

## VSP Introduction and Historical Context-April 27, 2009

Many thanks to Barbara Duncan of the Vt. Earth Institute for locating a copy of this very important historical document in the VEI archives. While VSP has not taken a position on this report some of the recommendations do closely match those in our position statement found elsewhere on this web site.

What is very important about this report is its historical context. It was written in 1973 when the environmental movement was taking leadership in dealing with the population growth issue. This was during a time when population levels were much lower than they are now and the environmental crises such as global warming, loss of biodiversity, peak oil production, and food and water shortages were either not known or of minor concern.

It is more than ironic that today the Vt. Natural Resources Council (and some other environmental organizations) refuses to even publicly acknowledge that there is a connection between population and the environment. The change in position from one of leadership to basically one of denial is a tragic mistake. We have clearly already exceeded our “carrying capacity” that is discussed in this report. If we are to have any hope of having long term sustainability and quality of life for our descendants we must once again make population growth a major concern for both our environment and our economy.

### **POPULATION POLICY FOR VERMONT**

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**with assistance from a study committee of the Vermont Natural  
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**The Vermont Natural Resources Council believes that the  
population issue in Vermont deserves recognition and attention.**

**While the Council’s board of directors endorses some of the  
recommendations contained herein, this report does not represent  
a policy statement of the VNRC**

**10/1/1973**

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Most of us who live in Vermont are so taken up with our daily activities that we have little time to reflect on the larger happenings within the state. This is not to say that there is a lack of interest among the general population regarding the future of Vermont. On the contrary, there is a growing tendency among our citizens to take a long, hard look at the direction in which Vermont is moving. Unfortunately, those of us who do look are often confronted by such a mass of interrelated ecological, economic and social trends that the picture becomes quite complex and difficult to understand. Nevertheless, if we are to successfully control the destiny of our state, it is essential that we look at present trends and try to choose what our alternative strategies shall be.

The purpose of this paper is to relate the rapid population growth in Vermont to some symptoms of this growth, and to recommend steps that should be taken in order to assure a bright future for our descendants.

### **NATIONAL POPULATION PICTURE**

Since Vermont's population problem will be affected by national population growth, a few words about the national picture are in order. The United States birthrate is at its lowest point in history. If we could maintain this level for another sixty-five years, the United States would stabilize its population at from 274 to 314 million, depending on how many immigrants from overseas we allow to enter the country. In other words, even if we kept our present low birth rates indefinitely and immediately cut off all immigration, both of which demographers consider unlikely, we would increase from our present 210 million to 274 million before leveling off in the year 2037. A much more realistic view is that we can expect to add at least another 100 million Americans before we stabilize our population.

Much of this growth will occur in the metropolitan areas; eighteen percent of the nation's population lives in a corridor between Boston and Washington, D.C. Thus, combining births and immigration, it is logical to assume that at least eighteen percent of our nation's population growth over the next seventy years will be in the Northeastern United States. A Gallup Poll in 1972<sup>1</sup> showed that only sixteen percent of our young people (and eighteen percent of all ages) want to live in urban America, the remainder wish to live in the suburbs or rural America. The percentage wishing to live in a rural area has doubled between 1965 and 1973. How will this affect Vermont, and what can we do about it?

### **VERMONT'S POPULATION PICTURE**

Vermont is becoming a “safety valve” for Northeastern United States, just as Central Park has been for New York City a great place “to get away from it all.” As the density of the city increased, and its problems increased, the use of Central Park increased and its problems increased. Similarly, as the density of Northeastern United States increases, can we not expect the same results to occur in Vermont as occurred in Central Park?

