.5%	59%

5. Domestic Activities

	Actual Percentage	Higher (Lower) Percentage than Boston
Automotive Work	15.5%	46%
Avid Book Reading	36%	(18%)
Bible/ Devotional Reading	6%	(21%)
Collectibles/ Collections	11.7%	15%
Crafts	25.8%	15%
Current Affairs/ Politics	14.4%	(26%)
Grandchildren	12.1%	(27%)
Health Food Vitamins	10.5%	18%
Home Workshop	27.4%	32%
Household Pets	35.4%	13%

Appendix: Detailed Spending Potential Indexes for Billerica, Massachusetts

1. The Good Life

1) Attend Cultural Events

- 11.9% of all households in Billerica has a member who is interested in attending cultural and arts events.

- Billerica's rate of participation in cultural events is 21% lower than the rate of participation for the total US
- Billerica's rate of participation is 38% lower than the Greater Boston rate of participation.

2) Career Oriented Activities

- 11.6% of all households in Billerica has a member who is interested in Career Oriented Activities.
- Billerica's rate of participation in these activities is 4% lower than the rate of participation for the total US
- Billerica's rate of participation is 12% lower than the Greater Boston rate of participation.

3) Fashion Clothing

- 12.9% of all households in Billerica has a member who is interested in Fashion Clothing.
- Billerica's rate of participation in these activities is 2% higher than the rate of participation for the total US
- Billerica's rate of participation is 4% lower than the Greater Boston rate of participation.

4) Fine Arts/Antiques

- 7.7% of all households in Billerica has a member who is interested in Fine Arts/Antiques.
- Billerica's rate of participation in these activities is 25% lower than the rate of participation for the total US
- Billerica's rate of participation is 47% lower than the Greater Boston rate of participation.

5) Foreign Travel

- 14.1% of all households in Billerica has a member who is interested in foreign travel.
- Billerica's rate of participation in these activities is 8% higher than the rate of participation for the total US
- Billerica's rate of participation is 29% lower than the Greater Boston rate of participation.

6) Frequent Flyer

- 18.8% of all households in Billerica has a member who is a frequent flyer.
- Billerica's rate of participation in these activities is 37% higher than the rate of participation for the total US
- Billerica's rate of participation is 8% lower than the Greater Boston rate of participation.

7) Gourmet Cooking

- 21.9% of all households in Billerica has a member who is a gourmet-cooking enthusiast.
- Billerica's rate of participation in these activities is 8% higher than the rate of participation for the total US
- Billerica's rate of participation is 14% lower then the Greater Boston rate of participation.

8) Home Furnishings

- 20.4% of all households in Billerica has a member who is a home furnishing enthusiast.
- Billerica's rate of participation in these activities is 7% higher than the rate of participation for the total US
- Billerica's rate of participation is 9% higher than the Greater Boston rate of participation.

9) Money Making Opportunities

- 7.6% of all households in Billerica has a member who is interested in moneymaking opportunities.
- Billerica's rate of participation in these activities is 17% lower than the rate of participation for the total US
- Billerica's rate of participation is 2% lower than the Greater Boston rate of participation.

10) Real Estate Investments

- 7.9 % of all households in Billerica has a member who is interested in real estate investments.
- Billerica's rate of participation in these activities is 26% higher than the rate of participation for the total US
- Billerica's rate of participation is 16% higher than the Greater Boston rate of participation.

11) Stock/Bond Investments

- 11.3% of all households in Billerica has a member who is interested in stock or bond investments.
- Billerica's rate of participation in these activities is 5% lower than the rate of participation for the total US
- Billerica's rate of participation is 15% lower than the Greater Boston rate of participation.

12) Wines

- 14.4% of all households in Billerica has a member who is interested in wines.
- Billerica's rate of participation in these activities is 33% higher than the rate of participation for the total US
- Billerica's rate of participation is 4% lower than the Greater Boston rate of participation.

