Factional Influence on the 2001 LDP Primaries: A Quantitative Analysis

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Abstract

For the first time in 20 years, the prefectural level 2001 LDP primaries offer a chance to reevaluate the relationship between Diet members and the LDP rank and file. Since 1982, scholars have agreed that Diet members use their support organizations to control how rank and file vote in LDP leadership contests; and the absence of any suitable data from the 1980s and 1990s has prevented a reassessment of this hypothesis in Japan's evolving political environment. This study uses regression analysis on prefectural-level primary ballot totals in order to measure Diet member influence over the rank-and-file primaries. The results suggest while national politicians did influence voters, their impact was too small to affect the outcome of the election. This implies that the relationship between LDP Diet members and the rank and file is changing and suggests directions for further study.

Long an unchallengable axiom of the Japanese Politics literature, the central role of LDP factions in choosing the party leader is now coming into question. Scholars point to a growing trend towards the failure of factional discipline during presidential contests, and argue that, while factions themselves persist, they are no longer central to the leadership selection process. The 2005 Lower House election, with its 'assassination' of party rebels and the exile of the Kamei faction, may be the strongest challenge yet to the LDP's established system of factional politics. The 2001 primaries, though, represent an anomaly. Unlike in the 1995, 1998, and 2003 elections, factional allegiences remained strong throughout the 2001 election, suggesting that factional influence over the outcome should have been at traditionally high levels. Nevertheless, even though

Ryutaro Hashimoto had greater factional support, Junichiro Koizumi won easily by gathering support in rank-and-file primaries.

In this paper I use regression analysis on prefectural-level primary ballot totals to quantify factional influence over the primaries. I find that, although factions did indeed influence voters, the effect was too small to sway the outcome of the election – suggesting that an as-yet unexplained process is changing the relationship between LDP Diet members and the party rank and file.

This finding is surprising, because it contradicts the conventional wisdom about LDP primary voting. Since the 1978 and 1982 LDP primaries, scholars have believed that Diet members effectively controlled how the rank and file voted in primary elections – and manipulated those votes to support their own faction's choice for party leader. The 2001 election represents the first time since 1982 that we have sub-national data on primary voting with which to investigate the conventional wisdom's continued validity – after a 20-year silence, we can now reassess claims of Diet member control.

Several authors have noted that the 1994 electoral reforms appear to be transforming the role of LDP factions. Since Thayer (1969) and Fukui (1970), observers of Japanese politics have accorded the LDP factions a central role in choosing the party president, a consensus shared in all major textbooks. Nevertheless, events since 1994 have forced an ongoing review of this belief. In their discussion of the 1994 reform's consequences, Cox, Rosenbluth, and Thies (1999) suggest that the transition to single-member electoral districts has reduced candidates' need for factional campaign assistance. As a result, candidates are less interested in committing themselves to a faction and have less motive to follow the faction leaders' instructions. Michael Thies (2002) argues that ending the close connection between factions and campaigning will produce organizations that are policy oriented, rather than patronage structures that leaders use to gather support in exchange for electoral assistance. Krauss and Pekkanen (2004) agree that this is part of a larger shift from personal loyalties to policy conflicts within the LDP.

These authors make their case on the empirical record of LDP presidential contests since 1994. In 1995, Hashimoto ran in opposition to factional leaders but won with a broad cross-section of support from younger Diet members (ironically, the same YKK clique that would defeat him in 2001). In 1998 Keizo Obuchi won the presidency, but faced a rebel candidate Seiroku Kajiyama from within his own faction. The 1999 contest reverted to traditional form, with the Kato and Obuchi factions facing off, but the most recent presidential election in 2003 confirms that the 1995 and 1998 model continued, with the Hashimoto faction splintered, some publicly supporting Koizumi and some supporting a candidate from within the faction (though he was unable to run as the faction's official choice).

