

2001



Lost Votes in Vermont State Senate Elections

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The Center for Voting and Democracy is a non-partisan, non-profit educational organization that studies the American electoral process and its impact on voter participation, representation and governance.

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EXECUTIVE SUMMARY

The partisan makeup of the Vermont legislature is not in line with the partisan vote for state officers. Democrats are under-represented in both the House and Senate.

An analysis of withheld votes in the State Senate races in 2000, 1998, and 1996 reveals that the primary cause of this disproportionality is the tendency of Democratic voters to bullet vote, giving up some of their votes, and possibly splitting their ticket, at a far higher rate than Republican voters. We calculate that partial-franchise bullet voting on average results in Vermont voters withholding over 14% of the votes they are entitled to cast in State Senate races.

Statewide in 2000 the Democratic State Senate candidates suffered vote withholding and cross-party voting **losses** of between 136,429 and 170,116, while the Republicans actually may have **gained** 2,488 or lost at most 6,835 compared to what would be expected based on the lieutenant governor election results. The same general trends prevailed in both the 1998 and 1996 elections, with only a difference in magnitude. In 1998 the Democratic State Senate slates had **losses** of between 70,771 and 86,445 — more than three times the Republican loss. In 1996 the Democrats **lost** between 89,680 and 123,195, five to eight times greater than the Republican **loss** of between 15,387 and 16,532. If we exclude from our analysis the two 1996 State Senate races in which there were no Republican candidates (since including these races effectively overstates the magnitude of Republican partial-franchise bullet voting and inflates cross-party voting, because these Republican voters had no opportunity to cast a Republican Senate vote at all) we find that the Democrats **lost** as many as 129,919 potential votes, while the Republicans had a net **gain** of 209 votes.

Four voting system reforms are presented that would eliminate this partial-franchise bullet-voting problem, and reduce cross-partisan losses. These approaches all serve to end the practice of having some voters “walking out of the polling place with votes still in their pockets.” These reforms would also decrease ticket splitting.

1. **Single-Seat Districts** The first approach is probably the most obvious - creating 30 single-seat districts - but also the least effective. While single-seat districts would eliminate the partisan differential in the prevalence of bullet voting, it is not as likely as the other alternatives presented to result in a more accurate partisan balance in the State Senate.
2. **Peoria-Style Voting** The second method of eliminating the shortchanging which occurs in multi-seat districts, when some voters strategically choose to vote for fewer candidates than allowed, is Peoria-style cumulative voting, in which voters may concentrate their several available votes on fewer candidates. Peoria-style voting assures exercise of the voter’s full suffrage even if bullet voting.
3. **Limited Voting** The third way to equalize voting is by essentially compelling all voters to “bullet vote” through the use of limited voting in multi-seat districts, in which each voter has only one vote in a multi-seat district.
4. **Optional Party Voting** The fourth approach is a variation of limited voting in which a voter may choose to cast either a vote for a candidate, or a generic party vote; if choosing the party vote, that vote will automatically count for the candidate of the party who needs it.

The likely immediate impact of any of these last three reforms would be to increase the number of Democratic State Senators, since that party is most hurt by votes lost through partial-franchise bullet voting and cross-party split-tickets. Had any of these latter three reform systems been in place in 2000, the likely ratio of Republicans to Democrats would have been 12 Republicans to 18 Democrats. We conclude that Peoria voting and optional party voting are the best reforms for reducing cross-party voting and eliminating partial-franchise bullet voting. The result would be the creation of a fairer election system that more accurately reflects Vermont voters.

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INTRODUCTION

This study was prompted by unusual results of a standard analysis of the ratio of party votes received compared to legislative seats won. Typically, in winner take all voting systems such as Vermont's, there is a deviation from a one to one ratio, which overrepresents the largest party, and may be exaggerated further as the result of gerrymandering. Vermont's Senatorial Districts are less prone to gerrymandering, being based largely on preexisting county boundaries.

A superficial look at the Vermont 2000 election for governor raises a question. Since 60% of the voters selected pro-civil union candidates for governor (Democrat Howard Dean or Progressive Anthony Pollina), why did control of the House switch from Democrat to Republican, and why did the Democratic majority in the Senate shrink?

We focused our analysis on the Senate elections, simply because the amount of data entry is a fraction of that required for a House analysis. We anticipated finding that, although there were more overall Democratic votes, they would be more concentrated in certain districts, and that a roughly 40% Republican minority vote translated into 14 seats (as opposed to the 12 seats that a straight proportional vote would work out to) as a result of a more dispersed geographic distribution of Republican voters. We were surprised to discover that, in fact, there were actually more votes cast for Republican State Senate candidates statewide (356,051) than for Democratic ones (343,190). This seemed counter-intuitive considering the statewide results in the governor's race.

WITHHELD VOTES

There are many possible reasons for this discrepancy, such as the possibility of superior Republican State Senate campaigns or candidates, or establishment Republicans' discomfort with the perceived social agenda of their nominee Ruth Dwyer campaign, or some voters' desire to "balance" government by voting for both Democrats and Republicans, etc. While some of this discrepancy can be credited to such "ticket splitting," we discovered that there is much more to the story.

Many thousands of Vermonters withhold some of the State Senate votes to which they are entitled.

The answer to this riddle lies in the fact that State Senate "votes" are not the same as "voters," since most voters are allowed (but not required to use) multiple votes in their Senatorial Districts, with multi-seat county delegations (six votes per voter in Chittenden County, for example). Many thousands of Vermonters withhold, or do not cast, some of the State Senate votes to which they are entitled.

There are two kinds of withholding, "roll-off," and partial-franchise "bullet voting."

Roll-off refers to the practice of voting only in the higher visibility presidential or statewide elections, and skipping the races further down the ballot. Roll-off occurs when some voters cast *none* of their allowed State Senate votes.

Strategic bullet voters balance how strongly they favor particular candidates with how strongly they oppose others.

Bullet voting refers to the practice of voting for fewer candidates than allowed in a multi-seat at-large election. This generally is the result of trying to maximize support for one, or a limited number of favored candidates by selectively voting only for those candidates. With Vermont's voting system this means with-

holding the remaining allowed votes, so as not to dilute or risk aiding in the defeat of one's favorite candidate by a marginally acceptable candidate. Strategic bullet voters are balancing how strongly they favor particular candidates with how strongly they may oppose certain other candidates. Some voters are careful to use all of their allowed votes to meet their priority of defeating particular disfavored candidates.

**Many voters face a dilemma:
...Maximize the chances of a
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candidates they oppose.**

Many voters face a dilemma as to which strategy to pursue. Should they maximize the chances of a favorite candidate by bullet voting, or vote defensively to block disliked candidates by using all of their allowed votes? This dilemma is inherent in Vermont's relatively uncommon legislative multi-seat plurality election system. Of course, some bullet voting reflects the nonstrategic decision to vote for fewer candidates, simply because the voter doesn't feel knowledgeable enough about the candidates to vote for as many as are allowed.

Under Vermont law (unlike other voting systems discussed in this report) bullet voters are forfeiting part of their allotted voting power — thus the term “partial-franchise bullet voting.” Full-franchise bullet voting, which does not require such withholding, is a focus of the alternatives proposed in this report.

Tables 1, 2, and 3 show the number and the percentage of withheld votes in each Senatorial District in the 2000, 1998, and 1996 elections. These calculations use the assumption that the partisan votes cast in the Lieutenant Governor's race can be used to calculate a reasonable estimate for the number of partisan votes available in the State Senate races. The normal reference point in most states would be the governor's race, but the unusual level of Republican support for Dean and the cross-partisan behavior in the 2000 Dean-Dwyer race makes the governor's race a poor choice for gauging voters' general partisan preferences.

**The percentage of State
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The percentage of State Senate votes that could have been cast, but were not, ranged from 14.4% to 16.5%. Many voters essentially “walked out of the polling place with votes still in their pockets” that they were entitled to, but decided not to cast.

Since bullet voting is a meaningless concept in single-seat districts, withheld votes in such districts (Grand Isle, Lamoille, and Orange) can be attributed exclusively to roll-off. With the rate of roll-off being so similar in these three districts, it is reasonable to assume that a similar rate would apply across the state. Thus the differential between average withheld votes in single-seat Senatorial Districts and multi-seat Districts can be used to reasonably estimate the rate of partial-franchise bullet voting in multi-seat Districts.

The average percentage of withheld votes in single-seat districts in the three elections of 1996, 1998, and 2000 was a mere 0.1%. This is in sharp contrast to the average percentage of withheld votes in multi-member districts in the same election years, which was 14.7%.¹ Subtracting the anticipated 0.1% roll-off, we calculate that partial-franchise bullet voting typically results in Vermont voters, who choose to vote, withholding 14.6% of the votes they are entitled to cast in State Senate races. Obviously this is an average, which includes some voters casting only one or two of their available six Chittenden County votes, while others cast four or five.

¹ This was calculated excluding those multi-seat districts in which one major party or the other did not run a full slate, since including them would overstate the magnitude of bullet voting. The average is calculated by weighting the figure for each district by the number of seats in the district. The unweighted average is 14.5%.

