

POPULATION AND HOUSING ANALYSIS

DRAFT

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POPULATION AND HOUSING

I. Introduction

The examination of population and housing statistics is a critical element of a Master Plan. The state statute that addresses the purpose and description of a Master Plan (RSA 674:2.III) calls for a “housing section which assesses local housing conditions and projects future housing needs of residents of all levels of income and ages in the municipality and the region as identified in the regional housing needs assessment performed by the regional planning commission pursuant to RSA 36:47,II, and which integrates the availability of human services with other planning undertaken by the community.”

While population studies are not specifically addressed in the enabling legislation, to plan for the impacts of population changes as they relate to housing availability is an integral part of the master planning process. By knowing Greenfield’s past population trends and projecting the future population, it is possible to estimate the level of town services necessary to serve the expected growth and to plan for that growth to occur in an orderly manner. This chapter is intended to provide that information.

An analysis of the population and housing statistics also enables the Planning Board to determine whether amendments to the zoning ordinance might be required in order to address any inequities made apparent through the analysis. Following two important NH Supreme Court cases,¹ the concept of equal opportunity housing is now firmly established in the master plan process. In short, every town must, through its master plan, address the current and future housing need of all its residents - and in doing so must consider the housing situation in its neighboring towns as well.

II. Method of Analysis

This analysis relies on two primary sources: the US Census Bureau, the American Community Survey, and the New Hampshire Office of Energy and Planning (OEP). Information for both population and housing encompasses the years from 1980 to 2010, and in some tables, 2011 estimates if the ACS was the source of information. Annual estimates developed by OEP, have also been used as applicable. This time period gives a good indication of relevant trends. It must be noted that the way in which Census information is collected and reported results in some sampling errors and inconsistency in the numbers; nevertheless, this is the best and most comprehensive information available for this type of report. The 2010 Census, however, did not include as many questions as previous years and therefore some comparisons and trends cannot be made. In those tables, the ACS 2007-2011 estimates was the source of information. The ACS is administered as a random sample and contains a percentage of error since all households have not participated in the survey.

The methodology employed will measure the absolute growth in population and housing; the percentage growth over a particular time period, and the change in percentages. By analyzing the

¹ *Soares v. Atkinson*, 128 NH (1986) and *Britton v. Town of Chester*, 134 NH (1991). In both cases, the court held that the local zoning ordinance did not provide reasonable housing opportunity for low and moderate-income residents.

data, the community has an opportunity to prepare for future needs such as schools, housing options, services, roads and other infrastructure.

III. Population Analysis

According to the 2010 Census, Greenfield has a total population of 1,749 persons. This is an increase of 92 people between 2000 and 2010 or a 5.6% increase. This number represents an 80% increase over the past 30 years.

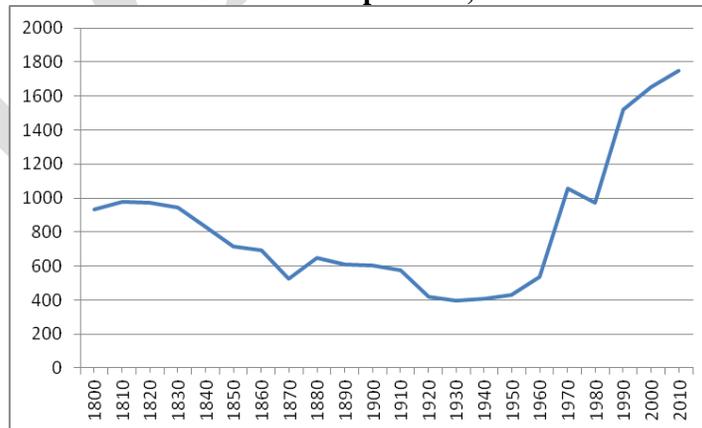
**Table 1:
Population Trends, 1980 - 2010**

YEAR	POPULATION	% CHANGE
1980	972	--
1990	1,519	56.3%
2000	1,657	9.1%
2010	1,749	5.4%

Source: U.S. Census Bureau

Graph 1 presents a brief historical perspective of population change over time, illustrating the population from 1800, the first year for which a census was recorded in Greenfield, to the present. As the graph illustrates, Greenfield experienced mostly a steady decline in population until about 1950, when small increases were recorded. Then came the “Baby Boom” which resulted in a sharp increase in population during the 1960’s. Another decline in population occurred between 1970-1980 which may have been the result of the railroad usage in Greenfield. The next noticeable change occurred between 1980 to 1990 with the “Housing Boom”. The changes during the last two decades have been more manageable to be able to plan for the impacts to town needs.

**Graph 1:
Greenfield Population, 1800 – 2010**



Source: U.S. Census Bureau

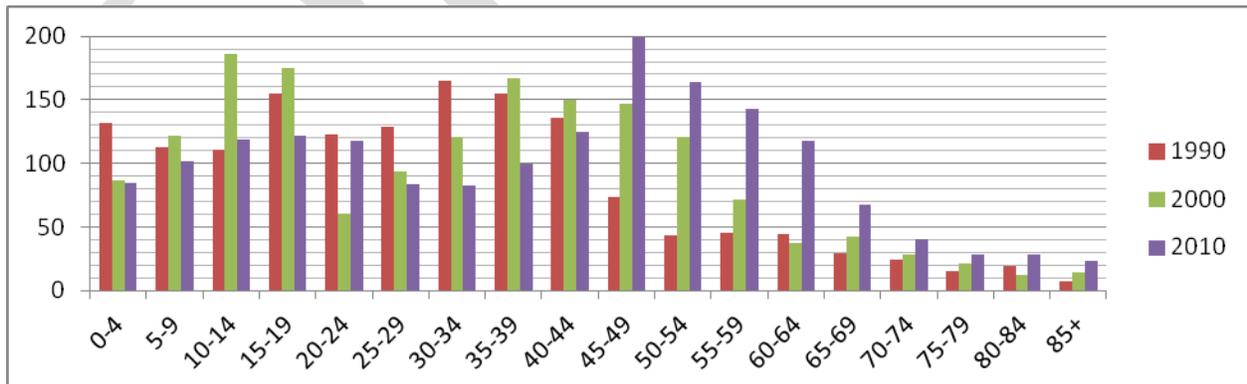
Table 2: 1980-2010 Population by Age

The Census breaks the population numbers out by age categories, which is also of interest for planning purposes. Table 2 illustrates the population breakdown by age grouping between 1980–2010. The age categories with the most residents in 2010 include the four consecutive age groups between the ages of 40 – 59. This span accounts for 36% of the total population in Greenfield. It will be important to consider the changing needs of this population over the next twenty years. The orange blocks show the progression of this age group through the last three decades. Another trend that is beginning is the four consecutive age groups between the ages of 5-24 and is shown in the yellow blocks. This group accounts for 28% of the total population in Greenfield in 2010.

