

The Incumbency Advantage in U.S. Primary Elections¹

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Abstract

Using a new data set, we estimate the magnitude of the incumbency advantage in direct primary elections between 1910 to 2000. We find that the incumbency advantage, as estimated by the sophomore surge, was above 5 percentage points in primary elections even in the first decades of the twentieth century. The sophomore surge in primary elections grew to approximately 15 percentage points by the end of 1990s. The growth of the sophomore surge in primary elections occurred at least a decade prior to the growth of the sophomore surge in the general elections. We find some evidence that the structure of intra-party competition affects the incumbency advantage. Specifically, examining southern and border states, we find that the sophomore surge was significantly smaller in states with persistent intra-party factions.

1. Introduction

The incumbency advantage is a prominent feature of U.S. elections.¹ While the existence and growth of the incumbency advantage has been well documented for general elections for all levels of U.S. government, little is known about the incumbency advantage in primary elections. Even basic facts, such as whether an incumbency advantage exists in primary elections, has not been well documented. The asymmetry in our understanding of incumbency advantage in primary versus general elections is somewhat surprising given that primary elections have existed for almost all state and federal offices below the presidency since the early decades of the twentieth century. Thus, in this paper we address basic questions about the primary incumbency advantage such does it even exist? If the incumbency advantage does exist in primary elections, then what is its magnitude? Did it grow at same time as it did in general elections?

Documenting the existence and patterns of the primary incumbency advantage may potentially provide insight into why the incumbency advantage is so prominent in U.S. electoral politics. Several explanations for the causes of an incumbency advantage can be tested using the primary election data. For example, claims that general election incumbency advantage was caused by factors such as the rise of casework (Fiorina, 1977; Cain, Ferejohn and Fiorina, 1987; King, 1991) or the growth of television (Prior, 2005) would suggest that the growth of the incumbency advantage in primary elections should occur at the same time as it did in the general elections.

Furthermore, the growth of the incumbency advantage in primary elections may help explain why competition has declined in primary elections over the course of the twentieth century. A common claim is that direct primaries were introduced in order to increase electoral competition in areas where one party dominated the general elections (Key, 1949). Ansolabehere, et. al. (2005) provide evidence that primary elections may have served as an alternative to general election competition in the early part of the twentieth century, but that this is no longer the case.

¹The literature on the incumbency advantage is too large to cite fully here. See Gelman and King (1990), Cox and Katz (1996), and Ansolabehere and Snyder (2002) for reviews.

This paper presents estimates of the incumbency advantage in primary elections in statewide and federal elections from 1910 through 2000. We exploit a new data set of primary election results, which we have constructed. Previous studies of primary elections have focused on specific offices in narrow periods of time. With this new dataset we can trace the growth of the incumbency advantage for primary elections throughout the twentieth century.

We find robust evidence that an incumbency advantage – as measured by the sophomore surge – existed in primary elections as far back as the 1910s. This finding challenges claims that the incumbency advantage is caused by factors that were not prominent until the second half of the twentieth century.

We also find evidence that the sophomore surge in primary elections grew during the 1940s and 1950s, roughly 10 years before the growth of the sophomore surge in general elections. This suggests that the incumbency advantage in primary elections may have facilitated the growth of the incumbency advantage in the general elections. However, we cannot rule out the possibility that the main forces underlying the incumbency advantage in primary and general elections are different.

We then explore whether the increase in the primary election incumbency advantage might be explained, at least in part, by a decline in party or factional organizations. In some states, party organizations made formal or informal endorsements, and sometimes provided resources to selected candidates. In other states, primaries might have resembled partisan elections, due to the existence of persistent and strong intra-party factions. To the extent that electoral outcomes in primary elections were determined more by organizational resources and factional labels than by purely personal politics, the incumbency advantage should be relatively small.

We use Mayhew (1986) and Key (1949) to identify states with strong party and/or factional organizations. We find no evidence that the sophomore surge was lower in states with “strong” party organizations. We do find that the sophomore surge was noticeably lower in states that Key (1949) defined as having strong factions. This finding is interesting, but is based only on an analysis of twelve states, all from the south or border regions.

The remainder of this paper is divided into four sections. Section 2 discusses the data

and methods. Section 3 presents our estimates of the incumbency advantage in the primary elections using the sophomore surge. Section 4 presents our analysis of how the sophomore surge varies depending upon the strength of party organizations and factions. Section 5 concludes with a discussion about the possible links between primary and general elections.

