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Kenneth P. Hadden

University of Connecticut - Storrs

William H. Groff

University of Connecticut - Storrs

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By Kenneth P. Hadden and William H. Groff
Department of Agricultural Economics and Rural Sociology

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School Enrollment in Connecticut, 1980: Past Trends and Future Prospects

By Kenneth P. Hadden and William H. Groff*

Introduction

Towns and municipalities throughout the State of Connecticut are charged with responsibility for providing elementary and secondary educations for their young citizens. The magnitude of this responsibility is primarily a function of the number of school age children present in any particular town. The size of the local school age population is, in turn, primarily a function of past levels of fertility and of migration patterns of families with young children.

The "baby boom" period following WW II and lasting until around 1962 saw high rates of fertility in Connecticut and the nation as a whole. The large increases in school age populations which resulted from the "baby boom" required many towns to construct new schools and to expand their teaching and support personnel during the 1950's and 1960's. By 1980 the last of the "baby boom" cohorts were completing their secondary educations; the immediate effects of the "baby boom" had just about run their course as far as town school systems were concerned. Since the termination of the "baby boom," Connecticut's crude birth rate (the number of live births per 1000 population) has trended down; in 1960, this rate was 22.3, dropping to 16.7 in 1970 (Steahr, 1973a) and falling even further to 12.5 in 1980 (Conn. Dept. of Health Services, 1983). The major implication for local school districts of this large decline in fertility is reduced demand for school facilities and increases in the size of the "reserve" teaching force.

Of course, the overall fertility decline which the state has experienced does not necessarily translate into declines in school enrollment in every town. In some towns the birth rate has not declined nearly as much as in others. Even more important, some towns have attracted numbers of

Assistant Professor and Associate Professor, respectively, Department of Agricultural Economics and Rural Sociology.

TABLE 1: School Enrollment (Numbers and Percent Distribution) by Single Years of School, Connecticut: 1950, 1960, 1970, 1980.

Grade	<u>1950</u>		<u>1960</u>		<u>1970</u>		<u>1980</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Kindergarten	22,575	6.9	44,479	7.9	57,163	7.5	39,414	6.1
Elementary	223,055	68.0	382,721	68.3	491,412	64.2	383,414	59.2
1st	36,340	11.0	53,543	9.5	62,706	8.2	40,873	6.3
2nd	34,695	10.6	52,639	9.4	62,095	8.1	42,719	6.6
3rd	29,160	8.9	48,641	8.7	62,492	8.2	47,268	7.3
4th	25,760	7.9	45,399	8.1	60,377	7.9	49,192	7.6
5th	24,350	7.4	45,407	8.1	62,616	8.1	49,297	7.6
6th	24,860	7.6	46,058	8.2	61,889	8.1	48,893	7.6
7th	24,020	7.3	47,926	8.5	61,159	8.0	51,220	7.9
8th	23,970	7.3	43,108	7.7	58,078	7.6	53,952	8.3
High School	82,470	25.1	133,528	23.8	217,027	28.3	224,705	34.7
Freshman	20,780	6.3	35,845	6.4	59,616	7.8	58,343	9.0
Sophomore	20,280	6.2	33,794	6.0	56,202	7.3	58,755	9.1
Junior	18,140	5.5	32,123	5.7	50,992	6.8	55,169	8.5
Senior	23,270	7.1	31,766	5.7	50,217	6.5	52,438	8.1
TOTAL	328,100	100.0	560,728	100.0	765,602	100.0	647,533	100.0

Sources: U.S. Bureau of the Census, 1952, Table 63; 1962, Table 101; 1972, Table 146; 1983, Table 201.

families with school age children. In combination, these two factors suggest that while many towns indeed have smaller school populations than they did a decade ago, others may well now have greater demands placed on their schools.

A major objective of this report is to examine in detail the past trends and the prospects for the immediate future of school enrollment for each of Connecticut's 169 towns. Before we turn to this examination, however, we will discuss recent trends in school enrollment for the state as a whole. These two objectives were the focus of an earlier report on the same topic based on the results of the 1970 U.S. Census of Population (Hadden, *et al.*, 1974).

Recent Trends in School Enrollment

Total school enrollment in Connecticut grew by over 200 thousand during both the 1950's and the 1960's reaching a peak of over 765 thousand in 1970. Between 1970 and 1980, however, enrollment declined by almost 120 thousand students (Table 1). Just as the large increases in enrollment during the 50's and 60's were due to the "baby boom" cohorts entering school age, the large decrease during the 70's results from the passing of the "baby boom" cohorts through school. That this process was not yet quite completed is evident when we look at the information in Table 2. Enrollment declines occurred at every grade up through the first year of high school indicating that the progressively smaller post-baby boom cohorts had advanced that far; note, too, that the declines were greatest at the lowest grades. Even those grades which continued to experience growth during the 70's (high school sophomores, juniors and seniors) did so at low rates.

We observed some ten years ago that "the decade of the 70's will see smaller increases in school enrollment at all levels than during the 1960's; in fact, it seems entirely possible that absolute decreases in the size of kindergarten and primary school population may occur during the 1970's" (Hadden *et al.*, 1974, p. 2). That, as we have just indicated, is what happened. And barring an abrupt and dramatic change in migration patterns, the decade of the 80's will see a comparable decline in high school enrollment.

The continuing decline in the crude birth rate, noted in the Introduction, makes it likely that further decreases in kindergarten and primary enrollments will occur during the 1980's. Just how large and sustained a decrease this turns out to be will depend upon the future courses of fertility in and migration into Connecticut. Based upon what we now know, we anticipate that the 1990 Census of Population will show that enrollment in most primary and all secondary grades has decreased in comparison to 1980 levels; the largest percentage declines are almost certainly to be observed at the high school grades.

We should hasten to add, although evidence is quite sketchy at this time, that the long awaited and often discussed baby boom "echo" is likely to occur during the 1980's. The "echo" refers to an anticipated upswing in

TABLE 2: Interdecade Percentage Change in School Enrollment by Single Years of School, Connecticut: 1950-60, 1960-70, 1970-80.

Grade	Percent Change 1950-60	Percent Change 1960-70	Percent Change 1970-80
Kindergarten	97.0	28.5	-31.0
Elementary	71.6	28.4	-22.0
1st	47.7	17.1	-34.8
2nd	51.7	18.0	-31.2
3rd	66.8	28.5	-24.4
4th	76.2	33.0	-18.5
5th	86.7	37.9	-21.3
6th	85.3	34.4	-21.0
7th	99.5	27.6	-16.3
8th	79.8	34.7	-7.1
Secondary	61.9	62.5	3.5
Freshman	72.5	66.3	-2.1
Sophomore	66.6	66.3	4.5
Junior	77.1	58.7	8.2
Senior	36.5	58.1	4.4
TOTAL	70.9	36.5	-15.4

Source: U. S. Bureau of the Census, 1952, Table 63; 1962, Table 101; 1972, Table 146; 1983, Table 201.

numbers of children being born (even if the birth rate itself does not increase) as a result of the larger number of couples in prime child bearing ages; these couples are of the baby boom generation, and their children constitute the "echo" of the baby boom. It is impossible to say how loud this echo will be, if it does occur, or when it will manifest itself. On one hand, the echo may be substantial and concentrated in time, say the mid-80's, and result in sizable enrollment increases in kindergarten and the lower elementary grades by 1990 in some Connecticut towns. On the other hand, the echo may be so spread out in time, in part as the result of changes in age patterns of fertility, that its effects are scarcely noticeable as far as school enrollment is concerned. The latter seems most likely at this point, although the former remains a distinct possibility.

The implications of these past and anticipated enrollment trends are obvious: fewer and smaller schools will be required, the size of the state's primary and secondary teaching and support employment will decline further, and the aggregate cost of providing primary and secondary education *should* therefore decrease. While these conclusions seem sound on a state-wide basis, there will be considerable variation on a town-by-town basis. Before we look in detail at the 169 Connecticut towns, we will discuss measures devised by the U.S. Bureau of the Census to infer the demand to be placed on local (i.e., town) school systems during the 1980's and will also provide a relative measure of each town's ability to bear the burden of educating its school age population. It is to these issues that we now turn.

School Load and School Need Defined

The U.S. Bureau of the Census (1967) has suggested the use of two measures to assess the size of the school age population relative to the working age population which supports it — the index of school load; and to assess the likely need for more or fewer school facilities and personnel in the immediate future — the index of school need. We will discuss each of these in turn, drawing heavily upon our earlier (Hadden *et al.*, 1974) discussion of the measures.

INDEX OF SCHOOL LOAD: It is the working age population in any community which directly or indirectly bears the cost of educating the young. Accordingly, we define the

$$\text{Index of School Load} = \frac{\text{Number of Children Aged 6-17}}{\text{Number of Adults Aged 18-64}}$$

This index is especially useful for comparing either a town's school load at one point in time with another point in time or school loads for several towns with each other at a single point in time. The higher the index of school load, the more burdensome is the education of children to the local population.

