WHERE THE ACTION IS: AN ANALYSIS OF PARTISAN CHANGE IN

HOUSE OF REPRESENTATIVES OPEN SEAT ELECTIONS, 2000-2014

by

Kyle B. Wallace

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Political Science

Approved:

_____ _____
Damon Cann   Michael Lyons
Major Professor   Committee Member

_____ _____
Ryan Bosworth   Mark McLellan
Committee Member   Vice President for Research and
                                          Dean of the School of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah

2015

ABSTRACT

Where the Action Is: An Analysis of Partisan Change in House of

Representatives Open Seat Elections, 2000-2014

by

Kyle Wallace, Master of Science

Utah State University, 2015

Major Professor: Dr. Damon Cann
Department: Political Science

Open seat House of Representatives elections are an area that has not received the

same attention as seats with incumbents, despite open seats traditionally providing more

interesting results. This research examines partisan change in open seat House races

from 2000-2014 in order to determine whether previous research is still applicable in

light of changing behavior of open seats in the 2000s. This research found that since

2004 partisan change has occurred more often with incumbents being defeated and not

due to open seats. A logit model was used with partisan change as the dichotomous

dependent variable, a unique approach to House elections. The model found that

candidate spending was the most significant variable in explaining partisan change, while

other variables such as district competitiveness, candidate quality, and unemployment

were also significant. The model was then used to predict the 2014 House elections,

correctly predicting roughly 75% of races. Finally two case studies were examined

where the model failed to provide accurate predictions to determine improvements that

could be made to future iterations of the model.

(57 pages)

PUBLIC ABSTRACT

Where the Action Is: An Analysis of Partisan Change in House of

Representatives Open Seat Elections, 2000-2014

Kyle Wallace

The purpose of this research is to better understand what causes partisan change in House of Representatives open seat elections from 2000-2014. Despite being the source of the majority of freshman entering the House and traditionally having a higher rate of partisan change, open seats receive less attention in the political science literature than seats involving incumbents. The most comprehensive look at open seats came from Ronald Keith Gaddie and Charles S Bullock III in their 2000 book *Elections to Open Seats in the U.S. House*. Since 2000, very little research has been done to update the ever-changing environment surrounding House seats.

In addition to examining a new set of data, a unique approach was taken by using the dichotomous variable of partisan change as the dependent variable. The focus on partisan change rather than vote share is also something rarely done in the literature. Vote-share models and public polling are the dominant methods for predicting House seats. A logit model that estimates the predicted probability of partisan change occurring can be a useful tool for scholars and for campaigns as it provides unique insights into what factors will make a seat competitive. A benefit of this model is that it can be used for long-term forecasting for parties to determine where their efforts may be best served.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

The volatile nature of House of Representatives elections in the 21st century has resulted in incredible partisan seat swings. Partisan change has both theoretical and practical importance in the study of congressional elections. Seat swings determine which party controls the House of Representatives, and by extension the policy agenda for the next two years. Partisan change can signal which party is being held responsible for past failures, which policy platform the electorate accepts, or suggest a demographic or partisan shift within a congressional district. Past research has shown that partisan seat swings occur at a higher rate in open seat races. The primary focus of this research will seek to answer the question: what factors are responsible for open seat partisan change in the 2000 through 2012 House elections?

The answer to this question will ultimately be determined through a logit model using partisan change as the dependent variable. This unique modeling design will bolster our understanding of what factors ultimately make open seats more likely to experience partisan change. To fully understand the implications of the model, this research will also explore the context in which the model exists by examining the trends in open seat House elections, and how such trends differ or conform to previous research and trends. An ancillary portion of this research will explore strategic retirement to determine whether, and how, this phenomena may be accounted for in an analysis of open seats.

The century was ushered in by an extraordinary presidential election and a forgettable House election. From 1934 to 1996, only once had the president's party

gained seats in the House during a midterm election (1934), yet in the span of three elections it occurred twice (1998 and 2002). In 2004, unusual redistricting in Texas overshadowed a mellow Republican gain. 2006 and 2008 were good years for Democrats as they took control of the House. 2006 provided the Democrats with their largest seat gain since 1974, while 2008 appeared to provide a clear mandate for the Democratic Party through their control of Congress and the Presidency. This dominance was short lived as Republicans gained 63 seats (their largest gain since 1938) and assumed control of the House in the 2010 midterm election. Finally in 2012 the Democrats were able to pick up a few seats while retaining the presidency.

To explore partisan change in House open seat elections, this research will first review the existing literature on open seat elections. It will then explore the role and features of open seats in the 1990s compared to the 2000s and the role of strategic retirement on partisan change in open seats. The next section will lay out the methodology used to construct the model and present the analysis of this research. The developed model will then be used to predict the outcomes of the 2014 open seats and provides a discussion on the effectiveness of this model as a predictive tool. Case studies of two 2014 open seats that were incorrectly predicted by the model will be briefly explored to determine possible shortcomings of the model in prediction. This research will conclude with a summary of the major findings and suggest further research that can build upon our knowledge of open seat elections.

LITERATURE REVIEW

Despite the continuous evolution of congressional elections, one thing has remained constant: the incumbency advantage. Incumbents continually get re-elected at rates well over 90%. David Mayhew's seminal piece "Congressional Elections: The Case of the Vanishing Marginals" articulated the trend of a declining number of competitive districts. Subsequent research has discovered that incumbents hold strong advantages over challengers when it comes to name recognition, fundraising, and institutional privileges, such as franking (Mayhew 1974, Gelman and King 1990). Due to the fact that incumbents rarely lose, quality challengers generally do not run against incumbents, which adds to the incumbency advantage (Alford and Hibbing 1981).

Gaddie and Bullock cleverly assesses the current situation of congressional election research as "concentrated on a place in which little has happened, is happening, and may never happen" (Gaddie and Bullock 2000) with regards to all the attention placed on the incumbency advantage. On the other hand, seats that lack an incumbent are generally more competitive, yet less research is devoted to understanding these races. This may be due to the fact that open seats usually only make up a small number of seats each election cycle. Open seats are where the action is.

Why Open Seats?

35% of House open seats between 1982 and 1994 experienced partisan change (Gaddie and Bullock 2000, Gaddie 1997). Even if the extraordinary 1994 election is omitted, the partisan change rate remains above 30%. This is a far higher partisan change

rate than those that include incumbents. History has shown that open seats usually receive more attention from political parties, greater coverage in the media, and usually are more competitive. Simply put, open seats have historically been more interesting and provided more action than races involving incumbents.

