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Electoral Studies 22 (2003) 721–740

Electoral  
Studies

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# The rise of the opposition party in Taiwan: explaining Chen Shui-bian's victory in the 2000 Presidential election

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## Abstract

The 2000 Taiwan presidential election drastically changed Taiwan's political landscape. For the first time in Taiwan, an opposition party candidate, Chen Shui-bian, won the presidential race, receiving 39.3% of the popular vote. To understand the factors that determined the election's outcome, we analyze survey data from the 2000 presidential election. First, we study whether a divided ruling party was the cause of the opposition party candidate's victory. That is, would the ruling party have lost if one of the trailing candidates had opted not to run? Second, there were charges following the election that the Kuomintang misled people into believing their candidate was still leading in the polls, when he was really running third, and this misinformation led people to vote differently than they would have otherwise, possibly giving the election to the opposition party candidate. We examine the validity of this claim by measuring the degree to which strategic voting could have influenced the outcome. Third, to understand the underlying dimensions of the electoral competition in Taiwan and to understand each candidate's electoral support, we run a multivariate statistical model to study how strategic voting, candidate personalities, party identification, and issues influenced respondents' vote choices. Finally, we discuss the effects of election polling data on election outcomes.

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*Keywords:* Taiwan; Strategic voting; Chen Shui-bian; KMT; DPP

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## 1. Introduction

From the very beginning and right up to the end, the presidential candidate nominated by the ruling Kuomintang (KMT) party, Lien Chan, trailed in most polls, even as he remained the candidate that most people thought would win. According to a telephone survey conducted by the *China Times* on January 20, 24% of the respondents were inclined to vote for the independent candidate James Soong, 23% for the Democratic Progressive Party (DPP) candidate Chen Shui-bian, and only 19% for Lien if the election were held then. But when asked whom they thought was most likely to win the election, 35% of the respondents said Lien was most likely to win, 16% predicted Soong, and 11% predicted Chen. This difference in predicted and preferred vote outcomes reflects the high degree of uncertainty voters faced in predicting the actual vote outcome in this election. The election became even more unpredictable during the last ten days of the election because, according to the election law passed in 1995, no individual or organization is allowed to publish polling information during this period. Consequently, on election night of March 18 the actual election outcome came as a shock to many voters: Chen Shui-bian won the presidency with 39.3% of the popular vote, James Soong with 36.8%, and Lien with a disappointing 23.1%.

Soon after confirmation of DPP candidate Chen Shui-bian's victory, thousands of frustrated KMT supporters gathered in front of the KMT's party headquarters in Taipei city, demanding that outgoing President Lee Teng-Hui step down immediately as the party chairman. They blamed Lee for imposing his will on the party to choose as the KMT presidential candidate Lien Chan, the incumbent vice-president, over the more popular James Soong, a former governor of Taiwan province. The demonstrators wanted the KMT to invite Soong, who ran as an independent candidate, back to the party. In addition, they accused Lee of failing to support the KMT candidate during the campaign, with many suspecting that Lee had covertly helped the opposition party candidate, Chen. Furthermore, the protesters sought an apology from the Taipei city mayor Ma Ying-jeoh, a KMT member, because he had spread information before the election that poll results still showed Lien to be the front runner. The protesters claimed that Chen's victory could have been prevented if more KMT supporters had voted strategically for Soong.

The demands made by demonstrators outside party headquarters suggest that many voters believed that a divided KMT and a failure to vote strategically for Soong were two of the main reasons why the KMT lost the presidency to the DPP. In other words, if either James Soong or Lien Chan had not run, or if more of Lien's supporters had voted strategically for Soong, Chen would not have won. In this paper, we analyze our data to see whether there is any support for these claims.

To explain Chen Shui-bian's victory, however, we not only need to study why Lien and Soong themselves or their supporters failed to coordinate, but also to explain why Chen was the plurality winner. Was there some aspect of Chen's appeal that might have reduced the likelihood of strategic coordination in the absence of a clear third-place candidate? Alternatively, was there some consideration driving the competition between Lien and Soong that made strategic coordination less likely even if voters

had known that Lien was least likely to win? The Taiwanese presidential election provides an interesting and unique case for examining strategic voting in a plurality electoral system where voters are highly uncertain about the outcome. In this paper, we will examine both the absence of strategic voting in a three-way presidential race under plurality rule and the factors that allowed the opposition party candidate, Chen Shui-bian, to win the 2000 presidential election in Taiwan.

In Section 2 we provide background information on Taiwan's electoral politics, including the major political parties, the presidential candidates,<sup>1</sup> and voters' assessments of their qualifications. We then construct voter preferences over the three candidates to examine the validity of the claim that if either Soong or Lien did not run, Chen would not have won. In Section 3, we estimate the magnitude of strategic voting, its effects, and which candidate benefited the most from it. In Section 4, we study how strategic voting, candidate personalities and characteristics, salient issues, and party identification jointly influenced respondents' preferences over candidates and their vote choices. In Section 5, we offer some more general thoughts about the role of polling in electoral outcomes.

The data we use in our analysis are based on pre- and post-election telephone surveys conducted by the Center for Election Studies of the National Chengchi University, Taiwan. The pre-election survey was conducted from March 12 to 16 with 1582 respondents and the post-election survey was conducted from March 22 to 30 with 1287 respondents. Part of the post-election sample, 751 in total, was drawn from the pre-election survey.

## **2. Condorcet winner or condorcet loser?**

Before investigating whether a divided KMT was indeed the reason for Chen's victory, we provide some background information on Taiwan's electoral politics.