Krauss and Pekkanen seem to imply that something similar happened in the 2001 election, noting that Koizumi won even though the 'factional bosses' were on the other side. Nagamori (2002) agrees, claiming that LDP politicians split on the issue of structural reform across factional lines. In fact, though, there is no hard evidence that

Diet members in the Hashimoto and Horiuchi factions broke ranks to oppose their factional leaders' choice of those factions. In the final Diet Caucus vote, Hashimoto received 155 votes: given that he only had 15 rank-and-file votes, that means he had 140 votes from his factions, only four less than the combined membership. It is hard to believe that Diet members from other factions would have gone out of their way to support a candidate that had been so completely crushed in the popular vote, so factional discipline in the Hashimoto and Horiuchi factions must have remained strong to keep that many votes. If that is true, however, it raises an interesting question. If factional loyalties held true, why didn't Hashimoto win – as most pundits had predicted he would? In retrospect, he obviously lost because the rank and file supported Koizumi, but what we know about LDP rank-and-file membership makes that answer problematic.

Since the publication of Reed (1984) and Tsurutani's (1980) research on the 1978 LDP primary in which Masayoshi Ohira defeated Takeo Fukuda, scholars of Japanese politics have accepted that Diet members can control the votes of rank-and-file members. This research meshed with earlier work on candidate *koenkai* (Curtis, 1971) to become the unchallenged conventional wisdom about rank-and-file participation in primary votes.[1] Following common newspaper practice, Nagamori (2002) uses the term *keiretsu*, implying a hierarchical structure with national politicians at the top – similar to the *keiretsu* organizations that join large corporations and their sub-contractors. Most rank-and-file members join the party because of their association with a Diet member's personal organization or because of their affiliation with an occupational organization, such as the Postmasters Association (*taiju*). This gives Diet members and organizational leaders tremendous influence over how their followers vote; it also makes the 2001 primary results surprising, because the greater numbers of Hashimoto and Horiuchi Diet members should have been able to swing the vote in Hashimoto's favor. Moreover, powerful organized interests like *taiju* and the construction industry opposed Koizumi's plans for reform (particularly his promises to limit road building and privatise the post office), making their members unlikely to vote for him.

If these *koenkai* or associations had been losing membership, the result would be easily explained, but this does not appear to have been the case. Koellner (2001) finds that, while overall membership in large organizations has declined, they remained significant vote providers for LDP candidates; Maclachan (2004) confirms that *taiju*, at least, has not declined. Krauss and Pekkanen (2004) argue that the same is true for *koenkai* – indeed, the absence of factional aid in campaigning has made personal organizations even more important. So what happened in 2001? I find that, in spite of factional cohesiveness and a consistently high percentage of rank-and-file LDP voters belonging to organized groups, LDP Dietmen were unable to transform factional support into rank-and-file votes.

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[1] Reed and Tsurutani's research has stood for so long, in part, because the LDP has not held any primaries where votes were aggregated at the prefectural or district level. The 2001 case is the first time this kind of data has been available since 1982.

Methodology

In this study I use regression analysis to analyze the influence of Diet members on their constituents' votes. More precisely, I look for correlations between the presence and quantity of factionally aligned Diet members and the percentage of votes each candidate receives. If our traditional view of the relationship between Diet members and constituents is correct, then voters in prefectures with a high percentage of Diet members from a given faction should be expected to vote for that faction's candidate. Akita's five Diet members supported Hashimoto, so the rank and file should be more likely to support Hashimoto as well; the same is true for Koizumi in Ishikawa and Kamei in Hiroshima. The presence or absence of these correlations provides evidence about the ability of Diet members to control their rank-and-file supporters.

As dependent variables I use the percentage of votes cast in the rank-and-file primaries that the candidates received in each prefecture. This produces three separate equations, in which measures of factional influence and control variables are regressed on to each candidate's share of the vote. While the dependent variables – the percentage of votes each candidate received – are not exactly linear, a large body of work in the field of US politics shows how linear regression can be successfully used in this situation.[2]

I exclude the fourth candidate, Taro Aso, from the analysis for substantive and methodological reasons. Substantively, the lack of support for his candidacy (even in his home prefecture of Fukuoka) among the public and the lack of any significant factional support suggests that he did not have a meaningful impact on the election. Methodologically, including his factional variables in preliminary analysis lowered the overall model fit while leaving the other variables' coefficients and significance essentially unchanged (because measures of model fit penalize models for including irrelevant variables).