### Past and Present Picture

The population of the United States is increasing at 0.8 percent each year. The population of Vermont is increasing at 1.8 percent each year.<sup>3</sup> Of this, 1.1 percent is from immigration, and 0.7 percent is from natural increase, i.e. the excess of births over deaths.<sup>4</sup> Between 1960 and 1972 the state grew from 390 thousand to 462 thousand, an increase of 18 percent. Even if our growth rates slow to 1.5 percent, we shall add 150,000 more people or one third of our total 1970 population by 1990.<sup>5</sup> From 1970 to 1972 Vermont's population increased at least twice as fast as those of New York, Massachusetts, Connecticut and Rhode Island; of the New England states, only New Hampshire has exceeded Vermont's rate. The first characteristic, then, of Vermont's population is its rapid growth, and this is primarily a result of our increasing rate of immigration. \*

Of secondary importance but nevertheless relevant are the factors of illegitimate births and unwanted pregnancies in Vermont. The rate of illegitimacy in Vermont has now leveled: one of every twelve births is now illegitimate. These illegitimate births probably represent only a few of the unwanted pregnancies that occur each year. Assuming that we have the same percentage of unwanted births in Vermont as throughout the rest of the United States (about 20 percent), we can conclude that about one of every three pregnancies is unwanted or produces an illegitimate birth.

\* Between 1960 and 1970 migration accounted for only 27 percent of Vermont's growth, compared with 50 percent in 1971 and 61 percent in 1972.<sup>7</sup>

\*\* Illegitimate birth rates have increased sharply between 1960 and 1970 (33 per thousand in 1960 to 80 per thousand in 1970).<sup>8</sup>

\*\*\* In 1970 about 1700 pregnancies were unwanted, although only 653 births were termed illegitimate.<sup>9</sup>

### Future Picture

The future population picture of Vermont will reflect the present age distribution of the population; there are 68 percent more people in the 10-23 year age group than in the 24-37 year age group.<sup>10</sup> These figures represent the babies that were born from 1947-1960, after World War II and until the birth rate began to decline in 1960. We can expect this population wave to persist until after 1980. Then it will subside slowly reflecting the gradual decrease in the birth rate. In the meantime these growing adults will need jobs, housing and schools for the second wave of babies that they may have. The size of this second “baby boom” is unknown, of course, but we should note that the number of

marriages in Vermont increased 40 percent between 1965 and 1972. (Cooley)

## **POPULATION PROJECTION FOR VERMONT**

Appendix 1 shows the projected population for the state. In any given year the size will depend on the growth rate in the intervening years. At 1 percent, the population in the year 2000 will be 1.35 times that of 1970; at 1.5 percent it will be 1.6 times the 1970 population and at 2 percent it will be 1.8 times the 1970 population, doubling by 2005'. (We are growing at 1.8 percent now.) Appendix 2 shows the fastest growing counties, and the number of years it will take to double their present population. No one can predict population growth; however, we should examine the implications if present growth rates are allowed to continue.

### What are the implications of rapid population growth?

#### 1. Rapid increase of demands for jobs.

In 1970 about half (48 percent) of Vermonters were less than 25 years old; 29 percent were less than 15 years old. As a result of this youthful group, the working population (20-64) will increase twice as rapidly as the total population because twice as many people will be moving into that age group yearly as will be moving out. If no immigration occurs, the demand for new jobs will be about 35,000 during the next ten years, but if present immigration continues, the need will be at least 55,000.<sup>12</sup> Appendix 3 presents the expected number of people in the labor force in 1980 and the expected number of needed jobs at these rates of growth.

#### 2. Rapid increase of taxes.

As Vermont builds superhighways into the outreaches of the state, and as four- and three-day work weeks of city-dwellers become more common, increasing numbers of nonresident, second home owners will convert their vacation homes into permanent homes. Environmental Conservation Secretary Martin Johnson said he is convinced that at least half of the vacation homes built in Vermont will someday become permanent residences.<sup>13</sup> Past environmental board chairman Benjamin Partridge agrees.<sup>14</sup>

The trend is already underway. In Willington alone, 4,000 lots are in the process of being sold. One residential development there sent three children to the public school in 1971 and 35 in 1972. Queechee Lakes is building 2000 homes. Westford, a town of 991 people, has planned homes for several thousand people. Fayston and Warren school enrollments are up 20-30 percent in the elementary school alone during the past three years. The same phenomenon is occurring all over the state.<sup>15</sup>

What is the impact of a new household on the finances of Vermont towns? Studies have found that the average new household, even if it is a \$60,000 home, does not pay for necessary services through taxes.<sup>16</sup> Thus, the previous residents must pay the difference, and their taxes increase for every new household.