It should be noted that this measure does not deal directly with either the level of wealth or the pending order to reallocate funding to towns for

public education (Horton v. Meskill). In effect, the index assumes these to be the same from one town to another and over time in the same town. The index is therefore a "rough" measure of school load since at best these assumptions will be only approximately met. An index of .25 signifies that there are 25 school age children for every 100 working age adults while an index of .50 indicates that there are 50 school age children for every 100 working age adults. An index of .50 or higher indicates that an area has an unusually large school load burden.

For the state, the index of school load was .37 in 1960, went up to .41 in 1970 and then dropped sharply to .32 in 1980. The relatively high and increasing indexes in 1960 and 1970 reflect the large increases in the school age population occasioned by the "baby boom." The sharp decline in 1980 is the result of the simultaneous post baby boom drop in the school age population and the entry of the baby boom generation into adulthood.

INDEX OF SCHOOL NEED: It is possible to measure the extent to which demand for school facilities and personnel is changing in a town if we can make the following simplifying assumptions:

1. mortality rates among the population under 18 years old remain constant at the current very low level (Steahr, 1973b).
2. net migration rates of the population under 18 years old remain constant.
3. The "drop-out" rate among those students who are not compelled by law to attend school remains low.
4. school facilities and employment policies remain unchanged during the time period under consideration.

Because all but the first of these assumptions may be problematic, the indexes of school need defined below must be characterized as crude.

The index of school need for the lower grades is based on the following logic: the population which was five years old or younger in 1980 will have entered school by 1985 or 1986. In effect, this group will be replacing the population which was between the ages of six and eleven, inclusive, in 1980. If the younger group is larger than the older, the index of school need (lower) will be greater than 1.00 and future need for school facilities and personnel will increase. Likewise, if the younger group is smaller than the older group it is replacing, the index of school need (lower) will be less than 1.00, reflecting a future decrease in the need for school facilities and personnel. Formally, this measure of the lower school need is defined as:

$$\text{Index of Lower School Need} = \frac{\text{Number of Children Ages 0 to 5}}{\text{Number of Children Ages 6 to 11}}$$

For the state the index of lower school need was 1.16 in 1960, reflecting the impending increased demand for elementary facilities and personnel during the 1960's; it declined to .86 in 1970, indicating the contracting need for those facilities during the 1970's and which we saw in Table 2 ac-

tually occurred; the index decreased even further to .83 in 1980 which also indicates a continuing of the decline in elementary school need during the 1980's.

A similar logic holds for the upper grades as well. In this case it is the population between the ages of six and eleven, inclusive, in 1980 which will replace the population between twelve and seventeen, inclusive, by 1985 or 1986. This replacement, of course, occurs in the upper grades. The interpretation of the index of upper school need, defined below, is analogous to the lower school need index; that is, an index above 1.00 indicates an increase in demand and an index below 1.00 a decrease in demand for facilities and personnel at the upper grades.

$$\text{Index of Upper School Need} = \frac{\text{Number of Children Aged 6-11}}{\text{Number of Children Aged 12-17}}$$

On a state-wide basis the pattern of indexes of upper school need is the same as for the lower school need — declining over the twenty year period from 1960 to 1980. In 1960 the upper school need index was 1.17 (lower was 1.16) indicating the impending expansion of upper grade demand during the 1960's occasioned by the baby-boom generation. By 1970 the upper need index declined to 1.04 (lower was .86), showing the lag experienced in the upper grades by the passage of the baby-boom generation through the school system; the 1970 index, although exceeding 1.00, was only slightly above unity, suggesting only slight growth in demand for upper grade facilities and personnel during the 1970's, borne out by Table 2. By 1980 the state's upper need index (.81) had actually declined to a point below that for the lower grades (.83); this indicates that demand for facilities and personnel at the upper grades will experience a strong contraction during the decade of the 1980's, in much the same fashion as experienced by the lower grades during the 1970's. Table 3 below summarizes the trend in the indexes of load and need for the state over the 1960 to 1980 period.

TABLE 3: Indexes of School Load and School Need for Connecticut: 1960, 1970 and 1980.

Year	Index of School Load	Index of Lower School Need	Index of Upper School Need
1960	.37	1.16	1.17
1970	.41	.86	1.04
1980	.32	.83	.81

Source: Hadden et al., 1973, Table 2; U. S. Bureau of the Census, 1982, Summary Tape File 2.

In summary, we have seen that Connecticut's working age population is supporting fewer school age children than at any time in the past two decades. Further, the indexes of school need clearly indicate that the elementary and secondary school populations in Connecticut will decline further during the 1980's, barring an abrupt reversal of current fertility and migration patterns. The conclusions reached concerning trends in school enrollment, school load and school need for the state almost certainly will not hold uniformly for all of the towns in the state. In the next section we will assess the past trends and future prospects for the 169 towns in Connecticut.

School Load and School Need in Connecticut Towns

Appendix Tables I through VIII present the indexes of school load and school need for 1970 and 1980 for each town; these tables are arranged on a county-by-county basis. Appendix Tables IX through XVI provide the relevant age data for the computation of the indexes; these are arranged on a county-by-county basis.

School Load:

The indexes of school load, presented in Appendix Tables I through VIII, reveal a range of scores from a low of .11 (Mansfield) to a high of .49 (Norfolk). These and the other index scores to be discussed should be treated with caution since they reflect a combination of past fertility and age-specific net migration patterns which affect the age composition of towns. Only a detailed town-by-town analysis of these factors can provide valid explanations of the differences and similarities in the indexes from one town to another or of the changes that occurred in any particular town between 1970 and 1980. The low school load index for Mansfield is a case in point; the large number of young adults attending The University of Connecticut at Storrs, on the one hand, are counted among the town's working age population even though their contribution to the local tax base is small and, on the other hand, are mostly unmarried and do not have much effect on the school age population of the town. In effect, the very low index for Mansfield is an artifact of the University population; this illustrates the necessity for bringing other information to bear when interpreting these indexes and, later, the indexes of school need.

In spite of these limitations, the indexes of school load do show that there has been a widespread decline in these indexes in 1980 as compared with 1970. Only one town — Canaan — showed an increase during the decade, albeit a very small increase from .35 to .37. Two other towns — Hartford at .33 and Ledyard at .40 — had no change in their indexes. The remaining 166 towns all had lower indexes of school load in 1980 than they did in 1970; a total of nine towns decreased by .20 or more, with South

TABLE 4: Rates of Population Change, Natural Increase and Net Migration, 1970-1980, by Levels of School Load, 1980: Connecticut Towns.

Index of School Load, 1980	Number of Towns	Average Population Size, 1980	1970-1980 Rates (Per 100) of:		
			Population Change	Natural Increase	Net Migration
.40 or more	16	11,722	19.8	6.7	13.1
.35 - .39	57	10,441	10.7	5.2	5.5
.30 - .34	59	19,764	-0.3	4.8	-5.1
Less than .30	37	30,853	-1.2	3.1	-4.3
TOTAL	169		2.5	4.3	-1.8

Sources: Appendix Tables I-VIII; Groff, 1982.

Windsor having the largest decline (from .63 to .36) and Preston and Eastford the next largest (from .53 to .28 and .58 to .33, respectively). Overall, the working age population of almost all Connecticut towns was supporting fewer school age children in 1980 than in 1970.

In 1960, there were 42 towns with indexes of .50 or greater; by 1980 no town had an index that large. Figure 1 shows the locations of towns according to the level of school load in 1980. Sixteen towns had indexes between .40 and .49; these towns are all either suburban (especially in Fairfield County where half of these towns are located) or rural. Central cities of metropolitan areas* all had indexes of .34 or less. This geographical pattern suggests that higher levels of school load are associated with population growth and that lower levels are generally associated with population decline (Groff, 1982).

This speculation is borne out by information presented in Table 4. Those towns with relatively high indexes of school load had: (a) relatively small population sizes, (b) relatively high rates of natural increase, and (c) population increases as the result of net migration gains. In distinct contrast, towns with relatively low indexes of school load had on the average: (a) relatively large population size, (b) relatively low rates of natural increase, and (c) population losses as the result of more out-migration than in-migration. Overall, the pattern of natural increase and net migration during the 1970's resulted in high rates of population growth for the towns with high indexes of school load in 1980 and population losses for towns with low school load indexes.

The information provided by Figure 1 and Table 4 suggest the following interpretations: some towns, mostly suburban and rural, experienced fairly high rates of population growth during the 1970's through both natural in-

*These are the towns of Stamford, Norwalk, Bridgeport, New Haven/West Haven, Danbury, Waterbury, New Britain, Meriden, Bristol, Hartford and Norwich/New London.