The most comprehensive look at open seats in the 1980s and 1990s was *Elections to Open Seats in the U.S. House* (Gaddie and Bullock 2000), which presented a vote-share model with the following predictor variables: candidate experience, campaign spending, minority population percent, whether it was a southern state, and presidential coattails. All variables but "south" were statistically significant. Gaddie and Bullock found that open seat candidates who held the experience and spending advantage won their election at a rate close to that of an incumbent. Open seats were usually more competitive, but a surprising number were outside of the "marginal" range.

The Gaddie and Bullock open seat model reinforced common findings of election research. Winners of open seats usually held a spending and/or experience advantage over their opponents. Districts with high minority populations resulted in a lower Republican vote share. Presidential coattails were statistically significant but not decisive in many races. The research appeared to support the theory that district and candidate factors were more important than a national tide. One notable omission in their model was the failure to include an economic control variable.

The literature specifically on open seats has not been as developed as many other types of elections. The studies specifically regarding open seats are primarily based on data from decades ago. What held true in 1982 may not in 2014. Congressional elections theory must continually be tested using current data otherwise we may miss important

evolutions in the nature of congressional elections. With open seat research being both limited and dated, this research seeks to help fill that gap.

Why Partisan Change?

The control of Congress is what keeps the public and media fixed on congressional elections. We care about who wins. The party that controls the House of Representatives sets the agenda for the next two years and is able to legislate policy priorities. No other aspect of House elections is of more practical importance than partisan change. In order for control of the House to change, partisan change must occur either through defeating incumbents or through picking up open seats. With the goal of this research being to understand partisan change, it makes sense to examine where most partisan change occurs. Previous research has pointed to open seats being the best vehicle for partisan change.

Most congressional election models use vote share (whether Republican or Democrat) as the dependent variable. This research will examine open seat elections using a dichotomous dependent variable to determine whether the seat experienced partisan change. This will allow coefficients to be expressed as the change in probability of partisan change occurring. Examining congressional elections through this lens may be more representative of the reality of elections because there is always some element of chance or randomness which is captured better through probability of partisan change than a linear estimate of vote share. Whether a candidate gets 53% or 57% of the vote may be interesting, but determining the probability of a seat experiencing partisan change is, in the end, what actually matters in an election.

Factors in Open Seat Elections

Open seats typically attract higher quality candidates because quality candidates are usually not willing to risk their political future by trying to defeat an incumbent who has strong advantages (Bond, Fleisher, and Talbert 1997, Newman and Ostrom 2002). Challengers to incumbents are also unlikely to be able to compete financially with incumbents (Abramowitz, Alexander, and Gunning 2006). Donors want to make sure that the money they spend on elections will actually count. Spending on those already in office is a safer bet than hoping that a challenger can overcome the electoral disadvantage. When challengers are able to raise large amounts of money it signals that they are a serious threat and have had greater success in the general election (Gaddie and Bullock 2000).

An important consideration regarding campaign funding is whether challenger spending is more important (or impactful) than incumbent spending. The traditional theory, best articulated by Jacobson (1985, 1990), is that challenger spending has a larger impact on vote share than incumbent spending. The theoretical justification for this is that incumbents are relatively well-known already, where challengers are not. Challengers need more funding to get their name and message out to the public to overcome the incumbent's name recognition. Gerber (1998) used an instrumental variable two stage regression approach to show that incumbent and challenger spending had relatively the same effect on vote share. Most studies on campaign spending's effect on electoral outcomes do not include open seats. There are theoretical reasons as to why

spending by both the challenger and incumbent party should not be very different, supporting Gerber's argument.

Most election studies, both presidential and congressional, take into account the performance of the economy. During times of poor economic performance the President's party is usually punished, but during times of strong economic performance the President's party is not always rewarded because other issues take precedence over the economy (Owens and Olson 1980, Bloom and Price 1975). This asymmetrical relationship suggests a possible contradictory public mindset that the government is to blame when things are going poorly, but the government does not create a strong economy. But who does the public actually hold accountable for economic performance? Congress, the President, or both? Norpoth (2001) examined whether divided government affected who was held responsible for the economy and found that the public held the President's party responsible, even if the opposition party controlled Congress.

Godbout and Belanger (2007) found that political sophistication plays a large role as to whether voters based their vote on their own personal economic circumstances or the state of the national economy. Both high and low sophisticates were less likely to vote based on the "pocketbook theory," while middle sophisticates were the most likely to use the "pocketbook theory." When intervening variables are properly controlled for, economic fluctuations do appear to be significant in elections and are included in most forecasting models (Grier and McGarrity 2002, Gaddie 1997).

It is unclear as to what role national factors such as the political mood or economic fluctuations play in an open seat race. On one hand, open seat races may be insulated from economic fluctuations because neither candidate can be held directly

responsible as a member of Congress. However, open seats could also be more sensitive to economic fluctuations or a strong partisan tide. Even if national forces do have a significant effect on open seat races, it may not change the partisan outcome in most races. For example, presidential coattails (evidence of a national political trend) were only found to be decisive in 13% of all open seat races between 1972 and 1992 (Flemming 1995). This suggests that candidate and district-specific factors are more important in open seat races, but strong national factors can sway a close election. Petersen (2010) found that national factors may decide open seat or special election races if the race is close *and* there is a dramatic shift in the national mood towards a political party. While this finding may point to how national and local factors intertwine, it is far from conclusive.

The "presidential pulse" is an important historical factor in congressional elections. In presidential election years, the winning candidate's party captures some of that momentum in congressional elections. This pulse is non-existent in midterm elections which usually see the President's party lose seats in Congress. Mondak (1994) found that presidential coattails are more effective in open seats, though this has been challenged by additional studies (Flemming 1995). Regardless of the degree of influence, the presidential pulse has been shown to be influential in state and congressional elections (Born 1984, Erikson 1972, Campbell 1986).

This discussion has established why open seats are interesting, why partisan change is of practical importance, and the established factors that are important in determining the outcome of elections. Moving forward, the next section will explore the context in which the open seat partisan change model exists. A model independent of

context is useless. Some of Gaddie and Bullock's fascinating insights into open seat

trends in the 1980s and 1990s will be compared with data from the 2000s in order to

establish whether open seats are currently operating within the same paradigm. After the

discussion of open seat trends, an analysis of strategic retirement's effects on open seats

follows.