TABLE 1. Withheld Votes in 2000 Vermont State Senate Elections

2000	Senate Votes per Voter	Votes for Lt. Gov.	Senate Votes Available*	Senate Votes Cast	Votes Withheld	Avg Vote Cast per Voter	% Withheld	
Addison	2	18,742	37,484	32,582	4,902	1.74	13.1%	
Bennington	2	17,441	34,882	27,127	7,755	1.56	22.2%	**
Caledonia	2	16,794	33,588	28,921	4,667	1.72	13.9%	
Chittenden	6	62,973	377,838	317,474	60,364	5.04	16.0%	
Essex-Orleans	2	16,611	33,222	26,085	7,137	1.57	21.5%	**
Franklin	2	17,771	35,542	28,649	6,893	1.61	19.4%	
Grand Isle ***	1	10,795	10,795	10,787	8	1.00	0.1%	
Lamoille ***	1	10,314	10,314	10,434	-120	1.01	-1.2%	****
Orange ***	1	10,619	10,619	10,617	2	1.00	0.0%	
Rutland	3	26,789	80,367	67,965	12,402	2.54	15.4%	
Washington	3	29,089	87,267	79,206	8,061	2.72	9.2%	
Windham	2	20,032	40,064	36,374	3,690	1.82	9.2%	
Windsor	3	28,070	84,210	73,289	10,921	2.61	13.0%	
STATE TOTAL		286,040	876,192	749,510	126,682		14.5%	

* Senate Votes Available are calculated by multiplying votes cast for Lt. governor times the number of Sen. seats

** Only one Democrat ran in Bennington and Essex-Orleans Districts

*** The three highlighted Senate Districts are single-seat and thus withheld votes cannot result from bullet voting. The sharply higher levels of withheld votes in the multi-seat districts can be attributed to bullet voting.

**** The negative number means more voters sat out the Lt. Gov. than State Senate race.

TABLE 2. Withheld Votes in 1998 Vermont State Senate Elections

1998	Senate Votes per Voter	Votes for Lt. Gov.	Senate Votes Available*	Senate Votes Cast	Votes Withheld	Avg Vote Cast per Voter	% Withheld	
Addison	2	14,548	29,096	26,127	2,969	1.80	10.2%	
Bennington	2	14,114	28,228	24,304	3,924	1.72	13.9%	
Caledonia	2	12,994	25,988	20,249	5,739	1.56	22.1%	**
Chittenden	6	45,630	273,780	230,079	43,701	5.04	16.0%	
Essex-Orleans	2	12,780	25,560	20,565	4,995	1.61	19.5%	**
Franklin	2	13,190	26,380	22,634	3,746	1.72	14.2%	
Grand Isle ***	1	7,765	7,765	7,643	122	0.98	1.6%	**
Lamoille ***	1	7,872	7,872	7,832	40	0.99	0.5%	
Orange ***	1	8,017	8,017	8,000	17	1.00	0.2%	
Rutland	3	20,583	61,749	53,130	8,619	2.58	14.0%	
Washington	3	21,837	65,511	56,961	8,550	2.61	13.1%	
Windham	2	15,479	30,958	26,231	4,727	1.69	15.3%	
Windsor	3	22,121	66,363	59,192	7,171	2.68	10.8%	
STATE TOTAL		216,930	657,267	562,947	94,320		14.4%	

* Senate Votes Available are calculated by multiplying votes cast for Lt. Gov. times the number of Senate seats

** In Caledonia and Essex-Orleans Districts there were no Democratic candidates, and there was no Republican candidate in Grand Isle District.

*** The three highlighted Senate Districts are single-seat and thus withheld votes cannot result from bullet voting. The sharply higher levels of withheld votes in the multi-seat districts can be attributed to bullet voting.

TABLE 3. Withheld Votes in 1996 Vermont State Senate Elections

1996	Senate Votes per Voter	Votes for Lt. Gov.	Senate Votes Available*	Senate Votes Cast	Votes Withheld	Avg Vote Cast per Voter	% Withheld
Addison	2	16,702	33,404	29,756	3,648	1.78	10.9%
Bennington	2	15,979	31,958	27,890	4,068	1.75	12.7%
Caledonia	2	14,277	28,554	24,416	4,138	1.71	14.5%
Chittenden	6	55,941	335,646	271,534	64,112	4.85	19.1%
Essex-Orleans	2	13,595	27,190	22,162	5,028	1.63	18.5%
Franklin	2	15,073	30,146	24,864	5,282	1.65	17.5%
Grand Isle ***	1	8,916	8,916	8,817	99	0.99	1.1% **
Lamoille ***	1	8,449	8,449	8,451	-2	1.00	0.0%
Orange ***	1	8,878	8,878	9,002	-124	1.01	-1.4% ****
Rutland	3	24,898	74,694	62,071	12,623	2.49	16.9%
Washington	3	25,180	75,540	66,112	9,428	2.63	12.5%
Windham	2	17,571	35,142	28,446	6,696	1.62	19.1% **
Windsor	3	25,277	75,831	63,210	12,621	2.50	16.6%
STATE TOTAL		250,736	774,348	646,731	127,617		16.5%

* Senate Votes Available are calculated by multiplying votes cast for Lt. Gov. times the number of Senate seats

** No Republicans ran in Grand Isle or Windham Districts.

*** The three highlighted Senate Districts are single-seat and thus withheld votes cannot result from bullet voting. The sharply higher levels of withheld votes in the multi-seat districts can be attributed to bullet voting.

**** The negative number means more voters sat out the Lt. Gov. than State Senate race.

DIFFERENTIAL PARTISAN BULLET VOTING

The fact that so many Vermont voters bullet vote reveals a possible cause for the relatively low number of Democratic Senate votes compared to Republican votes, considering the partisan balance in state officer elections, *if Democrats bullet vote more than their Republican counterparts*. To test this hypothesis we analyzed the partisan breakdown of bullet voting.

Tables 4, 5, and 6 show the difference between the behavior of Republican and Democratic voters in terms of vote withholding or cross-party voting in each Senatorial District in the 2000, 1998, and 1996 elections. For the purposes of this analysis we have used the partisan vote totals for the lieutenant governor as a reasonable indicator of Democratic and Republican-leaning voters.² For Republicans and Democrats in each Senatorial District we have calculated the following numbers:

- **Senate Votes per Party** - is the combined total of votes for all State Senate candidates of that party in the District.
- **Party Votes Available** - is the number of votes each voter is allowed based on the number of Senate seats in their district, times the hypothetical number of voters favoring each party in the district based on the total votes for the party's candidate for lieutenant governor.
- **Votes Lost or Gained** - is the difference between the previous two numbers, with a negative number representing theoretically available partisan votes that were withheld or given to another party's candidates, and a positive number representing votes that were gained above the strictly partisan predictor of the state-wide race results in the district.
- **Maximum Votes Available** - adds to the "Party Votes Available" the State Senate votes available from those voters who selected certain other candidates running for that statewide office. Voters who selected a Libertarian state candidate are added to the Republican column, under the assumption that they would be more likely to cast their State Senate votes for Republicans, and those who voted for Liberty Union, Natural Law, or Grass Roots state candidates are added to the Democratic column with the assumption that they could be "available" for Democratic State Senate candidates.
- **Maximum Votes Lost / Minimum Gained** - is the same as "Votes Withheld or Gained" except that the "Maximum Votes Available" is used as a base. This adds, for example, Liberty Union voters who withhold some of their State Senate votes from at least one of the Democratic candidates for State Senate.

The difference between the Republican and Democratic voting behavior is dramatic and startling. Table 4 shows that in nearly every single Senatorial District in the 2000 election the Democratic Senate slate suffered greater losses than did the Republican slate, due to greater partial-franchise bullet-voting and cross-party ticket splitting. In Chittenden County, for example, between 59,315 and 69,545 available, and potential Democratic votes were *lost*, while the Republican State Senate slate suffered only 23,904 to 26,886 *lost*

The difference in voting behavior is dramatic... The Democrats *lost* between 136,429 and 170,116 votes, while the Republicans may have *gained* 2,488 votes.

available and potential Republican votes. This is in spite of the fact that there were a number of Libertarian Party and conservative independent State Senate candidates, including the high-spending independent, Otto Engelberth, who would be expected to draw off Republican votes, increasing the Republican withholding.

Statewide in 2000 the Democratic State Senate candidates suffered vote withholding and cross-party voting *losses* of between 136,429 and 170,116, while the Republicans may have *gained* 2,488 or lost at

² See Appendix A for a discussion of partisan vs. candidate-based voting.

most 6,835 compared to what would be expected based on the lieutenant governor election results. Tables 5 and 6 reveal the same general trends prevailed in both the 1998 and 1996 elections, with only a difference in magnitude. In 1998 the Democratic State Senate slates had **losses** of between 70,771 and 86,445 — more than three times the Republican loss. In 1996 the Democrats **lost** between 89,680 and 123,195, five to eight times greater than the Republican **loss** of between 15,387 and 16,532. If we exclude the two 1996 State Senate races in which there were no Republican candidates (since including these races effectively overstates the magnitude of Republican partial-franchise bullet voting and inflates cross-party voting, because these Republican voters had no opportunity to cast a Republican Senate vote at all) we find that the Democrats **lost** as many as 129,919 potential votes, while the Republicans had a net **gain** of 209 votes.

