METHODOLOGICAL APPENDIX A

INSTRUCTIONS FOR THE
STUDY OF VERMONT TOWN MEETING

Introductory Remarks

This year you will be a member of a team of over 100 students engaged in the most complete analysis of the New England Town Meeting ever attempted. It is the most thorough look at one of America's most important political institutions. You and your colleagues are involved in an extremely difficult research problem. This kind of observer research is to social science what the heart transplant is to surgery. The watchwords must be: CLARITY, SIMPLICITY, and CONSISTENCY. Also bear in mind that our results can be no stronger than our weakest link. Everybody must be consistently accurate for the project to be a success. This project has been underway since 1969 so your participation relates directly to efforts by other students in other years for the town you are observing. We don't want this year to be the Aweak link.≅

INSTRUCTIONS

Attendance

You are to take attendance at least FOUR TIMES during the meeting if it is a split session, i.e., before and after lunch: (1) Within a half-hour after the meeting begins. (2) One half-hour before the noon break (if there is one). (3) Within a half-hour after the afternoon session begins. (4) Near the end of the meeting, usually just prior to the last Awarning≅ item, which is usually the Anew business≅ item. If the meeting is conducted at a single seating, usually at night, then record the attendance three times, beginning, middle, and near the end. Be sure to indicate the **time** when you record the attendance. Break down the attendance by gender. List **all** the adults as attenders. If there is any doubt in your mind as to whether or not the individual is 18 years old, assume that he or she is and count her. Count the town officials as attenders and indicate as best you can how many there are. Be **sure** to count the number of empty seats **and** the number of people standing each time.

Participation

Have one member of your research team keep track of participations. You are to record everyone who speaks, except the moderator, as a participator. Remember to record the gender of the speaker with the identification by using M or F (no other abbreviations). As each speaker speaks identify him or her and place a number beside the identification which is the number of the agenda (warning) item being considered at the time. If for some reason no agenda item is on the floor, place an X beside the identification. If the agenda item comes up under New Business, place an N_1, N_2, N_3, etc., in the appropriate place. Be sure to identify on the appropriate data sheet what each new item of business is. If she speaks again at any time, place another number beside her name and so forth as follows:

No.	GENDER	IDENTIFICATION	PARTICIPATIONS
1	(M)	Man in red hat	1 3 3 6 7 N_1
2	M	Fat man with mole	1
3	(M)	Yellow tie	2 2 X_1 11 11 13 13
4	F	Skinny lady	2
5	F	Shrill voice	3 10
6	M	Green plaid jacket	4 4 10 N_1 N_1 N_2
.			
.	Etc.		
.			
27	F	Blue dress and scarf	11 11 12 16
3	M	Yellow tie (continued)	13 14 15 16

(Put a circle around M or F if the person is a town officer)

Usually the town officers are there and sit apart from the others. If you can identify these town officials (and you should be able to), circle the M or F in the gender category next to their identification if and when they speak, so we will know them as town officers. However, do not guess. If you are unsure about a certain individual you may ask **after** the meeting to determine if she or he was an official or not. Remember we are only talking about town officials (town clerk, auditor, selectman, etc.) and not other kinds of leaders. The pastor of the Church, master of the local Grange, Principal of the school, etc., are not to be labeled town officials.

Do NOT record the SECOND of a motion as a participation on the part of the seconder. When two individuals are in a dialogue you are to count this as ONE participation for each. If the dialogue is broken by a third participant (who receives a number for doing so) and then resumes, give each participant in the dialogue another score. (This kind of dialogue may take the form of a question and answer session between a citizen from the floor and a town official; between two citizens; or between two town officials.) The officers may discuss things privately among themselves while the meeting goes on. Do not record this activity as participation.

An individual is said to participate when he is recognized by the moderator to do so. However, record the impromptu speaker if you believe he has commanded the attention of the meeting. A person need not stand to participate. Do not record grumblings and mutterings unless such an act got the attention of the meeting.

Voting

Keep track of the issues under discussion and record the votes taken. Indicate how each article on the warning was resolved. If the vote was a voice vote then indicate whether the Ayeas≅ or the Anays≅ won. If the vote is by hands then count them yourself and record the results. If the count is announced (and it should be) and it conflicts with yours, then record the totals that the official counter announced. If the vote is by ballot during the meeting, wait and record the totals as they are announced after the balloting is over. If the vote is by day-long ballot, then wait to get the results after the meeting. (They may be announced near the end of the meeting.) If there will be voting at a time other than when you are there, then make some arrangements to obtain the totals on

your own. Remember, we are after the Yes-No figures on the voting wherever possible. Be sure to record the votes for town officers which are lumped together under one article. The same goes for the reports of town officers.

