

## Predicting LDP Seats Lost in 2009

Here I analyze where in 2009 the LDP lost SMDs that it had held in 2005.

The 3 big predictors are:

1. Swing in 2005: How large was the vote swing to/from the LDP in 2005? Larger swing in 2005, more likely to lose in 2009.
2. Margin of victory in 2005: If you lost by a little in 2005, you were more likely to lose.
3. Difference in the PR vote for the LDP and DPJ in 2003 (a good baseline year measure for party support for the LDP since 2005 was so weird). The larger the LDP vote (relative to DPJ), the less likely that the LDP would lose an SMD in 2009.

Unit of analysis: Districts that the LDP won in 2005 and contested in 2009. All variables are SMD level variables.

Dependent variable: 1 if the LDP lost the seat in 2009, 0 otherwise

Independent variables:

swing05: size (absolute value) of the swing in LDP vote in 2005 (2003 to 2005)

margin05: 2005 LDP winning vote minus the vote of the 2<sup>nd</sup> place candidate, all divided by the number of eligible voters in the district

LDP\_margin03: same as margin05, but for LDP candidates that lost in 2003 I take the difference between that candidate's vote and the vote of the winner

PR\_margin03: LDP PR vote minus DPJ PR vote (both for 2003), all divided by the number of eligible voters in the district

SMD\_inc: Is the candidate the SMD incumbent (1 = yes, 0 = no)

TERMS: # of terms served by the candidate

age: age of the candidate

FEMALE: is the LDP candidate a woman (1 = yes, 0 = no)

dpj\_princ: Is the DPJ opponent a PR incumbent? (dummy)

dpj\_ret: Is the DPJ opponent a returnee? (dummy)

dpj\_qual: Is the DPJ opponent a quality new candidate? (dummy)

## Results

The results are terrific.

First, some qualifiers:

- 216 total LDP candidates who won in 2005 and ran in 2009. But 8 did not have LDP candidates in 2003, so those districts got dropped leaving 208 in the analysis.
- I need to add a dummy to code for whether there was a DPJ opponent in the district.
- I originally included measures of the age and gender of the DPJ candidate. It didn't seem to make much difference, but I need to do some re-coding on that to deal with cases where the DPJ didn't have a candidate. (It was dropping a bunch of cases as a result.)

The really good news: Out of the 208 cases, the model correctly predicts 186 (or 89%).

LOSE is a variable I created that is equal 1 if it predicts ( $pr \geq .5$ ) that the LDP would lose a seat in 2009. `ldplost09` is self-explanatory.

| LOSE  | ldplost09 |     | Total |
|-------|-----------|-----|-------|
|       | 0         | 1   |       |
| 0     | 41        | 8   | 49    |
| 1     | 14        | 145 | 159   |
| Total | 55        | 153 | 208   |

Regression results on next page:

|              | LDP won SMD in 2005<br>But lost in 2009            |
|--------------|--|
| swing05      | 8.052*<br>(2.05)                                   |
| margin05     | -8.495**<br>(-3.07)                                |
| LDP_margin03 | -4.423<br>(-1.84)                                  |
| PR_margin03  | -9.417**<br>(-2.88)                                |
| SMD_inc      | -0.589<br>(-1.21)                                  |
| TERMS        | -0.0345<br>(-0.55)                                 |
| age          | 0.0437*<br>(2.31)                                  |
| FEMALE       | -0.135<br>(-0.21)                                  |
| dpj_princ    | 0.335<br>(0.78)                                    |
| dpj_ret      | 1.198*<br>(2.13)                                   |
| dpj_qual     | 0.455<br>(1.28)                                    |
| _cons        | -0.106<br>(-0.10)                                  |
| <i>N</i>     | 208 – 8 SMDs didn't have<br>SMD candidates in 2003 |

*t* statistics in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$