	1980	1990	2000	2010
0-4	57	132	87	85
5-9	87	113	122	102
10-14	67	111	186	119
15-19	88	155	175	122
20-24	90	123	61	118
25-29	90	129	94	84
30-34	115	165	121	83
35-39	113	155	167	100
40-44		136	150	125
45-49	84	74	147	199
50-54		43	121	164
55-59	41	45	72	143
60-64	36	44	37	118
65-69	66	29	42	68
70-74		24	28	40
75-79	35	15	21	28
80-84		19	12	28
85+	3	7	14	23

Source: 1980: U.S. Census Summary Tape File 3. These data are based on a sample and therefore differ slightly from enumerated 1980 census data (STF-1), NH OEP, Accessed 8/30/2013 1990

Graph 2: 1990-2010 Population by Age*

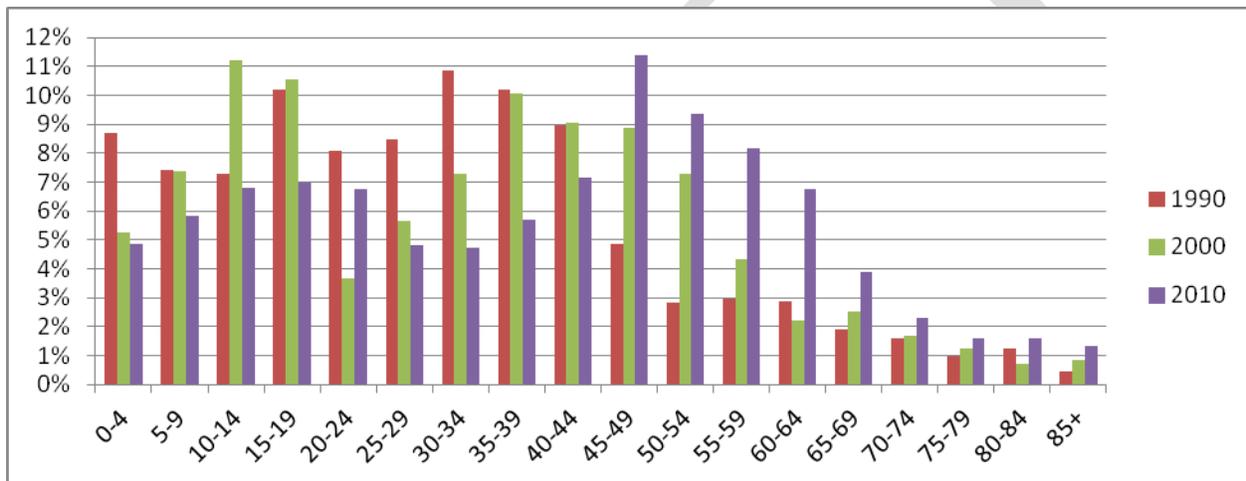


Source: U.S. Census Bureau
 *1980 data is not consistent with cohorts of subsequent years, and is therefore not shown.

Graph 2 provides a visual representation of the age distribution between 1990 - 2010. The graph does not include the age distributions in 1980 because the 1980 Census used slightly different age categories, and would therefore cause the graph to be misrepresentative of some of the categories.

In addition to the age distribution information provided in Table 2, the percentage of the total population for the age groups can provide valuable indicators for planning the needs of a community. Graph 3 shows a distinctive trend in the percentage of Greenfield residents as the population ages. The percentage of residents in the 65 to 69 age category doubled from 1990 to 2010. In addition to this trend, it should be noted that all the age groups between the ages of 0 to 44, with the exception of the 20 to 24 age category, have experienced an overall decline in percentage of population during this same time period.

Graph : 3
1990-2010 Population by Age*
As a Percentage of the Total Population



Source: U.S. Census Bureau
 *1980 data is not consistent with cohorts of subsequent years, and is therefore not shown.

Census information also breaks out males and females as shown in Table 3. This table indicates that there are more males in Greenfield’s total population. There has been little change in these figures over the past 30 years.

Table: 3
1990-2010 Male/Female Distribution

	Males	Females
1990	803	716
2000	845	812
2010	901	848

Source:U.S. Census Bureau

A. POPULATION CHARACTERISTICS

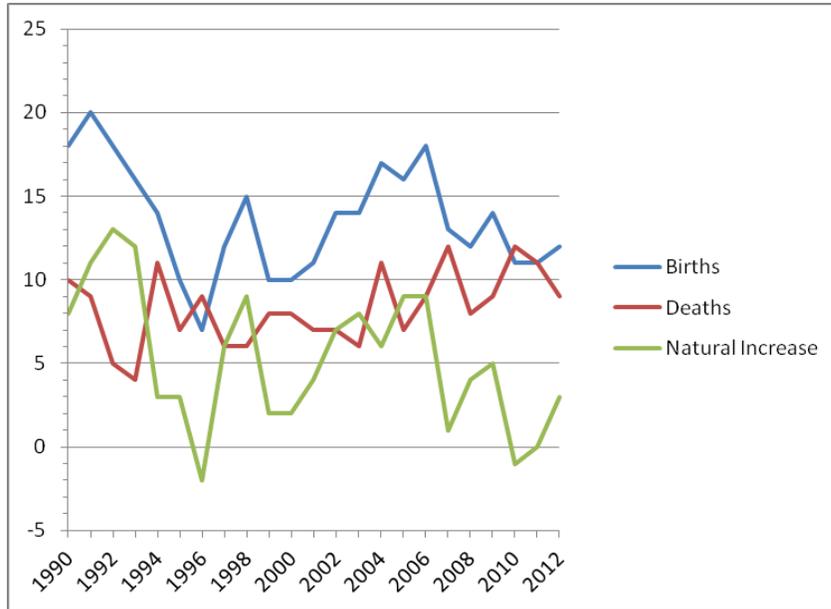
Two factors affect population change: natural increase, or the excess of births over deaths; and migration, the movement of people into or out of the community. Tables 4 below presents the birth and death statistics for Greenfield for the period from 1990 to 2010. These figures show that Greenfield has had a positive increase – meaning more births than deaths, in each of the years examined except 1996 and 2010. The increases overall range from 1 to 13 persons.

**Table 4:
Natural Increase**

Year	Births	Deaths	Natural Increase	Year	Births	Deaths	Natural Increase
1990	18	10	8	2002	14	7	7
1991	20	9	11	2003	14	6	8
1992	18	5	13	2004	17	11	6
1993	16	4	12	2005	16	7	9
1994	14	11	3	2006	18	9	9
1995	10	7	3	2007	13	12	1
1996	7	9	-2	2008	12	8	4
1997	12	6	6	2009	14	9	5
1998	15	6	9	2010	11	12	-1
1999	10	8	2	2011	11	11	0
2000	10	8	2	2012	12	9	3
2001	11	7	4	Total	313	191	122

Source: Greenfield Annual Reports

**Graph 4:
Natural Increase**



Source: Greenfield Annual Reports

Over these past 20 years, Greenfield has had a natural increase of 122 people. If the natural increase figures are applied to the Census information during the same time period, a determination can be made as to the effect of in-migration on the population, for example:

**Table 5:
In-Migration 1990-2010**

<u>IN-MIGRATION 1990-2000</u>		<u>IN-MIGRATION 2000-2010</u>	
Population, 1990	1,519	Population, 2000	1,657
Natural Increase, 1990-2000	67	Natural Increase, 2000-2010	52
Population in 2000, if no migration	1,586	Population in 2000, if no migration	1,709
Actual 2000 Population	1,657	Actual 2010 Population	1,749
Therefore, increase due to in-migration	71	Therefore, increase due to in-migration	40

Thus, based on the above calculations, in-migration accounted for 51% of the population increase between 1990 and 2000 and 43% of the population increase between 2000 and 2010. This trend shows that fewer people are migrating into Greenfield while the natural increase (births) continues to add to the population. Graph 4 shows a visual representation of this information.

Additional data gathered from the U.S. Census reinforces the role that in-migration might play in population growth. Table 6 below presents information on the year the residents moved into their home or apartment and Table 7 shows the status of residents from a shorter time period. This type of information is used to determine resident mobility and stability.

**Table 6:
Year Householder Moved Into Unit**

2005 and later	146
2000-2004	134
1990-1999	130
1980-1989	87
1970-1979	38
1960-1969	15

Source: U.S. Census Bureau American Community Survey
2007-2011 5-Year Estimates Table DP04

**Table 7:
Residence One Year Ago**

Population 1 year and over	1,461	100.0%
Same house	1,333	91.2%
Different house in the U.S.	117	8.0%
Same county	89	6.1%
Different county	28	1.9%
Same state	0	0.0%
Different state	28	1.9%
Abroad	11	0.8%

Source: U.S. Census Bureau American Community Survey (ACS)
2007-2011 5-Year Estimates Table DP02

The two tables following represent information collected by the Census on income and poverty levels. Table 8 contains median household and family incomes for Greenfield residents in 1990, 2000, and 2011, and compares those to the incomes for Hillsborough County² and the State of New Hampshire; and Table 9 represents the census information on poverty levels.