Simultaneously analyzing the votes for three competing candidates raises two separate methodological problems. The first concerns the character of the data we are dealing with, refered to as compositional data, because the vote totals are actually components of a total, rather than being statistically independent. As a result, disturbances in the error term of one dependent variable imply a change in the error term of other dependent variables (i.e. if Koizumi receives more votes than expected, Hashimoto and Kamei should receive less). This makes the standard regression estimator – ordinary least squares (OLS) – an inefficient estimator because it ignores the correlation between error terms.

We can, however, use a technique called Seemingly Unrelated Regression Estimation (SURE) to access the information contained in the error term correlation (Aitchensen, 1986).[3] Mathematically, this differs from OLS as follows: Written in

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[2] For a recent example, see Desposato and Petrocik (2003). For an example in the Japanese setting, see Reed and Brunk (1984).

[3] Katz and King (1999) show that while SURE solves this problem of OLS, it remains vulnerable to the possibility of producing estimates that exceed the 0–1 bounds that apply to any percentage variable. The

matrix form, the OLS estimator is: $\hat{\beta} = (X'X)^{-1} X'y$, whereas the SURE estimator is $\hat{\beta} = (X'\Phi^{-1}X)^{-1}X'\Phi^{-1}y$ and the covariance matrix Φ is a matrix showing the correlation between the error terms of each equation, written out as:

$$\Phi = E[ee'] = \begin{bmatrix} \sigma_{11} & \sigma_{12} & \sigma_{13} \\ \sigma_{21} & \sigma_{22} & \sigma_{23} \\ \sigma_{31} & \sigma_{32} & \sigma_{33} \end{bmatrix}.$$

If the error terms are not correlated – meaning that an unexplained increase in Koizumi's share of the vote does *not* imply a corresponding decrease in Hashimoto or Kamei's share of the vote in the same prefecture – then the off-diagonal elements of this matrix will be zero and the results will be identical to OLS. If they are correlated – as they are in this analysis – the off-diagonal elements will contain information that a seemingly unrelated regression estimator takes into account, making it more efficient than OLS. In other words, when an OLS prediction is wrong, the model assigns blame to uncertainty about the coefficients, but SURE is able to distinguish between coefficient uncertainty and prediction errors caused by errors in other equations. Accounting for cross-equation error correlation gives us a better picture of the coefficients.[4]

The second methodological issue pertains to the use of all exogenous variables in each regression equation. In theory this could cause multicollinearity problems, if any variable can be expressed as a function of other variables. If the three factional groupings measured in this study accounted for (almost) all LDP Diet members, then it would be impossible to include all three, but fortunately this is not the case. Smaller factions and unaffiliated Diet members account for, in an average prefecture, 17 per cent of LDP Diet members, reducing collinearity between factional variables to a manageable level.[5] This allows the inclusion of all factions in each model to check for the possibility of support across factional lines (e.g. strategic voting).

This methodology may be valuable in other studies as well. Japan's multi-party system means that almost any election study must deal with complex compositional data. For example, anyone wishing to study the 2005 Diet election and compare the performance of the LDP, DPJ, and LDP 'rebels' is in an almost identical situation, and this research offers a model for study of the 2005 election. While the mathmatical structure of the SURE regression is more complicated than that of standard OLS regression, actual implementation and interpretation in most statistical packages is often very similar, making it a useful part of any analysts' toolkit.

solution of using maximum likelihood estimation with their new additive logistic t-distribution solves this problem, but is only necessary when estimates actually go beyond the 0–1 range. Fortunately, in this analysis the SURE estimates remain within acceptable bounds, indicating that it can be safely used.

[4] In systems where all equations have the same right-hand variables, coefficient values will be the same in both OLS and SURE, but the latter will produce better estimates of the variance around each coefficent (see Judge *et al.*, 1988).

[5] Sensitivity testing revealed that deleting variables did not appreciably lower uncertainty around the remaining factional coefficients.