THE STATE OF OPEN SEATS

Historically, open seat elections are the pathway for most incoming freshman to the House of Representatives. From 1982 through 1994, 70% of incoming freshman did so through open seats (Gaddie and Bullock 2000). Understanding the ways in which these freshman won their election to enter the House can provide valuable insights into what has been termed as "strategic politicians." Between 1954 and 2000, only once did more freshman enter the House through defeating an incumbent than through open seats (1964). 2010 witnessed more freshman entering the House through defeating incumbents. In fact, 2006-2012 had high levels of incumbents being unseated. Figure 1 provides a breakdown of freshman entering the House from 2000-2012.
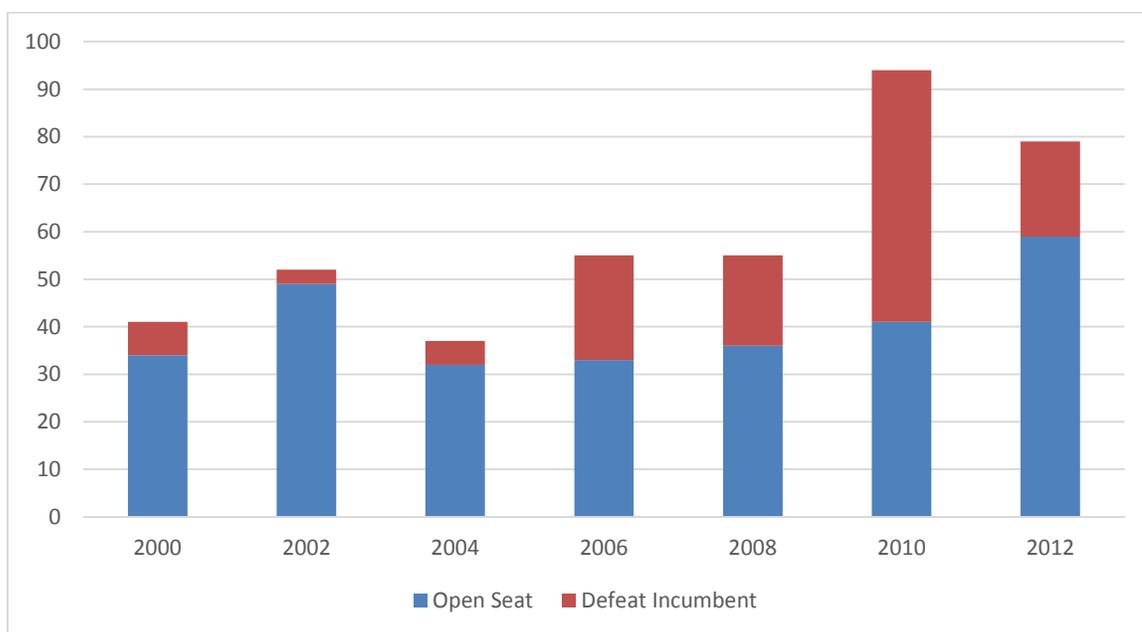
Figure 1   How Freshman Enter the U.S. House of Representatives

Not only are open seats the primary vehicle for new members of congress, open seats are usually more competitive and thus lead to higher rates of partisan change. Gaddie and Bullock found that 35.4% of open seats from 1982-1994. Even when the extraordinary election of 1994 was omitted, the rate was 31%. Due to open seats being more competitive, partisan swings in the U.S. House are usually the result of what occurs in open seats. During the 2000s, these historical trends have not held true. The percentage of open seats that experienced partisan change dropped to 25.6%, significantly lower than 35.4%. In addition to open seats having a lower partisan change rate, from 2004-2012 over half of seats that switched parties were through incumbents being defeated, not open seats. Figure 2 shows which percent of partisan change are occurring through open seats and through incumbents being defeated.

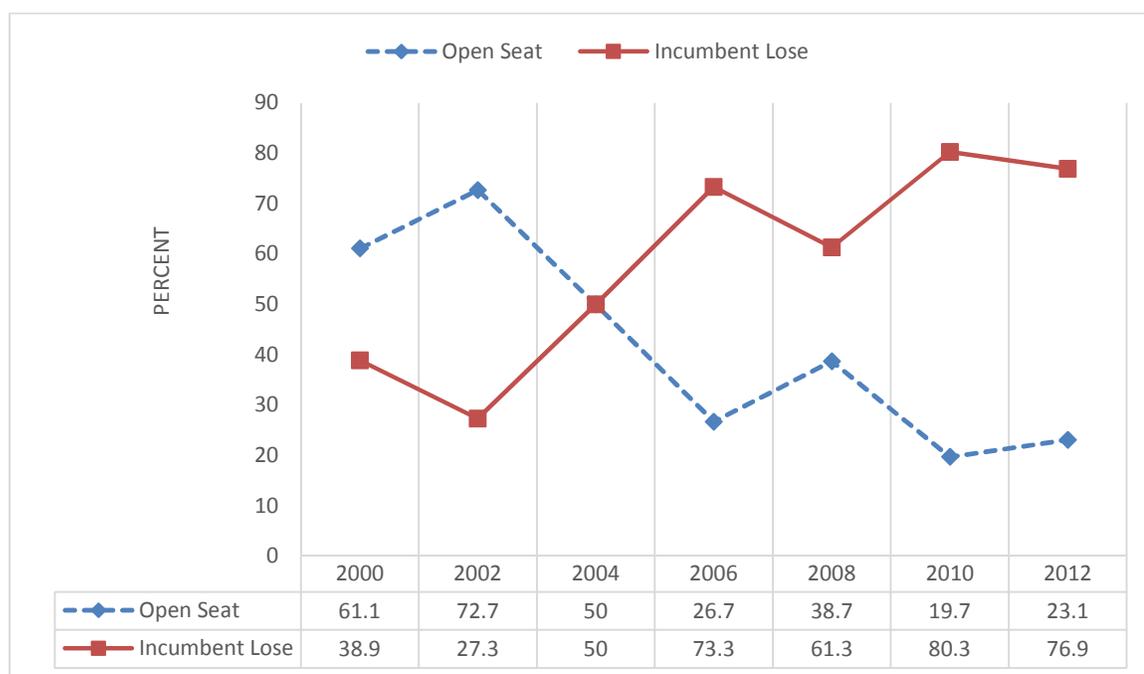|	2000	2002	2004	2006	2008	2010	2012
Open Seat	61.1	72.7	50	26.7	38.7	19.7	23.1
Incumbent Lose	38.9	27.3	50	73.3	61.3	80.3	76.9

Figure 2   Source of Partisan Change

In both sets of data above, the stark contrast between the 2004 and 2006 elections is insightful. Prior to 2006, the electoral climate in the House elections was fairly mild. There were no strong national tides favoring one party with the exception of the 1994 election. Thus it shouldn't be a surprise that few incumbents lost and that most partisan change occurred in open seats. Have we entered a new era of congressional elections? If we are in the midst of a major electoral shift, perhaps it is one characterized by large pendulum swings and strong national tides. This data may suggest that our understanding of open seat elections is in need of further development to cope with the current political climate.