**Table 8:
1990- 2011 Income Information**

	Median Household Income			% Change
	1990	2000	2011*	2000-2011
New Hampshire	\$36,329	\$49,467	\$64,664	30.72%
Hillsborough County	\$40,404	\$53,384	\$70,591	32.23%
Greenfield	\$40,057	\$48,833	\$71,667	46.76%
	Median Family Income			% Change
	1990	2000	2011*	2000-2011
New Hampshire	\$41,628	\$57,575	\$78,310	36.01%
Hillsborough County	\$46,249	\$62,363	\$83,636	34.11%
Greenfield	\$43,333	\$56,250	\$80,893	43.81%
	Per Capita Income			% Change
	1990	2000	2011*	2000-2011
New Hampshire	\$15,959	\$23,844	\$32,357	35.70%
Hillsborough County	\$17,404	\$25,198	\$33,653	33.55%
Greenfield	\$15,107	\$19,895	\$32,293	62.34%

Source: U.S. Census Bureau 2000 Summary File 3 (SF 3) Table DP-3

*U.S. Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table DP03

Greenfield residents compared favorably over the state and county incomes during the last decade as shown in Table 8 above. The Median Household income increased 46.76% in Greenfield, while the increases were 30.72% and 32.23 % in the state and county respectively. There was a similar increase in the Median Family Income, and a more substantial increase in the Per Capita Income. The Per Capita increase for Greenfield between 2000-2011 was 62.34% compared to a 35.7% increase in state income and 33.5 % in county incomes.

Information on poverty levels gives a slightly different picture (Table 9). The percentage of the population below the poverty level in Greenfield dropped by 1.8% between 1990 and 2000, however it increased by 4.4% between 2000 and 2010. This was a greater change than that of the County poverty figure.

² The Census defines a family as a householder and one or more persons in the same household who are related by birth, marriage or adoption. A household, on the other hand, includes all nonrelated persons who occupy a housing unit, and may consist of just one person.

**Table 9:
Poverty Levels
1990- 2011***

	Greenfield 1990	County 1990	Greenfield 2000	County 2000	Greenfield 2011*	County 2011*
Above Poverty Level	1,203	309,735	1,431	349,544	1,256	346,690
Below Poverty Level	94	19,261	81	23,358	137	27,958
% Below Poverty	7.2%	5.9%	5.4%	6.3%	9.8%	7.5%

Under Age 18 Above Poverty Level	384	78,240	380	90,501	309	93,606
Under Age 18 Below Poverty Level	47	6,308	37	7,769	28	7,891
% Under Age 18 Below Poverty Level	10.9%	7.5%	8.9%	7.9%	9.1%	10.2%

Age 65 + Above Poverty Level	85	28,929	107	34,840	166	44,422
Age 65 + Below Poverty Level	9	3,238	10	3,125	14	2,691
% Age 65 + Below Poverty Level	9.6%	10.1%	8.5%	8.2%	8.4%	6.1%

Source: U.S. Census Bureau U.S. Census Bureau 1990 Summary Tape File 3A Table P117, Census 2000 Summary File 3 (SF 3) - Sample Data Table DP-3, *2007-2011 American Community Survey 5-Year Estimates Table S1701.

Disclaimer: Persons for whom the Census Bureau can determine poverty status (either "in poverty" or "not in poverty"). For some persons, such as unrelated individuals under age 15, poverty status is not defined. Since Census Bureau surveys typically ask income questions to persons age 15 or older, if a child under age 15 is not related by birth, marriage, or adoption to a reference person within the household, we do not know the child's income and therefore cannot determine his or her poverty status. For the decennial censuses and the American Community Survey, poverty status is also undefined for people living in college dormitories and in institutional group quarters. People whose poverty status is undefined are excluded from Census Bureau poverty tabulations. Thus, the total population in poverty tables--the poverty universe--is slightly smaller than the overall population.

B. SUBREGIONAL POPULATION COMPARISONS

An analysis of population is not complete without a comparison of Greenfield's population with that of its immediate neighbors – Bennington, Frankestown, Lyndeborough, Temple, Peterborough, and Hancock. Statistics on percent of growth can be misleading if the towns involved in the comparison vary too greatly in population. For the purpose of this discussion, however, such a comparison can be useful, since the towns are all somewhat similar in size, with the exception of Peterborough. Table 10 below presents this information for the last three decades, 1980 – 2010.

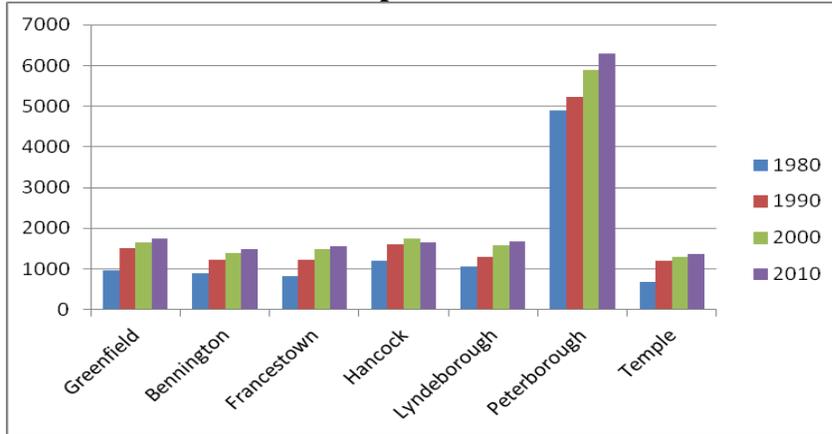
**Table 10:
Subregional Population Comparisons
1980-2010**

ABSOLUTE POPULATION	1980	1990	2000	2010
Greenfield	972	1,519	1,657	1,749
Bennington	890	1,236	1,401	1,476
Francestown	830	1,217	1,480	1,562
Hancock	1,193	1,604	1,739	1,654
Lyndeborough	1,070	1,294	1,585	1,683
Peterborough	4,895	5,239	5,883	6,284
Temple	692	1,194	1,297	1,366
Total	10,542	13,303	15,042	15,774
PERCENTAGE CHANGE	1980-1990	1990-2000	2000-2010	1980-2010
Greenfield	56.3%	9.1%	5.6%	79.9%
Bennington	38.9%	13.3%	5.4%	65.8%
Francestown	46.6%	21.6%	5.5%	88.2%
Hancock	34.5%	8.4%	-4.9%	38.6%
Lyndeborough	20.9%	22.5%	6.2%	57.3%
Peterborough	7.0%	12.3%	6.8%	28.4%
Temple	72.5%	8.6%	5.3%	97.4%
PERCENTAGE OF SUBREGIONAL POPULATION	1980	1990	2000	2010
Greenfield	9.2%	11.4%	11.0%	11.1%
Bennington	8.4%	9.3%	9.3%	9.4%
Francestown	7.9%	9.1%	9.8%	9.9%
Hancock	11.3%	12.1%	11.6%	10.5%
Lyndeborough	10.1%	9.7%	10.5%	10.7%
Peterborough	46.4%	39.4%	39.1%	39.8%
Temple	6.6%	9.0%	8.6%	8.6%

Source: U.S. Census Bureau

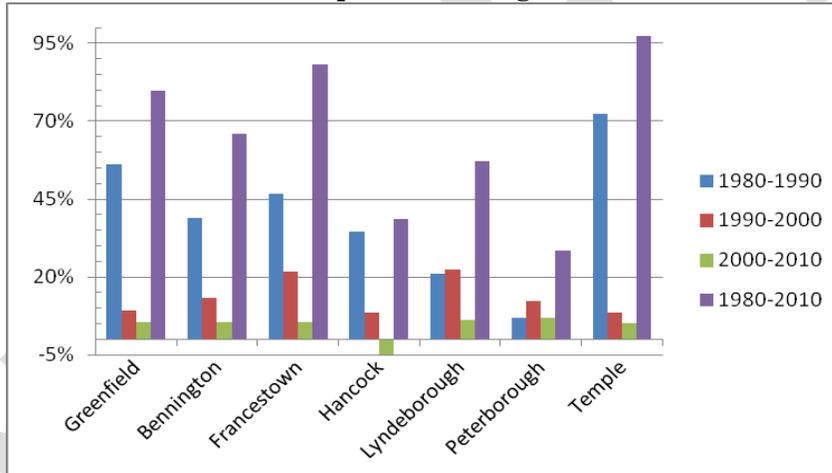
Graphs 5–7 visually present the information contained in Table 10. Graph 5 shows the absolute population of the towns in each year examined; Graph 6 illustrates the percentage of population increase between 1980-2010; and Graph 7 compares the share of each town’s population relative to the total subregional population.