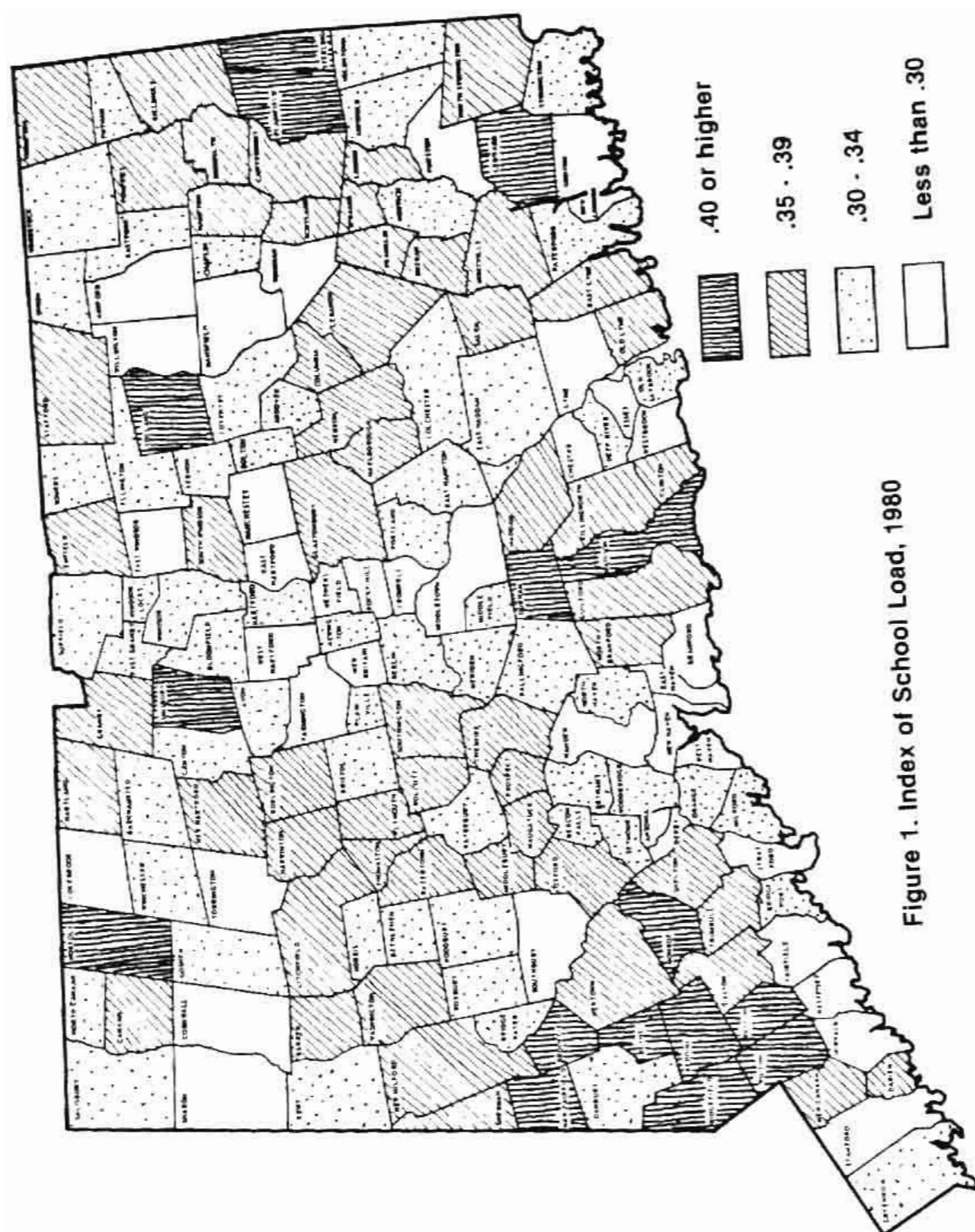


Figure 1. Index of School Load, 1980

crease (thereby increasing their school age populations relative to working age populations) and net in-migration of families with school age children; these towns accordingly had relatively high indexes of school load. Other towns, covering the spectrum of urban, suburban and rural, had in the aggregate population losses due to net out-migration (perhaps of many of the same families with school age children who moved to towns with higher school load indexes) and lower levels of natural increase (thereby adding only modestly to their school age populations); these towns, as a result of these trends, had low levels of school load.

In summary, the working age populations in almost all of Connecticut's towns were supporting fewer school age children in 1980 than in 1970. This derives from the aging of most town populations as a result of the growing up of the unusually large baby boom cohorts. However, some towns — those with the largest number of births during the 1970's relative to deaths and with the largest number of in-migrants relative to out-migrants during the 1970's — maintained relatively high indexes of school load. It seems that one of the costs of rapid population growth may be an unfavorable ratio of school age children to working age adults. Suburban and rural towns must bear these costs as a consequence of relatively high levels of fertility and/or high levels of in-migration of families with school age children.

School Need: Recent Trends

Appendix Tables I-VIII show the indexes of upper and lower grade school need in 1980 for each Connecticut town. The highest index scores for lower grade need in 1980 were 1.18 in New London and 1.17 in Groton; a total of six towns had scores greater than 1.00, indicating an increasing need for school facilities and personnel in those towns. The lowest lower grade need index score in 1980 was .48 for Weston; this was the only town with a score of less than .50 which indicates a halving of lower grade needs for facilities and personnel over the first five to six years of the 1980's. By way of comparison, in 1970 the highest lower grade need score was 1.13 in Marlborough and the lowest score was .51 in Eastford.

The highest upper grade school need index score in 1980 was 1.22 in Marlborough while the lowest was .61 in Westport. In 1970 the highest score was 1.53 in Tolland and the lowest was .77 in New Canaan. These scores, as well as those reported in the preceding paragraph, are shown at the bottom of Table 5. We see that the small decline in the mean lower grade school need index between 1970 and 1980 was accompanied by a modest widening of the range of scores. For upper grade school need, the sharp decrease in the mean from 1.04 to .81 between 1970 and 1980 was accompanied by large declines in both the upper and the lower limits of the range; the entire distribution of upper grade need indexes shifted sharply downward during the decade of the 70's, clearly indicating a lessening of

TABLE 5: Distributions, Means and Ranges of Lower and Upper Grade School Needs for Connecticut Towns: 1970, 1980.

Indexes of School Need	Lower Grade School Need		Upper Grade School Need	
	1970	1980	1970	1980
.90 or more	47	32	152	36
.80-.89	58	48	15	60
.70-.79	41	47	2	52
Less than .70	23	42	0	21
TOTAL	169	169	169	169
Mean Index Score	.86	.83	1.04	.81
Highest Score	1.13	1.18	1.53	1.22
Lowest Score	.51	.48	.77	.61

Sources: Hadden et al., 1973, Appendix Tables I-VIII; U. S. Bureau of the Census, 1982, Summary Tape File 2.

need for upper grade facilities and personnel generally in Connecticut towns.

Focus now on the upper portion of Table 5, where the distributions of towns across categories of upper and lower grade need in both 1970 and 1980 are displayed. These distributions, and the changes in them, support the foregoing observations. There was a decline of 25 in the number of towns with scores of .80 or more on the lower school need index and, of course, a corresponding increase in the number of towns with scores of less than .80 between 1970 and 1980. There was a much more striking decline of 116 in the number of towns with scores of .90 or more on the upper school need index between 1970 and 1980; and a marked increase of 71 in the number of towns with scores below .80. Clearly, the decade of the 1970's saw a modest decline in the number of towns with relatively high scores on the lower grade need index and a pronounced decrease in the number of towns with high upper grade need indexes. Further, almost all towns in the state had lower and upper need scores indicating a diminishing need for public educational personnel and facilities throughout the range of school grades.

LOWER GRADE SCHOOL NEED: Figure 2 indicates the geographical distribution of towns according to their level of lower school need indexes. Towns with relatively high* (.90 or more) indexes cover the range of metropolitan, suburban and rural; most of the state's central cities of

*Bear in mind that many towns in the "high" category have indexes of less than 1.00, indicating that their lower grade need is actually declining.

