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RESEARCH NOTE

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THE POTENTIAL ELECTORAL DISADVANTAGES OF A CATCH-ALL PARTY

Ideological Variance among Republicans and Democrats in the 50 US States

Bernard Grofman, Samuel Merrill, Thomas L. Brunell and William Koetzle

ABSTRACT

In two-party competition, the more ideologically concentrated party may be advantaged in that its party median may be closer to the overall median voter than is that of the more dispersed party. Because of party activists and the intermediating effects of party primaries which tend to lead to the selection of candidates near the party median, voters often choose in a general election between candidates with widely divergent views. It follows that a smaller, but more ideologically cohesive, party may find its candidate closer to the overall median voter than is the candidate of the larger party. Such a party should be able to win elections that mere numbers of identifiers would suggest it ought not be able to win. In American politics, it is widely accepted that, in terms of voter ideology, the Democratic Party is more of a catch-all party than the Republicans; i.e. its partisan identifiers are more ideologically dispersed. This insight, however, is based primarily on (a) national-level data and (b) data from a period when Democratic identifiers far outnumbered Republican identifiers and when a very high fraction of southern voters were both Democratic in partisan affiliation and conservative in ideology. We look at American National Election Study data from a 1988–92 panel which uses states as its sampling frame to see the extent to which Republican Party identifiers are more ideologically united than Democratic identifiers in each of the 50 states. Even when we look within individual states, we find that Republicans are

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considerably more ideologically homogeneous then Democratic identifiers. Thus, for contests fought at the state level, we would expect to see Republicans electorally advantaged relative to their actual number of party identifiers.

KEY WORDS ■ electoral competition ■ ideology ■ US politics

The standard uni-dimensional Downsian model (Downs, 1957) emphasizes the importance of the median voter, but models of two-party political competition that build on Downsian insights often emphasize the importance of the median voter within each political party. For example, models of competition that incorporate the role of primaries in US political competition, such as those of Aranson and Ordeshook (1972), Coleman (1971, 1972), or Owen and Grofman (1995), give rise to the expectation that, in ideological terms, party candidates will locate somewhere between their party's median voter and the overall median,[1] an expectation that is empirically confirmed (Shapiro et al., 1990).[2] Similar results are obtained for models emphasizing the importance of party activists. But if voters are choosing between two candidates located at or near each party's median, then it is possible that the smaller party will actually find its candidate closer to the overall median voter than is the candidate of the larger. Thus, *ceteris paribus*, sometimes the smaller but more ideologically cohesive party should be able to win state-wide elections when its share of identifiers would suggest it ought not be able to win.

Suppose that each party's supporters are ideologically normally distributed in a one-dimensional spatial model, and scaled so that the parties are centered at locations 0 and 1, respectively. Let Party 1 be the party of the left and Party 2, the party on the right. We look at two ratios. The *dispersion ratio,* R_s, is the ratio of the standard deviation of Party 2 to that of Party 1. The *partisan ratio,* R_p, is the ratio of the proportion of voters identifying with Party 2 to the proportion identifying with Party 1. Elsewhere (Grofman et al., 1997) we show – to a good approximation – that if the distributions overlap sufficiently, the median of the distribution of Party 2's identifiers will be closer to the overall median than is the median for Party 1 if the *dispersion ratio is smaller than the partisan ratio*.

For example, suppose that Party 2 is twice as concentrated (i.e. its standard deviation is smaller) so that the dispersion ratio is 0.5. Suppose also that Party 1 has 60 percent of identifiers and Party 2 has 40 percent so that the partisan ratio is 0.667. Since the dispersion ratio is smaller than the partisan ratio, the smaller party, Party 2, is closer to the overall median. Figure 1 depicts this example, in which the electorate is composed of a mixture of two groups with normal party-specific probability densities with respective medians at 0 and 1. The overall median is 0.553, closer to the more

concentrated, but smaller, Party 2. Note that the overall mean, at 0.400, is closer to the larger party, Party 1.[3]