**Graph 5:
Absolute Population 1980-2010**



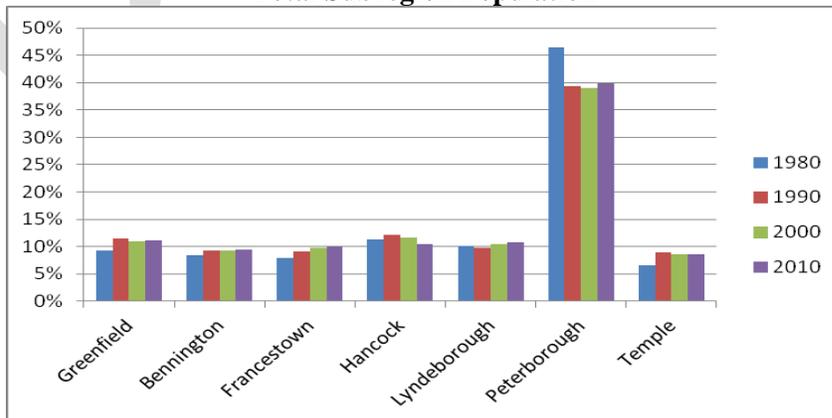
Source: U.S. Census Bureau

**Graph 6:
Population Change**



Source: U.S. Census Bureau

**Graph 7:
Population as a Percentage of
Total Subregion Population**



Source: U.S. Census Bureau

The figures in Table 10 illustrate widely variable rates of growth for Greenfield, as well as the six surrounding towns. Five of the seven towns had more growth in the 1980s than they did in the 1990s – Lyndeborough and Peterborough were the exceptions. Greenfield was the second largest town in this subregion excluding Peterborough (due to the large difference in its population compared to the other five towns), in 1980 – 2000. However, in 2010, Greenfield had a 5.6% increase in growth while Hancock had a 4.9% reduction, which changed Greenfield's subregional population status to the first largest (Peterborough excluded).

During this time period, each town has increased in population (except Hancock 2000-2010), however, the percentage of change in population has been steadily decreasing in all of the towns with the exception of Peterborough and Lyndeborough between 1990-2000. Greenfield had a relatively high percentage increase (79.9%) in population between 1980 -2010 while the other towns ranged from 28.4% – 97.4% growth.

In terms of each town's *share* of this subregional population, Peterborough ranks the highest for each of the years examined, although the percentage has decreased since 1980. Greenfield has remained the most constant, at around 11% of the subregional total. With the exception of Peterborough, Greenfield has had the second highest percentage of the subregional population for 1980, 1990 and 2000. A shift occurred in 2010, as mentioned above, due to the decrease in population in Hancock, which put Greenfield in the next highest percentage of the subregional population behind Peterborough.

IV. HOUSING ANALYSIS

A. DESCRIPTION OF THE HOUSING STOCK

In this section, statistics on housing supply and type, age of housing, and various housing conditions are examined in order to describe the status of the housing supply in Greenfield. Beginning with the basic number of total housing units, Table 11 below presents these numbers for the years 1980-2010 along with the tenure and vacancy information.

**Table 11:
Housing Supply & Tenure, 1980 -2010**

	1980	# of Units 1990	% Change 1980-90	# of Units 2000	% Change 1990-00	# of Units 2010	% Change 2000-10	% Change 1980-10
All Housing Units	416	517	24.3%	640	23.8%	699	9.2%	68.0%
Occupied Units	371	436	17.5%	563	29.1%	618	9.8%	66.6%
owners	261	368	41.0%	458	24.5%	496	8.3%	90.0%
renters	65	68	4.6%	105	54.4%	122	16.2%	87.7%
Vacant Units	45	81	80.0%	77	-4.9%	81	5.2%	80.0%
seasonal	24	50	108.3%	62	24.0%	45	-27.4%	87.5%
other vacant	21	31	47.6%	15	-51.6%	21	40.0%	0.0%
% vacant	12%	19%		12%		12%		
% owner-occupied	70%	84%		81%		80%		

Source: US Bureau of the Census

The increases in the total housing units are consistent with the population changes witnessed over the same time period: that the greatest growth was in the 1980s, with a slowdown from 1990 to 2000 and a sharper decline between 2000 and 2010. During this last decade, changes across the country with stricter lending thresholds and the economic downturn, the trend of homeownership saw the smallest increase in decades. In Greenfield, most housing units are owner-occupied, although the percentage shifted significantly from 1990 to 2000. This is an indicator that more Greenfield residents are either choosing to rent homes or are unable to purchase homes, probably due to economic factors.

Also of interest when examining housing issues is the type of housing units that are available in town. Housing stock is defined by the following types: single family, multi-family, and manufactured housing. Definitions used in this analysis come from NH Office of Energy and Planning (OEP), which uses definitions developed by the US Census, but sometimes combines categories, as follows:

- Single Family** (or 1-Unit Detached): A 1-unit structure detached from any other structure. This also includes mobile homes or trailers to which one or more permanent rooms have been added.
- Two Family.** One structure containing two separate, independent housing units.
- Multi-Family:** Residential buildings containing units built one on top of another and those built side-by-side which do not have a ground-to-roof wall and/or have common facilities (i.e., attic, basement, heating plant, plumbing, etc.)
- Manufactured Housing:** Both occupied and vacant mobile homes to which no permanent rooms have been added. (Note that once any addition is put onto a manufactured unit, the Census counts it as a single-family dwelling.)
- Other:** Any living quarters occupied as a housing unit that does not fit the previous categories, such as houseboats, railroad cars, campers and vans.

**Table 12:
Number of Units In Structure, 1990 – 2011***

	1990		2000		2011*	
	Number	% of Total	Number	% of Total	Number	% of Total
Total	517		640		694	
1-unit, detached	448	86.7%	544	85.0%	584	84.1%
1-unit, attached	4	0.8%	15	2.3%	5	0.7%
2 units	16	3.1%	30	4.7%	25	3.6%
3 or 4 units	32	6.2%	25	3.9%	10	1.4%
5 to 9 units	2	0.4%	3	0.5%	5	0.7%
10 to 19 units	0	0.0%	0	0.0%	4	0.6%
20 or more units	0	0.0%	3	0.5%	36	5.2%
Manufactured	13	2.5%	20	3.1%	25	3.6%
Other	2	0.4%	0	0.0%	0	0.0%

Source: U.S. Census Bureau U.S. Census Bureau 1990 Summary Tape File 3A Table H020, Census 2000 Summary File 3 (SF 3) - Sample Data Table DP-4, *2007-2011 American Community Survey 5-Year Estimates Table DP04.

Greenfield, like most towns in the region, has more single family housing than any other type. The percentages accounted for by each type of housing has not changed appreciably over the years, either: single family units accounts for between 84.8 and 87.3 percent; two- family between 3.1 and 4.7 percent; and multi-family between 4.9 and 7.9 percent. Manufactured housing, overall, has experienced the smallest change.

The age of the housing stock is useful information in gauging whether or not to expect aesthetic or structural problems (see Table 13). There is a presumption that homes built prior to 1940 are more likely to be dilapidated or have outdated heating, water and septic systems. Even though this might be true overall, many older homes have been renovated and restored to good condition. Housing quality is also a function of age and income of the occupants, and these are examined later.