Appendix 4 and 5 show the increasing relationship between growth of population and taxes for some selected towns in Vermont. They demonstrate how rapidly costs increase for town and educational activities whenever any numbers of houses are built. Former Governor Deane Davis recently estimated that per capita cost for state government would increase to \$535 in 1980 from \$272 in 1970 and \$77 in 1960. These increases result from increasing demands of a growing population.<sup>17</sup>

### 3. Necessity to develop land.

As Vermont and neighboring states build more superhighways, more people can come from greater distances. Thus, the demand for land increases and the cost per acre reflects this demand. In 1960, 37 percent of Vermont land sold in a 30-town sample went to out-of-staters; this figure rose to 45 percent by 1968. During the same period the price went from \$42 to \$239 an acre.<sup>18</sup> Land is becoming so expensive that non-residents can afford to buy it more easily than residents.

More people produce greater demand to build shopping areas, airports, residences and other facilities. More people means more pressure to change existing zoning regulations, regardless of how strict they are. A zoning ordinance established in one year can easily be changed ten or twenty years later because of people pressure, even though the original reasons for its passage are still present.

### 4. A decreased quality of life.

A certain land area has the ability to support a certain maximum number of individuals, be they mice, cows or humans. This ability is referred to as the "carrying capacity" by population ecologists. However, we can borrow the term and use it in other ways. Hence, a certain area has a maximum ability to provide jobs and a maximum amount of natural resources on which those jobs depend – the "economic carrying capacity". We could also use the term "social carrying capacity" - after this level is reached, a certain society tends to deteriorate. If there is a limit to the jobs or social services, then it follows that at some level of population the amount per person will begin to decrease, crime may increase, land values fall, etc.

We must determine Vermont's carrying capacity, then we must estimate the number of people that can live here so that every Vermonter has access to a life of quality that he can afford. That population would be the optimum population and is far below the carrying capacity. Thus, an optimum population is not synonymous with the maximum population, i.e. carrying capacity. The following equation illustrates this point;

Quantity of income, services, resources

Average Quality of Life = no. of people depending on income, services, or resources

The quality of life reflects economic, social and ecological factors. If the numerator becomes smaller than the denominator because of rapid growth of population, then the average quality of life decreases. A maximum number can subsist at a low standard of living (low quality of life) - an optimum population can at a higher standard.

### **CONCLUSIONS - WHERE DO WE GO FROM HERE?**

If these are the trends and facts of the situation, what can we deduce that will help us to decide what policies to formulate in order to maintain a balance between population and the carrying capacity of the state?

Most all Vermonters are interested in having a job as well as maintaining a beautiful, healthy environment. Thus, a few words on the interrelationship of these two factors are necessary.

David Heeter, attorney for the state planning office, has noted that “a settlement policy which attempts to promote social and economic objectives as well as natural and fiscal resource conservation objectives appears to be the only feasible means of developing and defending a land use plan that affects the use of lands.<sup>19</sup> We should emphasize that, in reality, an enduring economic carrying capacity can be only as vigorous as the environmental carrying capacity can bear. These observations apply to Vermont. Acknowledging the increasing world demand for food and also the traditions of and livelihood of many Vermonters, most of us probably agree that the highest and best use of our farmland is agriculture and not subdivisions. Farmland is one of Vermont's greatest assets. In a sense, farmland is our “capital” from which we can derive much of our income forever. Vermont's capital also includes scenery that attracts tourists, granite, slate, marble, maple syrup and wood products. We must develop the land in such a way that we do not decrease the value of any of these aspects of the carrying capacity.