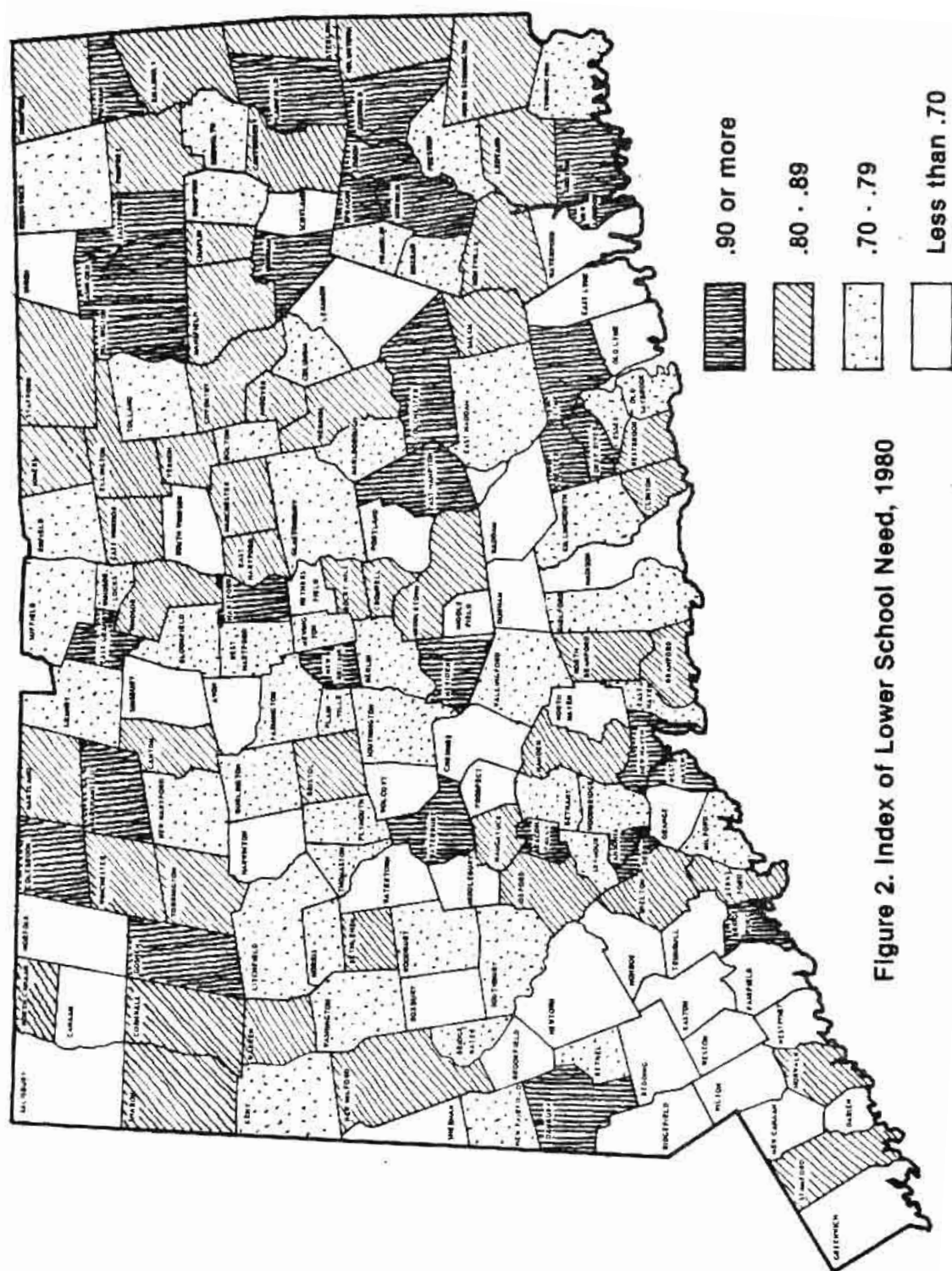


TABLE 6: Rates of Population Change, Natural Increase and Net Migration, 1970-80, by Levels of Lower School Need, 1980: Connecticut Towns.

Index of Lower School Need	Number of Towns	Average Population Size, 1980	1970-1980 Rates (Per 100 Population) of:		
			Population Change	Natural Increase	Net Migration
.90 or more	32	31,204	-4.3	5.5	-9.8
.80-.89	48	18,744	4.4	4.8	-0.4
.80-.79	47	13,233	7.8	3.5	4.3
Less than .70	42	14,078	6.6	1.9	4.7
TOTAL	169	18,388	2.5	4.3	-1.8

Sources: Appendix Tables I-VIII; Groff, 1982.

metropolitan areas are in this group (only Stamford, Norwalk and Bristol are not). But a number of suburban (e.g., Derby, Beacon Falls, Sprague, Lisbon and Griswold), rural (e.g., Ashford, Eastford, Plainfield, Colebrook, Goshen, Chester, Lyme) and small urban areas (e.g., Windham, Putnam), with considerable geographical scattering, are also in this group. The same sort of observations hold for the other three categories of lower need, too, except that central cities are absent from the two lowest (indexes below .80) categories. In short, Figure 2 reveals no geographical pattern with respect to lower grade school need indexes.

Table 6 shows the average population size in 1980 and rates of population change, natural increase and net migration between 1970 and 1980 for towns classified according to their level of lower grade school need index. Several general patterns are clear from this table. First, the higher the lower need index, the larger the average population size; the large average size of the 32 towns with indexes of .90 or higher reflects the earlier observation that most of the state's large cities are in this category.

Second, there is a direct relationship between the lower need index value and the rate of natural increase. Towns which on the average had the greatest excess of births over deaths also had the highest lower need indexes; correspondingly, towns which grew very little through natural increase had the lowest indexes of lower grade need. High rates of natural increase generally add larger numbers of young children to the local population than lower rates of natural increase; not surprisingly, the towns with high rates of natural increase were increasing (or at least almost maintaining) their lower school grade populations and thus have relatively high indexes.

Third, the relationship between levels of lower school need and net migration are the reverse of the relationship with natural increase. Here,

the towns with the lowest indexes of lower school need had the highest population growth through migration, while those with the highest need indexes were on the average losing almost ten percent of their population as a result of migration. Without detailed information concerning the characteristics of the migrants into and out of Connecticut towns, this finding is difficult to interpret. We may, however, speculate: the simplest explanation involves a general net loss by 1980 of families with elementary school age children in towns with lower need indexes of .90 or greater; this would result in the 1980 preschool age population being larger than or nearly as large as the elementary age group that the former group is currently replacing in school. Of course, these families which were migrating out must arrive elsewhere. Their destinations, according to this view, were those towns with lower need indexes of less than .80 (which grew through net migration); a consequence of the in-migration of families with elementary school age children is to increase that population such that its successor (i.e., pre-school age children) is considerably smaller in size, resulting in low scores on the index of lower school need. Even though this simple model accounts for the pattern we see in Table 6, the situation is probably a good deal more complicated.

Finally, the joint effects of natural increase and net migration produce the pattern of population change rates across the categories of lower grade school need shown in Table 6. In general, the higher the level of population growth, the lower the need index for lower grades. Because population change derives from the other two rates already discussed, no special interpretation is required. There is, however, an implication: those towns with increasing populations and presumably expanding tax bases have declining needs for elementary school facilities and personnel; towns which are declining in population (and tax bases) continue nonetheless to have the greatest need for elementary facilities and personnel.

UPPER GRADE SCHOOL NEED: Figure 3 indicates that towns with upper school need indexes of .90 or more are concentrated in the extreme western and throughout the eastern part of the state; in general, towns in the category are rural in character, although a few are central cities (Danbury, Bridgeport) and suburbs. Towns at the other extreme (upper need indexes below .70) are mostly suburban and many are located along the southern coastal area of the state.

Table 7 provides the same information for upper need index categories as Table 6 did for lower need. Such patterns as are evident in Table 7 are far less regular than was the case in the preceding section. Nonetheless, a couple of points deserve discussion. First, on the average the towns with the largest upper need index scores (.90 and higher) had the smallest populations of the four categories; this is consistent with the point just made that most towns in this category are rural and contrary to the situation