As we see from Figure 1, if the ratio of the standard deviations of the two ideological distributions is big enough, then the minority party (Party 2 on the right) can win despite the fact that it has only 40 percent of the voters identifying with it. The more widely spread party (here the party on the left) has its median (and thus, the location of its most likely candidates) further from the overall median than does the more concentrated party on the right.[4]

In the remainder of this paper we look at the application of this insight to the case of US politics at the state level. That the Democrats are more of a catch-all party than are the Republicans is part of the common wisdom. Yet the evidence for this is drawn primarily from national surveys (see, however, Erikson et al., 1987, 1993; Wright et al., 1985). Much of the data on which the common wisdom is founded comes from a time when Republican identifiers were very much the minority in the electorate.[5] Even today, Democrat identifiers are disproportionately found in the South, and southern Democrats are considerably more conservative than Democrats from

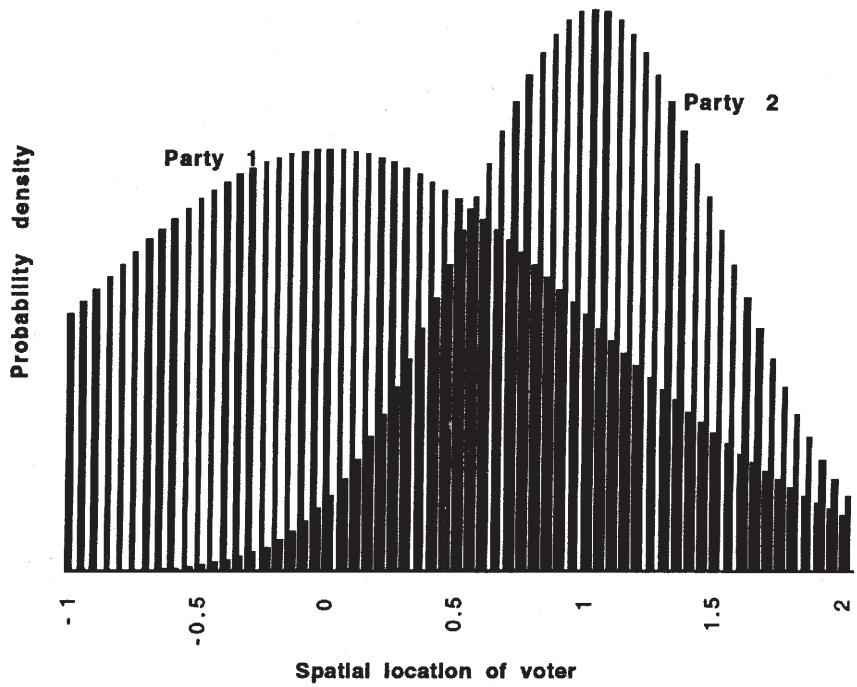

Figure 1. Typical voter distribution: mixed normal probability density
Note: Party 1 has 60% of idenitifers and Party 2 has 40%; thus $R_p = 0.667$. The standard deviation of Party 2 is half that of Party 1, thus $R_s = 0.5$.

elsewhere in the country; thus, a considerable amount of the ideological diversity among Democrats at the national level is due simply to the effects of pooling southern Democrats and non-southern Democrats.[6]

In the next section we look at data from the American National Election Study: Pooled Senate Election Study, 1988–92 (Miller et al., 1993) which uses states as its sampling frame to examine the extent to which Republican Party identifiers are more ideologically cohesive than Democratic Party identifiers. We find that, even when we look within individual states, Republicans are, in 44 of the 50 states, more ideologically homogeneous than Democratic identifiers. Thus, *ceteris paribus*, we would expect the Republican Party to be generally advantaged relative to the number of its identifiers. Indeed, we find that in 36 of 49 states (there is one tie) the median voter among Republican identifiers is closer to the overall median among major party identifiers than is the median voter among Democratic identifiers, even though Republican identifiers are in the majority in only 23 of these 49 states.