We have two primary objectives: (1) to maintain the quality of our people and (2) to maintain the quality of our land.

(1) Many questions regarding quality of people are unanswered. What are the educational levels and special characteristics of our resident population and of our immigrating population? How can we maintain or increase these levels? What types of training programs are necessary in order to get every Vermonter off welfare, and to assure that a minimum number of future Vermonters need welfare? Perhaps it is time to make a state-wide survey in order to discover if our schools should be teaching vocational skills to more people.

(2) Similarly, many questions remain to be answered regarding the quality of our land. How do we keep our best farmland, on which we depend for food and for

attracting tourists, in farming?

Is the present trend of increasing sizes of farms going to continue or are shortages of gasoline going to produce increased use of horses which would decrease the size of farms? Will the impending shortages of phosphate fertilizers necessitate greater use of organic fertilizers, such as manure and treated sewage, to maintain the fertility, also tending to decrease sizes of some farms? Because small farms need less pesticides, <sup>20</sup> will pesticide bans serve to decrease the size of farms? How will shortages of electricity affect the farmer? How will shortages of electricity and other heating fuels affect the rate of immigration and hence the demand for land?

Future trends are beginning to develop now: The need to maintain a national balance of payments by exporting food, compounded by world population growth, highlights the need for increasing food production in this nation. To meet these needs, Vermont probably will play an increasingly important role. The probability is that much land that has gone out of farming will be reconverted to agricultural use. We may see the return of many small farms that don't need much capital equipment, that rely more on muscle than on fuel, and that produce various types of fruits and vegetables not grown here now. The trend toward more self-sufficiency by means of home-grown vegetables has begun already. The use of activated sewage from surrounding residences will not only be ecologically sound but agriculturally necessary within a few decades. Precedence has been set by millions of Asians for thousands of years. (But it is difficult to return sewage to fields when most of the people in the state live in one concentrated area thus, clustered development near farms may be necessary.)

As David Heeter suggests, the determination of the best size and distribution of Vermont's population depends on social and economic factors, as well as on ecological factors. The question is not whether we can create jobs, but how to create jobs that will not detract from our "capital" on which future generations will depend for their interest or income. In the past, as new industries moved into the state, they often brought large segments of their work force with them. Our challenge is to attract industries that will hire Vermonters and will not require skills that Vermonters don't have or can't develop.

We cannot expect to find jobs for an endless number of people. The resources, or capital, which we have in Vermont is limited, and we must find a balance between population and resources. Our supplies of energy, of phosphate, of agricultural land and of jobs are all limiting factors; a shortage of anyone will bring future hardship to our people, and the more people there are when the shortage occurs, the greater the hardship will be.

Quality of life depends on jobs, services and being able to enjoy one's leisure in the best environment. After a certain point, the addition of more people adversely affects these conditions. This is what President Nixon's Population Commission had in mind

when it recommended that more Americans would bring no benefit to the nation or its

people, but would instead aggravate most social and economic problems. This recommendation applies to Vermont's situation also. The average Vermonter has accepted this recommendation, as indicated by a 1970 survey in which 68 percent of Vermonters indicated that they wanted to see the states' population stay the same or decrease.<sup>21</sup> We must adopt active programs to slow and ultimately stop population growth in Vermont. As long as we think that population growth of Vermont is inevitable, it will be inevitable.

Initially, we must determine what Vermont's optimum population level is. However, this will be an academic exercise unless we can also determine how to stop at this level.

### **SUMMARY**

The United States population is beginning to put pressure on the economic, social and ecological aspects of Vermont; this pressure is likely to increase. We don't have a large enough economic-ecological carrying capacity to provide jobs and homes for all the people who wish to come without radically reducing the physical attractiveness of Vermont.

Therefore, it is sound public policy for the State of Vermont to actively discourage immigration and to encourage low fertility.