Some of these “lost votes” by each party were certainly lost to cross-party voting for the other party rather than withheld altogether. An examination of the actual ballots would be necessary to determine the actual rate of cross-party voting, and to determine whether it was more prevalent among voters who favored one party’s lieutenant governor candidate than among the voters who favored the other party’s lieutenant governor candidate. We can make a simple calculation of the minimum number of cross-party voters by seeing which top vote-getting candidates for State Senate in each district, if any, exceeded the vote total for that party’s candidate for lieutenant governor.

In the 2000 election there were at an absolute minimum of 25,064 cross-party voters for State Senate candidates, although almost certainly there were many more. Rutland County had the greatest number of clearly identifiable cross-party voters, with at least 4,373 voters who picked the Democratic candidate for lieutenant governor, also picking at least one Republican for State Senate. In 1998 there were at an absolute minimum of 18,646 cross-party voters statewide, with the most in Washington County. In 1996 there were an absolute minimum of 27,154 with the most in Chittenden County.

However, these cross-party voters may, or may not, have had an impact on our estimate of partisan difference in rates of bullet voting. Cross-party votes that a party receives would mask and thus understate the rate of actual bullet voting indicated by our methodology, while cross-party votes that are lost by a party and go to the other party would overstate the rate of bullet voting in the party losing those votes. Cross-party votes in each direction could, in fact, cancel each other out. Without an exhaustive examination of actual ballots cast, we can’t know for sure. This is research worthy of pursuit, though quite time consuming.

A small number of ballots for the 2000 election in Chittenden County (the district with the greatest opportunity for State Senate cross-party voting) were examined as part of this study. While the rate of straight party voting (defined as voting for only Democrats or only Republicans for both governor and State Senate candidates) was dramatically higher among Republicans than Democrats, in this small sample, straight party voting was the norm for both parties. It is logical to believe (and the Chittenden County ballot sample provided at least anecdotal evidence, though the sample was too restricted to draw any conclusion) that Republican incumbents who are perceived as moderates, such as Sen. Snelling in Chittenden County and Sen. Doyle in Washington County, receive a significant number of cross-party votes from Democrats.

Our analysis suggests that partial-franchise bullet voting is probably the dominant cause of lost Democratic votes.

While these Democratic losses can be partially attributed to cross-party split-ticket voting³, and to a small degree, to roll-off, when one relates the prevalence of partial-franchise bullet voting revealed in Tables 1 - 3 with the partisan votes in Tables 4 - 6, our analysis suggests that partial-franchise bullet voting is probably the dominant cause.

³ A review of a sample of 206 ballots from the November 2000 election in Chittenden County (they are public documents available for inspection after the recount deadline passes) showed that bullet -voting in the State Senate race among Democratic voters was common, but also that a much smaller, though significant, number of Democratic voters selected five of the six Democrats and also voted for Republican Barbara Snelling.

TABLE 4. State Senate Votes Lost in 2000

2000	REPUBLICAN	DEMOCRATIC
Addison County		
Senate Votes per Party	16,034	16,497
Party Votes Available*	14,200	21,420
Votes Lost or Gained	1,834	-4,923
Maximum Votes Available**	14,448	23,036
Max. Votes Lost / Min. Gained	1,586	-6,539
Bennington County		
Senate Votes per Party	17,684	9,377
Party Votes Available*	14,294	17,840
Votes Lost or Gained	3,390	-8,463
Maximum Votes Available**	14,744	20,138
Max. Votes Lost / Min. Gained	2,940	-10,761
<i>Note: this is distorted by the fact that there was only one Democratic candidate</i>		
Caledonia County		
Senate Votes per Party	18,110	10,315
Party Votes Available*	16,366	15,404
Votes Lost or Gained	1,744	-5,089
Maximum Votes Available**	16,892	16,696
Max. Votes Lost / Min. Gained	1,218	-6,381
Chittenden Senatorial Dist.		
Senate Votes per Party	121,890	159,517
Party Votes Available*	145,794	218,832
Votes Lost or Gained	-23,904	-59,315
Maximum Votes Available**	148,776	229,062
Max. Votes Lost / Min. Gained	-26,886	-69,545
Essex-Orleans County		
Senate Votes per Party	21,922	4,016
Party Votes Available*	16,392	14,706
Votes Lost or Gained	5,530	-10,690
Maximum Votes Available**	16,954	16,268
Max. Votes Lost / Min. Gained	4,968	-12,252
<i>Note: this is distorted by the fact that there was only one REAL Democratic candidate in this Senatorial District. Sen. Illuzi with both R and D label is treated as an R in this analysis</i>		
Franklin County		
Senate Votes per Party	15,057	13,541
Party Votes Available*	16,272	18,022
Votes Lost or Gained	-1,215	-4,481
Maximum Votes Available**	16,584	18,958
Max. Votes Lost / Min. Gained	-1,527	-5,417
Grand Isle Senatorial Dist.		
Senate Votes per Party	4,327	6,434
Party Votes Available*	4,776	5,718
Votes Lost or Gained	-449	716
Maximum Votes Available**	4,865	5,930
Max. Votes Lost / Min. Gained	-538	504

Table 4 continued

2000**Lamoille County**

	REPUBLICAN	DEMOCRATIC
Senate Votes per Party	5,068	5,338
Party Votes Available*	4,358	5,390
Votes Lost or Gained	710	-52
Maximum Votes Available**	4,470	5,844
Max. Votes Lost / Min. Gained	598	-506

Orange County

Senate Votes per Party	5,215	4,902
Party Votes Available*	5,068	5,077
Votes Lost or Gained	147	-175
Maximum Votes Available**	5,228	5,391
Max. Votes Lost / Min. Gained	-13	-489

Rutland County

Senate Votes per Party	46,444	21,431
Party Votes Available*	37,182	38,556
Votes Lost or Gained	9,262	-17,125
Maximum Votes Available**	38,055	42,312
Max. Votes Lost / Min. Gained	8,389	-20,881

Washington County

Senate Votes per Party	40,707	33,874
Party Votes Available*	34,419	48,027
Votes Lost or Gained	6,288	-14,153
Maximum Votes Available**	35,664	51,603
Max. Votes Lost / Min. Gained	5,043	-17,729

Windham County

Senate Votes per Party	13,756	19,132
Party Votes Available*	13,548	22,828
Votes Lost or Gained	208	-3,696
Maximum Votes Available**	14,178	25,886
Max. Votes Lost / Min. Gained	-422	-6,754

Windsor County

Senate Votes per Party	29,837	38,816
Party Votes Available*	30,894	47,799
Votes Lost or Gained	-1,057	-8,983
Maximum Votes Available**	32,028	52,182
Max. Votes Lost / Min. Gained	-2,191	-13,366

Statewide Votes Lost or Gained	2,488	-136,429
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Statewide Max. Votes Lost / Min. Gained	-6,835	-170,116
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* Total county vote for that party's lieutenant governor candidate times the number of Senate votes allowed per voter in that county.

** Combined Dubie plus Lib. & write-in vote OR Racine plus LU & GR vote times the number of Senate votes allowed per voter in that county.

TABLE 5. State Senate Votes Lost in 1998

1998	REPUBLICAN	DEMOCRATIC
Addison County		
Senate Votes per Party	13,547	12,115
Party Votes Available*	12,954	15,424
Votes Lost or Gained	593	-3,309
Maximum Votes Available**	13,120	15,976
Max. Votes Lost / Min. Gained	427	-3,861
Bennington County		
Senate Votes per Party	11,526	12,279
Party Votes Available*	16,098	10,722
Votes Lost or Gained	-4,572	1,557
Maximum Votes Available**	16,318	11,910
Max. Votes Lost / Min. Gained	-4,792	369
Caledonia County		
Senate Votes per Party	16,979	0
Party Votes Available*	14,660	10,270
Votes Lost or Gained	2,319	-10,270
Maximum Votes Available**	14,840	11,148
Max. Votes Lost / Min. Gained	2,139	-11,148
<i>Note: this is distorted by the fact that there were no Democratic candidates.</i>		
Chittenden Senatorial Dist.		
Senate Votes per Party	110,251	114,916
Party Votes Available*	115,686	151,446
Votes Lost or Gained	-5,435	-36,530
Maximum Votes Available**	117,252	156,528
Max. Votes Lost / Min. Gained	-7,001	-41,612
Essex-Orleans County		
Senate Votes per Party	19,240	0
Party Votes Available*	14,184	10,236
Votes Lost or Gained	5,056	-10,236
Maximum Votes Available**	14,392	11,168
Max. Votes Lost / Min. Gained	4,848	-11,168
<i>Note: this is distorted by the fact that there were no Democratic candidates.</i>		
Franklin County		
Senate Votes per Party	10,321	10,976
Party Votes Available*	12,296	13,474
Votes Lost or Gained	-1,975	-2,498
Maximum Votes Available**	12,442	13,938
Max. Votes Lost / Min. Gained	-2,121	-2,962
Grand Isle Senatorial Dist.		
Senate Votes per Party	0	5,406
Party Votes Available*	3,581	4,035
Votes Lost or Gained	-3,581	1,371

Table 5 continued

1998**REPUBLICAN DEMOCRATIC****Lamoille County**

Senate Votes per Party	3,864	3,961
Party Votes Available*	4,221	3,399
Votes Lost or Gained	-357	562
Maximum Votes Available**	4,267	3,605
Max. Votes Lost / Min. Gained	-403	356