Time

It is necessary to record the time spent discussing each article of the warning. This is simple to do, but you must remain alert. The first step is to record the time the meeting begins (usually to elect a moderator). When this step is over record the time the meeting begins again. Continue the process on through the list of articles, always recording the time at which one was taken up and the time at which it was settled. If action on the measure is postponed then simply record another time-set for it when consideration of it is resumed. Remember we are not just recording discussion time but the time that passed while that particular article was on the floor. At the end of the day you should be able to account for all the time of the meeting. There may be discussions of topics not on the Warning that take up considerable time. Simply record the time spent on them as you would a Warning item. This seldom happens, however, as most discussions will fall under the time set of a Warning item. An example of this kind of interruption is a state legislator asking the advice of the meeting about a certain issue. It would be probably best to assign a member of your research team to be in charge of this task. Be sure to take a watch with you.

General Information

You are responsible for completing an answer sheet of general items. This is most important. You may obtain the answers from conversation with town officials or local leaders or just ordinary citizens after the meeting. Many of the questions are easily answered without interview. Be sure to get all the answers.

School Meeting, Town Meeting

In some towns a school district meeting is often held during the Town Meeting. That is, the Town Meeting is adjourned and the School Meeting begins. When the School Meeting is over, the Town Meeting begins again. Sometimes the School Meeting is held directly prior to the Town Meeting or directly afterwards. If this happens in your town, record everything in the School Meeting that happened in RED INK--all participations, votes, the time, etc. Then we will be able to separate out the School Meeting if need be. Do this only if the Town Meeting is separate from the School Meeting and not if school matters are part of the Town Meeting. Think of it this way, we need an exact record of everything that occurs during the meetings held in your building on the day you are there. But we also need to be able to identify separate meetings. We do that simply by shifting the color of the ink (pencil) to red for School Meetings. Therefore be sure that you know (usually by calling the town clerk) when the FIRST MEETING OF THE DAY BEGINS. In many towns, remember, there is only one meeting, the Town Meeting.

Names of the Top Participators

You will notice as the meeting goes on that some people talk a lot more often than others. Write down their names as they become known to you on the data sheet provided. (To save time,

you can jot the names on the participation profile grid.) If you don't catch their names during the discussion, get a good description of them and ask around during a break in the meeting or after the meeting. It is seldom the case that you can't find out who these people are. But if you can't, <u>never guess</u>. Just omit the information.

CHECKLIST OF THINGS TO BRING WITH YOU:

1.   Pens, at least 2, red and black
2.   Watch or clock.
3.   Clipboard
4.   Your data sheets and instructions
5.   Town Report and Warnings.

<u>Finally</u>

Try to sit where you can see it all. Remain <u>discrete</u>, but <u>not secretive</u> until after the meeting is over. Be polite. Remember you are there through the good will of the town=s people. In your work be conscientious and accurate. This is an important project. Enjoy yourselves. Once again, remember that errors in your approach to data gathering can mean that your particular town cannot be compared to the others. We must remain <u>consistent</u>.

DATA SHEETS

FOR THE VERMONT TOWN MEETING STUDY

Year _____

Town _____

RESEARCH TEAM

Name   Phone

(1) _____   _____

(2) _____   _____

(3) _____   _____

(4) _____   _____

(5) _____   _____

Attach copy of *TOWN REPORT* or the *WARNING* for both Town and School.

Data Sheet No. 1

GENERAL INFORMATION

1. Town studied _____ Year _____

2. Where was the meeting held (Grange Hall, School, Gym, etc.)? _____

3. Was there a period of adjournment for lunch or for some other reason? YES   NO

4. What were the weather conditions in your area? Circle one:

    001 - GOOD (sunny, clear, cold and clear, excellent, or just cloudy)

    002 - BAD (heavy snow, sleet, etc.)

    003 - Light snow or fluries

    004 - Mixed (snowing then turning clear)

    005 - Raining

5. Were the roads clear? Circle one:

    001 - CLEAR

    002 - NOT CLEAR (snowy, flooding, or muddy)

    003 - Main roads clear, but back roads not

    004 - Clear but wet

6. What were some of the physical characteristics of the meeting place itself? Was it too large? Too small? How was the lighting?