2. Data and Methods

American state and federal primary elections are under-studied due to the lack of easily available data. Primary election data must be collected state-by-state from a variety of sources – official reports of secretaries of state, state manuals and blue books, and, in some cases, newspaper almanacs and articles. Using these sources, we have compiled the primary election returns for *all* statewide offices and *all* races for the U.S. House and Senate from 1900 to 2004. Ansolabehere et. al. (2005) provides a more detailed discussion of this primary election data set.²

A variety of summary statistics show that competition in primary elections has declined significantly over time, especially for incumbents. Figure 1 presents two measures of competition – the fraction of races that were contested and the fraction in which the winner’s vote share was no more than 60 percent. Both measures decline steadily over time. Also, for both measures the decline is greater in races with an incumbent than in open seat races. This suggests that incumbents have been enjoying increasing advantages in primary elections.

We can use our data to investigate the advantages of incumbency in more detail. We focus on a common measure, the sophomore surge. The sophomore surge is the difference between the vote share a candidate receives when running as a “sophomore” minus the vote share the candidate received when she won as a non-incumbent. In general elections, the sophomore surge for candidate i is simply:

$$\Delta V_i = V_{i1} - V_{i0} \tag{1}$$

²Several projects over the years have assembled primary electoral returns for particular periods of time, offices, and regions of the country. Scammon and Wattenberg’s *America Votes* provides primary election returns for governor, U.S. House, U.S. Senate and President from 1956 to the present. Several studies have examined trends in primary election competition for just one of these offices. On the U.S. House see Alford and Arceneaux (2000) and Gerber and Morton (1998); on the U.S. Senate see Westlye (1991); on governors see Berry and Cannon (1993); on state representatives see Grau (1981).

where V_{i1} is the i 's vote share in the first election in which i is an incumbent and V_{i0} is i 's vote share in the previous election when i was not an incumbent.³

In primary elections there are two important complications. First, the number of candidates can change between elections. In some cases the change is large. Second, a large fraction of races that are uncontested (recall Figure 1).

To deal with the first issue we estimate a modified sophomore surge where we control for the change in the number of candidates, ΔN_i .⁴ That is, we estimate the following linear model:

$$\Delta V_i = \alpha + \beta \Delta N_i + \epsilon \quad (2)$$

The parameter α is the sophomore surge – i.e., the expected change in candidate i 's vote given no change in the number of candidates. Note that this imposes a linear functional form on the relationship between ΔN_i and ΔV_i . We also investigated a flexible functional form with dummy variables for each possible value of ΔN_i . The sophomore surge estimates do not change and the pattern of coefficients on the dummy variables suggests that the linear functional form is a good approximation.

To deal with the large number of uncontested races, we estimate a Heckman selection model. The variable we use to identify the selection model is the average number of contested primary elections for key statewide offices during the ten years prior to the election of interest.⁵ The idea is that states with many primary election candidates are states with easy ballot access laws, no strong party organizations discouraging entry, and so on. These states are therefore more likely to have contested primaries in year t . However, the average number of contested primary elections in the years prior to year t is unlikely to directly influence the vote in any particular election in year t .

The sophomore surge has the advantages of holding constant the quality of at least one candidate, the officeholder. One disadvantage, noted by a number of scholars, is that the

³There is a difference between elections where the challenger faces an incumbent versus an open seat prior to becoming an incumbent. We also ran analyses that included a covariate to account for this difference. The pattern of results is the same for both types of sophomores.

⁴We also estimated specifications where we controlled for the number of candidates at time 0 as well ΔN_i . The results are similar to those present below and are available upon request. We restrict the sample to cases where ΔN_i is between -5 and 5.

⁵We use races for governor, senator, lieutenant governor, attorney general, and secretary of state.

sophomore surge is biased downward due to regression to the mean.⁶ In practice, however, this bias appears to be about 2.5 percentage points and relatively constant over time (e.g., Levitt and Wolfram, 1997). Moreover, the sophomore surge is highly correlated with other measures of the incumbency advantage over time. And, probably because it is so intuitive, it is still widely used (e.g., Alford and Brady, 1993; Lockerbie, 1994; Brady, et al., 1996; Zaller, 1998; Jacobson, 1999; Jackman 2005).