Orange County

Senate Votes per Party	3,572	4,217
Party Votes Available*	3,864	3,916
Votes Lost or Gained	-292	301
Maximum Votes Available**	3,935	4,082
Max. Votes Lost / Min. Gained	-363	135

Rutland County

Senate Votes per Party	33,478	19,606
Party Votes Available*	32,433	27,537
Votes Lost or Gained	1,045	-7,931
Maximum Votes Available**	32,784	28,965
Max. Votes Lost / Min. Gained	694	-9,359

Washington County

Senate Votes per Party	23,182	30,939
Party Votes Available*	29,433	34,083
Votes Lost or Gained	-6,251	-3,144
Maximum Votes Available**	30,024	35,487
Max. Votes Lost / Min. Gained	-6,842	-4,548

Windham County

Senate Votes per Party	10,074	15,556
Party Votes Available*	13,846	15,278
Votes Lost or Gained	-3,772	278
Maximum Votes Available**	14,092	16,866
Max. Votes Lost / Min. Gained	-4,018	-1,310

Windsor County

Senate Votes per Party	26,186	31,019
Party Votes Available*	32,289	31,941
Votes Lost or Gained	-6,103	-922
Maximum Votes Available**	32,748	33,615
Max. Votes Lost / Min. Gained	-6,562	-2,596

Statewide Votes Lost or Gained	-23,325	-70,771
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Statewide Max. Votes Lost / Min. Gained	-27,612	-86,445
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* Total county vote for that party's lieutenant governor candidate times the number of Senate votes allowed per voter in that county.

** Combined Snelling plus Libertarian and write-in vote
OR Racine plus Grass Roots and Liberty Union vote times
the number of Senate votes allowed per voter in that county.

TABLE 6. State Senate Votes Lost in 1996

1996	REPUBLICAN	DEMOCRATIC
Addison County		
Senate Votes per Party	13,623	16,107
Party Votes Available*	13,396	18,736
Votes Lost or Gained	227	-2,629
Maximum Votes Available**	13,424	19,980
Max. Votes Lost / Min. Gained	199	-3,873
Bennington County		
Senate Votes per Party	10,755	16,552
Party Votes Available*	14,038	15,556
Votes Lost or Gained	-3,283	996
Maximum Votes Available**	14,052	17,906
Max. Votes Lost / Min. Gained	-3,297	-1,354
Caledonia County		
Senate Votes per Party	14,487	7,448
Party Votes Available*	14,380	12,360
Votes Lost or Gained	107	-4,912
Maximum Votes Available**	14,422	14,132
Max. Votes Lost / Min. Gained	65	-6,684
Chittenden Senatorial Dist.		
Senate Votes per Party	129,733	141,373
Party Votes Available*	120,588	204,246
Votes Lost or Gained	9,145	-62,873
Maximum Votes Available**	121,206	214,440
Max. Votes Lost / Min. Gained	8,527	-73,067
Essex-Orleans County		
Senate Votes per Party	14,841	7,294
Party Votes Available*	12,638	12,862
Votes Lost or Gained	2,203	-5,568
Maximum Votes Available**	12,654	14,536
Max. Votes Lost / Min. Gained	2,187	-7,242
Franklin County		
Senate Votes per Party	12,210	12,578
Party Votes Available*	12,476	16,612
Votes Lost or Gained	-266	-4,034
Maximum Votes Available**	12,510	17,636
Max. Votes Lost / Min. Gained	-300	-5,058
Grand Isle Senatorial Dist.		
Senate Votes per Party	0	8,078
Party Votes Available*	3,778	4,879
Votes Lost or Gained	-3,778	3,199
Maximum Votes Available**	3,785	5,131
Max. Votes Lost / Min. Gained	-3,785	2,947

Note: This is distorted by the fact that there was no Republican candidate

Table 6 continued

1996	REPUBLICAN	DEMOCRATIC
Lamoille County		
Senate Votes per Party	3,324	5,115
Party Votes Available*	3,669	4,396
Votes Lost or Gained	-345	719
Maximum Votes Available**	3,674	4,775
Max. Votes Lost / Min. Gained	-350	340
Orange County		
Senate Votes per Party	4,403	4,576
Party Votes Available*	3,654	4,728
Votes Lost or Gained	749	-152
Maximum Votes Available**	3,672	5,206
Max. Votes Lost / Min. Gained	731	-630
Rutland County		
Senate Votes per Party	35,352	26,655
Party Votes Available*	34,617	36,636
Votes Lost or Gained	735	-9,981
Maximum Votes Available**	34,782	39,912
Max. Votes Lost / Min. Gained	570	-13,257
Washington County		
Senate Votes per Party	26,781	35,970
Party Votes Available*	29,235	42,348
Votes Lost or Gained	-2,454	-6,378
Maximum Votes Available**	29,310	46,230
Max. Votes Lost / Min. Gained	-2,529	-10,260
Windham County		
Senate Votes per Party	0	25,963
Party Votes Available*	12,932	19,366
Votes Lost or Gained	-12,932	6,597
Maximum Votes Available**	12,956	22,186
Max. Votes Lost / Min. Gained	-12,956	3,777
<i>Note: This is distorted by the fact that there were no Republican candidates</i>		
Windsor County		
Senate Votes per Party	25,720	35,683
Party Votes Available*	31,215	40,347
Votes Lost or Gained	-5,495	-4,664
Maximum Votes Available**	31,314	44,517
Max. Votes Lost / Min. Gained	-5,594	-8,834
Statewide Votes Lost	-15,387	-89,680
Statewide Maximum Votes Lost	-16,532	-123,195
excluding Dist. with no R Candidates	209	-129,919

* Total county vote for that party's lieutenant governor candidate times the number of Senate votes allowed per voter in that county.

** Combined Carroll plus write-in votes OR Racine plus Grass Roots, Natural Law, and Liberty Union votes times the number of Senate votes allowed per voter in that county.

SOLUTIONS TO THE PARTIAL-FRANCHISE BULLET-VOTING PROBLEM

To bring legislative representation, or share of seats, into accordance with the partisan preferences among Vermont voters, it is desirable to amend the voting system to assure that all voters are actually exercising equal voting strength. The current system evidently encourages one group of voters (Democrats) to bullet vote more than another group, effectively shortchanging their franchise and possibly engage in more cross-party voting, leading to less overall representative results.

There are four possible approaches to solving this problem, which can be implemented through alternative voting reforms. All of these approaches effectively cause all voters to exercise equal suffrage rights and inhibit cross-party voting. There are no constitutional issues with switching to any of the voting systems discussed below for the State Senate.⁴ Chapter II, §45 of the Vermont Constitution reads simply, “The manner of election, certification, and filling of vacancies in office of Senators and Representatives shall be as established by law.” The Center for Voting and Democracy is available to assist with drafting statutory language for any of the reforms presented here.

SINGLE-SEAT SENATE DISTRICTS

The first approach is probably the most obvious - creating 30 single-seat districts - but also the least effective. While single-seat districts would eliminate the partisan differential in bullet voting, it is not as likely as the other alternatives discussed below to result in a more accurate partisan balance in the State Senate. Such single-seat, winner-take-all systems may produce a more representative Senate, or produce even less representative results, depending primarily on the geographic distribution and concentration of supporters of each party.

Single-seat districts may produce a less representative Senate, depending on the geographic distribution and concentration of supporters.

Typically Democratic voters are more concentrated in urban centers, while Republican voters are more dispersed and rural. Many Democratic votes are in essence “wasted” winning super-majorities in inner cities, and allowing Republicans to win with smaller majorities, giving Republicans more seats than would be indicated by their overall level of support in the electorate. While in the Vermont context this may not be as true, there is evidence the same dynamic is at play. It seems likely that the Republican takeover of the Vermont House of Representatives in 2000 is not representative of the state-

wide partisan preferences of the electorate, and has more to do with the House’s smaller district size and the distribution of partisan voters. The evidence for this is the simple fact that 60% of Vermont voters selected pro-civil union candidates for governor (Democrat Howard Dean, and Progressive Anthony Pollina), while most Republican House candidates were on the other side of this issue.

While single-seat districts are not a solution supported by this report, single-seat districts are often touted as a beneficial reform in terms of lowering the cost of campaigning. State Senate campaign spending is widely seen as being out of control, especially in Chittenden County, where one candidate, Skip Valee, in the

⁴ Some may question whether single-seat districts are constitutional, since Senate districts have always been based on counties. While this is historic and customary, ever since the U.S. Supreme Court case of *Buckley v. Hoff* in 1964, the county basis has been severed. The current Vermont constitution uses the identical phrasing to describe both the House and Senate districting rules, “In establishing senatorial [representative] districts, which shall afford equality of representation, the General Assembly shall seek to maintain geographical compactness and contiguity and to adhere to boundaries of counties and other existing political subdivisions.” *Vermont Constitution*, Chapter II, § 13 and § 18.

2000 election spent \$129,547.26. Our analysis (see Appendix B) of the 2000 State Senate campaign spending reports on file at the office of the Secretary of State challenges this assumption. Contrary to popular belief, our analysis suggests that single-seat districts may actually increase campaign spending, rather than reduce it. In Vermont's 2000 State Senate elections the single-seat districts had the highest median spending by candidate campaign committees, whether one looks at just the winners, just the losers, or at all major party candidates combined.

Our analysis suggests single-seat districts may increase campaign spending, rather than reduce it.