The Democrats as a Catch-all Party

Before we can look at the extent to which an ideologically catch-all party – such as the Democrats are supposed to be in American politics – may be disadvantaged in terms of proximity of its median voter to the overall median voter, we first need to test the wisdom that Democrats are more of a catch-all party then the Republicans. To test this expectation that the dispersion of Democratic identifiers would usually be greater than that for Republican identifiers, we look at the ideological distribution of Democratic and Republican identifiers nationally and on a state by state basis for the period 1988–92, using the seven-point party ID scale to characterize identifiers (with leaners grouped with identifiers), and with pure independents looked at separately.[7]

Table 1 separately presents the median[8] voter location (along with the standard deviation of voter locations) for Republican identifiers (including Republican leaners), Democratic identifiers (including Democratic leaners), and pure independents, as well as for the set of voters. The data are taken from an NES three-wave study (1988, 1990, 1992) of elections to the US Senate that uses states as its sampling units. We use this dataset for our national data for purposes of comparability with the state-specific results from this study (reported below).[9] As we see from Table 1:

1 the standard deviation of Republican identifiers, 1.23, is lower than that for Democratic identifiers, 1.47;
2 the proportion of Republican identifiers among all major-party identifiers (48.8 percent) is lower than the proportion of Democratic identifiers among all major party identifiers (51.2 percent);

Table 1. Mean and median ideologies (NES seven-point scale) for Democrats, Republicans and independents in the nation as a whole

Partisanship category	*Median*	*Mean*	*Standard deviation*	*N*	*(%)*
Republican	5.02	4.99	1.23	3836	(44.5)
Democrat	3.82	3.86	1.47	4018	(46.6)
Independent	4.21	4.30	1.36	769	(8.9)
Republicans and Democrats	4.52	4.45	1.47	7854	(91.1)
All	4.49	4.44	1.46	8623	

Note: The data are from the American National Election Study # 9580 (Miller et al., 1993). The categories are broken down by the self-identification variable. Respondents place themselves on the following scale: Strong Democrat, Weak Democrat, Independent-Democrat, Independent-Independent, Independent-Republican, Weak Republican, Strong Republican. We include all Independent leaners in the appropriate partisan group (i.e. Independent-Democrat are included with the Democrats); this leaves only the Independent-Independents in the Independent category. The medians are calculated as described in note 8. Entries represent answers to an ideological self-placement question on a seven-point scale (1 = very liberal and 7 = very conservative).

3 the median Republican is closer to the overall median voter than the median Democrat despite the fact that Democrats outnumber Republicans and that independents are closer to the Democratic median than they are to Republican median![10]

Moreover,

4 when we look only at identifiers (i.e. disregarding pure independents), we obtain an overall two-party median of 4.52. The median Republican is closer to this overall two-party median than the median Democrat despite the fact that Republicans are outnumbered by Democrats. This is as we would expect, however, since the dispersion ratio is 1.23 ÷ 1.47 = 0.84, which is smaller than the partisan ratio, 48.8 ÷ 51.2 = 0.95

The data reported in Table 1 are pooled for the 1988–92 period. Virtually identical results apply when we look year-by-year over the longer period 1972–92 using the NES presidential election studies dataset, although the within-year standard deviations are somewhat smaller.[11]

Now we look state by state. The data in Table 2 are from the same special American NES 1988–92 study of senatorial voting patterns using the same state-based sampling frame as in Table 1. Tabulating the data in Table 2 we find that:

1 in all 50 states, the median Republican identifier is to the right of the median Democratic identifier;