**Table 13:
Year Structure Built**

	Estimate	Percent
Total:	694	
Built 2005 or later	21	3.0%
Built 2000 to 2004	96	13.8%
Built 1990 to 1999	61	8.8%
Built 1980 to 1989	106	15.3%
Built 1970 to 1979	89	12.8%
Built 1960 to 1969	52	7.5%
Built 1950 to 1959	37	5.3%
Built 1940 to 1949	8	1.2%
Built 1939 or earlier	224	32.3%

Source: U.S. Census Bureau, 2007-2011 American Community Survey Table B25034

Table 13 shows that 32.3% of the housing stock was constructed prior to 1940. After that, there was a limited amount of new construction until 1960. During the next 50 years, 61.2% of the current housing stock was constructed. The largest increase in new housing construction was during the housing boom between 1980-1989 with 106 homes. This is also the period in which Greenfield experienced the largest population growth with a 56.3 % increase as previously indicated in Table 10.

Housing standards and building codes became stricter during the 1970's as information about health risks associated with the use of certain building materials such as asbestos and lead paint became available. After these discoveries, 41% of Greenfield homes have been constructed since the risks of asbestos were released, and 53.7% of homes were constructed since the risks of lead paint were released.

Table 14 illustrates housing units by number of rooms. The larger units of five or six rooms experienced the greatest increase (379% from 1980 to 2011), while the one or two

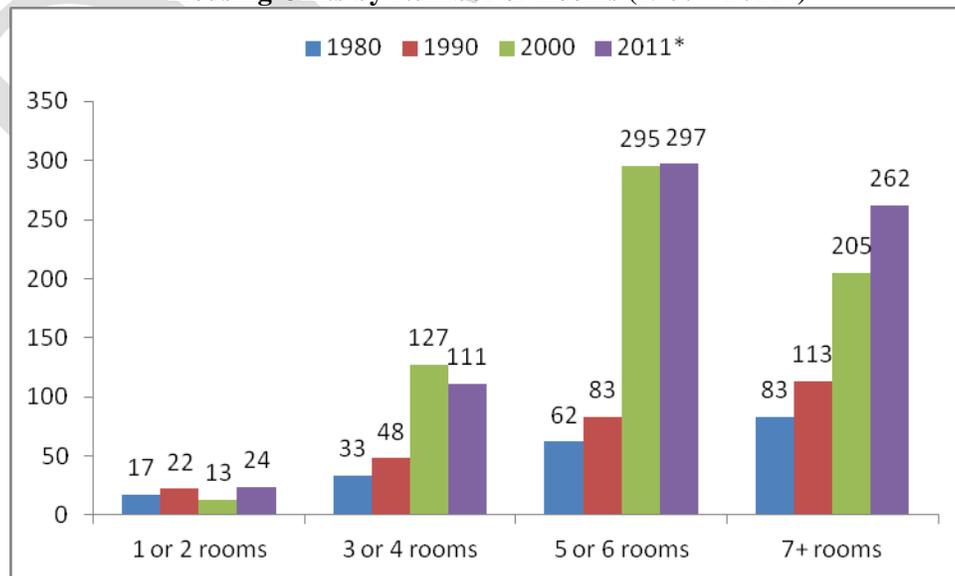
room units experienced the least change of 41%. It is possible that many of these new units are accounted for by additions to existing housing stock. It is not uncommon that early post-war homes, typically smaller than is seen today, are converted over time, adding living and sleeping space. The overall average for homes in Greenfield is between five and six rooms per dwelling unit, a number that has been slightly increasing since 1980. Graph 8 provides a visual representation.

**Table 14:
Housing Units by Number of Rooms**

	1980		1990		2000		2011*		% Change 1980 - 2011*
	Number	% of Total							
1 or 2 rooms	17	9%	22	8%	13	2%	24	3%	41.2%
3 or 4 rooms	33	17%	48	18%	127	20%	111	16%	236%
5 or 6 rooms	62	32%	83	31%	295	46%	297	43%	379%
7+ rooms	83	43%	113	42%	205	32%	262	38%	216%
Total	195		266		640		694		256%
Rooms per Unit	5.7		5.7		5.8		5.9		

Source: United States Census Bureau; *United States Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table B25018

**Graph 8:
Housing Units by Number of Rooms (1980 – 2011*)**



Source: U.S. Census Bureau

*United States Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates: Table B25018

B. Measure of Housing Problems

Census data relative to overcrowding and affordability are examined here, as these are two other variables that help gauge the extent of housing problems. Two measures the Census relies on to determine whether or not dwelling units are overcrowded are *persons per unit occupancy* and *persons per room*.

Overcrowding

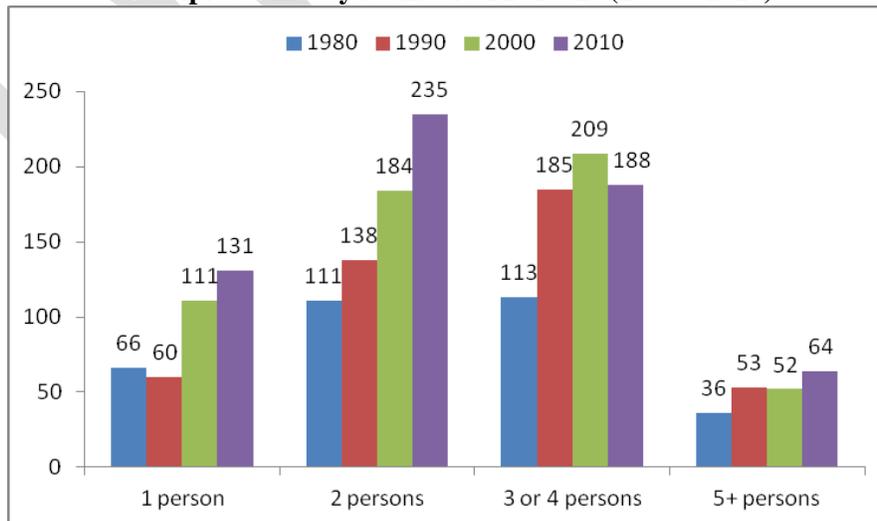
Table 15 presents four categories for examining household size. The census selects these categories on the basis of their social significance and their frequency of occurrence. The table shows that more units in Greenfield were occupied by 3-4 persons between the period of 1980-2000. However, this changed in the 2010 census data in which the largest category shifted to 2 persons per unit.

**Table 15:
Occupied Units by Number of Persons**

	1980		1990		2000		2010		% Change 1980 - 2010
	Number of Units	% of Total							
1 Person	66	20%	60	14%	111	20%	131	21%	98%
2 Persons	111	34%	138	32%	184	33%	235	38%	112%
3 or 4 Persons	113	35%	185	42%	209	38%	188	30%	66%
5+ Persons	36	11%	53	12%	52	9%	64	10%	78%
Total	326		436		556		618		
Persons/Unit	2.37		2.93		2.69		2.61		

Source: U.S Bureau of the Census 2010 Census Summary File 1

**Graph 9:
Occupied Units by Number of Persons (1980 – 2010)**



Source: U.S. Census Bureau

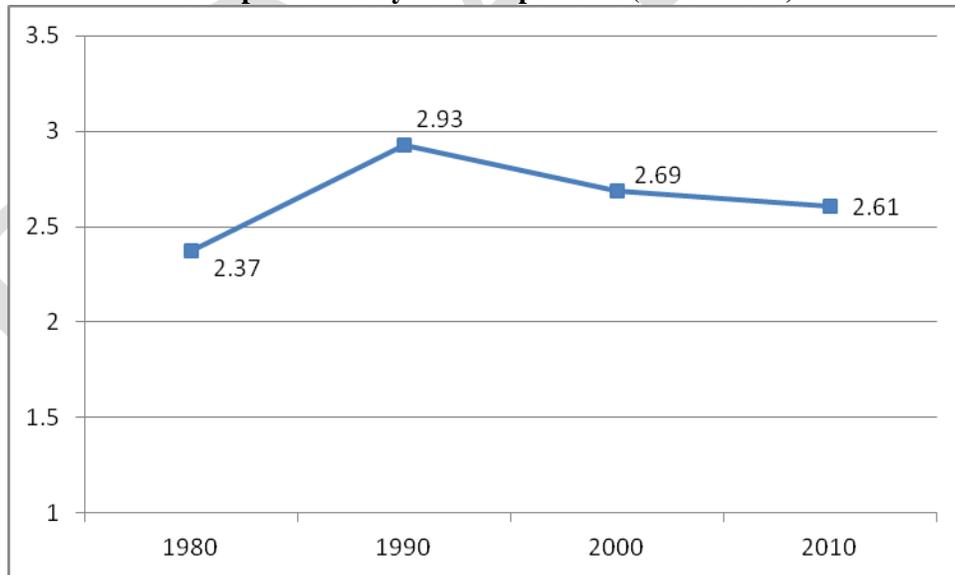
The Census defines an overcrowded unit as one that is occupied by more than one person per room. The data for Greenfield, illustrated in Table 16, indicate that overcrowding is not an issue. In all four time periods examined here, nearly 100% of the housing stock had a measure of 1.00 person per room, or less. Graph 10 provides a visual representation of occupied units by person per unit.