3. The Sophomore Surge in U.S. Primary Elections

Our sophomore surge estimates show that a noticeable incumbency advantage existed in primary elections long before it existed in general elections. Also, the incumbency advantage in primary elections grew earlier than in general elections.

Table 1 presents the sophomore surge estimates aggregating by decade. Columns 1 and 2 present the results for the basic model. In column 1 the dependent variable is the candidate's share of the total vote. In column 2 the dependent variable is the candidate's share of the top two candidates' votes.⁷

In the 1910s and 1920s, the estimated sophomore surge hovered between 5 and 10 percentage points. By the 1990s it had increased to approximately 15 percentage points. As noted above, the sophomore surge is likely to underestimate the magnitude of the incumbency advantage, so the actual incumbency advantage in primary elections is likely to be larger than these estimates.⁸ The results are robust to whether we use candidates' vote shares as percentage of all the candidates or only the candidates that receive the top two

⁶See, for example, see Erikson (1971) and Gelman and King (1990). By definition, to have become a sophomore in period 1, candidate i must have won an election in period 0. Thus, in period 0 the candidate likely received a higher than average stochastic shock. In period 1, the shock is therefore likely to be smaller than previously, so the absense of other influences, the candidate's vote share is expected to decline. Gelman and King provide a rigorous proof. They conclude that "sophomore surge underestimates the true incumbency effect, even after correcting for nationwide swing." (Gelman and King, 1990, p. 1147)

⁷Notice that a few cases are dropped in which a candidate running as a sophomore was not in the top two vote-getters.

⁸We also include a covariate for whether the candidate had an open-seat or faced an incumbent in the election prior to becoming an incumbent. The coefficient on this variable was negative, statistically significant at the 5% level and roughly 3 percentage points in magnitude. Thus not surprisingly, if an incumbent faced another incumbent in order to win office then her sophomore surge would be on average larger than the incumbents who won office through an open seat.

vote shares.⁹ Also, the estimated coefficient on the change in the number of candidates is large, statistically significant and has the expected (negative) sign.

Columns 3 and 4 of Table 1 present the sophomore surge estimates where we include uncontested races in a Heckman selection model.¹⁰ Overall the pattern of estimates is similar to that in columns 1 and 2, where we exclude the uncontested races. Columns 1 and 3, in which the dependent variable is the candidate's share of the total vote, are almost identical. The estimates in column 4 are slightly higher than in column 2 for all decades, but they increase in a similar fashion over time. The estimates of the selection equation are presented in Appendix Table A1. The lagged average number of contested primaries over previous ten year period, which is used in the selection equation, is a highly significant predictor of whether a primary election is contested in the current year.

To compare the incumbency advantage in primary and general elections we also estimated the sophomore surge in general election for the sample of races covered in Table 1. These estimates are presented in Appendix Table A2.

Figure 2 plots these estimates and also the estimates for primary elections from columns 1 and 2 of Table 1. In any given decade the sophomore surge in primary elections is larger than the estimates for general elections. In fact the sophomore surge in the 1910s for primary elections is about as large as the sophomore surge for general elections around the time that David Mayhew wrote *Congress: The Electoral Connection* in the mid-1970s. Over the three decades, the sophomore surge for general elections was just under 5%, while for primary elections it was around 14%, or 9 percentage points higher.

Furthermore, the sophomore surge in the primary elections started increasing several decades before it increased in the general elections. The sophomore surge in primary elections doubled between the 1910s to 1950s, from about 5% to about 10%. During that same period the sophomore surge in general elections was flat, and approximately zero.

The patterns in Figure 2 raise a number questions about the incumbency advantage in both primary and general elections. The fact that there was a large and growing sophomore

⁹We also ran analyses that included the lagged vote share of the incumbent. The estimates of the sophomore surge are slightly larger, but the overall pattern and the substantive findings do not change.

¹⁰Some observations are dropped because the lagged average number of contested primaries is not available.

surge in primary elections well before the existence of a noticeable sophomore surge in general elections suggests that the introduction of the direct primary may have facilitated the growth of the incumbency advantage in general elections. We discuss this further in the conclusion.

Even if the incumbency advantage in the general elections is in some way connected to the primary elections, there is still the puzzle of why we observe a growth in the sophomore surge in the primary elections and why this growth was prior to the growth of the incumbency advantage in the general elections?

