

## **Vermonters Awareness of and Attitudes Toward Sprawl Development in 2002**

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### **Introduction**

In recent years sprawl has been viewed by a number of Vermont residents as a growing threat to the state. When Vermonters were asked in the year 2001 what they believed was the most serious issue facing the state in the coming decade the number one response was “sprawl development and land use.” Clearly, the issue of development and sprawl is a prominent concern to the states citizens.

The following report presents the results of a statewide public opinion poll conducted in the year 2002 and compares these results to those from the years 2000 and 2001 on issues related to sprawl development in the state of Vermont. The report focuses on awareness of and attitudes related to sprawl. Moreover, we examine the possible relationships between certain demographic variables and these attitudes.

### **Methods**

The data used in this report were collected by the University of Vermont’s Center for Rural Studies as part of the annual "Vermont Poll." The poll was conducted between the hours of 4:00 p.m. and 9:00 p.m. beginning on February 19, 2002 and ending on March 1, 2002. The polling was conducted at the University of Vermont using computer-aided telephone interviewing (CATI). The sample for the poll was drawn through random digit dialing and used all of the telephone exchanges in the state of Vermont as the sampling frame. Only registered voters over the age of eighteen were interviewed. The poll included questions on a variety of issues related to public policy in the state of Vermont.

There were 734 respondents to the Vermont Poll. The results based on a group of this size have a confidence interval of 95 percent with a margin of error of plus or minus 5 percentage points. Both Chittenden County (urban area) and the Northeast Kingdom (rural area) were over-sampled to allow for separate and comparative analyses. The margin of error for Chittenden County is plus or minus 5 percent with a confidence interval of 90 percent. The Northeast Kingdom (Essex, Orleans, and Caledonia Counties) has a margin of error of plus or minus 10 percent with a confidence interval of 95 percent. The margin of error associated with the study increases as the sample size for any given analysis decreases.

In order to make the sample more representative of the population, the sample cases were

weighted based on geographic location and gender. Weights were determined using the proportions reported in the 2000 U.S. Census. The weighted data were used at all times during the analysis, except when analyzing the variables gender or geographic location.

Appendix A lists the questions asked in 2002 that relate to sprawl development in Vermont. Following the question concerning awareness of sprawl development, a definition of sprawl development was given. Our intention was to create a situation where all respondents would be answering questions with the same definition of the term in their minds. The definition statement, developed by the Vermont Forum on Sprawl, read as follows: one commonly used definition of sprawl is dispersed development outside compact urban and village centers, along highways, and in rural countryside (Vermont Forum on Sprawl, 2002).

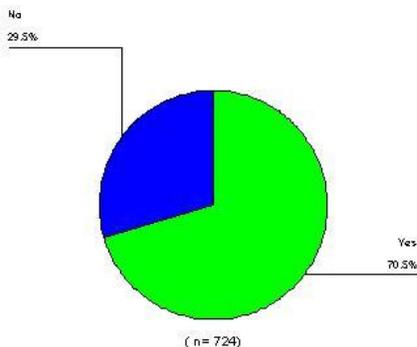
Several of the questions were asked in the last three annual Vermonter Polls. Question 1 concerning the most serious issue facing Vermont in the coming decade was asked in the years 2001 and 2002. Questions 2, 4, and 6 were asked in 2000, 2001, and 2002. For further information on the Vermonter Poll please go to: <http://crs.uvm.edu>.

## Results

### Awareness

The majority of the respondents had heard of sprawl development prior to the 2002 Vermonter Poll (Figure 1). Although not required to supply a definition or explain their understanding of sprawl, 70% of respondents had familiarity with the sprawl concept. Table 1 shows that awareness of the term sprawl has fluctuated throughout the past three years.