**Table 16:
Occupied Units by Persons per Room, 1980 – 2011**

	1980	% of Total	1990	% of Total	2000	% of Total	2011*	% of Total
1.00 or less	317	97%	431	99%	554	98%	550	100%
1.01 – 1.50	7	2%	4	0.90%	8	1%	0	0%
1.51 or more	2	0.30%	1	0.20%	1	0.20%	0	0%

Source: U.S. Census Bureau *United States Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table B25014

**Graph 10:
Occupied Units by Persons per Unit (1980 – 2010)**



Source: U.S. Census Bureau

Affordability

The information in this section is intended to determine how affordable and available housing is for people in Greenfield. Table 17 presents the relative cost of housing in Greenfield, based on the 2007-2011 American Community Survey data.

**Table 17:
Cost of Housing, Greenfield and Region, 1980 – 2011**

Median Housing Cost	1980	1990	2000	2011*	% Change 2000-2011
Greenfield House Value	\$49,900	\$120,200	\$124,300	\$244,700	96.9%
Greenfield Rent	\$208	\$514	\$687	\$725	5.5%
Regional Value	\$47,650	\$124,050	\$113,431	\$227,926	100.9%
Regional Rent	\$206	\$552	\$653	\$931	42.6%

Source: U.S. Census Bureau Summary Files; * 2011 ACS

Housing costs for both owners and renters have increased over the years, of course, as they have in the region and state as well; however, Greenfield's cost relative to the regional median housing costs have been fairly constant, being either just above or just below the median house values. The noticeable difference, however, is the sharp contrast between Greenfield rentals and regional rentals. The regional median rent value increased by 42.6% between 2000 and 2011, whereas, the Greenfield median rent values increased by only 5.5% during the same period.

Table 18 refines the data in the previous table by illustrating not just what people pay for housing, but what percentage those costs are of their income. It has been recognized that people in lower income brackets pay more proportionally for housing than do people in higher income brackets.

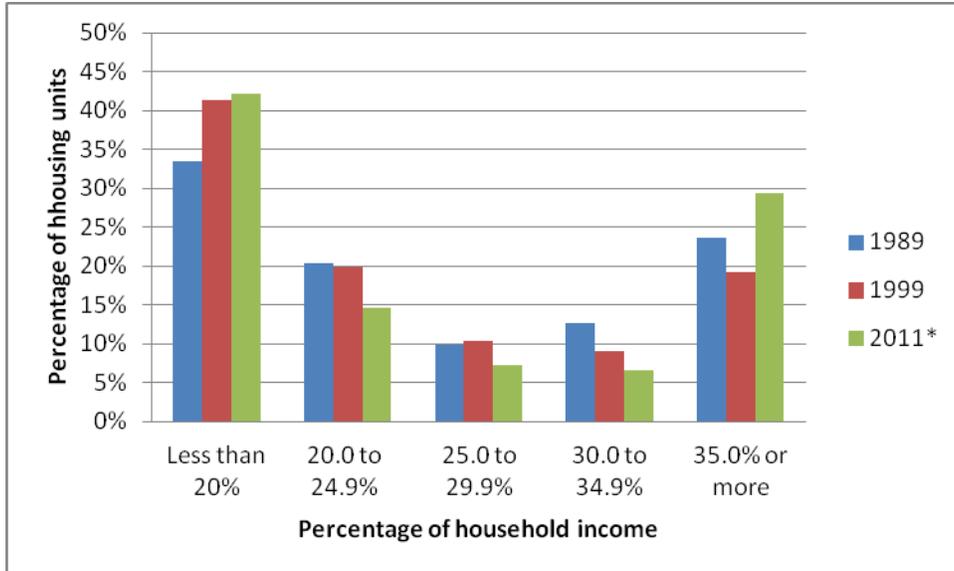
**Table 18:
Selected Monthly Owner Costs as a % of Household Income 1989, 1999, 2011***

	Owner-occupied units						Renter-occupied units					
	1989		1999		2011*		1989		1999		2011*	
Less than 20%	82	33.5%	127	41.4%	193	42.2%	13	27.7%	40	48.8%	23	33.8%
20.0 to 24.9%	50	20.4%	61	19.9%	67	14.7%	14	29.8%	14	17.1%	6	8.8%
25.0 to 29.9%	24	9.8%	32	10.4%	33	7.2%	3	6.4%	16	19.5%	10	14.7%
30.0 to 34.9%	31	12.7%	28	9.1%	30	6.6%	6	12.8%	0	0.0%	8	11.8%
35.0% or more	58	23.7%	59	19.2%	134	29.3%	11	23.4%	12	14.6%	21	30.9%
Total	245		307		457		47		82		68	
Not Computed	1		3		9		4		10		16	

U. S. Census Bureau 2000 Summary File 3 Table QT-H15, 1990 Summary Tape File 3A Tables H050 & H058 *Source: U. S. Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table C25095

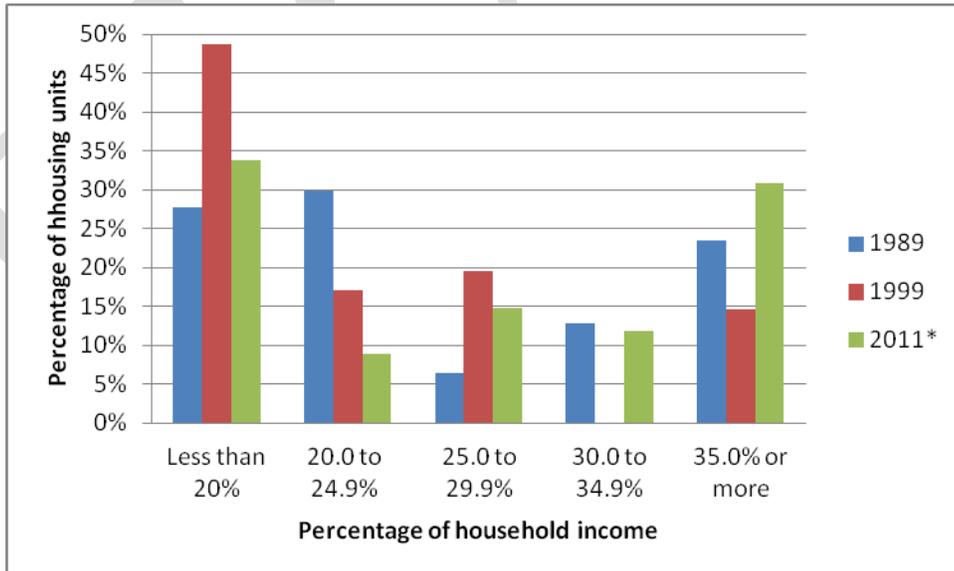
Changes in the economy, housing market and in the lending policies have had a dramatic affect on the statistics of homeownership, and will make it difficult to make projections based on past figures and trends. In addition, the difference in the data source and methodology may result in inaccuracies. According to the figures found in Table 18 and seen in Graph 11, approximately 36% of owner occupied households paid 30% or more of their monthly incomes on housing in 2011 which reflects an increase from the 1999 figure of 28%. The changes in the rental figures are more significant as can be seen in Graph 12. Approximately 43% of renters in Greenfield paid 30% or more of their monthly incomes in 2011 in contrast to 15% in 1999. Changes such as this may indicate that there is not enough rental property in Greenfield to meet the demand, which may result in higher rental rates.