Independent variables

The principal set of independent variables are the level of factional strength in each prefecture during April 2001. I measure this for each of the three major candidates. For Hashimoto, I include members of the Hashimoto and Horiuchi factions that supported him. For Koizumi, I combine the Mori, Yamazaki, and Kato factions (YKK) that had declared their support for Koizumi.[6] For Kamei, I count only members of the Eto-Kamei faction. To measure this, I use the proportion of LDP Diet members representing the given prefectures which are members of a candidate's faction. Japan's odd electoral system makes this more complicated than it sounds, since Diet members can be elected from sub-prefectural districts, prefectural proportional representation lists, and multi-prefectural proportional representation lists. Because my data are aggregated by prefectures, I restrict factional counts to only those Diet members representing prefectural or sub-prefectural areas. Dividing the number of faction members into the total number of LDP Diet members in a prefecture produces a factional strength measure from 0 to 1.

Examination of the data before statistical analysis, however, suggested that an additional factor needed to be considered. It is important to distinguish between the institutional impact of factional strength and the personal impact of major politicians. In much the same way that George Bush easily carried Texas in the 2000 presidential election, or the Kennedy brothers carried Massachusetts in each of their runs – not just because of their party affiliation, but because they personally dominated politics in their home states – leading Japanese politicians' influence in their home prefectures appears to have affected the election. I include the candidates and their key lieutenants, as follows:

Hashimoto (Okayama): Nonaka (Kyoto), Koga (Fukuoka), Aoki (Shimane)
Koizumi (Kanagawa): Tanaka (Niigata), Kato (Yamagata), Mori (Ishikawa), Yamazaki (Fukuoka)
Kamei (Hiroshima)

I chose these individuals on a combination of two criteria. They are all nationally prominent politicians who closely and publicly identified themselves with a particular candidate. With the exception of the two individuals from Fukuoka, they are also all known for dominating politics in their home prefectures, and it would be a mistake not to use that information in the analysis. I code them as binary variables, with the listed prefectures scored as 1, the others zero.

This binary treatment does oversimplify the matter somewhat, since each of the individuals had different amounts of influence in their home areas. The extra uncertainty that this creates, however, is not especially problematic because these are essentially control variables. I include them to protect the interesting factional variables – omitting

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[6]   I coded Makiko Tanaka and Nobuteru Ishihara as members of the Mori faction because of their strong support for Koizumi, even though they were officially independent.

Table 1. *Descriptive statistics for variables*

	Variable	Mean	Std. Dev.
Percentage of votes received	Koizumi	0.559	0.140
	Hashimoto	0.306	0.125
	Kamei	0.085	0.127
Factional strength measurement	YKK	0.291	0.234
	Hashimoto/Horiuchi	0.415	0.273
	Eto-Kamei	0.125	0.156
Economic variables	Unemployment	4.983	1.288
	Urbanization	48.5	18.588

them would bias the factional coefficients – not to draw conclusions about the strength of 'home field advantage'. I also control for two other possible influences.

During the primary season, pundits argued that Koizumi's campaign promise to reform the 'sacred cows' of the LDP would turn two kinds of voters off. He was unlikely, they argued, to appeal to rural voters; nor was he likely to gather votes in areas of high unemployment. Voters from the former have traditionally been the recipients of LDP largesse that Koizumi promised to cut, and those in the latter areas would probably be more reluctant to accept the pain which Koizumi frankly admitted would follow his reforms. Correspondingly, urban voters tend to be more progressive than those in rural areas, suggesting that they would be more inclined to respond positively to Koizumi's message of reform (Curtis, 1998). The government's *Statistical Handbook of Japan* provides a measurement for urbanization, giving the percentage of census districts in each prefecture with more than 4000 people per square kilometer. The same source offers a prefectural-level measure of unemployment for 2001.

In an effort to make the findings easier to evaluate, the above table presents the means and standard deviations on the variables used in the analysis. Each of the eight exogenous variables was simultaneously regressed on the candidates' share of the rank-and-file vote.

Results

Overall, the models do a good job of explaining each candidate's support. The models' adjusted-R^2 values range from 0.839 for Kamei to 0.765 for Hashimoto. Compared to adjusted-R^2 in similar studies in the well-developed field of US voting, this is highly respectable. Predicted values are also satisfactory, with an average predicted error of 5–7 per cent of the vote in each of the three models. While they do leave some variation to be explained, all three models successfully specify the relationship between factional strength and primary voting.