*Figure 1. Percent of the population who have, and have not, heard of “sprawl”.*



*Table 1: Percent of the population that had heard of the term “sprawl” development; 2000, 2001, and 2002.*

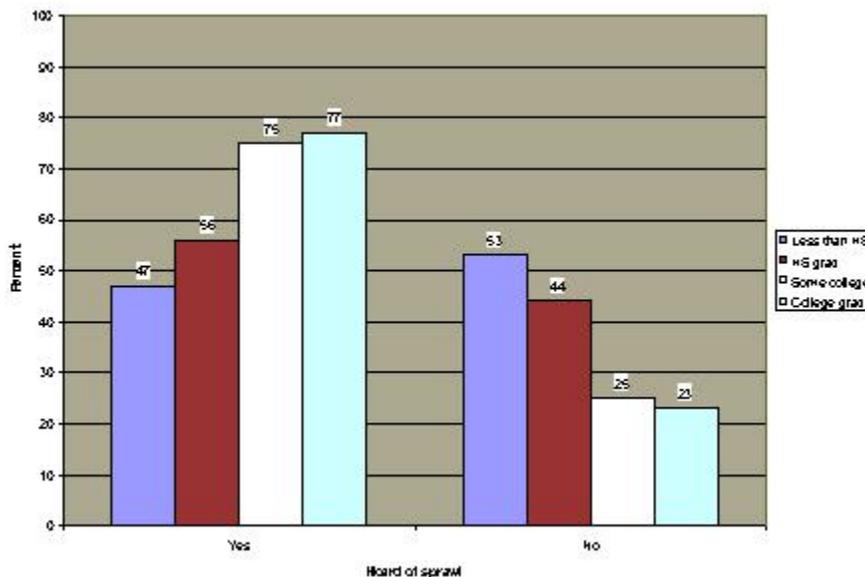
Year	2002	2001	2000
Percent aware	71%	76%	67%

The probability that an individual has heard of sprawl increases with income and level of education. Table 2 and Figure 2 represent these relationships. In both cases, the measure of association for income and familiarity with sprawl shows a positive correlation, so as income increases the likelihood of being aware of sprawl increases.

*Table 2: The relationship between having heard of sprawl and income (Significance level: .000).*

Income Level	Less than \$20,000	\$20,000-\$65,000	More than \$65,000
Has heard of sprawl	57%	68%	83%

*Figure 2: Awareness of the term “sprawl” by educational attainment (Significance level: .000).*



A significant disparity between respondents living in Chittenden County (Vermont’s most populous county and home to the state’s largest growth centers) and the Northeast Kingdom

(Vermont’s most rural and remote regions), and having heard of sprawl also exists. Residents of the Northeast Kingdom are less likely than Chittenden County residents to have heard of sprawl prior to the survey (Table 3).

Table 3: Awareness of the term “sprawl” by county (Significance level: .000).

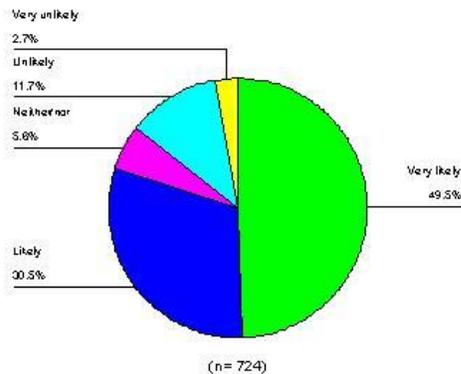
Residence	Chittenden County	Northeast Kingdom
Has heard of sprawl	81%	57%

Gender and the number of children in a household also showed significant differences between a respondent’s knowledge of sprawl prior to the survey. The data show that men in Vermont are 10% more likely to have heard of sprawl than women. Seventy six percent of men and 65% of women have heard of sprawl (Significance Level: .001). Respondents living in households with children are 10% less likely to have knowledge of sprawl, 78% of households with no children have heard of sprawl and 68% of households with children are familiar with sprawl (Significance level: .007).

Attitudes

When supplied with a definition of sprawl, 80% of the survey’s respondents felt it was likely future development trends in Vermont would lead to sprawl (Figure 3). 14% did not seem to think development trends would lead to sprawl, and 6% thought sprawl was neither likely nor unlikely.

Figure 3: Respondents belief in the likelihood that current trends in land use will lead to sprawl.



Respondents coming from households with children are more likely to believe that sprawl will become a problem if current development trends continue (Significance level: .076). Seventy seven percent of respondents with no children in their household perceive future development as likely to encourage sprawl while 82% with children feel this way. Alternatively, of those respondents perceiving development as unlikely to cause future sprawl 18% do not have children while 11% do.

An individual's perception of where they live (in a rural or urban and suburban area) is also likely to play some role in a Vermonter's perception of current development trends, as the difference in perceptions by urban and suburban residents compared to rural residents is nearly statistically significant at the 90% level (Significance level: .109.). Respondents perceiving themselves as living in rural environments are slightly more likely than Vermonters perceiving themselves as living in urban or suburban environments to believe future development as likely to cause sprawl. Of respondents unsure of the effects of future development, higher percentages live in urban and suburban environments than rural environments.