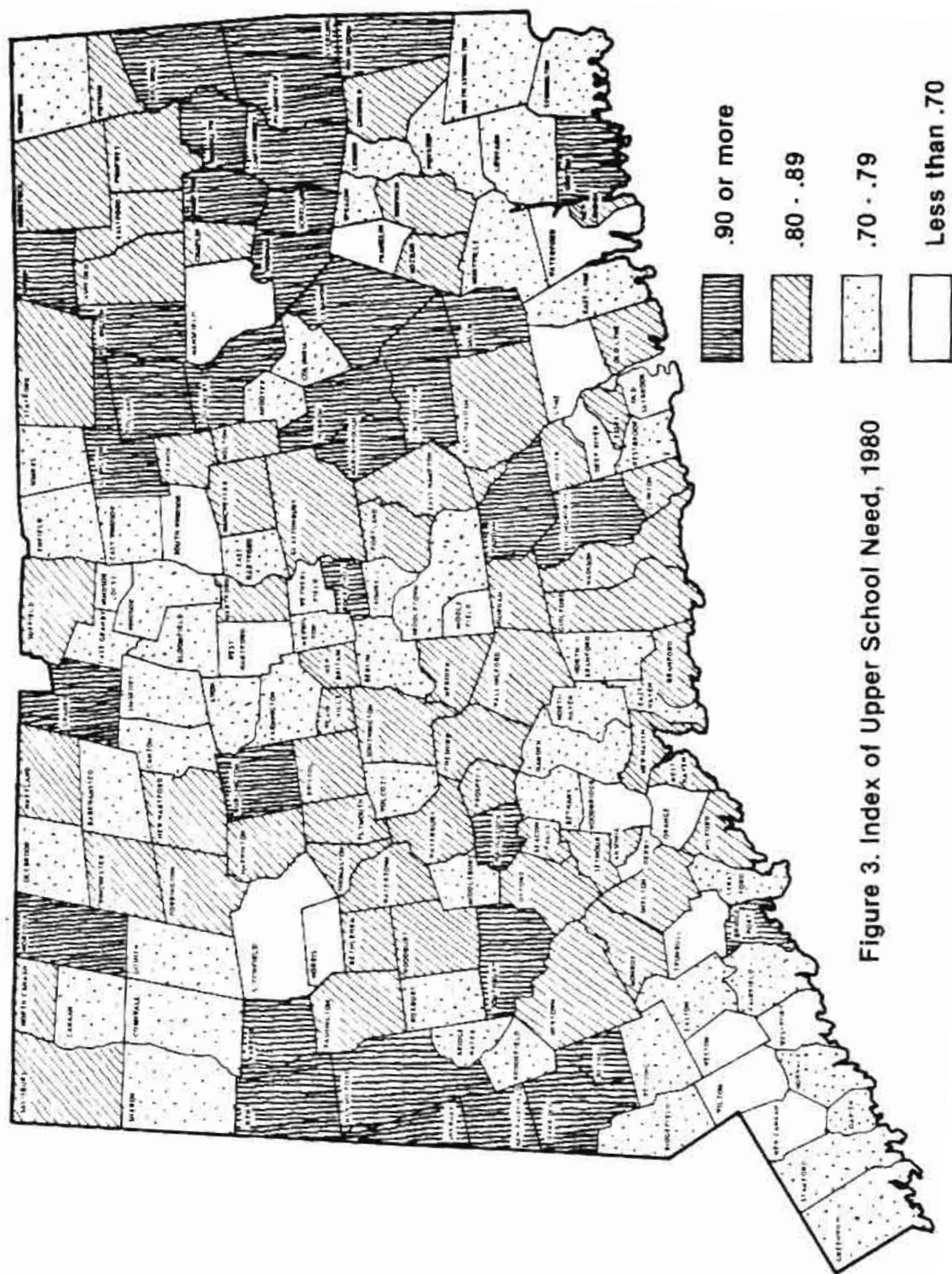


Figure 3. Index of Upper School Need, 1980

TABLE 7: Rates of Population Change, Natural Increase and Net Migration, 1970-80, by Levels of Upper School Need, 1980: Connecticut Towns.

Index of Upper School Need, 1980	Number of Towns	Average Population Size, 1980	1970-80 Rates (Per 100) of:		
			Population Change	Natural Increase	Net Migration
.90 or more	36	13,885	11.3	7.7	3.6
.80-.89	60	22,141	0.2	4.8	-4.6
.70-.79	52	18,560	2.7	3.4	-0.7
Less than .70	21	15,389	0.0	-0.2	0.2
TOTAL	169	18,388	2.5	4.3	-1.8

Sources: Appendix Tables I-VIII; Groff, 1982.

regarding lower need.* The remaining upper need categories show the same positive relationship with average population size observed for lower need; that is, excluding the high category, average population size decreases as the upper need index decreases.

The second pattern involves the rate of natural increase; the higher the upper need index, the greater the rate of population change due to natural increase. The interpretation of this relationship is similar to the one advanced for lower need, which had the same general relationship to rates of natural increase. Births occurring during the early 1970's contribute to a high rate of natural increase and also produce relatively high indexes of upper school need. Similarly, towns with the lowest indexes actually had more deaths than births during the 70's; their 6 to 11 year old population is considerably smaller than the 12 to 17 year old population, resulting in upper need indexes which are quite low.

Third, the only upper need category showing population increases of any consequence due to net migration is the highest. The two intermediate categories showed population losses through migration, while the lowest category increased only marginally. Some of the population growth through migration experienced by those towns with upper need indexes of .90 or more probably included elementary school children; this would, of course, have the effect of augmenting the upper school need index for those towns.

Finally, towns in the three lowest categories of upper need experienced, on the average, only modest rates of population growth during the 1970's. The towns which were growing substantially had the highest upper need indexes; so, contrary to the situation regarding lower school need, the

*In the next section we will consider the relationship between lower need and upper need scores among Connecticut's towns.

towns with continuing need for upper grade school facilities and personnel are those which are growing in population and, presumably, are also expanding their local tax bases.

RELATIONSHIP BETWEEN LOWER AND UPPER SCHOOL NEED INDEXES: Comparisons of Figures 2 and 3 and of Tables 6 and 7 suggest that a town's score on the lower need index may be rather different than its score on the upper need index. This is, of course, only impressionistic, so we now raise the question: Is there any relationship between these two indexes for Connecticut towns? Table 8 shows the joint distribution of the two need indexes.

We see from Table 8 that most towns differ on their level of index scores for lower and upper need. In fact, only about 25 percent (43) of towns were in the same category on both indexes. In 73 towns (43 percent) the upper need index category was larger than the lower, while in the remaining 53 towns (31 percent) the upper need index category was the lower of the two. Clearly, there is at best only a weak relationship* between the two indexes. This means that at this point in time very few towns will have to meet demands for new personnel and facilities at both the lower and upper grades simultaneously. In fact, no town in 1980 had indexes greater than 1.00 on both needs; those few towns which could expect to experience increased enrollment at the lower grades were not the same as the towns which were likely to increase enrollment at the upper grades. This is fortunate because local school system budgets and local property taxes would be seriously strained were it necessary to meet burgeoning needs at both levels at the same time.

*Reflecting this, the chi-square statistic is 16.2 with 9 degrees of freedom, which is not significant at the .05 level, but is at the .10; τ_c is a rather weak .156.

TABLE 8: Joint Distribution of Lower School Need and Upper School Need Indexes, 1980: Connecticut Towns.

Upper Need Index	Lower Need Index				Total
	.90 or higher	.80 to .89	.70 to .79	Less than .70	
.90 or higher	7	12	11	6	36
.80 to .89	16	15	18	11	60
.70 to .79	6	20	11	15	52
Less than .70	3	1	7	10	21
TOTAL	32	48	47	42	169

Source: Appendix Tables I-VIII.

Summary and Conclusions

The foregoing analysis of 1980 Census of Population data for Connecticut and its towns leads us to a number of conclusions concerning probable directions of school enrollment at the lower (elementary) and upper (middle and high) school levels. The major historical backdrop for these conclusions was the high levels of fertility experienced during the late 1940's, the 1950's and the early 1960's, known as the baby boom, and the greatly reduced levels of fertility since the 1960's. The baby boom required many communities to build new schools, expand existing ones and increase education related work forces during the 1950's and 1960's. During this period the demand placed upon local resources, measured here by the index of school load (the ratio of school age children to working age adults), was quite high; also during this period each successive school cohort tended to be larger than the one before it, resulting in indexes of lower and later upper school need greater than 1.00. By 1970, however, the baby boom had begun to run its course as far as elementary schools were concerned; during the 1970's there was a reduction of over 100 thousand students enrolled in the elementary grades. The effects of the passing of the baby boom cohorts were felt later in the upper grades; in fact, there was a modest increase (about 7,000) in high school enrollments during the 1970's. Over all, there was a reduction in school enrollment (including kindergarten) of over 15 percent during the 1970's.

As important as it is to understand past trends, the major focus of this research has been on future prospects. A number of conclusions, some of them rather tentative, may be advanced concerning the likely patterns of school load and school need during the 1980's.

1. In both 1960 and 1970 one hundred working age adults supported about 40 school age children in the state; this index of school load, as this is known, decreased to 32 school age children by 1980 and appears likely to continue declining during the 1980's. The major implication of this is that the educational burden on local taxpayers has lessened and will continue to do so for at least several more years, providing that educational standards remain constant.

2. Towns varied considerably in their indexes of school load, but generally reflected the decline just noted for the entire state. Only one town had a slight increase in its load index (Canaan), two were unchanged, and the remaining 166 towns had lower load indexes in 1980 than in 1970.

3. Two separate indexes of school need, one for the lower grades and one for the upper, have been presented and discussed.* They provide an indication of the extent to which the lower (or upper) grade population of school age children will be replaced during the first six or so years of the 1980's. The lower index for the state decreased slightly, from .86 in 1970 to .83 in 1980. The latter index means that by 1986 the lower grade population

*See text for the definitions of these indexes.

will be only 83 percent of what it was in 1980, barring any major shifts in migration patterns. The upper grade index decreased substantially, from 1.04 in 1970 to .81 in 1980. The large decrease in the upper need index reflects the continued movement of the last of the baby boom generation through the school system; this occurred earlier for the lower grades, as is evident by the low index for the lower grades in 1970.

4. Towns varied on these indexes as they did on the load index. Generally speaking very few towns can expect an increase in either lower or upper grade enrollments during the early 1980's; only six towns had indexes greater than 1.00 (which indicates increasing enrollment) on each of the two measures, and there were no towns which could expect increases at both lower and upper grade levels. The import of these results is that local needs for school facilities and personnel in most towns will decrease during the 1980 to 1986 period. It is likely that in some towns schools will be converted to other uses and teaching and support staffs will be reduced.