### **RECOMMENDATIONS**

A. To maintain a balance between population and the carrying capacity by encouraging optimal land use.

22. Adopt strong land use controls. If we like the way Vermont looks today, and if we wish to keep it that way for five, fifty or 100 years, then we need strong land-use regulations. These can be determined at the local, regional and state level, with continuous review and surveillance at each level.

23. Maintain farmland. Enact legislation that helps to maintain farmland in agricultural production. Basic tax reform must be utilized instead of piecemeal tax relief. Incentives for farming may be necessary for awhile, but need for food will emphasize food production increasingly in the future; we must keep a maximum amount of agricultural land open so more people can have the option to farm either small or large farms.

24. Preserve prime farmland. New housing developments should be the cluster type to

maintain open spaces, whenever possible, as recommended by the Vermont Capability and Development Plan. In order to maintain farmland, build cluster developments in rural areas, instead of the current one-house-on-one-acre-developments. Encourage people in the rural areas to live closer to town by charging them for "rural" living. Charge them for long stretches of access road, costs of school bus routes and so forth. Operating farms and other essential activities could be exempt from such charges.

Develop a commitment to permanent open spaces in towns and cities also; maintain public open lands, parks and gardens so people will want to live there and not find it necessary to move into rural areas. More clustering should occur in urban areas to minimize encroachment onto existing open land and to produce more open lands in the future. As an urban population increases, the amount of open land in that city should increase accordingly. As a result, a final state of equilibrium is reached where no more building can occur because other buildings exist already, or the permanent, inviolate space is there already, and so growth in the city stops.

Stop strip development in order to maintain the open space concept. Maintaining a pleasant visual impact to the tourist is an important aspect of the open-space principle. "One-in-a-million view" (such as the view of the Adirondacks from Route 7 between Charlotte and Shelburne) should be maintained, even if it necessitates purchase by the state. Expenditure in one sector of the economy is necessary to guarantee income in another sector.

25. Create a Vermont Population Commission that would be concerned with long-term planning. Its functions would be (1) to estimate the maximum population and the optimum population of Vermont; (2) to determine a time table to follow in order to arrive at the optimum population, with minimal economic and ecological disruption; (3) to recommend where industries and residential growth should occur throughout the state; (4) to recommend and initiate educational programs in schools relative to population growth and its related subjects; (5) to recommend any legislation that relates to the future balance of population and carrying capacity; (6) to obtain public opinion by public hearings; (7) to study, research and examine the effects and changes of population growth and immigration on the attainment of state goals in the areas of health care, education, urban planning, transportation, housing, welfare and recreation; (8) to cooperate and work with other population, environmental and planning agencies within the state; and (9) to stimulate regional planning commissions to formulate and accept population plans.

26.

27. B. To slow immigration and to distribute immigrants.

1. Build no more highways. Minimize construction of four-lane limited access

highways in

Vermont. Such highways allow more people to in megalopolis, thus increasing land costs, land taxes and demand for services. (High-speed highways are not necessary to maintain tourism.)

A corollary is the need for an intrastate mass-transit system, wherever financially feasible, to minimize the need for auto dependency.