The most interesting result is the uneven effect of factional strength. Koizumi appears to have won without relying on the influence of his allied (Yamazaki, Kato, Mori) factions, because the YKK variable was not statistically significant in any of

Table 2. *Regression results*

	Coefficients							
	Factional strength			Personal effects			Demographics	
Candidate	YKK	H/H	E–K	YKK	H/H	E–K	Urban.	Unemp.
Koizumi	0.098	−0.107**	−0.244***	−0.001	−0.197***	−0.449***	0.003***	−0.051***
$R^2 = 0.770$	(0.076)	(0.072)	(0.093)	(0.040)	(0.039)	(0.078)	(0.001)	(0.012)
Error: 0.074								
Hashimoto	0.022	0.159***	0.083	−0.064**	0.234***	−0.193***	−0.002***	0.045***
$R^2 = 0.765$	(0.068)	(0.065)	(0.084)	(0.035)	(0.035)	(0.071)	(0.001)	(0.011)
Error: 0.067								
Kamei	−0.070	−0.760*	0.212***	−0.019	−0.020	0.682***	−0.001	−0.003
$R^2 = 0.839$	(0.058)	(0.055)	(0.071)	(0.029)	(0.030)	(0.060)	(0.001)	(0.009)
Error: 0.056								

$N = 47$ for all equations. Coefficients are listed with standard errors in parantheses below them. The mean error for each equation is listed as 'error.'
Significance tests are all one-tailed, based on prior theoretical expecations.
Abbreviations: YKK: Yamazaki, Kato, Mori Factions; H/H: Hashimoto and Horiuchi factions; E–K: Eto-Kamei faction.

the three models.[7] Moreover, the predicted value of the coefficient is small relative to the other two factional variables. In short, people who voted for Koizumi did so for reasons unrelated to *koenkai* or factional politics. The other factions, though, appear to have swung voters against Koizumi, especially the Eto-Kamei faction. In Niigata and Kumamoto, where half of the LDP Diet members belonged to the Eto-Kamei faction, the model predicts that Koizumi's share of the vote would be 12 per cent lower (holding the YKK factional membership constant), perhaps explaining why Makiko Tanaka was unable to deliver Koizumi as high a percentage in her home prefecture as Koichi Kato and Yoshiro Mori did in theirs. As expected, the presence of Diet members from the Eto-Kamei faction did in fact boost Kamei's vote ($b = 0.212$, $p = 0.005$) by up to 11% in those prefectures were they predominated. While the result is not statistically significant, there are faint signs that some Kamei supporters voted for Hashimoto instead ($b = 0.083$, $p = 0.327$), perhaps an example of strategic voting. Supporters of Hashimoto and Horiuchi faction Diet members appear to have followed the traditional model, increasing support for Hashimoto ($b = 0.159$, $p = 0.017$) at the expense of both Koizumi ($b = -0.106$, $p = 0.144$) and Kamei ($b = -0.076$, $p = 0.170$). At first glance, this looks like a crucial factor in the election, since it should have led to a maximum 25 per cent shift from Koizumi to Hashimoto when comparing prefectures like Wakayama, where 100 per cent of the Diet members are from the YKK group, to Akita and Shiga, which are entirely controlled by the Hashimoto and Horiuchi factions. Nevertheless, this is illusory because the usual variation in factional strength was much smaller (standard deviation $= 0.273$), leading to only a 7 per cent difference in expected vote totals – much smaller than the theoretical maximum of 25 per cent.

The personal loyalty variables were also significant. The effect was most dramatic for Kamei ($b = 0.682$, $p < 0.001$), who won his home prefecture with more than 80 per cent of the vote, but failed to reach half that in any other prefecture. Hashimoto and his lieutenants were also able to gather support ($b = 0.235$, $p < 0.001$). This explains the sharp difference between the neighboring cities of Kyoto, which voted heavily for Hashimoto, and Osaka, which went to Koizumi, even though their factional balance and demographic situations suggest that the two should have had very similar vote totals. Interestingly, the model suggests that Koizumi does not appear to have profited from personal influence ($b = 0.000$, $p = 0.986$).