Taiwan was ceded to Japan in 1895 after the Sino-Japanese war and was returned to China in 1945 after World War II. Soon after, in 1949, the Nationalist government withdrew to Taiwan after being defeated by the Chinese communists. The central government of the Republic of China (ROC) was relocated to Taiwan. Members of the Central Government legislative bodies elected in 1948 in China continued to serve, as a symbol of the ROC's claim that it still represented the whole of China. It was not until 1991 and 1992, respectively, that voters in Taiwan elected the entire membership of the National Assembly and the Legislative Yuan.

Despite the fact that national elections were suspended, an opposition force gradually emerged to challenge the KMT in local elections. In September 1986, the opposition group established the Democratic Progressive Party (DPP), marking a new era of party competition in Taiwan. The most significant difference between the DPP

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<sup>1</sup> There were five presidential candidates in the 2000 presidential election. Since two of the candidates received less than 1% of the vote in total, we did not include them in our analysis.

and other parties is the DPP's explicit advocacy of Taiwanese independence (Lin et al., 1996; Hsieh et al., 1996; Rigger, 1999; Hsieh, 2001).

In addition to the rising challenge from the DPP, a power struggle within the KMT also led to the reshaping of Taiwan's political landscape. The KMT was formerly run by Nationalist mainlanders from China. With approximately 70–80% of the population identified as native Taiwanese, the reformation of the KMT's leadership was necessary to maintain KMT's dominant position in electoral competition. It was detrimental, however, to those who identify themselves as mainlanders. This internal strife within the KMT splintered the party into mainstream and non-mainstream factions, divided largely along ethnic lines.

Taiwan's party politics was changed further in August 1993 when a group of the KMT elites defected to form the New Party (NP). They accused the KMT of being controlled by local factions, being corrupt, and of serving only the interests of the rich. The NP's platform consists of three main points: anti-money politics, representing the interests of "common people," and future unification with China. In addition to the three parties mentioned above, in 1996 a group of DPP members left their party to form the Taiwan Independence Party (TAIP). In the 1998 Legislative Yuan election, KMT won 123 seats, DPP 70 seats, NP 11 seats, TAIP 0 seats, and independents 21 seats.

In the 2000 survey, respondents were asked which party they supported and how much, and the answers indicate that the parties' base of support in the electorate mirrored their relative strength in the Legislative Yuan. Table 1 shows that the KMT and DPP have much broader support than the NP and TAIP. Overall, almost 31% of the respondents identify with the KMT, 25% with the DPP, 5% with the NP, and almost 40% listed no party identification. Because less than 0.5% of the population identifies with the TAIP, we do not include it in our analysis.

Support for the parties, particularly the KMT, was not, however, exactly reflected in support for the candidates. Here, the picture was mixed. In terms of candidate qualifications, respondents considered Soong as someone who cares for people, but

Table 1  
Which party do you support?

	Weak supporters	Moderate supporters	Strong supporters	No answer
KMT	25 1.58%	315 19.91%	150 9.48%	1092 69.03%
DPP	21 1.33%	264 16.69%	114 7.21%	1183 74.78%
NP	10 0.63%	59 3.73%	17 1.07%	1496 94.56%
TAIP	1 0.06	2 0.13	4 0.25	1575 99.56%

not as a very clean politician.<sup>2</sup> Respondents viewed Lien as the most trustworthy, but he did not score the highest on other qualifications. Chen was seen as the cleanest candidate who could provide leadership. Simply put, no candidate held a clear “character” advantage. Table 2 summarizes the findings.

Respondents were also asked which issue they considered the most important and which candidate was the most competent to deal with that issue. As with traits, the candidates were perceived as having different strengths. 30.1% of the respondents considered cross-Strait relations as the most important issue in the 2000 presidential election and Lien was considered the most competent candidate to deal with this issue; meanwhile, very few voters believed that Chen could handle this issue well. Lien also scored the highest on issue of sustaining economic growth. Soong was considered the most competent to deliver efficient government. Chen, however, was the clear winner on issues of clean government and the alternation of power. Chen argued that the key to cleaning up the corrupt government–business patronage lay in the alternation of power.<sup>3</sup> These empirical findings are summarized in Table 3.

Our basic profile of the electorate’s attitudes in 2000 indicates that while voters’ basic loyalties were strongest for the KMT and the DPP, their perceptions of the

Table 2

What is the most important candidate qualification, and which candidate best exemplifies this qualification?

	Soong	Lien	Chen	No answer	Row total
Charisma	18 37.5%	12 25%	4 8.3%	14 29.2%	48 3%
Not corrupt	11 4.5%	24 9.9%	108 44.6%	99 40.9%	242 15.3%
Know people’s need	270 49.5%	34 6.2%	92 16.8%	150 27.5%	546 34.5%
Strong leadership	75 24.4%	65 21.1%	86 27.9%	82 26.6%	308 19.5%
Trustworthy	16 12.5%	46 35.9%	29 22.7%	37 28.9%	128 8.1%
No answer	24 7.7%	31 10%	27 8.7%	228 73.5%	310 19.6%
Column total	414 26.2%	212 13.4%	346 21.9%	610 38.6%	1582 100%

<sup>2</sup> Soong had been considered as a clean politician until a legislator questioned, on December 9, 1999, why his son had millions of dollars in his bank account. The charge, filed by the KMT, accused Soong of illegally transferring funds from the KMT to his family. A court eventually dismissed the charge on January 18, 2001.

<sup>3</sup> In the multivariate analysis below, we do not include alternation of power as an explanatory variable because it is difficult to argue that it is an exogenous determinant of vote choice. In the 2000 election, the DPP, not the KMT, would be the beneficiary of an “alteration of power.” We certainly do not expect that Chen’s supporters will place as great an importance on this matter in the next presidential election.

Table 3

What is the most salient issue? Which candidate is most competent to deal with the issue?