Fewer open seats are experiencing partisan change. So while most freshman are still entering Congress through open seats, the districts appear to be less competitive than prior to 2004. A declining competitiveness in open seats may signal troubling long-term trends. As Mayhew (1974) observed, "If fewer House members are winning elections narrowly, and if the proportion of 'open' seats per election is not rising, it ought to follow that congressional seat swings are declining in amplitude." The data shows that the number of open seats is fairly consistent, though the number of incumbents losing re-election is rising which may offset less competitive open seats.

From 2000-2012, the average House election with an incumbent (omitting unopposed races) had an average outcome of 66.2%-31.8%. In that same time period for open seats races the average outcome was 59.7%-37.5%. Open seat races were more competitive than those featuring incumbents. In only 13.5% of races involving incumbents (unopposed races omitted) from 2000-2012 was the winning vote share under 55%. For open seats in this time period, 35.9% of races had a winning vote share of

under 55%. This is remarkably similar to what Gaddie and Bullock found from 1982-

1998, with a total of 36% of open seats falling in the "marginal" range of 55% vote share

or less. So while partisan change in open seats has decreased in the 21st century, the

number of marginal seats appears to remain unchanged. Perhaps incumbent parties are

more apt at winning close races than they were in the past.

Open seats have, overall, remained more competitive than seats involving

incumbents. Despite this competitiveness, fewer open seats are actually experiencing

partisan change. In the 21st century, defeating incumbents has surpassed open seats as the

source of most partisan change in the U.S. House. One explanation for this may be that

redistricting has created so many safe districts that regardless if the seat is open. That

leaves the inherently competitive seats in battleground states as the places where partisan

change occurs. Perhaps competitive seats have just not come open during the 2000s?

Figure 3 shows the number of open seats in competitive districts (districts where

the average presidential vote difference was within 5%) that experienced partisan change

from 2000 to 2012. In three elections (2000, 2006, 2008) we see high rates of partisan

change in competitive districts. However, in the other four elections we see less, or no,

partisan change in these extremely competitive districts with open seats. The overall

number of competitive open seats were lower in 2000, 2010, and 2012.

In three of the elections, all open seat partisan change occurred in seats that were

not competitive based on their presidential vote averages. Even when the data is

extended to include open seats where "competitive" is defined by the presidential vote
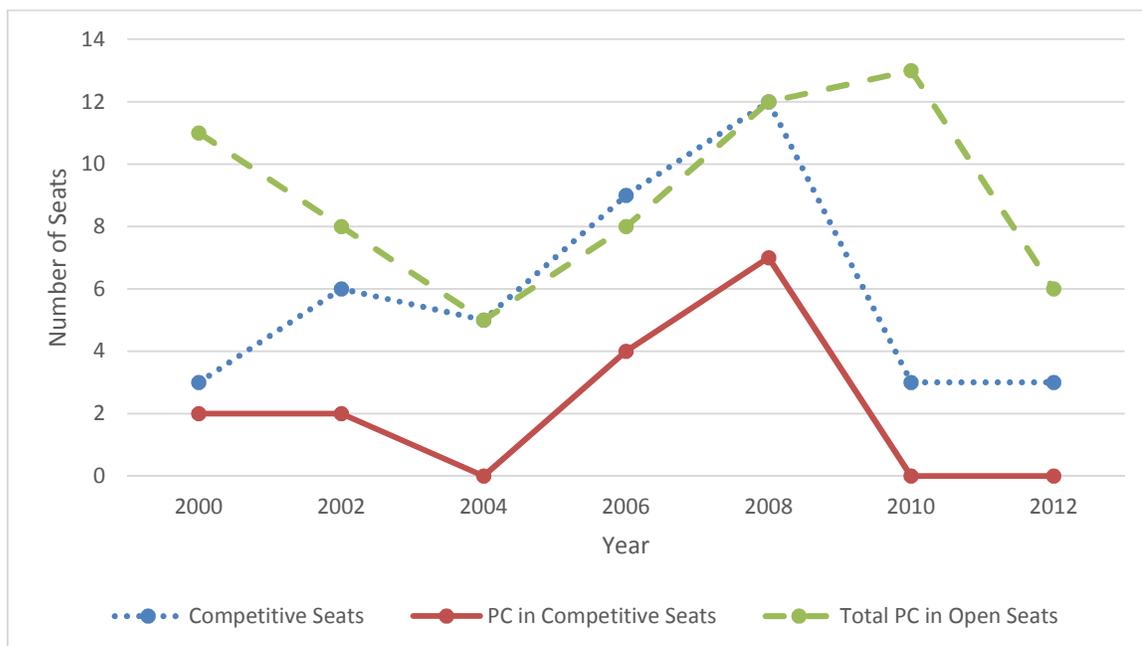
Figure 3   Competitive Open Seats 2000-2012

difference being under 10%, the trends shown above remain the same. Looking at 2006

and 2008, both strong for Democrats, one could draw the conclusion that strong national

tides caused partisan change in competitive districts. The fact that no partisan change

occurred in competitive seats in 2010 is puzzling, considering how strong the tide was for

Republicans. So while more open seats experienced partisan change in 2010 than any

other year in this data set, all of the gains were in seats that were not necessarily

competitive at the presidential level.

How do open seat elections play into the national picture of shifts in the control of

the House of Representatives? The House changed hands in 2006 and 2010, 2006 from

Republicans to Democrats and 2010 back to Republicans. In both of these years, the

majority of seats that changed parties were not open seats, but actually incumbents being

defeated. Gaddie and Bullock found that it was partisan change in open seats that

triggered large partisan shifts in the House of Representatives in the 1980s-1990s. It appears that defeating incumbents is necessary for large partisan shifts.