While the campaign finance issue is not the focus of this report, the reforms discussed below may have an ameliorative effect on campaign spending, since they can reduce the importance of appealing to hard-to-reach swing-voters. These reforms could even further reduce the need for lavish spending because they actually reduce the winning threshold and thus the number of voters needing to be persuaded to win each separate seat.

Breaking up Senate districts into single seats would also change the nature of the Senate by sacrificing the regional perspective generated by county-wide districts. This concern has led a wide variety of groups and individuals to advocate retaining even the largest of the multi-member districts.⁵

PEORIA-STYLE CUMULATIVE VOTING

Cumulative voting is a system of voting used in numerous municipal elections in the U.S., especially in Texas, Alabama and Illinois. Most states, including Vermont, have laws that provide for cumulative voting in corporate board of directors elections, as a way of protecting the rights of investors.⁶ Many large and small corporations currently use cumulative voting.

In Illinois cumulative voting was used to elect the House of Representatives from three-seat districts for over a century - from 1870 to 1980. It generally resulted in the dominant party electing two seats and the second party electing one seat from most districts. This innovation was first implemented to help overcome the partisan/geographic divisions between northern and southern Illinois after the Civil War. Cumulative voting was ended in 1980 as "the baby thrown out with the bath water" of a constitutional amendment that reduced the size of the House by creating single-seat districts.⁷ There is currently a move to reinstate cumulative voting for the Illinois House.⁸ Many jurisdictions have also adopted cumulative voting as part of a settlement of voting rights law suits, because it provides for a more representative city council or school board

⁵ Those publicly advocating retention of the six-member Chittenden County district include the Senate Redistricting Committee of the Champlain Valley Chamber of Commerce and GBIC, the Legislative Reapportionment Board, and University of Vermont political science professor Anthony Gierzynski.

⁶ Vermont statutes provide for cumulative voting for both business and nonprofit corporation boards of directors (Title 11A, Chapter 7, Subchapter 2, § 7.28, and Title 11B, Chapter 7, Subchapter, § 7.25)

⁷ Cumulative voting itself did not fall out of favor with the voters. The 1980 amendment was promoted primarily as a cut in the size of the legislature, as "pay-back," playing on popular resentment against the legislators' voting to give themselves a substantial pay increase. An attempt to repeal just the cumulative voting provision was decisively defeated a decade earlier, indicating the elimination of cumulative voting was incidental.

⁸ In July 2001 the prestigious Institute of Government and Public Affairs at the University of Illinois issued the results of major study of cumulative voting for legislative elections and recommended that it be reinstated. The Task Force, which made the recommendations was co-chaired by Jim Edgar (former Republican Governor) and Judge Abner Mikva (former Democratic Congressman), with participation by approximately 70 current and former elected officials, community and business leaders, academics, and good government civics groups.

by allowing racial minorities to elect a share of seats roughly proportionate to voter population without creating racially defined single-seat districts.

Peoria-style voting (as used in Peoria, Illinois and other jurisdictions) is the simplest and most desirable form of cumulative voting, and can be used in any multi-seat “at large” election. With Peoria-style voting voters mark their ballot in exactly the same manner as at present. They are allowed as many votes as there are seats to be filled, but if they select fewer candidates, none of their votes are wasted. Instead their total allotment of votes is simply divided among fewer candidates. So while voters can vote in precisely the same manner as presently, the votes are tallied differently, such that a voter may concentrate (“cumulate”) all of his or her votes on fewer, or a single, candidate.

As an example, suppose Peoria voting were used in the Chittenden County Senate election with six seats. A voter could pick six candidates, in which case each would receive one vote. The voter could instead vote for just three candidates. But unlike the current Vermont system, rather than wasting three votes, that voter’s ballot would count as two votes for each of those three candidates. If the voter voted for just one candidate, that candidate would receive six votes. If the voter selected four candidates, they would receive one and one quarter votes each. For those concerned that it seems inappropriate for a voter to give multiple votes to a single candidate, the system can be described equally well as one in which each voter has one vote, which may be divided into fractional pieces. Thus a voter who selects six candidates in Chittenden County is giving one sixth of a vote to each.

With any of these reforms, every voter that participates in the State Senate election will exercise a full and equal suffrage.

With Peoria-style voting, no votes are wasted. Unlike the partial-franchise bullet voting which occurs under Vermont’s State Senate election rules, wherein a bullet voter is sacrificing a portion of his or her voting power (as much as 5/6 of his or her suffrage entitlement), with Peoria-style voting every voter that participates in the State Senate election will exercise a full and equal suffrage. Voters could vote in exactly the same manner they do presently, but they would not be forced to sacrifice some of their voting power

merely because they didn’t want to risk helping to defeat their favorite candidate by voting for a less-preferred candidate as well.⁹

When people first hear of this voting system they usually either react by saying that it makes so much sense - giving each voter more control in exercising his/her full suffrage, or that it sounds exotic. In fact it is a widely used system that courts have confirmed fully complies with the principle of “one-person, one-vote.” Every voter has equal voting power, and chance to determine the election of a State Senator. The Court’s “one-person, one-vote” mandate refers to the ratio of voters to elected seats. In other words, each of the six votes of a Chittenden County voter are worth one sixth as much as the one vote of the Orange County voter, regardless of whether they are spread around or concentrated through cumulative voting.

Peoria-style voting tends to make for legislative bodies that are more representative of the entire electorate compared to plurality at-large voting as used in Vermont, where a party with 51% support - barely more supporters than the second party - may nevertheless win 100% of the seats in an entire county. Plurality voting is prone to wild swings in partisan representation, as a rather slight change in partisan voter turnout

⁹ The other, less voter-friendly, system of cumulative voting modifies the ballot to allow a voter to place up to as many marks next to each candidate as there are seats. Thus a Chittenden County voter could give one candidate four votes, and two other candidates one vote each. This system has a higher rate of wasted, withheld votes, as well as spoiled ballots due to accidental over voting. In contrast the Peoria form of cumulative voting is essentially foolproof, with the six votes automatically divided among how ever many candidates the voter selects. For this reason it is sometimes called even-and-equal cumulative voting.

can cause a 100% reversal of a delegation partisan makeup. Cumulative voting, on the other hand, tends to promote more stable partisan balance, with incremental change.

Under cumulative voting, for one party to have a chance to win every seat in a district that party would need to exceed a “threshold of exclusion.” In a two-seat district that threshold would be 66.7% of the vote. On the flip side of that same coin - a party with at least 33.4% support meets the “threshold of *in*clusion” and can be certain of winning one of the two seats, if those voters concentrate their votes on a single choice.¹⁰ Using the lieutenant governor’s race as a measure of partisan voters, Tables 7, 8 and 9 show that both the Democratic and Republican Parties exceeded this threshold of inclusion in every multi-member district. In a three-seat district the threshold of exclusion is 75%, and in a six-seat district, to shut out the second party completely the dominant party would need support from at least 85.7% of the voters, who spread there votes evenly among all six candidates of the party.

The projections of increased Democratic Party representation in the State Senate shown in Tables 7, 8 and 9 assume each party was equally competent at maximizing the opportunities offered by cumulative voting in districts where they were the smaller party. The smaller party would campaign strategically, urging party supporters to concentrate (“cumulate”) their votes on the appropriate number of candidates, without overreaching and trying to win more seats than was reasonable in the district. This strategy of concentrating on a limited number of candidates is not necessary for the larger party in a district in most cases.¹¹ Just as with Vermont’s present plurality voting, however, Peoria-style voting can have non-proportional results if candidates overemphasize bullet voting. As with the current system, too many voters could bullet vote for an exceedingly popular candidate, who ends up with far more votes than he/she needs to win, effectively denying a party running mate a seat. This balancing act is already evident in Chittenden County Democratic Senate campaigns. In 1998, for example only a “realistic” number of candidates in the slate were pushed by the party in the direct mail effort.

To assist voters in concentrating their votes to maximize the effectiveness of their votes, parties may seek to limit the number of nominations to just one more than the number of seats they are confident they can win. This was the practice when the system was used in Illinois. Thus, in a three-seat district the smaller party would prefer it if only one or two candidates from their own party ran. This practice eliminates the risk of so dividing their votes that the party wins no seats, where one seat was winnable. Unless Vermont’s primary system is changed, parties cannot be confident of controlling the number of nominations. The function of the party, in districts where they are the number two party, of selecting the target candidates and educating party supporters to concentrate their votes on those candidates would become part of the campaign strategy.

Peoria-style voting is also an easy reform for voters to handle, since it involves no changes at all to the appearance of the ballot, or method of casting votes. Neither is the counting of votes significantly impacted. Modern optical scanner voting machines in Vermont can be programmed to assign votes according to the simple logarithm based on the number of candidates selected, as is done currently in Peoria with their voting machines. Hand-count ballots only need a slight modification in tally-sheet design. Hand-count ballots already require careful accounting for “blank” Senate votes in multi-seat districts. Rather

Peoria-style voting is easy for voters, since it involves no changes to the ballot or method of casting votes.

¹⁰ The formula for calculating the threshold of inclusion is simply $1/(1+N)$, where N is the number of seats. A party with support from twice the threshold could elect two seats, etc. For a two-seat district the threshold of inclusion is 33.4%. For a three-seat district the threshold of inclusion is 25%. The threshold of inclusion for a six-seat district is 14.3%.