4. Intra-Party Organization and the Sophomore Surge

One possible explanation for the pattern of growth in the primary election sophomore surge is the decline of intra-party organizations. In an era of strong party organizations and machines, the party leadership may have been able to control the primary election process. Factions and local machines might have created “parties” within the parties, leaving little room for personal politics. As local machines faded or factions lost their relevance as intra-party voting cues, candidates could no longer rely on the intra-party organizations to provide electoral support. Competition within parties may have then become more personalistic.

We test these ideas by examining how the sophomore surge in primary elections varied across states and over time in subsets of states. To classify state party organizations we rely on the previous work of Mayhew (1986) and Key (1949).

Mayhew (1986) studied all fifty states, and assigned each state a “traditional party organization” (TPO) score between 1 and 5. Most states received a score of 1, six received a score of 2, only one received a score of 3, and thirteen received scores of 4 or 5. We classify states with TPO scores of 4 or 5 as “strong” party organization states, and call the rest “weak.” If strong party organizations reduce the salience of incumbency status in elections, then we should observe a smaller sophomore surge in states with strong party organizations than in states with weak organizations. We focus on the period between 1948 and 1970, since this is the period for which Mayhew’s (1986) description of the state party organizations is most applicable.

The top panel in Table 2 presents the estimates of the sophomore surge in the states identified as having or not having strong party organizations. The results show that for the

period 1948 to 1970 there is no difference between the sophomore surge in states with strong versus weak party organizations. This suggests that the decline in party organizations does not account for the increase in the incumbency advantage in primary elections.¹¹

To test whether a decline in intra-party factions contributed to the rise of the incumbency advantage, we limit attention to twelve southern and border states, and classify states as factional or non-factional using Key (1949). We classify Georgia, Louisiana, North Carolina, Tennessee, Virginia, and Kentucky as factional states, and Alabama, Arkansas, Florida, Mississippi, South Carolina and Texas as non-factional.¹² We consider two periods, 1930 to 1961 and 1962 to 2004. In the first period, persistent factions were active in the factional states but not in the non-factional states. In the second period it is unlikely that persistent factions were active in any of the twelve states.

The bottom panel in Table 2 presents the estimates of the sophomore surge for the factional and non-factional southern and border states. In the 1930-1961 period, the sophomore surge was significantly larger in factional states than in non-factional states. In the factional states it was 4%, while in the non-factional states it was 14%.¹³ The different patterns of growth in the sophomore surge are also interesting. The sophomore surge in factional states grew to 15% in the 1962-2004 period – nearly the same level as in non-factional states. The sophomore surge in non-factional states remained relatively constant.

These results are consistent with the claim that the decline of intra-party factions may have contributed to the incumbency advantage in primary elections. Factions may have provided a strong cue for voters and reduced the incentives for incumbents to cultivate their personal votes. Our findings are for the south during a specific time period. Future research should investigate these issues in other regions and years.

5. Conclusion

The incumbency advantage appears to be an even more prominent feature of the U.S.

¹¹We also conducted an analysis allowing the sophomore surge to vary by decade, and again find a small and statistically insignificant difference – in the “wrong” direction – between strong and weak party organization states.

¹²With the exception of Kentucky, this relies entirely on Key (1949). It also matches the classification in Grynaviski (2004). We classify Kentucky as factional following Jewell and Cunningham (1968) and Mayhew (1986).

¹³This difference is statistically significant at the .01 level.

electoral landscape than previous studies would suggest. The incumbency advantage existed even further back in U.S. electoral history than is indicated by the analyses of the general elections alone. This finding contradicts claims that relatively contemporary factors account for the incumbency advantage. Scholars have pointed to factors such as the growth in congressional staff that can be devoted to casework, growth in subsidies for communicating with constituents (franking privileges, press offices), and television. The fact that a large incumbency advantage emerged in primary elections during the first party of the twentieth century only deepens the puzzle of why such an advantage did not appear in general elections until the 1960s.