The roles of candidate experience and fundraising cannot be understated in open seats. Gaddie and Bullock found that candidates who had the spending and experience advantage won at an 80% rate. For the current data set, nearly 89% of open seat winners outspent their opponents. 92.5% of open seat winners either had the spending advantage, experience advantage, or both. As Figure 4 shows, a remarkable 100% of open seat winners in 2006 had either the spending advantage or experience advantage. It is clear that spending and experience, particularly spending, are extremely important in our modern political climate.
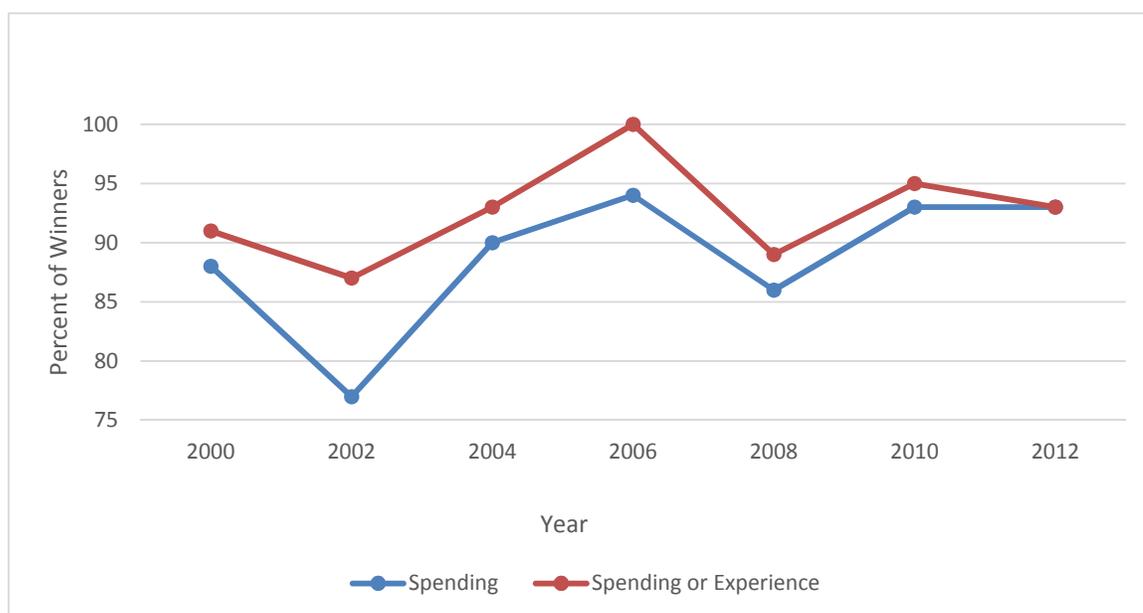
Figure 4   Winning Percentage by Spending and Experience Advantage

In summary, the state of open seats is different in the 2000s than it has been in the past. Open seats are, on average, more competitive than races involving incumbents.

While this is the case, the main source of partisan change shifted in the mid-2000s from open seats to defeating incumbents. The partisan change percent in open seats has dropped from 35% in previous decades to 25%. Open seats remain, in most elections, as the primary source of incoming freshman. So while some aspects of open seats have changed in the 21st century, some still hold true.

Strategic Retirement. The fact that incumbents are re-elected at an incredibly high rate has been used to discount the notion that congressman are held electorally accountable (Stone et al. 2010). However, merely looking at the number of incumbents re-elected may not tell the whole story. When candidates see the writing on the wall that they are likely to lose in the next election, they may decide to retire or seek a different political office instead of facing defeat (Stone et al. 2010). This has been termed 'strategic retirement' and may indicate that there is more electoral accountability than is readily apparent. Conversely, when an incumbent is seen as being vulnerable, higher quality candidates emerge which may push incumbents into retirement or loss in the general election. The failure to properly account for strategic retirement has been a criticism of growing incumbency advantage estimates. Ansolabehere and Snyder (2004) found this criticism to be unfounded and that incumbency advantage is not overstated. They argue that while strategic retirement certainly occurs it is not widespread enough to substantively alter measures of incumbency advantage.

Table 1 shows the percent of incumbents that lost in the general election. The second row shows the number of open seats in each election, not including seats that are open due to redistricting. The third row shows the percentage of seats that changed partisan hands that year either through an incumbent losing or through an open seat race.

Table 1   Incumbent Loss Percent and Number of Open Seats

Year	2000	2002	2004	2006	2008	2010	2012
Inc. Lose	1.7%	.8%	1.2%	5.5%	4.7%	13.5%	5.3%
Open Seats w/o New	34	33	30	33	35	41	40
Open Seat+Inc. Lose PC	4.14%	2.53%	2.3%	6.9%	7.13%	15.17%	5.98%

If strategic retirement is occurring, the real number of incumbent casualties may be closer to the percent on the third row. From 2000-2004 including open seat losses at least doubles the percent of seats that saw partisan change. However, from 2006-2012 it only provides a small boost to the partisan change percentage.

The circumstances surrounding how a seat becomes open may be a predictive factor to whether a seat will experience partisan change. Determining whether strategic retirement is occurring when an incumbent retires or runs for another office is difficult. Strategic retirement is usually discussed when an incumbent is facing defeat (a negative type of strategic retirement). However, there is the possibility of a positive strategic retirement. This could be described as an incumbent handing their party successor their seat in a safe election so that in future competitive elections the new seat-holder will have the well-documented advantages of being an incumbent. To parse out which retirements are strategic would require a careful analysis of each situation, but even then the retiring incumbent may not make it clear whether they are retiring for strategic reasons. As the scope of this research is not to determine which retirements are strategic, both retirement and seeking higher office will be understood to be "possibly strategic."

Breaking down the open seats based on how they became open and comparing the partisan change percentage provides an insight into which seats are the most vulnerable. Table 2 provides this breakdown for open seats from 2000-2014.

Table 2   Partisan Change Percent by Cause of Open Seat

Cause of Open Seat 2000-2014 *New Seats Excluded	Number of Cases	Percent Experience Partisan Change
Retirement (Possibly Strategic)	162	25.3%
Higher Office (Possibly Strategic)	93	22.6%
Resignation (Non-Strategic)	10	20%
Loss in Primary (Non-Strategic)	26	19.2%
Death (Non-Strategic)	3	0%

While open seats due to retirement or seeking higher office do have a slightly higher percent that experience partisan change, it is not substantially different from non-strategic categories. The total of possibly strategic open seats by year is shown in Figure 5. The fluctuation of seats is within 15 seats from 2000-2014, though in years with strong partisan tides the total number of possibly strategic open seats is slightly higher.