Table 2. State variance and medians on seven-point ideological scale

	Democrats		*Republicans*		*Independents*		*Two-party*		*Overall*	
State	*Median*	*S.D.*	*Median*	*S.D.*	*Median*	*S.D.*	*Median*	*S.D.*	*Median*	*S.D.*
Alabama	4.07	1.76	5.57	1.17	4.50	2.06	5.05	1.62	5.05	1.63
Alaska	3.56	1.42	4.75	1.29	4.50	1.41	4.33	1.45	4.28	1.44
Arizona	3.71	1.36	4.98	1.34	4.17	0.83	4.33	1.52	4.33	1.48
Arkansas	4.65	1.38	5.29	1.20	5.50	1.86	5.01	1.30	5.05	1.36
California	3.75	1.36	5.04	1.38	4.25	1.80	4.22	1.49	4.22	1.51
Colorado	3.23	1.15	4.81	1.09	4.17	1.35	4.16	1.31	4.16	1.31
Connecticut	3.50	1.58	4.89	1.38	5.50	1.25	4.40	1.56	4.46	1.56
Delaware	3.83	1.40	4.66	1.27	4.17	1.02	4.30	1.36	4.28	1.32
Florida	4.23	1.68	5.20	1.37	4.33	1.38	4.91	1.57	4.89	1.56
Georgia	4.25	1.43	5.19	1.34	4.33	0.84	4.68	1.44	4.64	1.40
Hawaii	3.85	1.42	4.68	1.46	4.50	1.89	4.15	1.47	4.15	1.50
Idaho	3.67	1.14	5.21	1.17	4.63	1.26	4.57	1.37	4.57	1.36
Illinois	3.69	1.52	4.80	1.29	4.12	1.25	4.31	1.49	4.29	1.46
Indiana	3.88	1.28	5.02	1.26	4.50	1.95	4.50	1.40	4.44	1.47
Iowa	3.81	1.33	5.21	1.21	4.17	1.49	4.73	1.41	4.69	1.41
Kansas	3.92	1.38	4.60	1.22	5.50	1.70	4.30	1.35	4.32	1.38
Kentucky	4.53	1.64	5.18	1.27	3.75	0.84	4.91	1.49	4.86	1.48
Louisiana	4.22	1.53	5.38	1.36	3.75	1.87	4.83	1.52	4.78	1.54
Maine	3.78	1.46	4.96	1.44	4.56	1.34	4.61	1.54	4.60	1.51
Maryland	3.53	1.35	4.76	1.38	4.67	0.55	4.14	1.48	4.18	1.46
Massachusetts	3.15	1.58	4.88	1.21	4.50	0.85	3.99	1.59	4.00	1.51
Michigan	3.54	1.56	4.95	0.98	4.06	0.98	4.55	1.39	4.45	1.35
Minnesota	3.81	1.37	4.93	1.25	4.33	1.10	4.57	1.37	4.55	1.34
Mississippi	4.40	1.89	5.44	1.44	4.17	1.29	5.16	1.67	5.03	1.67
Missouri	3.69	1.27	4.91	1.17	4.17	0.75	4.32	1.34	4.31	1.31
Montana	3.61	1.38	4.86	1.22	4.13	0.91	4.23	1.44	4.20	1.39
North Carolina	4.00	1.57	4.95	1.34	4.50	1.07	4.63	1.49	4.59	1.47
North Dakota	3.99	1.50	4.84	1.16	3.99	1.14	4.66	1.35	4.55	1.33
Nebraska	4.00	1.53	5.07	1.23	4.62	1.75	4.79	1.44	4.78	1.46
Nevada	3.77	1.69	4.92	1.22	3.92	1.75	4.58	1.53	4.48	1.55
New Hampshire	3.29	1.33	5.12	1.06	4.50	1.24	4.56	1.48	4.56	1.46
New Jersey	3.53	1.57	4.81	1.09	4.50	0.63	4.41	1.42	4.37	1.39
New Mexico	3.70	1.30	5.02	1.03	3.99	1.09	4.40	1.34	4.35	1.32
New York	3.56	1.19	4.58	1.21	4.50	2.04	4.14	1.30	4.15	1.34
Ohio	3.88	1.43	5.06	1.20	4.25	1.01	4.40	1.46	4.38	1.43
Oklahoma	4.44	1.32	5.16	1.17	5.75	2.39	4.86	1.29	4.87	1.33
Oregon	3.76	1.42	5.11	1.22	4.60	1.50	4.50	1.49	4.51	1.48
Pennsylvania	3.64	1.58	5.09	1.33	4.83	1.60	4.40	1.59	4.45	1.58
Rhode Island	3.77	1.35	4.61	1.31	4.04	1.03	4.21	1.37	4.15	1.30
South Carolina	4.15	1.62	5.08	1.42	4.25	0.50	4.80	1.55	4.73	1.51
South Dakota	3.89	1.28	5.07	1.24	3.75	1.35	4.50	1.40	4.43	1.40
Tennessee	4.07	1.35	5.10	1.26	4.50	0.98	4.71	1.40	4.65	1.39
Texas	4.28	1.43	5.37	1.50	4.13	1.68	4.88	1.53	4.84	1.53
Utah	3.36	1.34	4.97	1.32	4.50	0.71	4.40	1.51	4.36	1.49
Vermont	3.11	1.49	4.90	1.25	4.25	1.80	4.12	1.62	4.13	1.63
Virginia	3.93	1.43	5.11	1.30	3.40	2.19	4.79	1.48	4.77	1.52
Washington	3.44	1.09	4.88	1.09	5.00	1.58	4.16	1.31	4.18	1.33
Wisconsin	3.58	1.66	4.99	1.18	4.50	1.61	4.31	1.56	4.32	1.56
West Virginia	4.25	1.58	4.91	1.45	4.12	0.69	4.51	1.54	4.48	1.51
Wyoming	4.04	1.57	4.80	1.20	4.60	1.87	4.58	1.40	4.57	1.44