Some scholars have suggested that existence and growth of the general election incumbency advantage may be linked to the introduction of the direct primaries (e.g., King, 1997). The argument is that primary elections have made candidates' personal characteristics a salient component of elections. Since voters cannot use party labels or large ideological differences in primary elections, as they do in the general elections, primary election voters will tend to evaluate candidates' based upon personal characteristics, such as their experience, their advertising, and their fame. Incumbents will learn to cultivate their personal reputations among their primary constituents. This skill will then be carried into the general election competition. If this logic is correct, then we would expect the primary election incumbency advantage to precede the growth of the general election incumbency advantage, which is what we find in our analysis.

The timing of the growth of the incumbency advantage in primary elections suggests that we can discount claims that the general election incumbency advantage led to the primary election incumbency advantage. Suppose voters understand that an incumbency advantage has arisen in general elections. Then, sophisticated party members would favor their party's incumbents in the primary election, in order to maximize their chances of winning in the general election. By this argument, however, an incumbency advantage should appear in general elections either before or at the same time as it appears in primary elections. We find the opposite.

The introduction of primary elections may have also contributed to the incumbency

advantage by weakening party organizations, forcing incumbents to appeal to their own electoral bases.¹⁴ We find mixed evidence for this idea. We do not find evidence that the sophomore surge was significantly smaller in states with strong party organizations. However, we do find evidence that the sophomore surge was smaller in states with party factions in the south. Our analysis is limited in scope, but the results are so striking that this appears to be a promising avenue for future research.

¹⁴Ware (2000) argues further that candidate centered politics and personal voting resulted from an interaction between the weakened party organizations and new communication technologies beginning in the second half of the twentieth century.

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Table 1 Sophomore Surge in Statewide and U.S. House Primary Elections, 1912 to 2004				
	OLS		Heckman	
	(1)	(2)	(3)	(4)
$\Delta\#$ Candidates	-0.076 (0.003)	-0.010 (0.002)	-0.076 (0.003)	-0.012 (0.003)
1910s	0.050 (0.015)	0.048 (0.014)	0.052 (0.025)	0.072 (0.026)
1920s	0.062 (0.011)	0.047 (0.010)	0.066 (0.020)	0.074 (0.021)
1930s	0.063 (0.009)	0.064 (0.009)	0.065 (0.016)	0.086 (0.017)
1940s	0.084 (0.010)	0.080 (0.010)	0.087 (0.017)	0.106 (0.019)
1950s	0.118 (0.013)	0.113 (0.012)	0.120 (0.025)	0.146 (0.026)
1960s	0.100 (0.013)	0.092 (0.013)	0.104 (0.027)	0.129 (0.029)
1970s	0.140 (0.012)	0.138 (0.012)	0.139 (0.025)	0.168 (0.026)
1980s	0.140 (0.014)	0.130 (0.013)	0.151 (0.027)	0.170 (0.029)
1990s	0.150 (0.013)	0.134 (0.012)	0.144 (0.029)	0.168 (0.031)
Adjusted R^2	0.384	0.059		
Observations	1615	1583	4395	4395

The dependent variable in Model 1 and 3 is the change in vote-share between the freshman and sophomore elections. The dependent variable in Model 2 and 4 is the change in vote-share between the freshman and sophomore elections for the top two challengers.

Table 2 Sophomore Surge in Statewide and U.S. House Primary Elections, 1912-2004 Variation by Party Organization and Factionalism		
	All	Top 2
Strong vs. Weak Party Organization States		
$\Delta\#$ Candidates	-0.074 (0.005)	-0.006 (0.005)
Strong Party Organizations, 1948-1970	0.125 (0.016)	0.114 (0.016)
Weak Party Organizations, 1948-1970	0.109 (0.009)	0.106 (0.009)
Adjusted R^2	0.350	0.000
Observations	401	397
Factional vs. Non-Factional States		
$\Delta\#$ Candidates	-0.076 (0.006)	-0.011 (0.007)
Factional State, 1930-1961	0.038 (0.017)	0.037 (0.018)
Factional State, 1962-2004	0.149 (0.021)	0.143 (0.021)
Non-Factional State, 1930-1961	0.140 (0.020)	0.137 (0.020)
Non-Factional State, 1962-2004	0.137 (0.019)	0.121 (0.019)
Adjusted R^2	0.399	0.082
Observations	288	285