If strategic retirement is widespread, years with higher numbers of possibly strategic open seats would seem to be correlated with overall higher rates of partisan change in those seats. This would be indicative of unfavorable electoral conditions causing more members of the House to retire. In Figure 6, the partisan change rate for
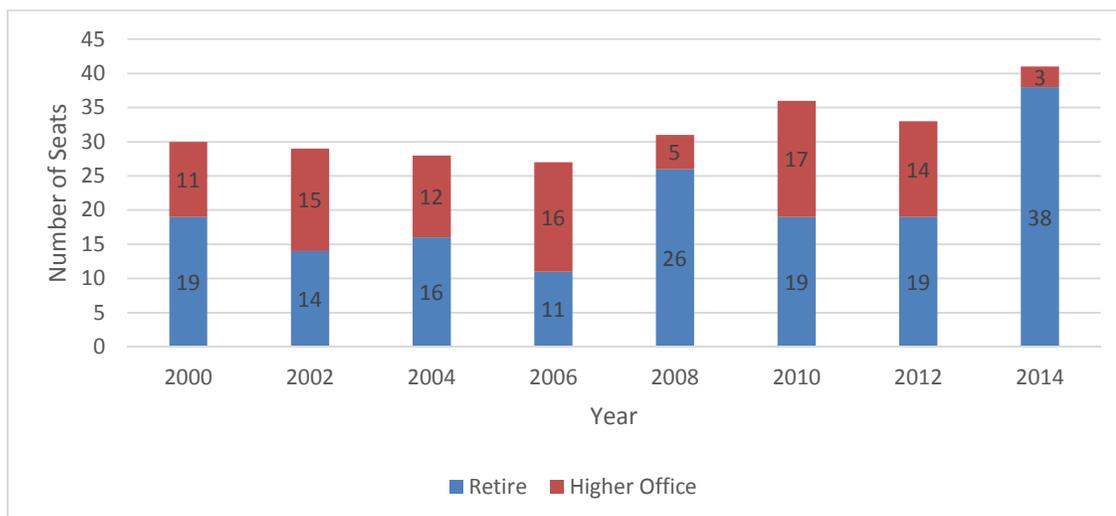
Figure 5   'Possibly Strategic' Open Seats

'retired' open seats is fairly stable with a slight bump in 2008 and 2010. Both of these

years saw major seat swings in favor of one party, thus it isn't surprised that this trend is

seen in open seat outcomes. Despite this, it is not clear from this information that

strategic retirement is occurring in many cases.

        The national political tide also plays a role for incumbents considering

retirement. It would be expected that in years favorable for Republicans, Democrats

would have a higher retirement rate and vice a versa. Wolak (2007) found that the

political climate was a significant factor in predicting retirements in congressional

elections, especially House elections.

        Table 3 shows the number of Republican/Democrat retirements and the national

political tide. Republicans had higher retirement rates throughout the 2000s, regardless

of whether the national political trend was in their favor. 2008 saw the largest number of

Republican retirements and the smallest number of Democrat retirement in a banner year
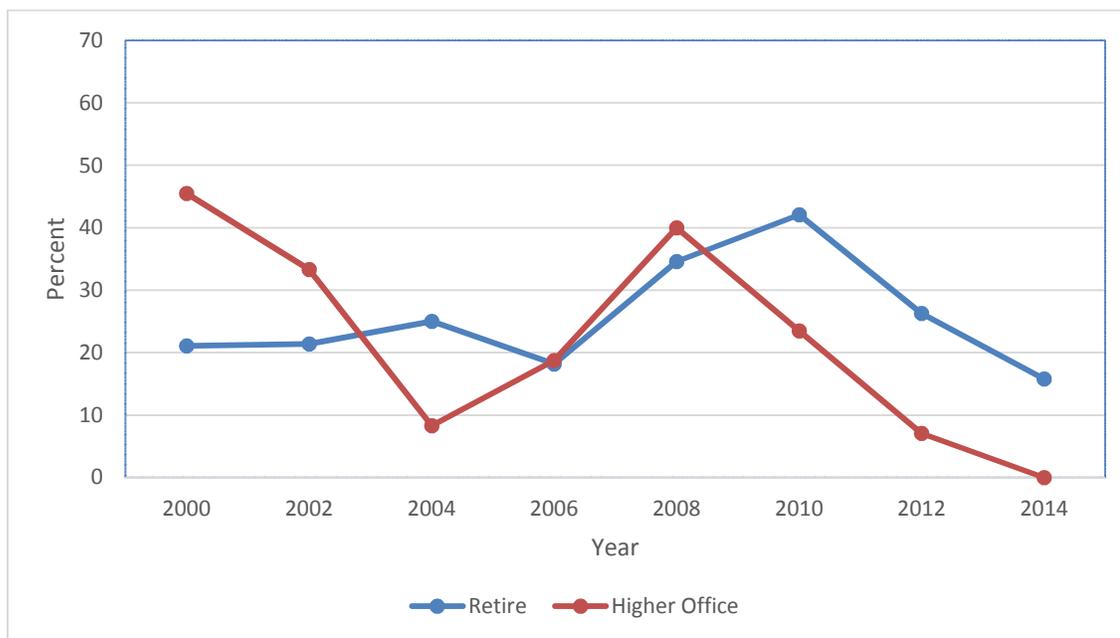
Figure 6   Partisan Change Percent in 'Possibly Strategic' Open Seats

for the Democrats. To determine whether the retirements were strategic we need to know

how many of the seats above ended up experiencing partisan change. In strong

Republican years, Democrats saw partisan change in retired seats at 70.6% and 25%

while Republicans lost nearly no seats of their own (0% and 8%, respectively). In strong

Democrat years, Republicans saw 29.4% and 40.7% partisan change rates while

Democrats lost no seats of their own. Despite these partisan change rates that suggest

strategic retirement, it is important to note that in 2010 and 2014, more Republicans

actually retired than Democrats. In the strong Democrat years of 2006 and 2008 many

more Republicans retired than Democrats.