¹¹ If the larger party has votes with a natural spread among its candidates, and the smaller party targets an expected winnable number of seats, the dominant party will likely win its appropriate majority share of seats, even if no strategic cumulative voting is pursued.

than just recording the number of blanks on each ballot, each candidate's votes could be recorded in a column corresponding with the number of Senate candidates selected. The totals for each column would then simply be added as usual, but then multiplied by the appropriate number of votes.¹² This involves no more attention to detail than the current hand tally that already requires careful accounting for "blank" votes.

While Peoria-style cumulative voting will not alleviate already existing internal party complaints from nominated candidates who don't achieve "target" status from the party,¹³ it can create a State Senate that is more representative of the partisan preferences of the voters as a whole.

LIMITED VOTING

The other way to skin this particular bullet-voting cat is with limited voting.¹⁴ Regardless of how many seats there are to be filled in a district, each voter has only one vote (or some other number less than the total number of seats in the district). Limited voting is used for municipal elections throughout the United States, including major cities such as Philadelphia. Since 1987 more than 20 localities in North Carolina and Alabama have adopted limited voting to settle voting rights cases, where the previous at-large plurality voting system, as is used in Vermont State Senate elections, essentially prevented any racial minorities from being elected. This reform is extremely simple.¹⁵

Part of the appeal of this reform is as a response to the complaint from voters in some counties that voters in the larger counties, especially Chittenden County, currently get "more votes" than they do. Of course, this "improvement" could be seen the other way around by voters in populous counties, who might feel that they were having some of their voting power taken away. While in fact voters in any particular county are not gaining or losing any clout with limited voting, since the ratio of voters to Senators remains constant, this perception is important to recognize.

The thresholds of inclusion and exclusion for limited voting, with one vote per voter, are the same as explained in the section on Peoria-style cumulative voting. Even more than with cumulative voting, limited voting, with only one voter per voter, increases intra-party competition. While Peoria-style voting can encourage party solidarity and slate campaigning (for an entire slate where the party is dominant, and for a restricted slate where it is the second party), limited voting weakens party unity and practically eliminates slate campaigning by candidates. While the net effect on proportional partisan balance is the same as Peoria voting, its impact on fracturing Senatorial campaigns into individual efforts is a concern that should not be ignored.

¹² For example, in a three-seat district, a ballot with two choices marked would be listed on the tally sheet in a section labeled "two votes for Senate," and each candidate's total in that section would be multiplied by one and one half votes, since each voters' ballot in that section has divided his/her three votes among two candidates.

¹³ The Democratic Party already has such complaints under the current voting system. For example, Timothy Palmer in 1998 reportedly felt abandoned, as he was not included in the party's direct mail effort in Chittenden.

¹⁴ When each voter gets one vote, limited voting is called the "single non-transferable vote" system, or SNTV, by political scientists.

¹⁵ Limited voting can risk temporarily increasing the number of spoiled ballots as some voters might "over vote" by selecting multiple candidates, as they are accustomed to, rather than following the new instructions to "vote for no more than one." Any of these reforms should be accompanied by a modest voter education effort. Little more than a reminder by polling officials who hand the voter his or her ballot would be necessary, although absentee voters would need to have their attention drawn to the change by some means as well.. Since the candidates and parties have an interest in avoiding spoiled ballots by their supporters, much of the voter education effort would in fact be carried out by the campaigns rather than by election officials.

OPTIONAL PARTY VOTING

Many of the shortcomings of limited voting can be overcome with “optional party voting.”¹⁶ As with Peoria-style voting, the optional party voting modification of limited voting eliminates the partial-franchise bullet-voting problem that the Democratic State Senate campaigns have suffered.

With optional party voting a voter still has only one vote in a multi-seat district as under simple limited voting, but is also given the option of casting that vote for a party slate, rather than for any individual candidate. These party votes can be thought of as generic votes that will flow to whichever candidate of that party needs them and is next in line to win a seat. Thus the risk under limited voting that a particularly popular candidate will amass a surplus of votes, effectively hurting the other members of the party slate, can be reduced or eliminated. While each candidate still has an interest in seeking individual votes, they also have an interest in encouraging voters to vote for the party slate. Voters who want to vote defensively to optimize the chances of defeating candidates of the other party will maximize their voting strength by casting a party vote, rather than a candidate vote. It is like saying “any of the candidates of this party are better than those of the other party.” -- a widely held opinion.

Optional party voting also is more in tune with the range of voter knowledge levels. Some voters feel that they know enough about the various candidates to make a wise selection, while others have only a general sense that they prefer candidates of one party over another. With optional party voting each voter decides for him or herself whether to cast a vote for a particular candidate or a for the party slate.

The vote tally on election night is simple, but there are some formulas that need to be applied after the count is completed to determine exactly how the party votes should be distributed among the candidates and find the ultimate winners. Here is how it could work. First a winning threshold needs to be determined, such that it is mathematically impossible for more candidates to win than there are seats available.¹⁷ A candidate who receives more votes than that threshold is elected and will receive no party votes. Candidates below the threshold are put in a priority line to receive party votes based on their candidate vote totals compared to the other candidates of their party. The first candidate of a party in line will receive as many party votes as he or she needs to cross the winning threshold. If there are still more party votes left unassigned they go to the next candidate in line of that party, and so on, until all party votes are distributed. The same procedure occurs for each party. Independent candidates, obviously, must win on the strength of their candidate votes alone (essentially the same as under the existing system). Once all the party votes have been distributed, if there are still unfilled seats¹⁸, they are filled by the next top candidates of whatever party label.

With optional party voting each voter decides whether to vote for a particular candidate, or for the party slate.

The risk that a candidate will gather far more votes than needed, hurting the other members of the slate, is dramatically reduced with optional party voting, compared to the current voting system, as well as Peoria and limited voting. While each candidate has an interest in promoting personal votes from identified support-

¹⁶ *Optional party voting, described here, is a variant of what political scientists call an “open list” voting system, such as is used in Finland.*

¹⁷ *A standard method for calculating the winning threshold is the “Droop” formula: $V/(N+1)$ raised to the next whole number, where V is the total number of votes cast in the State Senate race (including both candidate votes and party votes together), and N is the number of seats to be filled in the district. Thus, if there were 25,229 votes cast in a three-seat Senate district, the winning threshold would be $25,229 / 4 = 6,307.25$ or 6,308 votes. Three candidates are the maximum number that can possibly get at least 6,308 votes and be declared winners.*

¹⁸ *This is possible because some initial winners may have gotten more candidate votes than they needed, meaning there aren’t enough remaining votes to bring the ultimate number of winning candidates to the threshold.*

ers and party slate votes generally. Each party has an interest in encouraging as many of their supporters as possible to cast party votes, to optimize the chances of electing the maximum number of candidates. This will tend to promote coordinated slate platforms and party campaigns, but also individual candidate campaigns.

Optional party voting would entail adding a ballot feature similar to that used in New York and other states, which allow the voter to mark a box to vote for the party slate (although in this case it would be for just the State Senate race, rather than for all offices.) It would also require a small additional element of administrative processing on the day after the vote count. Apportioning the party votes could delay the unofficial results by a day since the results from every polling place need to be reported before the party vote calculations can be done. Official results, which under current law are not determined until the canvassing committee meets the following week, could be announced with no delay.

PARTISAN IMPACT OF PEORIA, LIMITED, OR OPTIONAL PARTY VOTING

With these voting systems, partial-franchise bullet voting is eliminated. But also, cross-party voting is likely to be sharply reduced. The likely immediate impact of any of these three voting reforms for the Vermont Senate would be the shift in its overall partisan makeup away from the Republicans and towards the Democrats. Of course, the partisan impact over time can't be measured, but will always be fairer for voters, by creating a Senate that more accurately reflects the electorate.

The reason cross-party voting is likely to decline is that most voters do, in fact, have a general preference for one party over another, even if they occasionally split their ticket. When they have several votes to “play with” they have a lot of opportunity to cross this partisan line, and may even feel encouraged to do so as an act of “open-mindedness.” When they have only one vote, as in limited and optional party voting, they are likely to favor a candidate of their generally preferred party.

A share of cross-party voting doubtless results from some voters simply feeling obliged to use up all of their votes — almost as a civic responsibility. Especially in a six-seat district such as Chittenden County, these voters may resort to picking familiar names, even from their less preferred party. Peoria-style voting may also reduce this dynamic, by assuring voters that their full franchise will be exercised, and their duty fulfilled, without resorting to picking “filler” candidates to reach the allotted number.

Tables 7, 8 and 9, show the likely partisan balance of each Senatorial delegation, all else being equal, had Peoria-style voting, limited voting or optional party voting been in use in 2000, 1998 and 1996. The tables show that Democrats would likely have had greater representation, with 18 seats (instead of 16) in 2000, 17 seats (the same as actually elected) in 1998, and a high of 19 seats (instead of 17) in 1996. These projections are the most speculative in this report, since so much depends on the quality of candidates and the

Every multi-seat delegation would have members from both parties, reducing partisan regionalism.

strength of individual campaigns. These projections are made using the assumption that the partisan vote in each Senatorial District for lieutenant governor is a base on which a partisan split in the County can be estimated. The projections also assume that the second party in each district would win as many seats as predicted by the threshold of inclusion.