Table A1 First Stage of Heckman Selection Model in Statewide and U.S. House Primary Elections		
	(1)	(2)
Lagged Avg. # Contested Primaries	0.377 (0.027)	0.359 (0.027)
# Candidates	0.098 (0.014)	0.100 (0.014)
1920s	-0.020 (0.109)	-0.010 (0.110)
1930s	0.260 (0.108)	0.219 (0.108)
1940s	0.077 (0.110)	0.059 (0.110)
1950s	-0.242 (0.111)	-0.235 (0.112)
1960s	-0.333 (0.111)	-0.318 (0.111)
1970s	-0.207 (0.110)	-0.203 (0.110)
1980s	-0.386 (0.111)	-0.376 (0.111)
1990s	-0.414 (0.107)	-0.401 (0.107)
constant	-1.249 (0.120)	-1.212 (0.120)
Observations	4646	4646

The dependent variable in Model 1 vote-share between the freshman and sophomore elections. The dependent variable in Model 2 is the change in vote-share between the freshman and sophomore elections for the top two challengers.

Table A2
Sophomore Surge in Statewide
and U.S. House General Elections,
1912 to 2004

1910s	0.013 (0.003)
1920s	-0.002 (0.003)
1930s	-0.004 (0.003)
1940s	-0.013 (0.003)
1950s	0.006 (0.004)
1960s	0.029 (0.004)
1970s	0.053 (0.004)
1980s	0.048 (0.004)
1990s	0.052 (0.004)
Adjusted R^2	0.069
Observations	4882

Figure 1

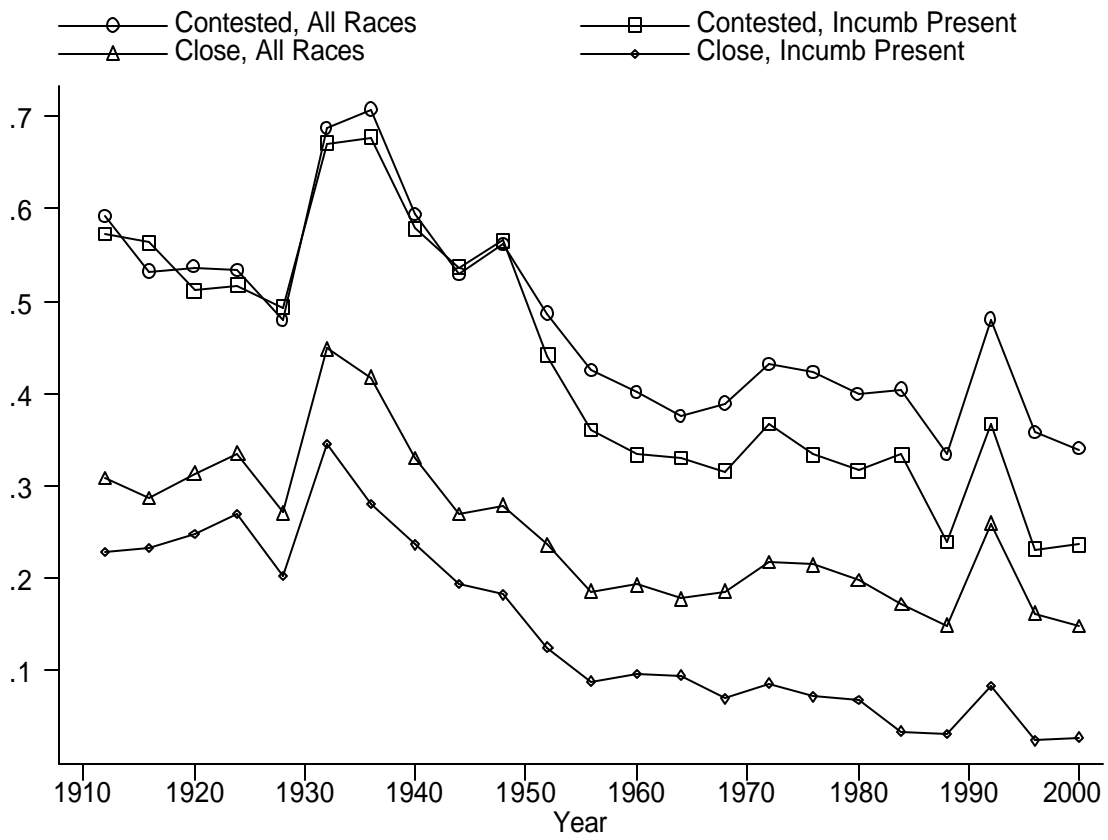


Figure 2