	Soong	Lien	Chen	No answer	Row total
Economic growth	13	55	19	67	154
	8.4%	35.7%	12.3%	43.5%	9.7%
Cross-strait relation	96	205	10	165	476
	20.2%	43.1%	2.1%	34.7%	30.1%
Clean politics	26	6	163	69	264
	9.8%	2.3%	61.7%	26.1%	16.7%
Efficient government	77	29	55	67	228
	33.8%	12.7%	24.1%	29.4%	14.4%
Alternation of power	7	3	84	11	105
	6.7%	2.9%	80%	10.5%	6.6%
No answer	5	8	5	337	355
	1.4%	2.3%	1.4%	94.9%	22.4%
Column total	224	306	336	716	1582
	14.2%	19.3%	21.2%	45.3%	100%

candidates were a bit more mixed. To determine whether or not these perceptions nonetheless provided for a clear Condorcet winner, we construct respondents' overall preferences over the candidates. Respondents were asked which candidates they favored the most and the least. As the voter preference profile presented in Table 4 reveals, Soong and Chen were each most preferred by about 20% of respondents, whereas only 15% most favored Lien. Nevertheless, Lien was the second preference of most Soong and Chen supporters. An interesting implication of this preference distribution is that Lien was the Condorcet winner, the candidate who defeats all

Table 4

Preference rankings of candidates<sup>a</sup>

1st Preference	2nd Preference	3rd Preference	Total
Soong	Lien	Chen	13.27%
Soong	Chen	Lien	6.57%
Soong	X	X	0.19%
Lien	Soong	Chen	7.65%
Lien	Chen	Soong	7.4%
Lien	X	X	0.06%
Chen	Soong	Lien	7.02%
Chen	Lien	Soong	12.52%
Chen	X	X	0.44%
X	X	Soong	2.28%
X	X	Lien	1.39%
X	X	Chen	2.4%
X	X	X	38.81%

<sup>a</sup> X denotes no indication of preference.

other candidates in pairwise comparisons with each candidate. That is, more respondents wanted Lien to win than wanted either Soong or Chen (29.88% favored Lien over Soong and 28.44% favored Soong over Lien; 30.75% favored Lien over Chen and 27.94% favored Chen over Lien) if we compare only two candidates at a time. Between Soong and Chen, more respondents favored Soong (30.08% favored Soong over Chen and 29.66% favored Chen over Soong). Chen, therefore, appears to be the Condorcet loser, one who loses a majority of votes in all pairwise comparisons. Although, we must recognize that the margins for all comparisons are well within the range of sampling error, these data cannot definitively refute the claim that a divided KMT caused the party's loss of the presidency.<sup>4</sup>

### 3. Strategic voting

Under plurality election rules, there are great incentives for voters to behave strategically when there are more than two candidates, in order to avoid the election of a Condorcet loser. Duverger (1954) wrote that plurality systems tend to produce two parties because winner-take-all rules encourage cooperation between like-minded parties to obtain majorities. The “mechanical effect” of plurality systems provides no reward for parties that do not win. At the same time, plurality systems have a “psychological effect” upon voters, who do not want to “waste” their votes on candidates who cannot win.<sup>5</sup> The important point of the strategic voting literature is that voters or parties that are sure they have little chance of seeing their most preferred candidate win often have incentives to coordinate their behavior and support a second-best alternative to prevent a much less-preferred candidate from being elected.

In many instances where strategic voting has been examined empirically (e.g. Black (1978); Cain (1978), voters typically have very good information about candidates' chances of winning, in part because either polling information is readily available or parties' past performances provide strong prior beliefs about likely outcomes. Independent candidates in recent American elections, for example, typically face the greatest incidence of defection because voters can be very certain that the two major parties' post-Civil War control of the presidency is unlikely to be broken (Abramson et al., 1995). In the 2000 Taiwanese election, none of these conditions held. As noted above, polling information released before the ban did not show Lien to be completely out of the race, and the fact that the KMT had never lost a national election probably gave Lien's supporters great confidence in believing that Lien remained competitive.

Activity immediately before the election suggests the uncertainty that Taiwanese

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<sup>4</sup> This conclusion is bolstered if we include respondents for whom we could not ascertain a preference ordering, but who did express a vote preference. Among these respondents, Lien was first, Soong was second, and Chen was last. Finally, Lien also wins a Borda count: 60.65 to Soong, 58.52 to Chen, 57.6.

<sup>5</sup> Cox (1997) further refined Duverger's work showing that these effects can work on a regional or local level to produce a multi-party system nationally, while maintaining a two-party system at a district level.

voters faced. About a week before the election, Chen gained momentum after some of Lee Teng-hui's close friends claimed that Chen would actually be the true follower of Lee Teng-hui and after the president of the Academia Sinica, Nobel laureate Dr Lee Yuan-zhe, openly supported Chen. It looked as if Chen had become the front-runner. As a result, supporters of Lien and Soong started to wonder whether they should vote strategically. The Soong camp argued that Lien was running a distant third and that his supporters should vote strategically for Soong. The KMT camp, on the other hand, claimed that Lien was still ahead in all the major polls, suggesting that Soong's supporters should vote strategically for Lien. Partly because of the uncertainty created by the ten-day opinion poll blackout period, supporters of Lien and Soong had little concrete information about the state of the race, and no systematic coordination of votes occurred. After the election, many KMT supporters were frustrated by the election outcome because they believed they were misled by the KMT to stick with Lien when he actually had the least chance of winning. Those who dislike Chen claim that this information prevented Soong from benefiting from strategic voting and the consequence of this was that the KMT lost the presidency to the DPP. In this section, we analyze our data to see whether there is any support for this claim.