28. Decrease out-of-state advertising. Eliminate state-sponsored advertising that leads people to set up residency in Vermont. Produce tax incentives to decrease out-of-state advertising by private businesses.
- 29.
30. Legitimize cost of development. Use public moneys to stimulate housing only when such housing is clustered and meets environmental standards. When public funds are used to provide low-cost housing, housing should be of the cluster type, thus keeping cost of services at a minimum. Private developers who build where services are unavailable should pay the entire cost for construction of roads, water and sewage systems including costs for any construction of sewage treatment facilities necessitated by the development. Such a recommendation is in keeping with the recent P.S.B. Ruling (#52) that stipulates consumer payment for new electric lines after the first 100 feet.
31. Maintain a balance between number of jobs and number of job seekers. We should attempt, within constitutional bounds, to work toward a no-growth situation - so population growth would eventually be zero percent per year. State employment policy should be designed to accommodate that figure as soon as is feasible. Until this goal is reached, the question remains, does the state owe a job to every person in the state, and where should these jobs be located?
  - a. Implement a settlement pattern. The Capability and Development Plan suggested that we continue to build up our present population centers. An alternative plan is to revitalize rural areas by attracting incoming industries into areas of ~employment (as done in eastern European nations already). Such a policy would produce many small centers of population and minimize concentration of population in a few, large metropolitan centers. By inducing employers into rural areas, building only on nonagricultural lands, we could increase the balance of Vermont's economy. For example, where new employment is needed, we could bring in ten small companies, each hiring twenty people, instead of four large companies, each hiring fifty people. The result would be that if one company lost a government contract, minimal chaos would result. Since each job in manufacturing stimulates two and a half service jobs, the introduction of a small company can make a real impact in an area of unemployment. However, before any such inducement occurs, extensive impact studies would be necessary.

- b. Attract industries that can utilize the existing labor pool of Vermont. We must be careful not to create “job vacuums” or areas of over-employment that necessitate bringing in workers to one area while another area has high unemployment.
- c. Gradually limit job development to that needed by the stabilized optimum population (growth rate equaling zero percent) that Vermont should strive for. It may take about sixty years to gradually implement such a policy, but the policy should be adopted now. We must acknowledge that the state cannot possibly provide jobs for a population that increases at an annual rate of 1.8 percent, as is occurring now.

If present population trends continue for many decades, the economic carrying capacity of Vermont probably will be insufficient to meet the needs of the immigrants and once again, as in the past, a situation of net emigration will occur. We would like to move toward this situation by means of a gradual transition instead of a rapid transition combined with crisis and catastrophe.

C. To reduce natural increase of Vermonters.

- 32. Education. Develop population education programs in the public schools, the media and community organizations (Lions, Rotary, etc.) to teach people of all ages the role of population growth in Vermont's social and economic future. Develop family-life education programs in schools to teach how to be effective spouses and parents.
- 33. Require that family planning information be provided to all marriage license applicants - a law to this effect has already been passed by Maryland, New Hampshire, Virginia.  
  
Emphasize need for smaller families and marriages at older age. (Thirty-nine percent of births in Vermont in 1971 were number three or more; 16 percent of all births in Vermont were to females 19 or less.)<sup>22</sup>
- 34. Services. Establish family planning programs which ensure that all voluntary fertility-control services are available to everyone. In an effort to minimize unplanned pregnancies and unwanted births, such services would emphasize contraception and sterilization, resorting to abortion only as a last resort.
- 35. Accessibility of contraceptives. Encourage widespread availability and marketing of non-prescription contraceptives, with point-of-sale displays instead of behind the counter secrecy. This is necessary to guarantee that every birth is a wanted birth.
- 36. 4. Tax exemptions. Limit the number of income-tax exemptions to two children.

It all depends on what Vermonters want. The choices are difficult, but we cannot have our cake and eat it too. We can sit back passively and wait for the population to double in 30 to 35 years, or we can work actively toward a future goal that the majority agrees is desirable. And finally, we should remember the advice that Oscar Hammerstein left with us in South Pacific:

“If you don’t have a dream, how you gonna have a dream come true?”