Note: See Table 1 for explanation of ideological scale.

2 in all 50 states the mean ideological location of Republican identifiers is to the right of the mean ideological location of Democratic identifiers;
3 in 44 out of 50 states, the standard deviation of Republican identifiers is lower than that for Democratic identifiers;
4 in 26 out of 50 states, the proportion of Republican identifiers among all identifiers is lower than the proportion of Democratic identifiers among all identifiers, with a tie in one state (North Carolina),
5 in 16 of the 26 states where there are more Democratic identifiers than Republican identifiers, the median Republican is closer to the overall median voter than the median Democrat; while in only 3 of the 23 states where there are more Republican identifiers was the median Democrat closer to the overall median voter than the median Republican.[12]

This seemingly counter-intuitive result (see Table 3) of the Republican median being closer to the overall median not just in the states where Republicans are in the majority but also in a large number of states where Republicans are in the minority is, of course, consistent with our model, since in almost all states the Republican standard deviations are lower than the Democratic ones. However, in some of these states, the numerical preponderance of Democrats is too strong to be overcome by the variance effect we have identified.[13]

The findings we have identified hold even for the South. Looking separately at the (ten-state) deep South (the old confederacy minus Tennessee), Democratic identifiers are to the left of Republican identifiers in all ten states in both mean and median; in nine of ten southern states the Republican standard deviation is lower than the Democratic standard deviation; in five of ten (with one state, for all practical purposes a tie), there are fewer Republican identifiers than Democratic identifiers; in four of the five states where Democrats outnumber Republicans, nonetheless the Republican median is closer than the Democratic median to the overall median, but in only one of the four states where Republicans outnumber Democrats is the Democratic median closer to the overall median. With Republican identifiers expected to have lower standard deviations than Democratic identifiers, we should find Republican candidates doing better in these electoral contests than the number of Republican Party identifiers (in a state) might otherwise

Table 3. Relative location of Republican and Democratic identifiers

Preponderance of identifiers	*Party median closer to overall median*	
	Democratic	*Republican*
Democratic	10	16
Republican	3	20

suggest. Indeed, in some rare cases, Republicans might be able to win elections even though their identifiers were a minority of the electorate.

Real voters do not, of course, choose candidates based on ideological position alone; in particular voters are more likely to vote for their party's candidate irrespective of the candidate's or party's ideological position. Candidate-specific factors (including candidate platforms) and election-specific factors (e.g. changes in inflation or unemployment rates, corruption scandals) are also potentially important. Moreover, we would also need to take into account the proportion of independents in the (state's) electorate and the voting preferences of those independents. Thus, we shall not pursue here the complex multivariate analyses necessary to determine the independent impact of the variance difference between Democratic and Republican identifiers on electoral outcomes.

Suffice it to note that our state-specific data show that the variance effect should, at least recently, have been operating in favor of Republicans. Moreover, we believe the same should have been true for much of the post-second-world-war era, and this is borne out by the national-level data for the 1972–92 period that we have looked at (data not reported). Thus, the variance difference effect we have identified should help to account for Republican electoral successes in decades (or in some jurisdictions) when the Democrats were clearly the preponderant party numerically.