The calculus of strategic voting is very straightforward. As Black (1978), among many others (McKelvey and Ordeshook, 1972), shows, the difference in the expected utility for voting for a most-preferred over a second most preferred candidate can be expressed as follows:

$$E^1 - E^2 = 2P_{12}B_{12} + P_{13}B_{13} - P_{23}B_{23},$$

where  $P_{ij}$  is the probability of a decisive vote between candidates  $i$  and  $j$  and  $B_{ij}$  is the relative benefit the voters receives from the election of  $i$  instead of  $j$ . The voter casts a strategic ballot only if  $E^1 - E^2 < 0$ . From this equation, one can easily confirm that strategic voting is likely only if a voter's most preferred candidate is perceived as having little chance of winning, and the relative benefit of the second most-preferred candidate's election over the least preferred candidate is great.

For strategic voting to occur at the aggregate level and have an effect upon the race, the individual conditions would have to be reflected throughout the electorate as a whole. First, one candidate has to be clearly behind in the race. In our pre-election survey, when asked for which candidate they either intended to or were leaning toward voting, Chen finished on top with 33.8%, while Soong was second with 32.3% and Lien trailed with 28.7%. Because of the closeness of the presidential race, there was little reason to expect strategic voting because voters do not have a strong motivation to abandon their candidate for another if they believe that their preferred candidate has a good chance of winning. Furthermore, the lack of coordination between Soong and Lien supporters means that voters inclined to behave strategically might have been randomly distributed, canceling out their effects.

A second condition is that one of the candidates would have to benefit more from strategic votes than the other candidate. Amplifying the individual-level condition, most voters who prefer a clearly trailing candidate must share similar preferences over the remaining two candidates. From our pre-election data, among Soong sup-

porters with a clear second preference, 13.3% preferred Lien, while 6.6% preferred Chen. Among Lien supporters, the analogous figures were 7.7% with a second preference for Soong and 7.4% with a second preference for Chen. Finally, among Chen supporters, 7.0% had a second preference for Soong and 12.5% had a second preference for Lien. Therefore, if Soong or Chen was seen as least likely to win, assuming that all of their supporters would have defected with equal probability, then Lien would have benefited more from the strategic voting, because more of Soong or Chen's supporters ranked Lien as their second preference. But if Lien was seen as least likely to win, strategic voting would have had less of an effect because an almost equal proportion of his supporters ranked Soong and Chen as their second preference. Consequently, strategic voting by Lien's supporters would have had an effect only if one of these two groups could somehow be convinced to vote strategically, while the other group did not.

Given that the conditions were not favorable for strategic voting to occur and, if occurring, influence the election, we move on to an actual evaluation of strategic voting in this election. Using the data from the pre-election survey, we examined the number of respondents intending to vote for their second most preferred candidate, regardless of their beliefs about which candidate was most likely to win. This provides an estimate of the uppermost bound for strategic voting.<sup>6</sup> From doing this, we estimate that the absolute *upper limit* of strategic voting was only 14.4%, lower than Abramson et al. (1992) found in their study of the 1988 US presidential primaries, but larger than Alvarez et al.'s (1998) estimate of strategic voting in British elections.<sup>7</sup> A narrower definition of strategic voting views voters to be strategic only if they intend to vote for a second-preferred candidate, and report that their first choice is not the most viable or if they are indifferent between their two top choices and vote for the one whom they believe to be the more likely to win. This is the measure of strategic voting that we use in the remainder of the paper.<sup>8</sup> Using this measure, only 2.4% of the respondents on the pre-election survey expressed an intention to cast a strategic vote.

Examining the intentions of people with a first preference for Soong and a strict preference ordering for the other two candidates indicates that Soong held on to much of his support. For both groups, roughly 91.5% intended to stay with Soong, better retention than Lien had, but not quite the loyalty that Chen's supporters demonstrated. Among Soong's supporters who ranked Chen second ( $N=95$ ), only 2.1% expressed any intention to vote for Chen. Likewise, only 3.8% of Chen's supporters

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<sup>6</sup> To obtain a better estimate, we would need information about which candidate voters thought was least likely to win. Unfortunately, such information was not available on the survey.

<sup>7</sup> Since this figure represents an upper limit, we recognize that the actual incidence of strategic voting could be lower than Alvarez and Nagler's estimate for Great Britain. A low level of strategic voting is consistent with the data showing a close race.

<sup>8</sup> Note, that even this measure overstates strategic voting because there could be voters who vote for a second-preferred candidate when they believe that their most-preferred candidate is the second most viable and their second-preferred candidate is the least viable. Unfortunately, our data are not sufficiently sensitive to discern such differences.

who ranked Soong second ( $N=106$ ) expressed an intention to vote for Soong. Therefore, we cannot say with any certainty that the perception that Lien was among the top two contenders hurt Soong's chances. That is, the belief that Lien was viable led more voters who would want to prevent Lien from winning to defect from Chen to Soong than from Soong to Chen.

If we move from looking at vote intention prior to the election to actual reported voting in the election, these results are mostly the same. Soong held on to much of his support, with 94.8% of his supporters who had Lien as a second choice ( $N=97$ ) ultimately staying with Soong, while 88.9% of Soong supporters who saw Chen as the next best candidate ( $N=36$ ) voted for Soong. These data indicate that Soong was probably not hurt greatly by voters who may have thought, because of the KMT's claim that Lien was leading, that Soong was trailing. Similarly, Chen held most of his support, losing not a single Chen–Lien–Soong supporter in the post-election survey to another candidate, while holding onto 90% of his supporters who had a second preference for Soong.