5. Patterns and sources of population change in towns during the 1970's were related to each of the three indexes discussed. Briefly:

- a. Towns which experienced relatively high growth (through both natural increase and net migration) have the highest load indexes, indicating a higher than general burden on the working age populations. Most of these towns have been in the process of suburbanization in fairly recent years and are experiencing, albeit at a somewhat lower level, the growing pains of earlier suburban communities.
- b. Towns which experienced relatively high population growth (primarily through migration) had relatively low indexes of lower school need. Such growth as is occurring in these towns does not seem to involve substantially increased numbers of young children.
- c. Towns which grew through both natural increase and net migration (and had, as a result, high overall growth rates) did have relatively high upper need indexes; these towns, if not increasing their upper grade enrollment, will generally not experience the sizable declines in upper enrollment that other, more slowly growing (or declining) towns will.

6. Finally, to repeat the major single point of this study: the era of large increases in school enrollment in Connecticut, brought about by the baby boom, is essentially over. While this situation could change at any time, there is little indication that such a change (a large, sustained increase in the birth rate) is likely to occur soon. As far as most towns are concerned, we are now in a period of contracting local needs for elementary and secondary education.

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APPENDIX TABLE I: Indexes of School Load and School Need, Fairfield County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Bethel	.49	.40	.87	.77	1.27	.90
Bridgeport	.34	.32	1.04	1.06	1.04	.90
Brookfield	.54	.42	.79	.68	1.30	.79
Danbury	.40	.31	.94	.91	1.12	.90
Darien	.48	.38	.65	.58	.90	.73
Easton	.48	.37	.57	.62	.96	.75
Fairfield	.42	.29	.70	.67	.93	.70
Greenwich	.42	.30	.72	.65	.90	.73
Monroe	.57	.44	.80	.68	1.32	.81
New Canaan	.52	.37	.54	.52	.77	.63
New Fairfield	.47	.43	.89	.70	1.32	.94
Newtown	.44	.39	.82	.68	1.26	.84
Norwalk	.41	.29	.89	.89	1.12	.78
Redding	.49	.41	.78	.65	1.08	.75
Ridgefield	.60	.41	.71	.57	1.25	.75
Shelton	.47	.35	.83	.81	1.19	.82
Sherman	.43	.37	.70	.51	1.17	.92
Stamford	.40	.28	.85	.85	1.02	.77
Stratford	.38	.27	.78	.83	.93	.73
Trumbull	.50	.37	.64	.58	1.02	.68
Weston	.56	.40	.58	.48	.96	.67
Westport	.52	.35	.57	.54	.81	.61
Wilton	.57	.42	.59	.51	.95	.68
TOTAL	.42	.32	.82	.79	1.02	.78

APPENDIX TABLE II: Indexes of School Load and School Need, Hartford County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Avon	.48	.32	.74	.61	1.01	.74
Berlin	.43	.30	.68	.75	.86	.74
Bloomfield	.45	.31	.79	.70	.81	.75
Bristol	.44	.32	.89	.83	1.02	.84
Burlington	.50	.38	.91	.72	1.13	1.09
Canton	.44	.32	.95	.84	1.24	.77
East Granby	.48	.32	.81	.95	1.43	.71
East Hartford	.37	.26	.94	.86	1.00	.76
East Windsor	.45	.29	.72	.88	1.14	.73
Enfield	.58	.37	.80	.77	1.30	.72
Farmington	.43	.27	.83	.71	.98	.75
Glastonbury	.48	.35	.81	.70	1.08	.81
Granby	.48	.36	.85	.79	1.13	.93
Hartford	.33	.33	1.08	.99	1.11	.87
Hartland	.58	.37	.82	.84	1.18	.81
Manchester	.38	.29	.92	.82	.97	.87
Marlborough	.41	.37	1.13	.78	1.24	1.22
New Britain	.33	.23	.95	.98	.93	.84
Newington	.44	.30	.82	.71	1.01	.74
Plainville	.42	.31	.87	.74	1.07	.84
Rocky Hill	.30	.22	.94	.86	.97	.96
Simsbury	.59	.40	.67	.65	1.11	.79
Southington	.47	.35	.90	.75	1.08	.89
South Windsor	.63	.36	.68	.68	1.27	.68
Suffield	.45	.31	.75	.75	.95	.80
West Hartford	.40	.28	.62	.72	.80	.69
Wethersfield	.40	.28	.70	.67	.88	.69
Windsor	.47	.30	.69	.85	.97	.77
Windsor Locks	.53	.31	.75	.72	1.06	.64
TOTAL	.41	.31	.86	.82	1.03	.80

APPENDIX TABLE III: Indexes of School Load and School Need, Litchfield County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Barkhamsted	.48	.33	.87	.90	1.10	.79
Bethlehem	.45	.33	.74	.80	.89	.89
Bridgewater	.44	.34	.65	.78	1.00	.75
Canaan	.35	.37	.97	.55	1.02	.75
Colebrook	.43	.27	.67	.99	1.00	.73
Cornwall	.39	.23	.56	.88	1.24	.72
Goshen	.46	.30	.76	.91	.80	.77
Harwinton	.49	.39	.88	.64	.89	.84
Kent	.41	.33	.73	.76	1.28	.96
Litchfield	.47	.36	.72	.71	1.04	.66
Morris	.46	.32	.85	.79	.89	.67
New Hartford	.46	.37	.96	.74	1.16	.89
New Milford	.43	.38	.99	.88	1.25	.94
Norfolk	.59	.49	.87	.66	1.15	.92
North Canaan	.43	.33	.87	.85	1.00	.84
Plymouth	.44	.36	.92	.76	1.00	.89
Roxbury	.46	.33	.79	.62	.85	.70
Salisbury	.38	.30	.70	.65	.93	.82
Sharon	.46	.28	.68	.87	.87	.70
Thomaston	.49	.35	.78	.73	1.10	.84
Torrington	.38	.28	.89	.84	.96	.82
Warren	.40	.35	.93	.81	1.02	.91
Washington	.42	.35	.88	.73	.83	.82
Watertown	.46	.36	.87	.65	.99	.86
Winchester	.42	.32	.87	.89	.96	.83
Woodbury	.43	.30	.85	.74	.88	.85
TOTAL	.43	.34	.86	.78	1.00	.84

APPENDIX TABLE IV: Indexes of School Load and School Need, Middlesex County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Chester	.42	.28	.83	.95	1.03	.83
Clinton	.45	.36	1.04	.85	1.23	.87
Cromwell	.42	.26	.70	.87	1.04	.76
Deep River	.41	.31	.92	.96	1.03	.63
Durham	.56	.41	.76	.68	1.12	.84
East Haddam	.39	.34	.91	.79	.98	.89
East Hampton	.48	.33	.77	.93	1.27	.85
Essex	.36	.28	.88	.70	.92	.80
Haddam	.43	.39	.96	.67	1.19	.99
Killingworth	.43	.37	.83	.78	1.05	.96
Middlefield	.50	.30	.80	.65	.95	.63
Middletown	.34	.27	.94	.87	1.09	.79
Old Saybrook	.50	.32	.75	.75	.99	.67
Portland	.47	.34	.82	.69	.96	.81
Westbrook	.41	.29	.78	.80	1.09	.77
TOTAL	.42	.31	.86	.81	1.08	.80

APPENDIX TABLE V: Indexes of School Load and School Need, New Haven County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Ansonia	.39	.29	.97	1.05	1.10	.82
Beacon Falls	.43	.34	.93	.94	1.14	.89
Bethany	.52	.34	.71	.79	1.08	.77
Branford	.40	.27	.89	.81	.97	.81
Cheshire	.49	.38	.84	.68	.95	.80
Derby	.38	.26	.88	.92	.89	.69
East Haven	.43	.29	.82	.79	1.04	.72
Guilford	.52	.37	.72	.79	1.20	.84
Hamden	.37	.25	.72	.84	.92	.75
Madison	.57	.42	.72	.66	1.18	.80
Meriden	.42	.30	.91	.93	.97	.85
Middlebury	.45	.35	.72	.64	.99	.76
Milford	.47	.31	.81	.79	1.05	.80
Naugatuck	.40	.35	.97	.83	1.11	.90
New Haven	.31	.28	1.07	1.00	1.11	.88
North Branford	.54	.36	.80	.83	1.18	.74
North Haven	.48	.32	.64	.65	1.02	.73
Orange	.51	.34	.54	.61	.93	.67
Oxford	.53	.37	.82	.87	1.14	.89
Prospect	.49	.39	.92	.63	1.25	.83
Seymour	.43	.30	.88	.78	.98	.88
Southbury	.33	.28	.80	.77	.79	.96
Wallingford	.46	.32	.82	.76	1.06	.87
Waterbury	.39	.31	.97	.92	.97	.87
West Haven	.34	.25	1.00	.97	1.01	.83
Wolcott	.53	.39	.81	.61	1.09	.76
Woodbridge	.50	.34	.56	.74	.87	.64
TOTAL	.40	.30	.88	.85	1.02	.82