Of course, there are other reasons for these Republican successes, including lower turnout among Democratic partisans than among Republican partisans and perhaps, too, greater access to campaign funding. Moreover, we should be careful to recognize that the results we give may apply only in the short term since equilibrating forces may shift the partisan identification of voters who regularly find themselves happier with the candidates of the other party. Still, the available evidence on party identification suggests that it is heavily retrospective and thus may stay frozen for a long time. Thus, it seems to us reasonable to believe that at least some of successes of the minority party in a state can be attributed to variance differences of the sort we have identified here.

Conclusion

We have sought to provide new insights into the links between party and overall medians and party means and variances for two-party competition.[14] Our theoretical results have direct and important practical implications. Our data analysis has highlighted the practical implications of our model for two-party competition in the USA. We expect that Republicans are advantaged in US electoral politics because, *ceteris paribus*, due to the variance effect, the Republican position can be expected to be closer to the overall median (sometimes even a lot closer) than we would expect from simply examining the relative numbers of each party's identifiers/supporters. This

effect is not simply a national-level effect, but is also found in almost all states.

Notes

An earlier version of this paper was presented at the Annual Meeting of the Public Choice Society, San Francisco, 21–23 March 1997.

1 See also Aldrich and McGinnis (1989), Alesina and Rosenthal (1995).
2 It is well also known that, in terms of voting behavior in the US House and Senate, the Democrats are more of a catch-all party, i.e. exhibiting a greater standard deviation with respect to various roll-call voting measures such as those calculated by the Americans for Democratic Action (ADA). The ADA is a liberal interest group that rates members of both the House of Representatives and the Senate based on 20 key votes each year (see e.g. Grofman et al., 1990). Moreover, some models of floor voting in Congress propose that it is the location of the median voter within the majority party that is critical to understanding what policies will be proposed, even if knowing the location of the overall median is needed to understand what policies will be passed (see e.g. discussion in Aldrich and Rohde, 1995).
3 Note that the mean (as opposed to the median) of the overall distribution is always at the value defined by Party 2's proportion of the electorate; i.e. the mean of the overall distribution simply reflects the relative sizes of the two groups. The median voter, however, is generally skewed to the right of the overall mean, as long as the dispersion ratio is less than 1 (i.e. if the right-hand group is more concentrated).
4 When the ideological distributions of the two parties are not substantially overlapping because one or both have small standard deviations relative to the difference between their means, the advantage of the more concentrated party relative to the equal variance case drops to zero. In this case, however, as our common sense might suggest would always be true, the party with more supporters will almost always have its median closer to the overall median than the smaller party; and the larger the difference in proportions the greater, *ceteris paribus*, the difference in proximity to the overall median between the two parties. Grofman et al. (1997) provide necessary and sufficient conditions in terms of the various parameters identified above for when the minority party may be expected to win.
5 We might expect the majority party to be more ideologically diffuse because some of its supporters might be attracted to it simply because, as a majority party, it was more likely to be in control of the apparatus of government and thus in a position to allocate goodies.
6 James MacGregor Burns (1963) portrayed the USA as a four-party system, with southern and non-southern Democrats having very little in common with one another other than a shared party label.
7 The standard 7-point partisan classification scheme of the American National Election Studies (Strong Democrat, Weak Democrat, Independent-Democrat, Independent-Independent, Independent-Republican, Weak Republican, Strong Republican).
8 Following standard statistical practice (Ott and Mendenhall, 1994: 96) to

estimate a median based on a sample of values from a 7-point integer scale where we have many ties, we make use of cumulative frequency distributions to estimate the population median ideology in each subgroup as a real value in the interval from 1 to 7. First, we posit that if the integer value median is, say 5, then the true value of the median will lie between 4.5 and 5.5. In general, because of lumpiness effects due to a limited number of integer values, there will not be a single voter located at the integer median of the distribution, but many. Say, for example, that the integer median is at 5, and that the cumulative frequency distribution of voters located at 5 goes from the 39.8th percentile rank to the 77.0th percentile rank. In this example, 37.2 percent of the voters are located at 5. Of these, the proportion below the 50th percentile rank is .27; i.e. (50.0 – 39.8)/37.2. We add this proportion to the lower bound of 4.5 to get our estimated true median of 4.77. Note that if the set of voters located at the integer ideological median are half above and half below the 50th percentile rank then the true median will correspond with the integer median. Similarly, in this method of estimating the true median, when the distribution of voters at the integer median is disproportionately above (or below) the 50th percentile rank, then the estimated true median will reflect that fact.