**Graph 11:
Selected Monthly Owner Costs as a Percentage of Household Income (SMOCAPI)
1989, 1999, 2011***



Source: U. S. Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table C25095

**Graph 12:
Gross Rent as a Percentage of Household Income (GRAPI)
1989, 1999, 2011***



Source: U. S. Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table C25095

Based on the principle that no more than 30% of a household's income should be spent on housing to be considered affordable, the possibilities for home ownership in Greenfield are examined in the table below.

**Table 19:
Home Ownership Affordability in Greenfield, 2011**

2011* Median Household Income	\$71,667	80% of Median Household Income	\$57,334	50% of Median Household Income	\$35,834
30% of monthly income	\$1,792	30% of monthly income	\$1,433	30% of monthly income	\$896
Mortgage affordable at 4.5% for 30 years**	\$232,313	Mortgage affordable at 4.5% for 30 years	\$185,282	Mortgage affordable at 4.5% for 30 years	\$114,800
Downpayment (10%)	\$23,231	Downpayment (10%)	\$18,528	Downpayment (10%)	\$11,480
Total	\$255,544	Total	\$203,810	Total	\$126,280

Source: New Hampshire Housing Finance Authority Mortgage Qualifier Calculator

* U. S. Census Bureau 2007-2011 American Community Survey (ACS) 5-Year Estimates Table DP03

**includes 2011 property tax rate of 2.092%

**Table 20:
Home Value in Greenfield in 2011***

Owner-occupied units	466	
Less than \$50,000	9	1.9%
\$50,000 to \$99,999	4	0.9%
\$100,000 to \$149,999	17	3.6%
\$150,000 to \$199,999	59	12.7%
\$200,000 to \$299,999	264	56.7%
\$300,000 to \$499,999	78	16.7%
\$500,000 to \$999,999	31	6.7%
\$1,000,000 or more	4	0.9%

*Source: U. S. Census Bureau 2007-2011 American Community Survey 5-Year Estimates Table DP03

Under the three scenarios examined in the table, median income households could afford a home valued at \$255,544. Those, however, earning 80% or 50% of the median household income could afford a home valued at \$203,810 and \$126,280 respectively. Tabel 20 shows that the affordability of homes for the median family income and the 80% of the median family income category is being met since 56.7% of Greenfield homes range between \$200,000 to \$299,999. This may be somewhat misleading since it is not known how many of those homes are in the lower end of that range to meet the needs of those families falling in the 80% median family income category.

C. SUBREGIONAL HOUSING COMPARISONS

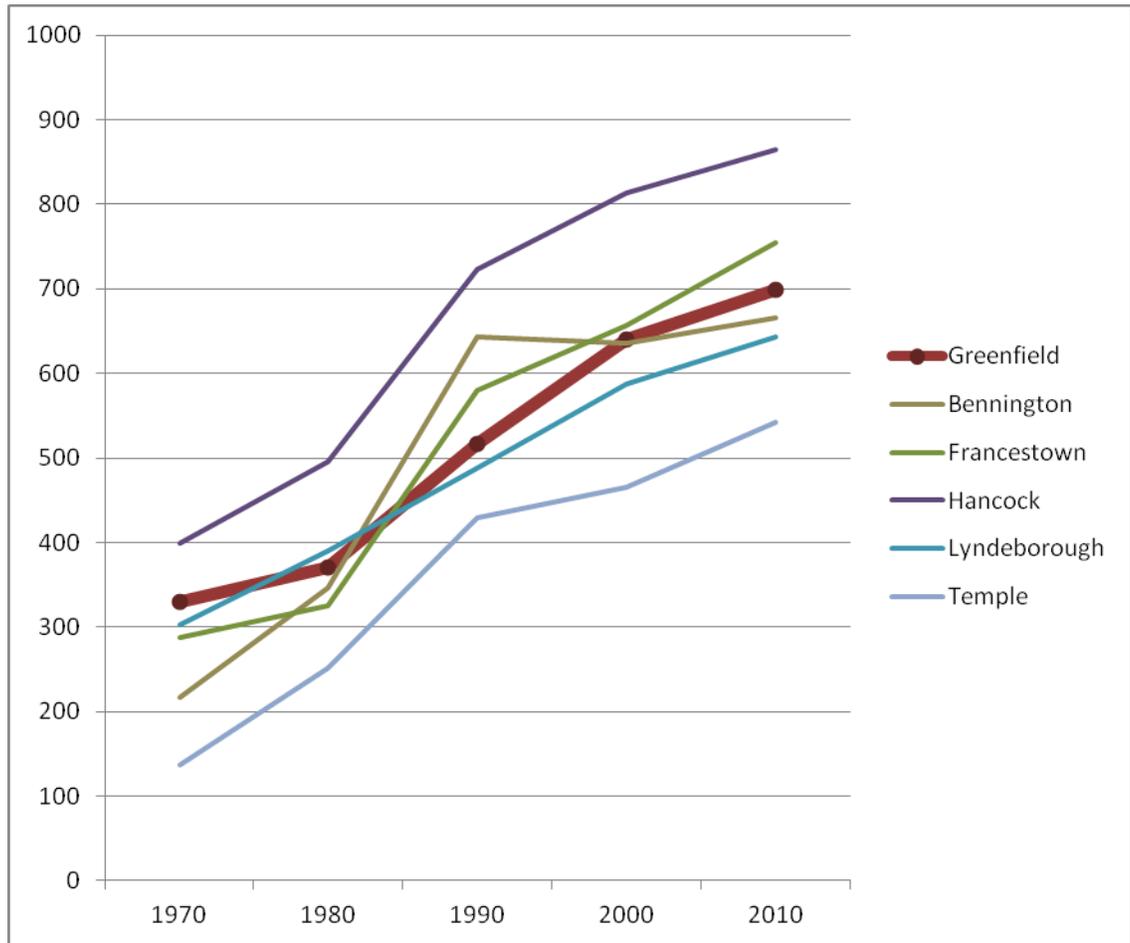
Housing data for the subregion is gathered to compare the towns using various housing characteristics. The following table presents the comparison of the total housing supply for Greenfield and its subregion from 1980 to 2010, and the percentage change from each decade.

**Table 21:
Subregional Housing Trends, 1980 – 2010**

ABSOLUTE NUMBER OF UNITS	1970	1980	1990	2000	2010
GREENFIELD	330	370	517	640	699
Bennington	217	347	643	635	666
Francestown	287	325	580	656	755
Hancock	399	495	723	814	864
Lyndeborough	303	390	488	587	643
Peterborough	374	1,952	2,242	2,509	2,956
Temple	137	252	429	465	542
TOTAL HOUSING UNITS	2,047	4,111	5,622	6,306	7,125
PERCENTAGE CHANGE	1970-1980	1980-1990	1990-2000	2000-2010	1970-2010
GREENFIELD	12%	40%	24%	9%	112%
Bennington	60%	85%	-1%	5%	207%
Francestown	13%	78%	13%	15%	163%
Hancock	24%	46%	13%	6%	117%
Lyndeborough	29%	25%	20%	10%	112%
Peterborough	422%	15%	12%	18%	690%
Temple	84%	70%	8%	17%	296%
PERCENTAGE OF TOTAL UNITS	1970	1980	1990	2000	2010
GREENFIELD	16%	9%	9%	10%	10%
Bennington	11%	8%	11%	10%	9%
Francestown	14%	8%	10%	10%	11%
Hancock	19%	12%	13%	13%	12%
Lyndeborough	15%	9%	9%	9%	9%
Peterborough	18%	47%	40%	40%	41%
Temple	7%	6%	8%	7%	8%

Source: U.S. Census Bureau

**Graph 13:
Subregional Housing Trends, 1970 – 2010**



Source: U.S. Census Bureau

The information presented in Table 21 is fairly consistent with the population statistics presented earlier in this chapter; namely, most of the growth seen in this region - in terms of both population and housing, occurred in the 1980s. Greenfield had the greatest percentage of increase in housing units among the subregional towns during the 1990-2000 period with a 24% change; however it had one of the lowest percentage of change in housing units during the period between 2000- 2010 with only 9% growth. Overall, Greenfield tied with Lyndeborough for the lowest increase during the period of 1970-2010, showing a 112% change while Peterborough experienced a 690% change and Temple experienced a 296% change.