APPENDIX TABLE VI: Indexes of School Load and School Need, New London County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Bozrah	.47	.37	.79	.74	1.20	.83
Colchester	.50	.34	.88	.91	1.26	.96
East Lyme	.51	.37	.82	.65	1.14	.77
Franklin	.48	.35	.74	.78	1.15	.63
Griswold	.43	.33	.99	1.07	1.09	.89
Groton	.43	.27	1.01	1.17	1.35	.98
Lebanon	.48	.39	.88	.69	1.23	.90
Ledyard	.40	.40	.87	.85	1.27	.79
Lisbon	.43	.37	1.01	.91	1.05	.76
Lyme	.38	.25	.83	1.13	1.01	.65
Montville	.52	.36	.88	.84	1.28	.78
New London	.27	.21	1.08	1.18	.97	.82
North Stonington	.58	.37	.82	.81	1.19	.77
Norwich	.38	.30	1.00	1.00	1.00	.84
Old Lyme	.47	.35	.75	.68	1.22	.82
Preston	.53	.28	.67	.73	1.23	.73
Salem	.43	.35	.88	.83	1.08	1.01
Sprague	.45	.36	1.03	.91	1.02	.74
Stonington	.40	.31	.95	.78	1.09	.74
Voluntown	.44	.32	.96	.85	1.14	1.03
Waterford	.48	.32	.64	.67	.96	.67
TOTAL	.41	.31	.92	.93	1.13	.82

APPENDIX TABLE VII: Indexes of School Load and School Need, Tolland County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Andover	.50	.32	.76	.82	1.27	.77
Bolton	.46	.31	.83	.77	1.05	.80
Columbia	.47	.36	.88	.75	1.02	.73
Coventry	.46	.33	.95	.82	1.12	.92
Ellington	.55	.34	.73	.88	1.04	.91
Hebron	.49	.39	1.07	.83	1.39	1.06
Mansfield	.19	.11	.91	.86	.91	.69
Somers	.38	.31	.72	.83	1.08	.73
Stafford	.45	.35	.82	.87	1.00	.83
Tolland	.57	.43	.90	.70	1.53	.94
Union	.32	.30	.84	.67	1.07	.91
Vernon	.45	.32	1.00	.85	1.27	.89
Willington	.34	.25	.94	.93	1.12	1.07
TOTAL	.39	.29	.90	.83	1.15	.87

APPENDIX TABLE VIII: Indexes of School Load and School Need, Windham County: 1970 and 1980.

Town	School Load		Lower School Need		Upper School Need	
	1970	1980	1970	1980	1970	1980
Ashford	.38	.29	.94	.91	1.17	.87
Brooklyn	.44	.38	.94	.71	1.11	.91
Canterbury	.52	.39	.87	.87	1.13	.93
Chaplin	.50	.33	.71	.87	1.13	.83
Eastford	.58	.33	.51	.93	1.19	.83
Hampton	.53	.35	.63	.71	1.00	.98
Killingly	.45	.37	.92	.80	1.01	.90
Plainfield	.51	.42	.89	.91	1.15	.91
Pomfret	.51	.35	.74	.88	1.07	.84
Putnam	.39	.34	.88	.91	1.02	.86
Scotland	.52	.38	.72	.57	1.19	.96
Sterling	.55	.43	.75	.83	1.11	.91
Thompson	.44	.37	.85	.80	1.09	.79
Windham	.36	.29	.96	.98	1.12	.90
Woodstock	.38	.33	.79	.71	.96	.86
TOTAL	.43	.35	.88	.86	1.09	.88

APPENDIX TABLE IX: Age Distributions, Fairfield County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 12-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Bethel	1,369	1,397	1,573	1,803	2,812	3,814	5,768	9,594
Bridgeport	16,359	13,313	15,803	12,552	30,950	26,490	90,649	83,691
Brookfield	1,237	985	1,567	1,444	2,770	3,281	5,099	7,757
Danbury	5,714	4,980	6,075	5,458	11,502	11,501	28,742	37,490
Darien	1,706	1,057	2,620	1,820	5,546	4,317	11,568	11,472
Easton	368	354	647	575	1,319	1,339	2,743	3,650
Fairfield	4,695	2,784	6,671	4,174	13,850	10,095	33,149	34,840
Greenwich	4,837	3,077	6,729	4,710	14,218	11,180	34,134	36,968
Monroe	1,641	1,132	2,050	1,663	3,608	3,707	6,290	8,424
New Canaan	1,183	827	2,209	1,585	5,066	4,102	9,796	11,127
New Fairfield	892	937	998	1,343	1,753	2,776	3,753	6,516
Newtown	1,844	1,421	2,253	2,078	4,035	4,561	9,281	11,563
Norwalk	8,621	5,558	9,685	6,216	18,343	14,198	45,287	49,588
Redding	604	498	777	772	1,494	1,796	3,055	4,406
Ridgefield	2,195	1,233	3,098	2,166	5,570	5,050	9,358	12,451
Shelton	3,134	2,437	3,787	3,024	6,974	6,731	14,932	19,243
Sherman	126	120	181	237	336	495	789	1,348
Stamford	10,756	6,762	12,670	7,953	25,124	18,291	62,799	65,088
Stratford	4,229	3,003	5,425	3,613	11,241	8,567	29,409	31,296
Trumbull	2,818	1,780	4,390	3,045	8,695	7,520	17,555	20,218
Weston	666	405	1,133	842	2,310	2,090	4,071	5,238
Westport	2,018	1,133	3,559	2,115	7,956	5,592	15,372	16,143
Wilton	1,186	819	2,018	1,602	4,148	3,969	7,282	9,438
TOTAL	78,198	56,012	95,918	70,790	189,620	161,462	450,881	497,549

APPENDIX TABLE X: Age Distributions, Hartford County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 6-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Avon	820	597	1,113	975	2,217	2,284	4,627	7,077
Berlin	1,116	909	1,641	1,208	3,555	2,835	8,195	9,496
Bloomfield	1,618	1,052	2,062	1,509	4,613	3,523	10,300	11,244
Bristol	6,021	4,266	6,932	5,149	13,724	11,267	31,085	35,582
Burlington	532	506	585	701	1,104	1,346	2,207	3,507
Canton	886	566	930	675	1,681	1,552	2,788	4,812
East Granby	447	337	550	354	934	851	1,935	2,630
East Hartford	6,040	3,347	6,412	3,899	12,850	9,031	34,420	34,258
East Windsor	832	613	1,164	696	2,188	1,648	4,894	5,686
Enfield	6,194	3,151	7,773	4,084	13,750	9,735	23,714	26,574
Farmington	1,443	871	1,743	1,225	3,517	2,869	8,242	10,666
Glastonbury	2,286	1,672	2,826	2,382	5,442	5,326	11,468	15,108
Granby	733	678	858	855	1,618	1,773	3,407	4,988
Hartford	17,459	12,487	16,240	12,616	30,927	27,043	92,510	81,363
Hartland	164	121	199	144	368	321	640	861
Manchester	4,802	3,406	5,203	4,178	10,549	8,995	27,781	30,797
Marlborough	464	465	408	593	736	1,080	1,791	2,943
New Britain	7,594	4,859	8,010	4,968	16,661	10,855	49,859	47,493
Newington	2,672	1,646	3,265	2,311	6,488	5,442	14,920	18,405
Plainville	1,808	1,069	2,081	1,444	4,028	3,162	9,517	10,324
Rocky Hill	943	875	1,000	1,019	2,033	2,079	6,764	9,657
Simsbury	1,921	1,511	2,870	2,312	5,450	5,238	9,188	12,976
Southington	3,751	2,828	4,179	3,748	8,050	7,975	17,209	22,834
South Windsor	1,917	1,104	2,817	1,635	5,030	4,035	7,952	11,083
Suffield	817	612	1,088	821	2,233	1,844	4,959	5,878
West Hartford	4,269	2,920	6,842	4,070	15,359	9,938	38,063	36,052
Wethersfield	2,041	1,215	2,900	1,815	6,185	4,452	15,379	15,826
Windsor	1,994	1,757	2,906	2,062	5,912	4,755	12,651	15,662
Windsor Locks	1,673	684	2,246	952	4,367	2,434	8,187	7,951
TOTAL	83,257	56,124	96,843	68,400	191,569	153,688	465,652	501,733