Our post-election data, however, show that some of Lien's supporters may have engaged in strategic voting, assuming that respondents reported their vote honestly and did not change their preference ordering from the pre-election to the post-election interview. In this case, Lien–Soong–Chen supporters ( $N=54$ ) went 77.8% for Lien and 18.5% for Soong, while Lien–Chen–Soong ( $N=51$ ) supporters went 68.6% for Lien and 29.4% for Chen. It therefore appears that more of Lien's supporters voted for Chen than for Soong. As with our other data, there is no evidence that Lien's supporters had a clear aggregate preference for Chen or Soong, meaning that the second condition does not appear to have been satisfied even if late release of polling information would have satisfied the first condition.<sup>9</sup>

It is puzzling, of course, that Lien's supporters would have voted strategically. When respondents were asked which candidate they thought was the most likely to win, a plurality chose Lien, with 27.7%, followed by Chen with 18.3%, and Soong with 12.1%; 42% of the respondents did not give any opinion about which candidate was the most likely to win. These results seem to indicate that Soong's supporters, instead of Lien's supporters, should have been more likely to vote strategically.

A closer examination of our data reveals that the date on which respondents were interviewed affects respondents' beliefs about the outcome. Using a simultaneous probit model (Rivers and Vuong, 1988) and controlling for party identification and candidate attitudes, we find that respondents interviewed closer to the election were significantly more likely to believe that Chen was most likely to win, fewer people were likely to believe that Lien would win, and the date of the interview did not affect respondents' beliefs about Soong's chances of winning.<sup>10</sup> Cross-tabulations of date, and beliefs about likely winner, show that 56.6% of the respondents interviewed on the first day of the survey (March 12) believed that Lien would win, while only

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<sup>9</sup> Of course, the small number of respondents also means that we cannot have too much confidence that these differences reflect population differences.

<sup>10</sup> Bartels (1985) finds that subjective beliefs about a candidate's chances of winning are often simultaneously related to voters' affinity for that candidate. Results available from the authors.

42.6% of those interviewed on the last day (March 16) thought so. By contrast, the proportion of people believing that Chen would win increased from 22.0% to 35.8% over the course of the survey. We do not wish to make too much of this point, however, because the number of respondents was smaller than most survey samples, and each day's respondents was not drawn as an independent sample. Nonetheless, the data reveal a general tendency for people to revise their beliefs about which candidate would be most likely to win.

While we cannot say conclusively, the post-election data show that the small proportion of voters who show some evidence of casting a strategic vote, based upon their preferences and beliefs about which candidate was most likely to win, were pretty evenly split between the three candidates, with 5% of Soong's, 6% of Lien's, and 4% of Chen's supporters being classified as strategic voters. While the numbers are small, this suggests a change from the pre-election wave, when the majority of "strategic" voters expressed an intention to vote for Lien. These data and the greater rate of defection in the post-election survey among voters preferring Lien suggests that the trend we saw in the pre-election survey of people downgrading their beliefs about Lien's chances of winning must have accelerated right up until election day. That is, the curious situation where the candidate who was trailing in the polls was seen as the most likely to win appears to have changed, and people's behavior suggests that their perceptions of candidates' chances of winning fell more closely into line with the actual situation at the end of the campaign. This is the only reasonable explanation for why Lien's supporters were the most likely to defect to other candidates.<sup>11</sup>

Having seen that Chen was perceived to be more likely to win as election day got closer, the next question is what effect this had upon Soong and Lien's support. It is difficult for us to determine the final level of strategic voting because we do not have the data that can tell us about voters' perceptions about which candidate they believed was most likely to lose as they voted. What we can do is to estimate an upper limit to the effect of the KMT's claim in the week before the election that Lien was still ahead. To do this, we look at respondents' reported vote choice and whether or not after the election they expressed a desire to vote for another candidate (see Table 5).

For this analysis, we "change" the votes of the people who would have most likely been affected by the information that Lien was running third. We assume that people voting for Lien would have changed to their preferred choice, Chen or Soong, if they knew that Lien was running third, leaving Lien with 17.1%. We also "change" the votes of people who voted for Chen if they report having wished they had voted for Soong and vice versa. As we see it, these are the four groups of voters directly affected by the KMT's claim.<sup>12</sup> If we do this, Soong ends up with a slight edge over

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<sup>11</sup> Obviously, misreporting of the vote could explain this, but because the survey data very closely match the actual outcome, we think this possibility is less likely.

<sup>12</sup> If people knew that Lien was running third, we assume that people who wished they could have voted for Soong or Chen would have done so, but people who wished they had voted for Lien would not necessarily have changed. Clearly, a big problem with this question is that it is difficult to determine

Table 5

If the candidate you voted for was not your first preference, for whom did you originally wish to vote?

Wish Actual	Soong	Lien	Chen	Same	Total
Soong	0 0%	19 31.1%	9 32.1%	348 38.9%	376 35.2%
Lien	44 52.4%	0 0%	19 67.9%	183 20.4%	246 23%
Chen	40 47.6%	42 68.9%	0 0%	364 40.7%	446 41.8%
Total	84 7.9%	61 5.7%	28 2.6%	895 83.8%	1068 100%

Chen, 42.2% to 40.6%. This indicates that the KMT's action could have had an effect upon the outcome, but it is still too close to say because the margin of Soong's lead in this simulation is within the sampling error.<sup>13</sup>

We also recognize that the measure of the candidate respondents wished they had voted for only imperfectly reflects how people might have behaved before the election if they had information that Lien was running third. Polls issued in the period before the election have uncertainty built into them such that people may be reluctant to vote strategically unless they are very certain that their preferred candidate cannot win. Even the poll on which our analysis relies, completed days before the election, has Lien trailing by a margin that could easily be too small for voters to defect to other candidates. Asking people how they wished they had voted once they know the outcome, however, removes all the uncertainty and so is not a comparable measure. At that point, the top two candidates are known with certainty and strategic coordination is easy. We cannot say, therefore, that the KMT's self-interested behavior in inflating Lien's prospects cost Soong the election. At most, we can only conclude that strategic voting and failure to vote strategically may have both worked against, but did not necessarily prevent Soong's prospects of winning.