D. HOUSING NEEDS ASSESSMENT

The enabling statute that addresses the development of Master Plans (RSA 674:2) requires that the housing section address current and future housing needs of all residents, at all income levels, of the town and the region in which it is located. In order to do that, opportunities for housing development in Greenfield are examined, as well as population

projections that give some indication as to what the town can expect in terms of housing needs for new population.

Housing Opportunity

In this section, the zoning provisions for Greenfield are reviewed, as they relate to opportunities for various housing types in the town, specifically which types are permitted and what the minimum lot requirements for those dwelling units are. Greenfield has four zoning districts that accommodate residential development. Examination of the Greenfield Zoning Ordinance reveals the following provisions that deal with the availability of housing:

**TABLE 22:
Housing Opportunities in Greenfield**

ZONING DISTRICT	PERMITTED HOUSING TYPES	LOT AND YARD STANDARDS
Business District	<ol style="list-style-type: none"> 1. Single Family Dwellings – Permitted by right. 2. Accessory Dwelling Units (attached)– Permitted by Special Exception. 3. Detached Accessory Dwelling Unit –Permitted by Special Exception. 4. Elderly Housing – Permitted by Special Exception 5. Multi-Family (up to 25 units, only for HUD-eligible elderly). – Permitted by Right 	<ul style="list-style-type: none"> ◆ 1.5 acres with 150 feet of frontage ◆ 50-foot front setback ◆ 25-foot side & rear setback
Village District	<ol style="list-style-type: none"> 1. Single Family Dwellings – Permitted by right. 2. Accessory Dwelling Unit (attached) –Permitted by Special Exception. 3. Detached Accessory Dwelling Unit –Permitted by Special Exception. 4. Elderly Housing – Permitted by Special Exception 	<ul style="list-style-type: none"> ◆ 2 acres with 250 feet of frontage ◆ 100-foot front setback ◆ 50-foot side & rear setback
General Residence	<ol style="list-style-type: none"> 1. Single Family Dwellings – Permitted by Right. 2. Detached Accessory Dwelling Units –Permitted by Special Exception 3. Elderly Housing – Permitted by Special Exception 4. Multi-Family, up to 4 units – Permitted by Right. 5. Manufactured Housing – Permitted by Right 	<ul style="list-style-type: none"> ◆ 2 acres with 250 feet of frontage ◆ 100-foot front setback ◆ 50-foot side & rear setback
Rural/Agricultural	<ol style="list-style-type: none"> 1. Single Family Dwellings – Permitted by Right 2. Accessory Dwelling Units(attached) –Permitted by Special Exception 3. Detached Accessory Dwelling Units –Permitted by Special Exception 4. Elderly Housing – Permitted by Special Exception 	<ul style="list-style-type: none"> ◆ 4 acres with 350 feet of frontage ◆ 100-foot front setback ◆ 50-foot side & rear setback

Source: Town of Greenfield Zoning Ordinance

Future Housing Need

In order to estimate what the potential need for housing will be in the future, the available data on housing characteristics and population growth must be reviewed along with estimates for growth in population, and therefore housing need. Between 2000 and 2011,

the increases in both housing stock and population were very close 9% and 5.6% respectively, indicating that population growth did not outstrip housing need over this time period. Further, the census data show that, in general, Greenfield's housing stock is in good condition and the incidence of overcrowding of dwelling units is very low.

The NH Office of Energy and Planning (NH OEP) population projections can be used to estimate future housing need, based on a person per unit estimate. The projections for Greenfield and surrounding towns are presented below in five-year intervals up to the year 2030, beginning with the Census count from the year 2010.

**Table 23:
Subregional Population Projections**

	2010	2015	2020	2025	2030	# Increase	% Change
						2010-30	2010-30
GREENFIELD	1,749	1,930	2,010	2,080	2,150	401	22.9%
Bennington	1,476	1,640	1,700	1,760	1,820	344	23.3%
Francestown	1,562	1,750	1,830	1,920	2,000	438	28.0%
Hancock	1,654	1,920	1,990	2,050	2,120	466	28.2%
Lyndeborough	1,683	1,880	1,960	2,040	2,110	427	25.4%
Peterborough	6,284	6,670	6,890	7,120	7,350	1066	17%
Temple	1,366	1,640	1,700	1,750	1,810	444	32.5%

Source: NH Office of Energy and Planning –Projections June 2007

Greenfield's future housing need is estimated based on this projected population by dividing population by housing units to reach a person per unit figure. A person per unit figure can be calculated for the past decades: 2.37 in 1980, 2.93 in 1990, 2.69 in 2000, and 2.61 in 2010. In order to calculate future housing need, a reasonable person per unit figure for the future must be assumed; in this case, since the figure fluctuated up and then down, a simple average will be used here, which is 2.65 out to the year 2030. The following calculations will use two possible scenarios: one using the OEP projected population increase over the next twenty years; the other using the known past population increase between 1980 and 2010.

**Table 24:
Housing Needs Assessment**

Methodology Used	Population Units Increase	Projected Populations	Persons Per Unit	Total Housing Needed
Past Trend Method	15%	2,014	2.65	760
Projection Based Method	18%	2,150	2.65	811

Source: NH OEP Population Projections and U.S. Census Bureau

Thus, if Greenfield were to experience the same level of population growth between now and the year 2030 (using the Past Trend Method) as it did between 1990 and 2010, the need for housing units would increase from the current 699 to 760 units. This would amount to an additional 61 units by the year 2030, which means approximately 3 units per year (from 2010-2030) need to be built to keep up with the population demand. If, on the other hand, the Projection-Based Method was correct, the Town would expect an increase in demand of 112 housing units, or 5.6 units per year between 2010-2030,- Given either scenario, it seems reasonable to expect the town to be able to accommodate these projected housing increases.

It is critical for a town to have a housing stock that meets the needs of all residents to maintain a healthy diversity. Having the necessary regulations that enable a range of housing options will help to ensure that there are no regulatory barriers for residential development.

Nevertheless, there are other housing issues to be considered that are not addressed by the current zoning provisions; in particular, the availability of housing for the elderly. Based on updated national census information, the country can expect to see a continued increase in the number of elderly residents (those aged 65 and over). In Greenfield, the age categories with the most residents in 2010 are the four consecutive groups between the ages of 40 – 59 accounting for 36% of the total population (see Table 2). In 20 years, this group will be between the ages of 60-79 years old.

At this time, the elderly population in Greenfield amounts to 9.3% of the total population of the town; granted, this is not a significant proportion of townspeople, but as Table 2 illustrates, it represents nearly a 60% increase since 2000. However, as important as the existing elderly population, is the potential for the smaller group of middle-age residents of Greenfield needing to provide care for aging parents - in the form of on-site housing accommodations. Therefore, the Planning Board recognizes the need to examine these issues at this time and prepare for future situations.

V. Planning Strategies

The availability and affordability of housing should be monitored carefully, and the estimated need adjusted as new information is obtained. As a result of the information and analysis presented in this section, the Planning Board offers the following as strategies to be considered by the town in addressing the housing issue on an on-going basis:

1. Investigate the possibilities of obtaining Community Development Block Grants for the rehabilitation and repair of existing substandard units in the housing stock.
2. Consider to include innovative approaches to providing housing options to all income levels, people with disabilities, and household size as new planning tools become available.