APPENDIX TABLE XI: Age Distributions, Litchfield County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 6-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Barkhamsted	250	247	286	274	546	619	1,132	1,852
Bethlehem	164	195	221	243	469	516	1,047	1,578
Bridgewater	98	107	151	137	302	819	684	937
Canaan	87	49	90	89	178	208	507	562
Colebrook	84	86	125	87	249	207	580	769
Cornwall	79	69	139	78	251	186	641	796
Goshen	155	124	152	137	343	314	754	1,048
Harwinton	487	343	555	532	1,176	1,162	2,388	3,000
Kent	179	179	246	235	438	480	1,079	1,440
Litchfield	688	456	950	639	1,866	1,603	3,973	4,504
Morris	163	118	190	150	403	374	871	1,174
New Hartford	508	385	528	521	985	1,109	2,121	3,013
New Milford	1,919	1,826	1,932	2,082	3,481	4,295	7,940	11,329
Norfolk	271	177	310	269	580	560	992	1,133
North Canaan	305	224	349	264	697	578	1,636	1,761
Plymouth	1,167	837	1,268	1,101	2,540	2,340	5,718	6,504
Roxbury	113	75	143	121	311	293	679	879
Salisbury	244	191	349	295	723	656	1,896	2,157
Sharon	183	154	270	178	581	431	1,267	1,530
Thomaston	663	438	847	603	1,619	1,323	3,332	3,808
Torrington	2,980	1,994	3,351	2,377	6,857	5,282	18,043	18,579
Warren	82	78	88	96	174	202	432	576
Washington	279	245	316	335	699	745	1,664	2,125
Watertown	2,046	1,312	2,344	2,004	4,705	4,326	10,319	11,853
Winchester	1,090	824	1,259	931	2,577	2,050	6,147	6,368
Woodbury	571	439	671	595	1,432	1,293	3,312	4,339
TOTAL	14,855	11,172	17,130	14,373	34,182	31,471	79,154	93,614

APPENDIX TABLE XII: Age Distributions, Middlesex County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 12-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Chester	287	225	344	236	679	521	1,608	1,830
Clinton	1,430	968	1,370	1,135	2,485	2,445	5,536	6,700
Cromwell	634	646	900	746	1,767	1,730	4,262	6,661
Deep River	383	282	417	293	820	760	2,022	2,415
Durham	531	404	701	591	1,327	1,292	2,378	3,122
East Haddam	464	426	509	536	1,029	1,139	2,663	3,340
East Hampton	785	753	1,022	810	1,829	1,762	3,840	5,274
Essex	400	260	456	370	954	832	2,687	3,024
Haddam	608	493	633	738	1,167	1,481	2,721	3,844
Killingworth	245	332	297	427	581	873	1,364	2,335
Middlefield	442	192	555	294	1,141	764	2,287	2,518
Middletown	3,681	2,588	3,915	2,979	7,521	6,738	22,060	25,152
Old Saybrook	825	539	1,102	714	2,212	1,784	4,455	5,493
Portland	926	538	1,125	775	2,293	1,729	4,846	5,157
Westbrook	355	323	455	403	871	929	2,129	3,178
TOTAL	11,996	8,969	13,801	11,047	26,676	24,779	64,858	80,043

APPENDIX TABLE XIII: Age Distributions, New Haven County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 12-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Ansonia	2,351	1,578	2,415	1,503	4,617	3,347	11,891	11,512
Beacon Falls	424	369	454	392	854	834	1,970	2,434
Bethany	411	320	578	407	1,112	938	2,123	2,775
Branford	2,057	1,486	2,314	1,829	4,697	4,079	11,795	15,107
Cheshire	2,016	1,506	2,510	2,202	5,158	4,964	10,512	13,133
Derby	1,161	773	1,318	840	2,801	2,052	7,317	7,776
East Haven	2,570	1,542	3,155	1,964	6,204	4,678	14,472	16,003
Guilford	1,297	1,423	1,809	1,802	3,312	3,959	6,425	10,608
Hamden	3,731	2,841	5,185	3,384	10,830	7,872	28,926	31,701
Madison	1,110	1,011	1,545	1,528	2,850	3,445	5,009	8,141
Meriden	5,863	4,538	6,424	4,875	13,033	10,589	31,030	34,758
Middlebury	490	345	685	542	1,376	1,257	3,060	3,621
Milford	5,482	3,509	6,747	4,459	13,196	10,066	28,330	32,262
Naugatuck	2,628	2,160	2,722	2,593	5,184	5,460	12,972	15,744
New Haven	14,098	10,142	13,184	10,156	25,098	21,721	81,571	77,702
North Branford	1,358	927	1,697	1,117	3,140	2,621	5,822	7,238
North Haven	1,930	1,211	3,024	1,857	5,991	4,416	12,611	13,919
Orange	1,019	685	1,878	1,121	3,894	2,802	7,640	8,292
Oxford	506	615	614	708	1,151	1,506	2,470	4,042
Prospect	888	458	969	730	1,743	1,614	3,541	4,093
Seymour	1,365	930	1,546	1,199	3,123	2,566	7,267	8,603
Southbury	539	785	678	1,013	1,542	2,073	4,701	7,387
Wallingford	3,850	2,616	4,683	3,434	9,118	7,397	19,669	23,041
Waterbury	11,097	7,991	11,454	8,669	23,252	18,687	60,142	60,631
West Haven	5,359	3,712	5,370	3,832	10,687	8,473	31,486	34,139
Wolcott	1,504	822	1,852	1,349	3,551	3,128	6,758	8,066
Woodbridge	564	472	1,010	642	2,168	1,643	4,372	4,863
TOTAL	75,668	54,767	85,820	64,147	169,682	142,187	423,882	467,591

APPENDIX TABLE XIV: Age Distributions, New London County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 12-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Bozrah	228	162	290	218	532	482	1,129	1,310
Colchester	844	725	954	794	1,710	1,617	3,418	4,710
East Lyme	1,340	900	1,637	1,380	3,074	3,162	6,061	8,572
Franklin	139	107	189	138	354	357	737	994
Griswold	946	889	957	829	1,835	1,760	4,234	5,334
Groton	5,401	4,206	5,354	3,587	9,322	7,249	21,773	26,627
Lebanon	481	374	548	542	995	1,142	2,063	2,907
Ledyard	1,750	1,279	2,006	1,496	3,581	3,386	8,874	8,556
Lisbon	353	290	348	317	681	732	1,573	1,984
Lyme	127	123	153	109	304	277	803	1,120
Montville	2,161	1,380	2,444	1,636	4,354	3,739	8,396	10,317
New London	2,791	2,156	2,591	1,828	5,268	4,047	19,865	18,987
North Stonington	494	349	605	429	1,114	983	1,930	2,626
Norwich	4,453	3,147	4,438	3,149	8,897	6,893	23,217	22,825
Old Lyme	512	391	683	574	1,245	1,274	2,674	3,677
Preston	381	261	572	360	1,036	855	1,942	3,010
Salem	163	215	185	259	357	516	822	1,476
Sprague	361	248	350	272	695	642	1,548	1,773
Stonington	1,761	1,026	1,846	1,310	3,538	3,080	8,831	9,857
Voluntown	175	137	183	162	343	319	780	1,005
Waterford	1,438	949	2,263	1,421	4,612	3,541	9,594	10,973
TOTAL	26,299	19,314	28,596	20,810	53,847	46,053	130,264	148,640

APPENDIX TABLE XV: Age Distributions, Tolland County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 12-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Andover	243	160	321	195	574	448	1,140	1,390
Bolton	406	274	489	356	954	803	2,089	2,572
Columbia	358	236	406	316	806	747	1,714	2,073
Coventry	1,041	736	1,097	897	2,073	1,874	4,551	5,707
Ellington	831	873	1,144	993	2,244	2,084	4,118	6,082
Hebron	615	561	577	672	993	1,304	2,034	3,329
Mansfield	1,232	674	1,351	781	2,829	1,911	15,204	17,063
Somers	608	594	848	712	1,630	1,689	4,311	5,537
Stafford	880	748	1,069	861	2,140	1,899	4,780	5,480
Tolland	1,249	862	1,387	1,225	2,292	2,532	4,005	5,848
Union	36	32	43	48	83	101	258	333
Vernon	3,757	2,261	3,768	2,645	6,736	5,606	15,060	17,523
Willington	394	377	419	406	794	785	2,316	3,195
TOTAL	11,650	8,388	12,919	10,107	24,148	21,783	61,580	76,132

APPENDIX TABLE XVI: Age Distributions, Windham County: 1970 and 1980.

Town	Ages 0-5		Ages 6-11		Ages 12-17		Ages 18-64	
	1970	1980	1970	1980	1970	1980	1970	1980
Ashford	247	258	263	283	488	608	1,292	2,103
Brooklyn	582	436	622	612	1,181	1,284	2,681	3,350
Canterbury	330	328	381	378	717	784	1,380	2,036
Chaplin	169	144	238	166	448	365	893	1,120
Eastford	76	85	148	91	272	201	467	614
Hampton	96	98	153	138	306	279	582	803
Killingly	1,512	1,168	1,637	1,462	3,260	3,094	7,312	8,301
Plainfield	1,500	1,299	1,681	1,432	3,145	3,009	6,164	7,202
Pomfret	257	234	348	267	672	584	1,309	1,652
Putnam	816	683	928	751	1,840	1,623	4,708	4,780
Scotland	114	68	159	119	278	243	537	637
Sterling	206	168	274	203	520	426	954	995
Thompson	818	626	963	780	1,847	1,768	4,158	4,797
Windham	2,040	1,745	2,116	1,778	4,009	3,760	11,301	12,940
Woodstock	369	341	469	482	956	1,041	2,540	3,161
TOTAL	9,132	7,681	10,380	8,942	19,939	19,069	46,278	54,491