7. Did they use a microphone?   YES   a) Portable   b) Fixed
                                    NO

8. Was there a pre-town meeting?   YES   NO

9. If so, how long did it last, on what date was it held, and what organization, if any, sponsored it?

10. Was there baby sitting available?   YES   NO

11. Was there a school meeting held? If so, when?.

NOTE: You may have to talk to a town official to get #2, 8, 9, 10 and 11.

DATA SHEET No. 2
ATTENDANCE

TOWN_____

YEAR_____

TIME	TOTAL	(Includes people standing) MEN	WOMEN	EMPTY SEATS	NO. STANDING	NOTES
1.						
2.						
3.						
4.						

EXAMPLE: At 11:05 a.m. there was a total of 40 people (standing and seated) in attendance: 15 were women and 25 were men. Of the 40 people, 3 were standing and there were 60 empty seats. (When you fill in number of men and women, this includes ALL men, standing, seated, officers, etc.)

| 11:05 A.M. | 40 | 25 | 15 | 60 | 3 | |

DATA SHEET No. 3
ISSUES AND CONFLICT
(VOTING)

Town_____

Year_____ ____ _____

Article #	ISSUE	KIND OF VOTE TAKEN						
		VOICE		HANDS		(During meeting) BALLOT		Discussion but no vote taken OR OTHERS
		Yeas Win	Nays Win	Yeas No.	Nays No.	Yeas No.	Nays No.	

DATA SHEET No. 4

ELECTION OF TOWN OFFICERS

TOWN_____
YEAR_____

OFFICE IN QUESTION	CANDIDATES	GENDER	VOTES				
			1	2	3	4	
	1. _____						
	2. _____						
	3. _____						
	4. _____						
	1. _____						
	2. _____						
	3. _____						
	4. _____						
	1. _____						
	2. _____						
	3. _____						
	4. _____						
	1. _____						
	2. _____						
	3. _____						
	4. _____						
	1. _____						
	2. _____						
	3. _____						
	4. _____						

DATA SHEET No. 5
PARTICIPATION PROFILE TABLE

TOWN_____

YEAR_____

(Circle M or F if an officer)

M or F

ID#	Gender	IDENTIFICATION	PARTICIPATIONS

EXAMPLE:

1   F   Woman weird glasses, straw hat X_1 X_1 2   2   4   5   5   5   7   10 10 X_4 11 11 N_1 N_2
2   (M) Guy with beard and red jacket   1   1   1   12 N_2

DATA SHEET No. 6
TIME

Town Name_____   Time Meeting Began _____

Year_____   Time Meeting Ended_____

NO. OF WARNING ITEM	SUBJECT	TIME IT CAME TO THE FLOOR	TIME IT LEFT THE FLOOR	NOTES

DATA SHEET No. 7

TOP TEN
PARTICIPATORS

TOWN_____

YEAR_____ _____ _____

Participator ID Number from Data Sheet 5	Participator's Name

DATA SHEET No. 8
EXPLANATION OF EXTRA BUSINESS AND NEW BUSINESS ITEMS

TOWN_____

YEAR_____ ____ _____

Extra Business – *Town*

$X_1 =$

$X_2 =$

$X_3 =$

$X_4 =$

$X_5 =$

$X_6 =$

$X_7 =$

$X_8 =$

$X_9 =$

$X_{10} =$

Extra Business – *School* (red ink)

$X_1 =$

$X_2 =$

$X_3 =$

$X_4 =$

$X_5 =$

$X_6 =$

$X_7 =$

$X_8 =$

$X_9 =$

$X_{10} =$

New Business Items–*Town*

$N_1 =$

$N_2 =$

$N_3 =$

$N_4 =$

$N_5 =$

$N_6 =$

$N_7 =$

$N_8 =$

$N_9 =$

$N_{10} =$

New Business Items–*School* (red ink)

$N_1 =$

$N_2 =$

$N_3 =$

$N_4 =$

$N_5 =$

$N_6 =$

$N_7 =$

$N_8 =$

$N_9 =$

$N_{10} =$

I employed two regressions to determine the coefficients for the larger town quadratic model and the smaller town linear model on the Banzhaf transformation. The large town initial model used all 1373 observations and the small town initial model used those observations for towns with registered voter counts under 400. It was determined that predicted values from both initial models were equal for a town with 345 voters. The final model used piecewise regression1 with an indicator variable to add the quadratic term for larger towns over 345 voters. The results of these calculations in original units were:

[For towns of <u>345 or fewer</u> voters]

$$PctAtt = \quad (2.061 + (4.419 * 1/\sqrt{RV}))^4$$

$$(0.041) \quad (0.609)$$

[For towns of <u>more than 345 </u> voters]

$$PctAtt = \quad (0.985 \; + \; (41.126 * 1/\sqrt{RV}) - (310.696 * 1/RV))^4$$

$$(0.041) \qquad (3.038) \qquad\qquad (41.807)$$

Percent attendance (PctAtt) is a number between 0 and 100. Standard errors of the regression coefficient estimates

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1 Neter, John; Wasserman, William; Kutner, Michael H. *Applied Linear Regression Models* (Boston: Richard D. Irwin, Inc., 1989): 370-374. The piecewise model can be expressed as:

$$Y = \beta_0 \; + \; \beta_1 \; X_1 \; + \beta_2 \; (X_1 \; - \; 1/\sqrt{345}) X_2 \; + \; \beta_3 \; (X_3 \; - \; 1/345) \; X_2 \; + \; \in$$

where Y = Transformed Percent Attendance, X_1 = Decisiveness, X_2 = 1 for towns over 345 voters and 0 otherwise, and X_3 = Voter Power. The β's are the parameters to be estimated and $\in$ represents random error. for small towns the equation collapses to

$$Y = \beta_0 \; + \; \beta_1 \; X_1 \; + \; \in$$

While for larger towns (X_2 = 1) the parameter estimates are combined to yield the equation

$$Y = (\beta_0 \; -\beta_2/\sqrt{345} \; - \; \beta_3/345) \; + \; (\beta_1 \; + \; \beta_2) X_1 \; + \; \beta_3 \; X_3 \; + \; \in$$

Raw parameter estimates were:

β_0 = 2.061 (.041), β_1 = 4.419 (.609), β_2 = 36.707 (2.976), and β_3 = -310.696 (41.807).

are below the equation. Coefficient of determination (R^2) was 0.63. In original units it was 0.58.[2] As the standard errors show, all coefficients in these equations are statistically significant since even very wide confidence intervals would not contain zero.   Because of the large sample size, the standard error of the estimate is relatively small at 0.1614 and results in a 95% confidence interval spread of ± 0.6 percent attendance in original units. In general, about 95% of observations fall within -50% and $+75\%$ of the predicted percent attendance given voter count. For example, for a median sized town (678 voters) the predicted percent attendance is 19.7% with an expected random variation of 9.8% to 34.5%.

Analysis on the Studentized Deleted Residuals[3] from the combined regression shows that the model assumptions have been met. The deterministic portion of the model (predicted values) is independent of the stochastic portion (error term or residual), determined by examining a plot for residuals versus predicted values. Residuals are normally distributed overall and appear as often above as below zero even at the extremes of town sizes. Before analysis, observations were sorted by year of meeting and town ID to approximate the order of collection. Independence of observations was verified by a plot of residuals versus time sequence (showing no pattern) and by the Durbin-Watson statistic for autocorrelation, which was around 1.3 (showing a slightly positive but not serious correlation). Influence of individual observations on the overall results was negligible, as measured by Cook's Distance (Max $= 0.042$), Leverage values (Max $= 0.088$), and DFFITS. All of these measures were well below suggested limits for influential outliers.

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2 Since both independent and dependent variables had to be transformed to come up with a valid relationship for regression analysis, the results are expressed in terms of those units (for instance $R2$ measured "variance explained" for the fourth root of percent attendance). To calculate the true degree of explanation due to the regression equation, the fundamental relationship defining $R2$ (the ratio of the sum of square from the regression – SSR – to the sum of squares total – SST) was used. The predicted value of the dependent variable for each observation was raised to the fourth power to get the predicted percent attendance, then subtracted from the observed percent attendance. The sum of the squares of these terms gives the "sum of squares of the error term (SSE)." Statistical theory says that SSR = SST – SSE and $R2$ = SSR/SST.

3 Norusis, Marija J. *SPSS 7.5 Guide to Data Analysis* (Upper Saddle River, New Jersey: Prentice-Hall, Inc., 1997): 437. These residuals measure the difference between the observed and predicted values when the observation is not in the model and therefore does not influence the regression coefficients (thus "deleted"). "Studentized" refers to using an adjusted standard error for the observation when computing a standard score, to account for wider prediction intervals for observations further from the centroid of independent values.