It is probable that strategic retirement has occurred in the 2000s, but how wide-

spread it truly is remains elusive. Seats that come open through retirement or seeking

higher office, both of which could possibly be strategic, did experience slightly higher

Table 3   Partisan Differences in Strategic Retirement

Retire	2000	2002	2004	2006	2008	2010	2012	2014
Democrat	7	6	11	10	4	17	17	16
Republican	23	15	17	17	27	19	16	25
D PC	5	2	2	0	0	12	5	4
R PC	4	5	3	5	11	0	1	2
D PC %	71.4	33.3	18.2	0	0	70.6	29.4	25
R PC %	17.4	33.3	17.6	29.4	40.7	0	6.25	8
National Tide	Tossup	Weak R	Weak R	Strong D	Strong D	Strong R	Weak D	Strong R

rates of partisan change than those that came open through death, resignation, or an incumbent losing in the primary. The difference, however, is not very large. In strong Democratic years we see higher rates of retired Republican seats changing hands, and the same outcome when the roles are switched. While this suggests that strategic retirement occurs, it does not show a causal link between retirement and an adverse electoral climate.

METHODOLOGY AND ANALYSIS

Model

A logit model will be used in this research to account for a dichotomous dependent variable. The dependent variable is whether the open seat election resulted in a partisan seat change. The logit model will attempt to determine the effects that national and district-level variables have on the probability that a seat will experience partisan change. The following variables will be included in the model to account for theoretically important factors in open seat races. It is important to note that the variables included in this model are framed in a challenger/incumbent-party way. The model will not distinguish between the Republican and Democrat parties as it is examining partisan change as a whole.

Incumbent President Party. A dummy variable to represent whether the incumbent party in the open seat race is the same as the President's party. The primary use of this variable will be in the interaction term with the unemployment and midterm variables.

Unemployment. The model will include an unemployment variable to determine whether economic fluctuations impact open seat elections. Specifically it will be recorded as the unemployment rate at the time of the last election minus the unemployment rate at the time of the "current" election. The unemployment rates were obtained through the Bureau of Labor Statistics. A positive value would mean that the unemployment rate decreased and thus would be expected to decrease the probability that

partisan change would occur if the incumbent party in an open seat is the same as the President's party. A negative value shows that unemployment has increased since the last election and thus may contribute a political environment where partisan chance may be more likely to occur. Separate models will be run using the change in the national unemployment rate and the change in the state unemployment rate. This will allow a comparison to determine whether voters are more concerned about their local economic conditions or those of the nation as a whole.

National Political Trend. That national political trend variable is a measure of the national political mood. The results from a generic congressional ballot will be used to calculate this variable. The variable will be a dummy variable, 1 if the challenger's party is favored in the national political mood and a 0 if not.

National political trends are inherently difficult to operationalize due to the fact that they change from election year to election year. Not only do they change every election year, but they also change in magnitude. Differentiating the extremely strong national tides that existed in 2006 and 2010 from the lesser tides in 2004 and 2012 presents a problem. One way that this has been accounted for is by including dummy variables for the elections years. This is an approach that does not fit theoretically, but is a way of soaking up some of the variance of the model. This approach does not work with a logit model that is intended for predictive purposes because future year effects are unknown. In light of this challenge, the use of a dichotomous national political trend variable was used due to try and account for the theoretical importance of such a variable.

Incumbent Presidential Party/Unemployment Interaction Term. The economic fluctuations interaction term is included to test the significance of retrospective voting. If

voters do punish the President's party for poor economic performance, or reward them in times of strong performance, it will be evident in this variable. It may also be found that in open seat races, incumbent party candidates are insulated from economic blame due to no direct ties to economic policy. The interaction term merely multiplies the dummy variable for incumbent President Party and the economic fluctuation variable, which tests for a difference in coefficients between the two groups.

Candidate Quality. Candidate quality data was obtained through Dr. Gary Jacobson's candidate quality data set for 2000-2012, and was determined through a thorough examination of candidate biographies for the 2014 election. There are three possible values: -1, 0, 1. A -1 means that the incumbent party candidate has the experience advantage over the challenger. A 0 is used when both candidates have the same experience. A 1 is used when the challenger experience is greater than the incumbent party candidate's experience. A positive value would be expected to increase the probability of partisan change.

In/Out Party Spending. These variables will be the log of candidate spending for both the challenger party (out party) and incumbent party (in party). By including these variables, it will be possible to test for differences between the challenger and incumbent parties spending. Data was obtained through the Center for Responsive Politics (opensecrets.org). The 2014 data is current as of January 1st, 2015.

These variables were transformed to log form to normalize the distribution and provide a better fit for the model. Campaign spending can vary widely based on the district and circumstances of the race. It can be understood that, essentially, campaign

spending has diminishing returns. A ten thousand donation to an expensive race has less practical value than that same donation amount to a "cheap" race.

An important discussion within the literature regarding campaign spending revolves around whether incumbent (in party in this research) should be treated as an endogenous variable. Jacobson (1985, 1990) originally found that the effect of campaign spending was asymmetrical, benefiting challengers but not incumbents. This puzzling finding led Green and Krasno (1990) to propose treating incumbent spending as an endogenous variable that accounted for the challenger's vote percentage. The reasoning for this was that incumbents would only need additional spending if they were threatened by a legitimate challenger. They also suggested using the incumbent's previous spending levels as an instrument for the incumbent's current spending. Jacobson rejected these as interfering with other variables in the model, though it did substantially increase the coefficient of incumbent spending.

It is not settled in the literature as to whether in party spending should be treated as an endogenous variable, especially in logit model as the Jacobson-Krasno/Green debate revolved around a traditional vote share model. For the purposes of this research it will not be treated as an endogenous variable more in line with Jacobson's approach.

An additional justification for this decision is that the fundamental differences between probability models and vote share models may make such a debate a moot point. In this logit model, in party spending is expected to have a negative sign which would reduce the predicted probability of partisan change occurring.

District Competitiveness. The model must account for the political tendencies of the district. The competitiveness of a district will play a role in determining whether a

challenger has a credible shot at creating partisan change. An experienced, well-funded challenger who is running in favorable national conditions would still be expected to fail if the district continually votes for one party at a very high percentage. The variable will be the incumbent party's average presidential vote during the applicable redistricting period. For example, if a district's incumbent party is Republican in 2006, the variable will be average vote share for the 2004 and 2008 Republican candidates in that district. The higher this value is, the less likely partisan change would be expected to occur.

Midterm/Incumbent Presidential Party Interaction Term. The surge and decline theory which states that the President's party will lose seats in midterm elections is very well established in the literature. The binary midterm variable will interact with the binary Incumbent Presidential Party variable and thus will only have a value if the incumbent party in an open seat is part of the President's party. If this variable is '1' then it is expected to increase the probability that partisan change will occur.