II. High Tech Activities

1) Electronics

- 12.4% of all households in Billerica has a member who is an electronics enthusiast.
- Billerica's rate of participation in electronics is 40% higher than the rate of participation for the total US
- Billerica's rate of participation is 57% higher than the Greater Boston rate of participation.

2) Home Video Games

- 11.6% of all households in Billerica has a member who is a home video games enthusiast.
- Billerica's rate of participation in home video games is 3% higher than the rate of participation for the total US
- Billerica's rate of participation is 33% higher than the Greater Boston rate of participation.

3) Personal/Home Computers

- 27% of all households in Billerica has a member who is a personal computer enthusiast.
- Billerica's rate of participation in personal computers is 32% higher than the rate of participation for the total US
- Billerica's rate of participation is 14% higher than the Greater Boston rate of participation.

4) Photography

- 24% of all households in Billerica has a member who is a photography enthusiast.
- Billerica's rate of participation in photography is 21% higher than the rate of participation for the total US
- Billerica's rate of participation is 7% higher than the Greater Boston rate of participation.

5) Science Fiction

- 9.6% of all households in Billerica has a member who is a science fiction enthusiast.
- Billerica's rate of participation in science fiction is 25% higher than the rate of participation for the total US
- Billerica's rate of participation is 33% higher than the Greater Boston rate of participation.

6) Science/New Technology

- 11.6% of all households in Billerica has a member who is a science/new technology enthusiast.
- Billerica's rate of participation in science/new technology is 43% higher than the rate of participation for the total US
- Billerica's rate of participation is 23% higher than the Greater Boston rate of participation.

7) Stereo/Record Tapes

- 45.9% of all households in Billerica has a member who is a stereo or record tape enthusiast.
- Billerica's rate of participation in stereo/record tapes is 7% higher than the rate of participation for the total US
- Billerica's rate of participation is 2% higher than the Greater Boston rate of participation.

8) VCR Recording/Viewing

- 39.7% of all households in Billerica have a member who is a VCR recording or viewing enthusiast.
- Billerica's rate of participation in VCR recording/viewing is 4% higher than the rate of participation for the total US
- Billerica's rate of participation is 16% higher than the Greater Boston rate of participation.

9) Watching Cable TV

- 38.6% of all households in Billerica has a member who is a cable-watching enthusiast.
- Billerica's rate of participation in watching cable is 6% lower than the rate of participation for the total US
- Billerica's rate of participation is equal to the Greater Boston rate of participation.

III. Sports and Leisure Activities

1) Bicycling Frequently

- 16.3% of all households in Billerica has a member who is a bicycling enthusiast.
- Billerica's rate of participation in bicycling is 3% lower than the rate of participation for the total US
- Billerica's rate of participation is 6% lower than the Greater Boston rate of participation.

2) Boating/Sailing

- 17.9% of all households in Billerica has a member who is a boating enthusiast.
- Billerica's rate of participation in boating is 46% higher than the rate of participation for the total US
- Billerica's rate of participation is 9% higher than the Greater Boston rate of participation.

3) Bowling

- 12.9% of all households in Billerica has a member who is a bowling enthusiast.
- Billerica's rate of participation in bowling is 13% lower than the rate of participation for the total US
- Billerica's rate of participation is 12% higher than the Greater Boston rate of participation.

4) Golfing

- 24.7% of all households in Billerica has a member who is a golfing enthusiast.
- Billerica's rate of participation in golfing is 34% higher than the rate of participation for the total US
- Billerica's rate of participation is 25% higher than the Greater Boston rate of participation

5) Physical Fitness/Exercise

- 32.7% of all households in Billerica has a member who is a fitness enthusiast.
- Billerica's rate of participation in fitness and exercise is 2% lower than the rate of participation for the total US
- Billerica's rate of participation is 13% lower than the Greater Boston rate of participation