Three questions aimed to gauge Vermonter's willingness to take action in order to prevent development leading to sprawl. Seventy one percent of the participants felt action needed to be taken to stop sprawl while 30% did not think action needed to be taken (Table 4). Table 4 also shows the change from 2000 to 2002 in the percent of the population who believe that action should be taken to prevent sprawl.

*Table 4: Percent of respondents who believed that action should be taken to prevent sprawl; 2000, 2001, and 2002.*

<b>Year</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>
<b>Take action</b>	70%	66%	65%

Education and region of residence are the only variables showing a significant relationship with Vermonter's desire for action stopping sprawl. An individual's desire for action increases with an increase in education. Table 6 represents the relationship between education and a desire for action against sprawl, desired location of commercial development and desired home environment. Equal percentages of non-high school graduates and graduates desire action, while a significant percentage more desire action in the portion of the sample representing Vermonter's who have attended post-high school educational programs.

Overwhelmingly, 89% of this survey's respondents favored redevelopment of vacant properties in urban and village centers over creating new structures for commercial activity (Figure 4). For personal housing, 69% of this survey's respondents favored a house in an outlying area, with longer commutes to town, but more yard space and privacy, while 31% favored housing in an urban or village center with access to public transportation, work, and shopping (Table 5).

Figure 4: Preferred type of future development in the state.

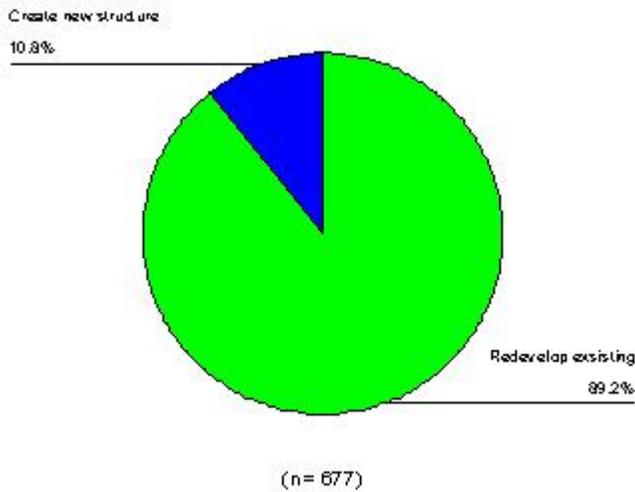


Table 5: Consumer preferences when give two hypothetical choices for housing; 2000, 2001, and 2002.

Year	2002	2001	2000
Central location	31%	30%	33%
Outlying location	69%	70%	67%

Vermonters with higher levels of education are more likely to desire commercial development in existing and centrally located structures rather than build new buildings (Table 6). However, education does not bear a significant role in Vermonters' decision about what type of environment to live in.

Table 6: Relationship between education and the following: desire for action to be taken to prevent sprawl; preferred choice for commercial development; and preferred choice for personal residence (Significance level: .000 and .000 respectively). (Note: No significant relationship exists between education and housing choice.)

Education Level	No high school diploma	Received high school diploma	Some college, no degree	College, tech.or prof. degree
Desire action	59%	59%	64%	78%
Central	74%	84%	88%	93%

<b>commercial site</b>				
<b>Central location home</b>	28%	31%	26%	33%

When selecting choices for commercial development (the redevelopment of existing buildings or new construction) significant influences on Vermonter’s decisions are level of education, income region of residence, age and number of years the respondent has lived in the state. Vermonter’s selection of personal residences seem to be based significantly on income, having children under the age of eighteen, region of residence, perception of current home environment and age.

Table 7 represents the relationship between Vermonters’ desire to act against sprawl and the geographic location of their current residence. Vermonters living in the Northeast kingdom are less likely (62%) to desire action against sprawl than residents in Chittenden County (76%). Northeast Kingdom residents are also less likely to choose to place commercial development in existing structures (86%), than Chittenden County residents (93%) (Significance level: .028). Personal residence selection is also dependent on geographic region of residence as Chittenden County residents are more likely to choose home sites in urban and village centers (49%) than Northeast Kingdom residents (16%) (Significance level: .000).