#### 4. Vote choice

The above analysis shows that there was probably not much strategic voting during this election and that any strategic voting that did occur did not appear to favor either Soong or Chen. This suggests, therefore, that better information in the days

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the basis on which people say they would have preferred to vote for someone else. Some people may have wanted to vote for Chen after the election simply because they like backing a winner. Similarly, some people who voted for Soong but say they wish they had voted for Lien might have been casting a strategic vote, but now seeing the ineffectiveness of their effort say they wish they had voted sincerely.

<sup>13</sup> If we further assume that Soong voters who wish they had voted for Chen were not affected by the KMT's claim, then Soong's margin increases to 43.0%.

right before the election probably would not have produced the strategic coordination necessary to change the outcome. To corroborate this result and determine other factors that may have limited the potential for strategic voting, we use the panel data to examine the effect of strategic voting upon voters' choices for president, controlling for other factors.<sup>14</sup>

Because of the way the survey was conducted, we have information only about the characteristics of individual voters, such as their party identification and their beliefs about the most important issues in the campaigns. We do not have any information about how voters compared the candidates on specific attributes. For our analysis, we therefore use a basic multinomial logit, which produces a set of parameters for each candidate compared to a "baseline" candidate. We provide a justification for using the multinomial logit model in Appendix A.

In addition to a dummy variable for strategic voters, we control for the basic factors that are common in the literature: party identification (Campbell et al., 1960), social characteristics (Berelson et al., 1954), attitudes about issues (Downs, 1957; Enelow and Hinich, 1984), and a measure of respondents' evaluation of the incumbent president (Fiorina, 1981), Lee Teng-hui. In this analysis, we use the same definition of strategic voter given above, but instead we use the panel respondents and substitute reported vote for intended vote. Now, our estimate of strategic voting increases to 4.8%. This increase in strategic voting from the pre-election wave could be the result of misreported votes (although, we doubt this explanation because of the closeness of our reported vote in the post-election survey to the actual outcome), but it probably reflects more the increased propensity of people to defect from a first choice at the end of the election if they are truly convinced that their most-preferred candidate will not win.

Beyond seeing the effects of strategic voting on the 2000 election, our model also allows us to examine the factors of voters' choices that may have influenced the intensity of their preference for one candidate or another. Voters with intense support for one candidate are not likely to vote strategically, even if their most-preferred candidate is likely to lose, if they do not have a strong basis for supporting another candidate. The presence or absence of such factors will tell us a lot about the effect of a poll ban on the outcome of the election. If issues were the most important consideration for voters, any issue representing some cross-cutting cleavage that may have made the rationale for defection in a particular direction less clear. Alternatively, if candidate characteristics are the pre-eminent element of voters' decisions, we might expect the strategic defection to have been a little easier to achieve if voters had been given clearer information about candidates' viability (Adams, 1997). Our dependent variable is a categorical measure of which candidate the respondent supported, Chen, Soong, or Lien. In all of our models, the parameters represent the

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<sup>14</sup> We use the reported vote in this part of the analysis. While there might be some concerns about voters' veracity of reporting their vote, the reported vote percentages are sufficiently close to the actual outcome: 41.5% reported vote for Chen, 35.0% for Soong, and 22.9% for Lien compared with 39.3% actual vote for Chen, 36.8% for Soong, and 23.1% for Lien.

effect of each variable upon the probability of voting for Soong or Chen versus the baseline alternative, Lien.

The results are pretty much as expected (Table 6). Voters who appear to have behaved strategically abandoned Lien for Soong and Chen, with a greater effect for Chen, but these differences are not statistically significant. The interesting thing is that while strategic voting increased the ratio of the probability of voting for Soong over Lien, it reduced the probability of voting for Soong over Chen. To illustrate these effects, the probability of a non-strategic voter supporting Soong, holding all other variables at their means, was 0.38, while a strategic voter with similar characteristics had only a 0.28 probability of voting for Soong, a 0.10 overall reduction in the probability of strategic voters choosing Soong. For Chen, the comparable probabilities are 0.41 and 0.59, for an increase of 0.18. While we again stress that these differences are not statistically significant, Chen appears to have gained by the impression that he could win, and this combined with uncertain beliefs about Soong's chances of winning may have hurt Soong's chances of gaining as many strategic votes as Chen.

The lack of an effect of strategic voting leaves the traditional covariates as providing the best explanation for voters' choices. Party identification is a strong predictor of vote choice, with members of the KMT more likely to vote for Lien than either Soong or Chen and DPP supporters more likely to support Chen over Lien. Signifi-

Table 6  
Vote choice in the 2000 election<sup>a</sup>

Variable	Prob(Soong)/Prob(Lien)		Prob(Chen)/Prob(Lien)	
	Estimate	Standard error	Estimate	Standard error
Strategic voter	0.14	(0.85)	0.80	(0.88)
Constant	5.40*	(1.32)	5.11*	(1.38)
Lee/affinity	-1.38*	(0.23)	0.07	(0.24)
Independence	-0.22	(0.19)	-0.45*	(0.19)
Ethnic	0.21	(0.32)	-0.56	(0.35)
KMT	-0.50*	(0.20)	-1.02*	(0.22)
DPP	-0.10	(0.31)	0.84*	(0.28)
NP	0.07	(0.38)	-0.53	(0.54)
Charisma	-2.77*	(1.15)	-1.22	(1.18)
Clean politics	-1.27	(0.88)	-0.35	(0.84)
People first	-0.18	(0.77)	-0.14	(0.76)
Strong leadership	-1.49	(0.80)	-1.50	(0.79)
Trustworthy	-1.26	(1.02)	-0.06	(0.99)
Economic growth	1.13	(0.80)	-0.25	(0.81)
Strait relations	0.03	(0.61)	-2.32*	(0.62)
Clean politics	0.05	(0.73)	-0.19	(0.65)
Government efficiency	0.88	(0.74)	-1.81*	(0.81)