6) Running/Jogging

- 11.7% of all households in Billerica has a member who is a running or jogging enthusiast.
- Billerica's rate of participation in running or jogging is 1% higher than the rate of participation for the total US
- Billerica's rate of participation is 11% lower than the Greater Boston rate of participation

7) Snow Skiing

- 17.5% of all households in Billerica has a member who is a snow skiing enthusiast.
- Billerica's rate of participation in snow skiing is 117% higher than the rate of participation for the total US
- Billerica's rate of participation is 10% higher than the Greater Boston rate of participation

8) Tennis

- 7.4% of all households in Billerica has a member who is a tennis enthusiast.
- Billerica's rate of participation in tennis is 10% higher than the rate of participation for the total US
- Billerica's rate of partic ipation is 22% lower than the Greater Boston rate of participation

9) Walking for Health

- 34.9% of all households in Billerica has a member who is a walking enthusiast.
- Billerica's rate of participation in walking for health is 5% lower than the rate of participation for the total US
- Billerica's rate of participation is 12% lower than the Greater Boston rate of participation

10) Watching Sports on TV

- 35.2% of all households in Billerica has a member who is a sports enthusiast.
- Billerica's rate of participation in watching sports on TV is 5% lower than the rate of participation for the total US
- Billerica's rate of participation is 6% higher than the Greater Boston rate of participation

IV. Outdoor Activities

1) Camping / Hiking

- 22.1% of all households in Billerica has a member who is a camping/hiking enthusiast.
- Billerica's rate of participation in camping is 1% lower than the rate of participation for the total US
- Billerica's rate of participation is 24% higher than the Greater Boston rate of participation.

2) Fishing

- 15.5% of all households in Billerica has a member who is a fishing enthusiast.
- Billerica's rate of participation in fishing is 34% lower than the rate of participation for the total US
- Billerica's rate of participation is 13% higher then the Greater Boston rate of participation.

3) Hunting/Shooting

- 8.4% of all households in Billerica has a member who is a hunting enthusiast.
- Billerica's rate of participation in hunting is 46% lower than the rate of participation for the total US
- Billerica's rate of participation is 11% higher than the Greater Boston rate of participation.

4) Motorcycles

- 7.9% of all households in Billerica has a member who is a motorcycling enthusiast.
- Billerica's rate of participation in motorcycling is 11% higher than the rate of participation for the total US
- Billerica's rate of participation is 40% higher than the Greater Boston rate of participation.

5) Recreational Vehicles/4-WD

- 8.5% of all households in Billerica has a member who is a recreational vehicle enthusiast.
- Billerica's rate of participation in recreational vehicles is 9% higher than the rate of participation for the total US
- Billerica's rate of participation is 59% higher than the Greater Boston rate of participation.

6) Wildlife/Environmental

- 15.6% of all households in Billerica has a member who is an environmental and wildlife enthusiast.
- Billerica's rate of participation in wildlife is 1% higher than the rate of participation for the total US
- Billerica's rate of participation is 2% lower than the Greater Boston rate of participation.

V. Domestic Activities

1) Automotive Work

- 15.5% of all households in Billerica has a member who is an automotive work enthusiast.
- Billerica's rate of participation in automotive work is 6% higher than the rate of participation for the total US
- Billerica's rate of participation is 46% higher than the Greater Boston rate of participation.

2) Avid Book Reading

- 36% of all households in Billerica has a member who is an avid book reader.
- Billerica's rate of participation in avid book reading is 8% lower than the rate of participation for the total US
- Billerica's rate of participation is 18% lower than the Greater Boston rate of participation.

3) Bible/Devotional Reading

- 6% of all households in Billerica has a member who is a regular bible/devotional book reader.
- Billerica's rate of participation in devotional book reading is 65% lower than the rate of participation for the total US
- Billerica's rate of participation is 21% lower than the Greater Boston rate of participation.

4) Coin/Stamp Collecting

- 6.7% of all households in Billerica has a member who is a regular coin/stamp collector.
- Billerica's rate of participation in coin/stamp collection is 13% lower than the rate of participation for the total US
- Billerica's rate of participation is 3% lower than the Greater Boston rate of participation.