*Table 7: Relationships between geographic location and the following: desire to take action against sprawl; preferred choice for commercial development; and preferred choice for personal residence (Significance levels: .010, .028, .000 respectively).*

<b>Residence</b>	<b>Chittenden County</b>	<b>Northeast Kingdom</b>
<b>Desire action</b>	76%	62%
<b>Central commercial site</b>	93%	86%
<b>Central location home</b>	49%	16%

Income does not play a significant role in Vermonters’ desire for action against sprawl, but does play a significant role in Vermonters’ selection of commercial and home sites. As income increases Vermonters are more likely to prefer development be placed in existing structures and less likely to prefer centrally located housing. Table 8 illustrates the relationship between income and housing and commercial development preferences.

*Table 8: The relationship between income; and preferred commercial development and personal residence (Significance level: .007, .035 respectively).*

<b>Income Level</b>	<b>Less than \$20,000</b>	<b>\$20,000-\$65,000</b>	<b>More than \$65,000</b>
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<b>Central commercial site</b>	79%	91%	93%
<b>Central location home</b>	30%	35%	24%

Both the age of survey participants and the number of years they have lived in Vermont show significant relationships with decisions about commercial and home development sites. The mean age of respondents selecting commercial development in existing buildings is 57, while the mean age of participants choosing to build new buildings is 50 (Significance level: .000). The difference between the number of years participants have lived in the state and their commercial choice selection is nine. The mean age of respondents choosing to build new structures is 42 years, while those selecting to use existing buildings have a mean age of 33 years (Significance level: .000). The mean ages of those selecting housing options in urban or village centers is 53 years, while the mean age of those desiring to live in more rural locations is 50 years (Significance level: .002).

Having children and unemployed adults in a household, and perceiving the current environment you live in as rural, urban or suburban, all bear significant influence on Vermonters' preference for type of home environment, but not for location of commercial development. Respondents living in households with children are significantly more likely to choose home sites in outlying areas (77%) over village or urban centers (68%) (Significance level: .013). Respondents living in households with one or more unemployed adults are more likely to select home environments in central locations (36%), than outlying areas (24%) (Significance level: .003). Participants perceiving themselves as living in rural areas are more likely to prefer future home sites in outlying areas (81%), than central locations (48%) (Significance level: .000). Living in rural areas currently and the desire to live in an outlying area in the future are closely linked. Table 9 illustrates the relationship between Vermonters' perception of their current housing environment, and where they would like to live in the future.

*Table 9: Relationship between current housing environment and hypothetical personal residence (Significance level: .000).*

<b>Current housing environment</b>	<b>Urban/Suburban</b>	<b>Rural</b>
<b>Housing option: central location</b>	52%	29%

## **Discussion**

This report examines the levels of awareness and attitudes towards sprawl development of the Vermont population and the changes over time since the year 2000. While awareness of sprawl has fluctuated between 2000 and 2002 the attitude that action should be taken to prevent sprawl

has steadily increased . Consumers' housing preferences remained stable over the three year period.

The report also indicates that there are numerous possible relationships between certain demographic characteristics and sprawl. Particularly, education, income, and geographic location seem to be related to awareness and attitudes concerning sprawl.

This research seems to indicate that there are several future avenues for research that can be done. Specifically, a model could be created based on awareness, knowledge, attitudes, and certain demographic variables to determine and predict future levels of support for sprawl development among consumers in the state.

## **References**

Center for Rural Studies (2001) Sprawl Development in Vermont; 2001. Available: Center for Rural Studies; 207 Morrill Hall; UVM; Burlington, VT 05401.

Center for Rural Studies (2000) Sprawl Development in Vermont; 2000. Available: Center for Rural Studies; 207 Morrill Hall; UVM; Burlington, VT 05401.

Environmental Protection Agency (2002) Smart Growth. Available at:  
<http://www.smartgrowth.org>.

Vermont Forum on Sprawl, (2002) Sprawl Defined. Available at: <http://www.vtsprawl.org>.

## **Appendix A: Questions related to sprawl development on the 2002 Vermonter Poll.**

1) What do you feel is that most serious issue facing Vermonters in this coming decade?

1. \_\_\_\_\_

2) Have you heard of "sprawl" development?

1. Yes
2. No
3. Don't know

4. Refused

3) How likely is it that current trends in development and land use will lead to sprawl in Vermont?