9 We would note that, for the data in Table 1, both the national overall distribution and the within-party ideological distributions for the nation as a whole are approximately normal.

10 Note also that, as expected, the median Republican identifier at 5.02 is to the right of the median Democratic identifier at 3.82; and the mean ideological location of Republican identifiers at 4.99 is to the right of the mean ideological location of Democratic identifiers at 3.86.

11 For example, in all years other than 1976, the standard deviations of Republican identifiers were lower than those of Democratic identifiers. However, even in 1976, the result was, for all practical purposes, a tie. Over the 2 decades, there has been a slight time trend toward increasing conservatism within the ranks of Republican identifiers and increasing liberalism among the ranks of Democratic identifiers, but without any time trend in the magnitude of either party's standard deviation (data omitted).

12 Republicans are significantly more likely to overcome minority status in the sense of being closer to the overall median than Democrats ($p = .02$ using McNemar's test for correlated proportions). Also, even when we look at the overall median among party identifiers (disregarding independents), we find that in only 1 of the 23 states where there are more Republican identifiers than Democratic identifiers is the median Democrat closer to the overall two-party median voter than the median Republican; but in 17 of the 26 states where there are more Democratic identifiers than Republican identifiers, the median Republican is closer to the overall two-party median voter than the median Democrat.

13 We should also note that in all of the 50 states the within-party ideological distributions for the two major parties are approximately normal according to the standard statistical test for normality.

14 We believe that variance differences in party ideological dispersion will also have implications for the nature of multi-party competition, but the exact nature of these effects must be left to future investigation (Miller, 1996; McGann, 1997).

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BERNARD GROFMAN is a Professor in the Department of Politics and Society at the University of California, Irvine. His research has appeared in the *American Political Science Review, American Journal of Political Science, Journal of Politics* and *Legislative Studies Quarterly.*
ADDRESS: Department of Politics and Society, 3151 SSP, UC Irvine, Irvine, CA 92697, USA. [email:bgrofman@uci.edu]

SAMUEL MERRILL III is a Professor of Mathematics and Computer Science at Wilkes University. He received his PhD in Mathematics from Yale University. His current research involves mathematical and statistical modeling, particularly in political science. He is the author of *Making Multicandidate Election More Democratic* (1988) and has published in a number of journals including the *American Political Science Review, American Journal of Political Science, Public Choice* and the *Journal of the American Statistical Association.*
ADDRESS: Department of Mathematics and Computer Science, Wilkes University, Wilkes-Barre, PA 18766, USA. [email: smerrill@wilkes.edu]

THOMAS L. BRUNELL is a 1998/9 APSA Congressional Fellow. In the Fall he will join the Department of Political Science at Binghamton University (SUNY) as an assistant professor. His interests include Congress, political parties, elections and electoral systems. He has published in the *American Political Science Review*, *Journal of Politics*, *Legislative Studies Quarterly* and *American Politics Quarterly*.
ADDRESS: Department of Politics and Society, 3151 SSP, UC Irvine, Irvine, CA 92697. [email: tbrunell@uci.edu]

WILLIAM KOETZLE recently finished his PhD in the Department of Politics and Society, UC Irvine and was a 1997/8 APSA Congressional Fellow. His research has appeared in *Electoral Studies, Legislative Studies Quarterly, PS* and the *Harvard International Journal of Press/Politics.*
ADDRESS: Department of Politics and Society, 3151 SSP, UC Irvine, Irvine, CA 92697. [email: Bill.Koetzle@mail.house.gov]

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