### **REFERENCES**

37. State of the Nation, Potomac Associates Book, 1973.
38. Environmental Quality Magazine, March, 1973.
39. 1971 Vermont Vital Statistics.
40. 1971 Vermont Vital Statistics.
41. VNRC Population Paper, Mrs. William Irwin, Feb. 8, 1973, p.1.
42. Current Population Reports, Series P-25, No. 488, Sept., 1972.
43. Eric Godfrey, U.V.M. demographer.
44. 1970 Vermont Vital Statistics.
45. 1970 Vermont Vital Statistics.
46. Population and Job Projection - Walter Cooley, Vermont Public Health Dept. Statistician, Sept. 2, 1972.
47. Merkle Report, p.23.
48. Population and Job Projection - Walter Cooley, Vermont Public Health Dept. Statistician, Sept. 2, 1972.
49. Rutland Herald, March 23, 1973.
50. Rutland Herald, March 23, 1973.
51. Rutland Herald, March 23, 1973.
52. "Who Pays for What?", O.C. Stuart & R.B. Teska, Urban Land, March, 1971.
53. Middlebury Speech, May 7, 1971.
54. Burlington Free Press, October 3, 1972; Nonresident Ownership of Property in Vermont, R.O. Sinclair and S.B. Meyer, May, 1972, Bulletin 670, Agricultural Experimental Station, U.V.M.
55. A Proposed Settlement Policy, David G. Heeter, Consultant, Vermont State Planning Office, July 12, 1973.
56. "The Big Farm", Environment, M. Perelman & K. P. Shea, Dec., 1972.
57. The Becker Report, January, 1972.
58. Walter Cooley, Dec. 8, 1972 letter.

**APPENDIX 1**

**VERMONT POPULATION PROJECTIONS AT VARIOUS GROWTH RATES  
1970 - 2010**

<u>Year</u>	<u>1%/yr.</u>	<u>1.5%/yr.</u>	<u>2.0%/yr.</u>
1970	444,732	444,732	444,732
1975	467,400	479,100	491,000
1980	491,250	516,100	542,100
1990	542,650	599,000	660,850
2000	599,400	695,150	805,550
2010	662,150	806,750	982,000

Walter Cooley, Chief of Vermont Public Health Dept., Statistician, Sept. 1, 1972.

**APPENDIX 2  
FASTEST GROWING COUNTIES**

<b>Rate of Growth 1960-1970</b>	<b>County</b>	<b>Estimated Growth Rate to 2000</b>	<b>Years to Double Population</b>
2.9	Chittenden	1.5 -1.9	37 -47
2.0	Grand Isle	1.0 -1.5	47 -70
1.9	Lamoille	1.5	47
1.8	Addison	1.0 -1.5	47 - 70
1.6	Bennington	1.5	47

**APPENDIX 3A  
EXPECTED NUMBER OF PEOPLE IN LABOR FORCE IN 1980**

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<b>Growth Rate</b>	<b>No. in Labor Force</b>	<b>Increase over 1970</b>
1 %	212,000	37,000
1.5 %	222,000	47,000
2.0 %	233,000	58,000

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**APPENDIX 3B**

**REQUIRED NUMBER OF JOBS NEEDED IN 1980**

(Assuming some people work at two jobs, as they do in 1970)

Growth Rate	No. of Needed	Increase over
1 %	229,000	41,000
1.5 %	240,000	52,000
2.0 %	251,000	63,000

Walter Cooley, Chief of Vermont Public Health Dept., Statistician, Sept. 1, 1972.

<b>Town</b>	<b>% increase population (1950-1972)</b>	<b>iiincreas Non education Costs *adj.</b>	<b>% increase educational Costs *adj.</b>	<b>Ratio population to non-ed costs</b>	<b>Ratio population to</b>
Brattleboro	11 %	153% %		1 :14	
Bristol	11 %	71 %		1:6	
Burlington	40%	261 %		1 :7	
Cornwall	34 %	225 %	435 %	1 :7	1 :13
Essex Junc.	243 %	552 %		1 :2	

Middlebury	55 %		480 %			1:9
Ripton	21 %		86 %		109%	1:5 1:6
Rutland	13 %	%	355 %	%		1:27
Salisbury	12%	%			296% %	1:25
Springfield	30 %		411 %			1:14
Vergennes	35%%		83%			1:2

Winooski	21%		96 %			1:5
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Appendix 4

\* Adjusted costs take into consideration the devaluation of the dollar.

\*\*Devaluation information was obtained from the Statistical Abstract, 1972 edition.