1. Very Likely
2. Likely
3. Neither Likely nor Unlikely
4. Unlikely
5. Very Unlikely
6. Don't know
7. Refused

4) Do you feel action should be taken to stop sprawl in Vermont?

1. Yes
2. No
3. Don't know
4. Refused

5) Which of the following choices for future commercial development in the state would you prefer?

1. The redevelopment of vacant properties in an urban area or village center.
2. The creation of new structures in an outlying area.
3. Don't know
4. Refused

6) Consider the following hypothetical choice. Your income is high enough to purchase a home. You have two options: buying a home in an urban area or village close to public transportation, work, and shopping; or purchasing a larger, single-family home of equivalent value in an outlying area, with longer commutes to work but with more yard space. Which option would you choose?

1. Option one- buy a home in a village or urban center.
2. Option two- buy a home in an outlying area.
3. Don't know
4. Refused

PRESS RELEASE

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**New Study Shows Sprawl Still A Top Issue in Vermont**  
*CRS/Forum on Sprawl poll finds strong support for taking action now*

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Burlington, VT - For the second consecutive year, Vermonters have said that “urban sprawl and land use” are among the most important issues facing the state in the coming decade. According the 2002 Vermonter Poll conducted by the Center for Rural Studies at the University of Vermont on behalf of the Vermont Forum on Sprawl, “urban sprawl and land use” was the third most frequently mentioned issue in 2002, following only the economy and education. In last year’s poll, when Vermont’s economy was stronger and before recent legislative battles over school funding, sprawl was the number one issue.

General awareness of the issue of sprawl development has remained high over the past four years. In 2002 approximately 70% of the Vermont population had heard of the term sprawl development. This is up slightly from 2000 when 67% of Vermonters were aware of the term sprawl, but up significantly from 1998 when 53% of Vermonters were aware of the term. The results also indicate that younger Vermonters are more likely to have heard of the issue than older Vermonters.

When asked the question, “How likely is it that current trends in development and land use will lead to sprawl in Vermont?” 80% percent of Vermonters said they believe it is likely or very likely that current trends will lead to sprawl, while only 6 percent believed it to be unlikely. This is up significantly from 2001 (62%), 2000 (61%) and 1998 (57%). Vermont residents who live in urban or rural areas (82%) are more likely to believe that current trends will lead to sprawl than people who live in suburban areas (75%).

Seven of ten Vermonters now believe that action should be taken to prevent the spread of sprawl development in Vermont. This reflects a consistent and growing desire for changing current development trends in Vermont. (See Table 1).

Table 1

Percent of respondents who believed that action should be taken to prevent sprawl

Year	2002	2001	2000	1998
Take action	70%	66%	65%	61%

People who are aware of the issue of sprawl development prior to the poll are more likely to support taking action to prevent sprawl. Seventy six percent of the population who had heard of

sprawl prior to this poll believe that action should be taken to prevent sprawl, while only 55% of those who had not heard of sprawl supported taking action.

Overwhelmingly, when asked where they would most like to see future commercial development, Vermonters declared that they would like to see vacant properties in urban areas or village centers redeveloped (89%), rather than have new developments created (11%).

These findings were based on the 2000, 2001, and 2002 Vermonter Polls conducted by the Center for Rural Studies at the University of Vermont, and the 1998 Vermont Forum on Sprawl Poll conducted by Macro International. Respondents were all at least 18 years-of-age and registered voters in Vermont. Results based on these polls' sample sizes have a margin of error of plus or minus 5 percentage points with a confidence interval of 95 percent. \*

The Center for Rural Studies (CRS) is a nonprofit, fee-for-service research organization which addresses social, economic, and resource-based problems of rural people and communities. Based in the College of Agriculture and Life Sciences at the University of Vermont (UVM), the Center provides consulting and research services in Vermont, the United States, and abroad. For more information on the Center for Rural Studies visit their Web site at <http://crs.uvm.edu>.

The Vermont Forum on Sprawl is a non-profit organization whose mission is to preserve Vermont's unique working landscape and quality of life while encouraging economic vitality in community centers. The Forum accomplishes this mission through research, public policy, community capacity building, education and partnerships. For more information on the Vermont Forum on Sprawl, visit their website at <http://www.vtsprawl.org>.

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\* Sample sizes for the polls were as follows: 1998 (n= 2,325); 2000 (n=697); 2001(n=720), and 2002 (n=734).