$N=396$   $\chi^2_{30}=441.8$

<sup>a</sup> Baseline candidate is a vote for Lien Chan. Standard errors in parentheses. Estimates are significant at  $*p < 0.05$ .

cantly, identification with the New Party did not have a significant effect upon voters' propensities to choose Soong over Lien. This probably reflects the more recent formation of the NP and possibly its roots within the KMT. With respect to retrospective evaluations, people with a stronger affinity for Lee were more likely to support Lien over Soong; not surprisingly, given the circumstances of Soong's defection from the KMT, with a greater effect upon support for Soong. In contrast, attitudes toward Lee had little effect upon voters' choices between Lien and Chen. This could support the belief that Lee was covertly supporting Chen or, more simply, that Lee's handling of the cross-straits issue was not all that far from the position Chen would be able to pursue if elected. Finally, candidate traits did not seem to play a big role in this election; although, when they mattered they favored Lien. Voters were no more likely to support one candidate over the other, based on candidate characteristics, such as charisma, trust, or leadership.

Issues played a clear role in voters' decisions only with respect to the choice between Lien and Chen. The national unification issue was very important, as voters who thought that cross-strait relations was the most important issue, and those who more likely to favor unification over independence were more likely to support Lien over Chen. Similarly, concern over government efficiency led voters to support Lien over Chen. This effect is not surprising, but it is significant that none of the issues appear to have had a significant effect upon voters' choices between Soong and Lien. These results suggest that the choice between Soong and Lien was essentially a referendum on voters' attitudes toward Lee. If so, the importance of this conflict created very unfavorable conditions for strategic coordination in this election, even without the added uncertainty about the election outcome; although, the absence of issue conflict may provide the basis for coordination in future elections. Consequently, our findings cannot support the argument that the KMT's statements about Lien's chances of winning the election cost Soong the 2000 election.

## 5. Conclusion

Our paper illustrates that Chen Shui-bian may have been a Condorcet loser and that his election was partly due to the difficulties faced by the supporters of the other two candidates for strategic coordination in such a close race. Coordination will be difficult in any election that is close, but this coordination is made more difficult when current polling data are not available to voters. Our findings show nothing to dismiss the argument that Chen would have won even under conditions of perfect information. For even if Chen was the Condorcet loser, the rivalry between Lien (and Lee) and Soong may have been at least as large a factor in preventing strategic coordination. More significantly, while our pre-election survey (conducted during the poll reporting ban) has Lien running third, we pointed out above that these results show a statistical three-way tie: Chen with 33.8%, Soong with 32.3%, and Lien with 28.7%. Had these results been public, there is no way to say that Lien's supporters would have found his chances so poor that they would have defected to another candidate *en masse*. The lack of this information and the manipulation of polling

information in this absence by the KMT, however, certainly left some measure of dissatisfaction among the electorate, and raises the possibility that such a ban could be decisive in other races.

For this reason, we would not find it surprising if some politicians called for an end to this embargo on polling data. Such a call is unlikely to come from the DPP, which is probably the largest beneficiary of the lack of coordination between the KMT and Soong's supporters in his new party, the PFP.<sup>15</sup> The KMT might support such a proposal because they appear to be in the best position to benefit as partisans of one extreme might want to support a more moderate party, at least as long as cross-strait relations remain the dominant issue in Taiwan, against the opposite extreme. It is not clear, however, that this would be a wise position for the KMT to take. In this election, the middle was squeezed out and could do worse in future elections if voters knew that the KMT was running third. An extension of this pattern could place the KMT's long-term future in jeopardy. At present, the results of our vote model do not suggest that there is a cross-cutting issue with the potential to split the KMT and the PFP permanently. Absent the rise of a significant cross-cutting issue and the continuing value of identification of voters with the KMT, it is far from clear that the PFP is in a good enough position to replace the KMT as one of Taiwan's two major parties (Sundquist, 1983).

We can, however, imagine different scenarios in other countries with similar bans on polling. In Mexico, for example, the long-ruling Institutional Revolutionary Party (PRI) was also voted out of office in 2000. Because the polls there clearly showed the Democratic Revolutionary Party (PRD) running third, coordination was not much of a problem. Given the issue differences between the PRI and the PRD that make elite cooperation unlikely, movement by the PRD closer to the center and a loss of support for the PRI related to its reduced ability to supply patronage could easily make the PRI an endangered party in future elections. One only needs to look at Canada and Great Britain for examples of established moderate parties that were squeezed out by more extreme alternatives. The conditions may already exist in Mexico, and could exist in the future in Taiwan, where information from polls could critically affect center parties' long-term survival.

While we certainly agree with Achen's (2001) insight that allowing polling data to be published right up to the time of the election is desirable because it better allows for the strategic coordination that best permits more socially-preferred outcomes to occur, it is possible that such information could ultimately drive out the parties which are most likely to be Condorcet winners. For this reason, we believe that the role of polling and strategic coordination in multi-party elections is an area deserving of much greater study. We hope that this paper has provided some ideas that will spur further research into this area.

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<sup>15</sup> Soong formed the People First Party (PFP) after the election.

## Acknowledgements

We thank the Center for Electoral Studies of the National Chengchi University for their data on the 2000 presidential election in Taiwan. We also thank Herbert Kitschelt for several constructive comments on an earlier version of this paper.

## Appendix A

### *The independence of irrelevant alternatives*

An issue that has been recently raised with respect to this model concerns the Independence of Irrelevant Alternatives (IIA). Multinomial logit assumes that the introduction of an irrelevant choice will not influence the probability of choosing one alternative, relative to the existing alternatives. Mathematically, this assumption is:

$$\frac{P(i|z, C, \beta)}{P(i|z, A, \beta)} = \sum_{j \in A} P(j|z, C, \beta) \quad (1)$$

where  $A$  and  $C$  represent two choice sets,  $i$  and  $j$  are alternatives in  $C$ ,  $z$  represents the attributes of the alternatives and/or the decision-maker,  $\beta$  represents taste parameters associated with  $z$ , and where  $i \in A \subset C$  (Hausman and McFadden, 1984).