5) Collectibles/Collections

- 11.7% of all households in Billerica has a member who has an interest in collectibles/collections.
- Billerica's rate of participation in collectibles is 3% higher than the rate of participation for the total US
- Billerica's rate of participation is 15% higher than the Greater Boston rate of participation.

6) Crafts

- 25.8% of all households in Billerica has a member who has an interest in crafts.
- Billerica's rate of participation in crafts is equal to the rate of participation for the total US
- Billerica's rate of participation is 15% higher than the Greater Boston rate of participation.

7) Crossword Puzzles

- 18.9% of all households in Billerica has a member who is a crossword puzzle enthusiast.
- Billerica's rate of participation in crossword puzzle solving is 1% lower than the rate of participation for the total US
- Billerica's rate of participation is 1% lower than the Greater Boston rate of participation too.

8) Current Affairs/Politics

- 14.4% of all households in Billerica has a member who is interested in current affairs and politics.
- Billerica's rate of participation in current affairs and politics is 12% lower than the rate of participation for the total US
- Billerica's rate of participation is 26% lower than the Greater Boston rate of participation.

9) Entering Sweepstakes

- 13.3% of all households in Billerica has a member who is interested in entering sweepstakes.
- Billerica's rate of participation in sweepstakes is 12% lower than the rate of participation for the total US
- Billerica's rate of participation is equal to the Greater Boston rate of participation.

10) Gardening

- 35.9% of all households in Billerica has a member who is interested in gardening.
- Billerica's rate of participation in gardening is 5% higher than the rate of participation for the total US
- Billerica's rate of participation is 9% higher than the Greater Boston rate of participation.

11) Grandchildren

- 12.1% of all households in Billerica have members whose main interest is to shower their grandchildren with gifts.
- Billerica's rate of participation by grandparents in gifting their grandchildren often is 35% lower than the rate of participation for the total US
- Billerica's rate of participation is 27% lower than the Greater Boston rate of participation.

12) Health Foods/Vitamins

- 10.5% of all households in Billerica have members who are interested in health foods.
- Billerica's rate of participation in health food and vitamin consumption is 22% lower than the rate of participation for the total US
- Billerica's rate of participation is 18% higher than the Greater Boston rate of participation.

13) Home Workshop

- 27.4% of all households in Billerica have home workshop enthusiasts.
- Billerica's rate of participation in home workshops is 20% higher than the rate of participation for the total US
- Billerica's rate of participation is 32% higher than the Greater Boston rate of participation.

14) Household Pets

- 35.4% of all households in Billerica have household pet enthusiasts.
- Billerica's rate of participation in owning household pets is 1% lower than the rate of participation for the total US
- Billerica's rate of participation is 13% higher than the Greater Boston rate of participation.

15) Needlework/Knitting

- 17.4% of all households in Billerica have members interested in needlework and knitting.
- Billerica's rate of participation in needlework and knitting is 10% lower than the rate of participation for the total US
- Billerica's rate of participation is 6% lower than the Greater Boston rate of participation.

16) Self-improvement

- 14.5% of all households in Billerica have members interested in self-improvement.
- Billerica's rate of participation in self-improvement is 10% lower than the rate of participation for the total US
- Billerica's rate of participation is 2% lower than the Greater Boston rate of participation.

17) Sewing

- 15.3% of all households in Billerica have members interested in sewing.

- Billerica's rate of participation in sewing is 24% lower than the rate of participation for the total US
- Billerica's rate of participation is 9% lower then the Greater Boston rate of participation.

18) Veterans Benefits/Programs

- 3.9% of all households in Billerica have members interested in veteran programs.
- Billerica's rate of participation in veteran programs is 17% lower than the rate of participation for the total US
- Billerica's rate of participation is 3% higher then the Greater Boston rate of participation.