As the media expected, the unemployment and urbanization variables for each prefecture were significant. Areas with higher unemployment tended to convincingly reject Koizumi ($b = -0.051$, $p < 0.001$) in favor of Hashimoto ($b = 0.045$, $p < 0.001$). A one point increase in the unemployment rate seems to have been responsible for a

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[7]   A Bayseian statistician would argue that our prior beliefs about the effect of factional strength are strong enough to shrink the uncertainty around the YKK coefficient ($b = 0.098$, $p = 0.203$) and might therefore declare it significant in determining Koizumi's vote share. Recent work cited in the introduction challenges these beliefs, however, so I do not include them in the analysis. This finding may be explained by YKK factional voting being swamped by non-factional support for Koizumi, so the effect disappears from the analysis.

shift of almost 10 per cent in Hashimoto's favor. That Kamei ($b = -0.002$, $p = 0.774$) did not gain support in those areas is surprising, given his message of increasing public spending and protecting jobs, but this does seem to be the case. Theoretically, the effect of unemployment was large enough to be a deciding factor in the election, except that it appears to have been counteracted by the effect of urbanization. In urban areas, Koizumi ($b = 0.003$, $p = 0.002$) profited at the expense of both Hashimoto ($b = -0.002$, $p = 0.012$) and Kamei ($b = -0.001$, $p = 0.28$). While the coefficient for urbanization is much smaller than that of unemployment, the much greater scale of urbanization (larger by a factor of 10) and the correlation between high values on both variables ($r = 0.665$) means that, in practice, the two may have largely canceled each other out.

The real story of the 2001 primaries, however, is in the high and relatively uniform shares of the vote that Koizumi received across the country. His mean share was 56 per cent, with a one standard deviation range of 42–70 per cent. Hashimoto, on the other hand, averaged only 31 per cent of the vote, with a one standard deviation range of 18–43 per cent. In other words, Hashimoto could only hope to carry a prefecture in very exceptional cases – most configurations of factional support and demographics only adjusted Koizumi's margin of victory. This is borne out by the election results, where Koizumi actually won both Akita and Shiga (Hashimoto faction strongholds) by 58–34 margins. In other words, factional affiliation affected the *vote totals*, but it did not affect the *election outcome*.

Conclusion

As the consequences of the 1994 electoral reform have become clearer over the past decade, our views about the role of LDP factions are changing. In particular, scholars have noted that factions are playing much less of a role in selecting the party president than they did previously. This study adds to that body of work by suggesting that, while organized LDP membership may still be high, as Koellner (2001), MacLachan (2004) and Krauss and Pekkanen (2004) have found, the links connecting national politicians to their local support organizations appear to have grown weaker. As a result, faction members may have lost their ability to deliver rank-and-file primary votes, further reducing the role of factions in leadership contests.

It is not clear, however, why this has occurred. It is evident that membership in *koenkai* or special interest groups such as *taiju* no longer carries the obligation to follow elite instructions when voting, as it used to in the pre-1994 era. Several explanations seem plausible. The 2001 election may have been an oddity, stemming from the wave of Koizumi's personal popularity that swept the country, which led to long lines at LDP headquarters to buy gift items bearing Koizumi's image and the publication of a photo collection addressed to 'Japan's first ladies'. This one-time popularity may have submerged the factional influence that would otherwise have appeared. In another paper, I argue that Koizumi's sudden popularity was a product of the election, not the other way around, and that in April of 2001 some more systematic factor was at work. Cynical voters may be using organizations to subsidize their membership, then voting

autonomously. Alternatively, there may be a separation between the social networking value of organized membership and individuals' political beliefs. In other words, people may be joining (or remaining in) *koenkai* or special interest groups for social reasons, and using their secret ballot to pursue alternative political policies. This seems likely for *koenkai* especially, given the dual nature of representation, in which constituent service is separate from policy making. In any case, this suggests that an in-depth study of how rank-and-file LDP members understand the obligations of membership may be a fruitful study.

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