The classic case used to illustrate the IIA assumption concerns modes of transportation. An individual choosing between a red bus, a car, and a train has a certain utility for each option, reflected by some combination of attributes of each mode and the taste parameters for each. The probability that the individual chooses to take a red bus should not be affected, relative to the probability of taking a train or bus, by the introduction of a fourth alternative, let's say a blue bus, that has no fundamental bearing on the choice situation. If the individual is indifferent between all options, then IIA holds. To see this, before the blue bus is an option, the probability of choosing a red bus is one-third, the same as the car and the train. When the blue bus becomes an option, the indifferent individual's probability of choosing the red bus drops to 0.25. The ratio of these probabilities equals 0.75, the probability of choosing any of the first three alternatives when the blue bus is included in the choice set. IIA is true.

But the above case is likely to be true only in some instances where the individual is willing to take the first choice that arrives, and each mode has an equal probability of being the first to arrive. If the individual chooses transportation based upon cost, travel time, and convenience, the color of the bus is irrelevant to the choice. Even if an individual is indifferent between a bus, a car, or a train, the introduction of another bus, different from the first only by color, should not influence the probability of taking a bus, but it does influence the probability of taking a red bus. With the blue bus excluded as an option, the probability of taking the red bus is 0.33 (assuming indifference). When the blue bus is added, the probability of taking a bus stays at

Table A1  
Binary Logit Results. Vote Choice in the 2000 Election<sup>a</sup>

Variable	Prob(Soong)/Prob(Lien)		Prob(Chen)/Prob(Lien)	
	Estimate	Standard error	Estimate	Stad error
Strategic voter	0.52	(0.95)	1.55	(1.00)
Constant	5.74*	(1.49)	4.91*	(1.53)
Lee/affinity	-1.53*	(0.27)	0.09	(0.28)
Independence	-0.18	(0.21)	-0.46*	(0.21)
Ethnic	0.10	(0.35)	-0.49	(0.41)
KMT	-0.52*	(0.21)	-1.03*	(0.25)
DPP	0.01	(0.40)	0.81*	(0.29)
NP	-0.04	(0.39)	-0.21	(0.76)
Charisma	-3.27*	(1.30)	-0.53	(1.26)
Clean politics	-1.03	(0.96)	-0.23	(0.89)
People first	-0.29	(0.84)	-0.01	(0.85)
Strong leadership	-1.57	(0.89)	-1.09	(0.86)
Trustworthy	-0.97	(1.12)	-0.39	(1.13)
Economic growth	0.96	(0.92)	-0.29	(0.91)
Strait relations	0.13	(0.72)	-2.61*	(0.70)
Clean politics	0.19	(0.83)	-0.37	(0.70)
Government efficiency	1.17	(0.87)	-2.00*	(0.91)
<i>N</i>	233		249	
$\chi^2_{17}$	8.9		-0.4	

<sup>a</sup> Baseline candidate for each model is a vote for Lien Chan. Standard errors are in parentheses. Estimates are significant at \* $p < 0.05$ .

0.33, but is now split between a red and a blue option and, assuming no difference in the buses except their color, the probability of taking the red bus declines to 0.165. In this case, IIA is violated because the ratio of the probabilities of taking the red bus,  $0.166/0.333=0.5$ , does not equal the probability of taking one of the three options in the original set,  $0.333+0.333+0.166=0.833$ .

In a series of articles, Alvarez and Nagler have argued that multinomial logit models are inappropriate for candidate choice in multi-party elections because IIA is almost always violated in these circumstances. As a result, they have advocated estimating empirical vote models using multinomial probit, which does not assume IIA. An empirical question is whether assuming IIA causes researchers to reach different conclusions by using MNL instead of MNP.

Hausman and McFadden (1984) suggest a specification test of IIA. In their test, one estimates a MNL model with the unrestricted choice set [*C* in Eq. (1)] and another (restricted) set (*A*) with one or more alternatives excluded. One then compares the difference in the parameters, using that difference and the difference in the estimated covariance matrix for the common estimated variables. The test stat:

$$T = (\theta_A - \theta_C)' (\text{cov}(\theta_A) - \text{cov}(\theta_C))^{-1} (\theta_A - \theta_C) \quad (2)$$

is distributed as a  $\chi^2$  variable with degrees of freedom equal to the rank of  $(\text{cov}(\theta_A) - \text{cov}(\theta_C))$  (Hausman and McFadden, 1984). To determine if IIA holds for

the model, one eliminates different combinations of alternatives. If each test fails to reject the null hypothesis that  $\text{cov}(\theta_A) - \text{cov}(\theta_C) = 0$ , then MNL is an appropriate specification.

Table A1 presents the results of the binary logit models used to generate the statistics for the Hausman–McFadden test. The chi-square statistics show that we were not able to reject the null hypothesis of IIA, and therefore, we elect to use MNL.<sup>16</sup> One can compare these results with the ones in Table 6 to see that removing one choice from the model does little to change the effects parameters on the covariates predicting a voter's preference for either candidate over Chen.

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<sup>16</sup> Obviously, negative chi-square values are not correct, but Hausman and McFadden write, “we have occasionally found the test statistic of (1.21) to be negative due to the lack of positive semidefiniteness in finite sample applications. Replacement by the alternative covariance matrix always leads to a small positive number. However, in no case have we found this alternative statistic to be so large as to come close to any reasonable critical value for a  $\chi^2$  test” (1226).

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