These reforms are particularly beneficial, in terms of governance, when there is significant geographic partisan divergence. For example, rather than having Rutland County and the Northeast Kingdom 100% Republican and Windsor and Windham Counties 100% Democratic, it is likely that every multi-seat delegation would have members of both parties, reducing partisan regionalism. This is a major reason why cumulative voting is being considered for re-adoption in Illinois today.

TABLE 7. 2000 State Senate Partisan Balance: If Peoria-style Voting, Limited Voting, or Optional Party Voting had been used

District	2000	Republican	Democratic	LU & GR	Lib & w.i.	Seats
Addison	party vote	7,100	10,710	808	124	
	% of vote	37.9%	57.1%	4.3%	0.7%	
	Sen. Seats	1	1	0	0	2
Bennington	party vote	7,147	8,920	1,149	225	
	% of vote	41.0%	51.1%	6.6%	1.3%	
	Sen. Seats	1	1	0	0	2
Caledonia	party vote	8,183	7,702	646	263	
	% of vote	48.7%	45.9%	3.8%	1.6%	
	Sen. Seats	1	1	0	0	2
Chittenden	party vote	24,299	36,472	1,705	497	
	% of vote	38.6%	57.9%	2.7%	0.8%	
	Sen. Seats	2	4	0	0	6
Essex-Orleans	party vote	8,196	7,353	781	281	
	% of vote	49.3%	44.3%	4.7%	1.7%	
	Sen. Seats	1	1	0	0	2
Franklin	party vote	8,136	9,011	468	156	
	% of vote	45.8%	50.7%	2.6%	0.9%	
	Sen. Seats	1	1	0	0	2
Grand Isle	<i>actual 2000 winner since cumulative voting has no relevance for single seat elections</i>					
	Sen. Seats	0	1	0	0	1
Lamoille	<i>actual 2000 winner since cumulative voting has no relevance for single seat elections</i>					
	Sen. Seats	0	1	0	0	1
Orange	<i>actual 2000 winner since cumulative voting has no relevance for single seat elections</i>					
	Sen. Seats	1	0	0	0	1
Rutland	party vote	12,394	12,852	1,252	291	
	% of vote	46.3%	48.0%	4.7%	1.1%	
	Sen. Seats	1	2	0	0	3
Washington	party vote	11,473	16,009	1,192	415	
	% of vote	39.4%	55.0%	4.1%	1.4%	
	Sen. Seats	1	2	0	0	3
Windham	party vote	6,774	11,414	1,529	315	
	% of vote	33.8%	57.0%	7.6%	1.6%	
	Sen. Seats	1	1	0	0	2
Windsor	party vote	10,298	15,933	1,461	378	
	% of vote	36.7%	56.8%	5.2%	1.3%	
	Sen. Seats	1	2	0	0	3
Statewide	Total Seats	12	18	0	0	30

Partisan vote based on lieutenant governor race: Dubie = Republican, Racine = Democratic.

TABLE 8. 1998 State Senate Partisan Balance: If Peoria-style Voting, Limited Voting, or Optional Party Voting had been used

District	1998	Republican	Democratic	GR & LU	Lib & w.i.	Seats
Addison	Party vote	6,477	7,712	276	83	
	% of vote	44.5%	53.0%	1.9%	0.6%	
	Likely Seats	1	1	0	0	2
Bennington	Party vote	8,049	5,361	594	110	
	% of vote	57.0%	38.0%	4.2%	0.8%	
	Likely Seats	1	1	0	0	2
Caledonia	Party vote	7,330	5,135	439	90	
	% of vote	56.4%	39.5%	3.4%	0.7%	
	Likely Seats	1	1	0	0	2
Chittenden	Party vote	19,281	25,241	847	261	
	% of vote	42.3%	55.3%	1.9%	0.6%	
	Likely Seats	2	4	0	0	6
Essex-Orleans	Party vote	7,092	5,118	466	104	
	% of vote	55.5%	40.0%	3.6%	0.8%	
	Likely Seats	1	1	0	0	2
Franklin	Party vote	6,148	6,737	232	73	
	% of vote	46.6%	51.1%	1.8%	0.6%	
	Likely Seats	1	1	0	0	2
Grand Isle	<i>actual 1998 winner, since cumulative voting has no relevance for single seat elections</i>					
	Likely Seats	0	1	0	0	1
Lamoille	<i>actual 1998 winner, since cumulative voting has no relevance for single seat elections</i>					
	Likely Seats	0	1	0	0	1
Orange	<i>actual 1998 winner, since cumulative voting has no relevance for single seat elections</i>					
	Likely Seats	0	1	0	0	1
Rutland	Party vote	10,811	9,179	476	117	
	% of vote	52.5%	44.6%	2.3%	0.6%	
	Likely Seats	2	1	0	0	3
Washington	Party vote	9,811	11,361	468	197	
	% of vote	44.9%	52.0%	2.1%	0.9%	
	Likely Seats	1	2	0	0	3
Windham	Party vote	6,923	7,639	794	123	
	% of vote	44.7%	49.4%	5.1%	0.8%	
	Likely Seats	1	1	0	0	2
Windsor	Party vote	10,763	10,647	558	153	
	% of vote	48.7%	48.1%	2.5%	0.7%	
	Likely Seats	2	1	0	0	3
Statewide	Total Seats	13	17	0	0	30

Partisan vote based on lieutenant governor race: Snelling = Republican, Racine = Democratic.

TABLE 9. 1996 State Senate Partisan Balance: If Peoria-style Voting, Limited Voting, or Optional Party Voting had been used

District	1996	Republican	Democratic	GR, LU, NL	write-ins	Seats
Addison	Party vote	6,698	9,368	622	14	
	% of vote	40.1%	56.1%	3.7%	0.1%	
	Likely Seats	1	1	0	0	2
Bennington	Party vote	7,019	7,778	1,175	7	
	% of vote	43.9%	48.7%	7.4%	0.0%	
	Likely Seats	1	1	0	0	2
Caledonia	Party vote	7,190	6,180	886	21	
	% of vote	50.4%	43.3%	6.2%	0.1%	
	Likely Seats	1	1	0	0	2
Chittenden	Party vote	20,098	34,041	1,699	103	
	% of vote	35.9%	60.9%	3.0%	0.2%	
	Likely Seats	2	4	0	0	6
Essex-Orleans	Party vote	6,319	6,431	837	8	
	% of vote	46.5%	47.3%	6.2%	0.1%	
	Likely Seats	1	1	0	0	2
Franklin	Party vote	6,238	8,306	512	17	
	% of vote	41.4%	55.1%	3.4%	0.1%	
	Likely Seats	1	1	0	0	2
Grand Isle		<i>actual 1996 winner since cumulative voting has no relevance for single seat elections</i>				
	Likely Seats	0	1	0	0	1
Lamoille		<i>actual 1996 winner since cumulative voting has no relevance for single seat elections</i>				
	Likely Seats	0	1	0	0	1
Orange		<i>actual 1996 winner since cumulative voting has no relevance for single seat elections</i>				
	Likely Seats	0	1	0	0	1
Rutland	Party vote	11,539	12,212	1,092	55	
	% of vote	46.3%	49.0%	4.4%	0.2%	
	Likely Seats	1	2	0	0	3
Washington	Party vote	9,745	14,116	1,264	25	
	% of vote	38.7%	56.1%	5.0%	0.1%	
	Likely Seats	1	2	0	0	3
Windham	Party vote	6,466	9,683	1,410	12	
	% of vote	36.8%	55.1%	8.0%	0.1%	
	Likely Seats	1	1	0	0	2
Windsor	Party vote	10,405	13,449	1,390	33	
	% of vote	41.2%	53.2%	5.5%	0.1%	
	Likely Seats	1	2	0	0	3
Statewide	Total Seats	11	19	0	0	30

Partisan vote based on lieutenant governor race: Carroll = Republican, Racine = Democratic.

CONCLUSION

Vermont's Democratic State Senate campaigns win fewer seats than their proportion of support in the electorate would predict. The major reason for this is the dramatically higher frequency of bullet voting by Democratic voters in State Senate races, as compared to Republican voters. Vermont's elections would more fairly reflect the political desires of the electorate if the voting system automatically equalized the voting strength of all voters.

Four systems of voting are proposed that would eliminate the partial-franchise bullet-voting problem. Redistricting the Senate into single-seat districts would eliminate bullet voting, but might have no, or even a negative impact on creating a more representative Senate, depending on the geographic distribution of partisan support. The other three reforms solve the partial-franchise bullet-voting problem, and would likely create a more representative Senate. Simple limited voting is the least desirable of the three, while both Peoria-style cumulative voting and optional party voting are simple for voters, effective, and would create a more representative State Senate.

With any of these last three voting systems, voters in most districts could be assured of having at least one Democratic and One Republican Senator. A survey of voter attitudes conducted by the Institute of Government and Public Affairs at the University of Illinois in April 2000 found that nearly 70 percent of respondents preferred an election system that allowed every district to have legislators from both major parties.¹⁹

Any of these reforms could be adopted with little or no change to basic ballot design, or election-day administration. Vermont would be well advised to consider amending its State Senate election system to assure a more representative Senate.

¹⁹ The survey asked voters: "Imagine a legislative district in which two-thirds of the voters are Democrats and one-third are Republicans. Do you think such a district should be represented by a single Democratic legislator or by both a Democratic and Republican legislator?" They were alternately asked the same question with the partisan balance reversed so that two-thirds of the voters were Republican and one-third were Democrats. In both cases, nearly 70% preferred the outcome that would be achieved through Peoria-style, or limited, or optional party voting, rather than the winner-take-all system in general use.

APPENDIX A.

PARTISAN vs. CANDIDATE VOTING

Can Vermont voters reasonably be sorted as “Democratic” or “Republican” voters? Even though reports say that as many as 40% of Vermonters identify themselves as “independents,” we believe that most voters can be reasonably categorized, not in an absolute sense, but in terms of partisan proclivity. While some citizens may be thought of as “true” independents, with no bias towards either party, among participating voters they are the exception rather than the norm.

In this study the partisan categories created are only approximate. By using votes in a statewide race (lieutenant governor) as a defining measure of partisanship, it is inevitable that each category of voters used in this study includes some voters who are 100% consistent party voters, others who usually favor one party, and a few who regularly engage in split ticket voting.

Candidates for political office are prone to believe that voters are selecting them individually rather than for their party label when voting for them. This individualistic notion is inherent in most campaigns. It is an effective campaign assumption, since at least *some* voters are making their State Senate decisions based on impressions of individual candidates. How many votes are actually candidate-specific and how many are actually based on party label is unknown. Even voter surveys are unreliable here, as many voters are reluctant to admit (even to themselves) that they didn’t know much about the individual candidates in a legislative race, and so voted based on party label.

There is a widespread belief, expressed by many voters, that they “vote for the person, not the party.” This is proudly proclaimed, as parties, and un-named “party bosses” are often viewed suspiciously in America. In this view, “voting for the party” is seen as unthinking, knee-jerk behavior. A complementary view essentially ignores policy as a measure of a candidate in favor of personal character. This is widely promoted in campaigns as an effective way to appeal to the critical “swing” voters, who merely want an “honest” politician. While these swing voters often decide the outcome of close elections, and so are catered to by campaigns, they are not all that numerous.

While the personality-based campaigns in the U.S. certainly feed this “voting for the person,” notion, it is likely that for *most* offices *most* voters vote based on their associations with the party label at that level of elections, rather than assessments of individual candidates, even though they may be embarrassed to admit it.. The high “cost of information,” or taking the time and effort to learn the policies and qualifications of candidates for so many offices (such as Probate Judge, High Bailiff, State Senators, Treasurer, and Attorney General), means that almost no voters know enough to actually “vote for the person rather than the party” for many or most offices.* What these voters probably mean is that they are not straight ticket voters, and when they *do* feel that they know enough about candidates in a particular race they do not feel bound to stick with their customary party. This felt adequacy of information about certain candidates is generally limited to either high-spending, high-visibility state-wide and national races, or local State Representative races where the voter has actually met or has personal knowledge about the candidates. Most voters rely on the party label as the only readily available indicator about the candidates in making their voting decisions.

Rather than merely winning over “swing voters,” a goal of each party should be to gather all of the available votes for their candidates from among voters with a leaning towards their party. The Vermont Republican State Senate candidates appear to be accomplishing this political task. Eliminating partial-franchise bullet vote withholding could even net the Democratic Party State Senate candidates more votes than appeals to swing voters.

* A Vermont general election ballot, even in a non-presidential year, typically has around 70 candidates, running for 16 different offices. The number is staggering, and the ability to actually “vote for the person, not the party” is the exception rather than the rule.

APPENDIX B.

CAMPAIGN SPENDING IN SINGLE-SEAT VS. MULTI-SEAT DISTRICTS

It is commonly assumed that dividing up larger multi-seat districts into single-seat districts would reduce the level of campaign spending, since each candidate would have fewer potential voters to reach.

The evidence, however, does not support this assumption of a strong correlation between campaign spending and district magnitude within the context of the Vermont State Senate races. A likely explanation, is that slates of candidates in multi-seat districts are actually able to achieve campaign savings unavailable to candidates in single-seat districts through coordination of efforts, sharing and avoiding duplication. Our analysis is limited to cases, such as Vermont State Senate districts, where the number of seats in a district rises in proportion to population. Of course, at some “jump points,” larger districts *certainly* require more spending. Raising district size by an order of magnitude (from 10,000 to 100,000 voters, for example) likely increases spending as new spending plateaus are reached -- the jump to use of radio advertising, the jump to advertising in a second daily newspaper, the jump to television, the jump to a second television media market, etc. However, there appear to be no such “jump points” between a Vermont single-seat, and six-seat district.

The table on the following page is based on the campaign finance reports from all major party candidates for State Senate in 2000 on file at the office of the Secretary of State. This analysis is limited to 2000 because earlier election campaign finance reports are not available on-line. It would be desirable to do further research, extending the analysis presented here, by data-entering campaign finance reports from previous elections. An important caveat is that the figures do not include spending done by the political parties without coordination with the candidates, which was quite substantial. How party spending was allocated among the various candidates cannot be readily determined. Since a significant portion of that party spending was expended for direct mail, it is reasonable to guess that total party spending was greater in the larger districts, but because multiple candidates could be promoted on a single mail piece, the per-candidate spending by the parties may have remained relatively equal regardless of district magnitude. However, how competitive a race is perceived to be, regardless of district size, is probably the most significant factor in determining party spending. While not conclusive, candidate spending alone is a meaningful measure of the impact of district magnitude on overall spending.

In Vermont's 2000 State Senate elections the single-seat districts had the **highest** median spending -- whether one looks at just the winners, just the losers, or at all major party candidates combined. The median spending by candidates in two-seat districts, rather than being larger, was in fact roughly **half** that of candidates in single-seat districts. The mean and median spending by winners in the three-seat and six-seat districts were virtually identical, and were significantly **lower** than both the average and mean spending of winners in single-seat districts.

The extravagant spending of just one losing candidate in Chittenden County has created an anecdotal impression that the six-seat Chittenden County District is the most expensive district in which to campaign. In fact both the median and average spending of the winning candidates in Chittenden District was **lower** than in the single-seat districts. Lest one assume this reflects lower spending by safe incumbents in Chittenden County, in fact the incumbents spent above the median, and the two new Senators, Lyons and Condos spent below the median.

A regression analysis shows that the correlation coefficient between campaign spending and district magnitude in all senate races was about 0.2 -- a weak positive correlation. But this weak positive correlation only appears due to the unique spending level of Mr. Valee, a losing candidate who spent over \$129,000, which is far and away the most money ever spent on any State Senate race in Vermont history. If we exclude that atypical candidate, who spent more than 5 times as much as the next highest spending winning candidate, the correlation coefficient drops to a negative -0.02, indicating that there is no relationship between campaign spending and district size.

Data from a single election year is certainly not conclusive, but the suggestion that larger districts do **not** result in higher spending comports with similar analyses done by the Center for Voting Democracy in the past comparing single and two-seat races for the Vermont House of Representatives, as well as the South Carolina legislature.

**Table 10. District Size and Candidate Spending
in 2000 State Senate Election**

Source: Vermont Secretary of State

	Six-seat District Chittenden	Three-seat Districts Washington, Rut., Windsor	Two-seat Districts Ad, Ben, Cal, E/O, Fr, Windh	One-Seat Districts Grand Isle Lam, Orange
WINNING MAJOR PARTY CANDIDATES				
	\$3,900.24	\$5,892.52	\$250.00 *	\$5,570.00
	\$9,220.25	\$8,041.79	\$1,608.11	\$16,622.42
	\$10,928.42	\$9,758.80	\$1,944.13	\$24,206.05
	\$15,031.30	\$10,202.22	\$4,903.77	
	\$21,903.60	\$12,024.67	\$6,558.61	
	\$23,678.87	\$16,875.41	\$7,995.54	
		\$19,290.39	\$8,515.00	
		\$24,172.53	\$8,727.45	
		\$25,073.23	\$8,822.56	
			\$10,816.38	
			\$13,556.80	
			\$15,947.73	
WINNERS average	\$14,110.45	\$14,592.40	\$7,470.51	\$15,466.16
WINNERS median	\$12,979.86	\$12,024.67	\$8,255.27	\$16,622.42
LOSING MAJOR PARTY CANDIDATES				
	\$2,685.00	\$598.00	\$4,064.09	\$16,457.46
	\$3,427.25	\$2,897.53	\$6,090.84	\$18,575.00
	\$4,870.36	\$4,136.26	\$9,081.27	\$21,202.93
	\$6,187.50	\$7,589.93	\$12,168.73	
	\$27,919.03	\$9,637.83	\$13,741.89	
	\$129,547.26	\$17,188.57	\$14,309.00	
		\$25,386.33	\$14,384.90	
		\$25,993.28	\$14,490.16	
		\$57,452.00	\$19,103.16	
Major party LOSERS average	\$29,106.07	\$16,764.41	\$11,937.12	\$18,745.13
Major party LOSERS median	\$5,528.93	\$9,637.83	\$13,741.89	\$18,575.00
ALL MAJOR PARTY WINNERS AND LOSERS				
Major party cand. average	\$21,608.26	\$15,678.41	\$9,384.77	\$17,105.64
Major party cand. median	\$10,074.34	\$11,113.45	\$8,822.56	\$17,598.71

* Senator Canns did not file a campaign finance report. No report is required if less than \$500 is raised and spent.
For the purposes of this analysis \$250 is assumed, though using \$0 or \$499 would make no significant difference.