Analysis

Between 2000 and 2012 there were 284 cases of open seats in U.S. House elections. Seats that were open due to being created as part of redistricting were then omitted from the data set. Open seats that only had one major party candidate were also excluded from the data set. The total number of observations in the final data set was 243.

The logit model included the aforementioned variables and was run in STATA. One iteration of the model used the national unemployment rate and the second used the

state unemployment rate. Table 4 presents the coefficients and z-values of regression

results for the two models.

Table 4   Open Seat Partisan Change Model

VARIABLE	NATIONAL	STATE
CONSTANT	-24.21**	-27.59**
	(.001)	(.000)
MIDTERM	1.49	1.82
	(.174)	(.093)
INC. PRESIDENTIAL PARTY	1.75**	1.86**
	(.025)	(.013)
MIDTERM X INCUMBENT	-1.15	-1.74
	(.356)	(.165)
IN PARTY SPENDING	-.49	-.45
	(.074)	(.100)
OUT PARTY SPENDING	2.3**	2.5**
	(.000)	(.000)
DISTRICT COMPETITION	-.06**	-.06**
	(.017)	(.014)
CHALLENGER QUALITY	1.13**	1.08**
	(.003)	(.006)
NATIONAL PARTISAN TIDE	-.25	-.37
	(.675)	(.532)
UNEMPLOYMENT	.79**	.86**
	(.019)	(.005)
INCUM. X UNEMP.	-1.01**	-1.19**
	(.011)	(.002)
CORRECTLY PREDICTED	87.65%	88.07%
PSUEDO R²	.5008	.5151
LR CHI²	138.23	142.17
P> LR CHI²	.000	.000

N=243   **P<.01 *P<.05
Coefficients reported, z value in parentheses

Due to the similarities between the national and local models, Table 5 shows the

changes to the predicted probabilities by variable for only the national model. The

differences between the two models are primarily in the presidential pulse variables and

the unemployment variables. While this may suggest that state economic indicators have a greater role in open seat elections, it is difficult to tease out which model is more representative of reality. Both models will be used for predictive purposes later in this research to see which fits the 2014 data best.

Table 5   Changes to the Predicted Probability by Variable

VARIABLE	MIN-MAX	-+1/2	-+SD/2	MARGINAL EFFECT
MIDTERM	.013	.0118	.0055	.0108
INC. PRES. PARTY	.0136	.0143	.0065	.0127
MID X INC	-.0064	-.0088	-.0035	-.0083
IN PARTY SPENDING	-.0526	-.0036	-.0028	-.0036
OUT PARTY SPENDING	.8313	.0204	.2131	.0167
DISTRICT COMP.	-.0705	-.0004	-.005	-.0004
UNEMP.	.0393	.0059	.0107	.0057
CHALLENGER QUALITY	.0281	.0086	.0052	.0082
UNEMP. X INC. PRES. PARTY	-.0955	-.0077	-.0103	-.0074

Table Interpretation. The 'Min-Max' column shows the change in predicted probability as x changes from its minimum to its maximum value. The next column shows the changed in predicted probability as x changes from 1/2 unit below the base value to 1/2 unit above. The third column shows the change in the predicted probability as x changes from 1/2 standard deviation below the base to 1/2 standard deviation above the base. Finally, the marginal effect column provides the partial derivative of the predicted probability with respect to a given independent variable.

Table 6 provides the crosstab of the predicted result versus the actual result. The model correctly predicted a majority of the cases. It incorrectly predicted 15 cases in both the false positive and false negative categories.

Table 6   Predicted Result vs. Actual Result

Actual Result	Prediction of Partisan Change		
	0	**1**	**Total**
0	166	15	181
1	15	47	62
Total	181	62	243

Both models fit the data very well, with over 90% of the area falling under the ROC curve in both models, as shown in Figure 7. The state model was slightly better than the national model at fitting the data.

Area under ROC curve = 0.9331
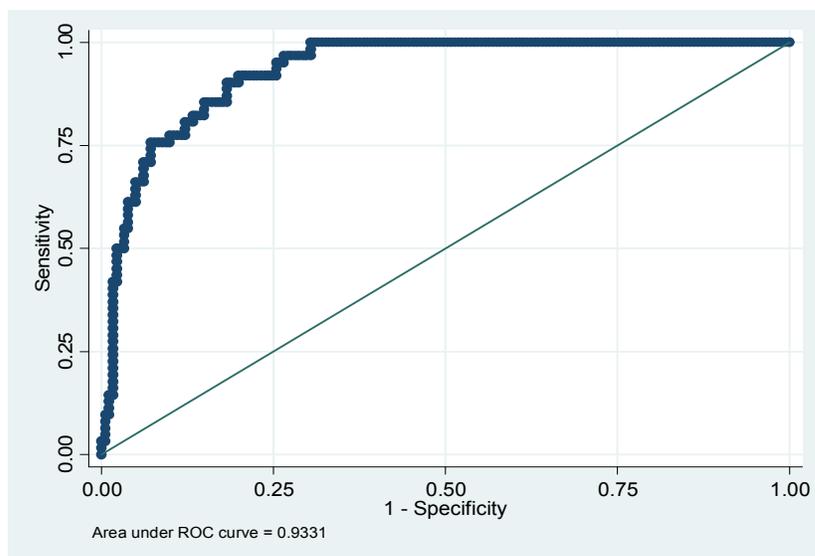
Figure 7   ROC Curve

In/Out Party Spending. The variables with the largest impact on the model were, unsurprisingly, candidate spending. In party spending was just outside the threshold for

statistical significance at a .05 level, but decreased the probability of partisan change occurring with each unit change in spending. Out party spending had the largest coefficients and potential for increasing the probability of partisan change with a significance level higher than .01. With such a large negative constant effect, at least one variable was going to need a large coefficient and with so few continuous variables and the established importance of money it is not surprising out party spending was it.

The model suggests that spending for the challenger is more important than the incumbent party's candidate. Spending is consistently identified in the literature as the most important variable to make a race competitive. What this model does not determine is whether more money makes a candidate competitive or whether larger amounts of money are raised because the candidate is viewed as a strong challenger. It may be a combination of both, with the district demographics and history also playing a role.

Challenger Quality. Challengers who have an advantage in experience do have a significant impact on the probability that the open seat will experience partisan change. Conversely, if the incumbent party's candidate has the experience the effect is a lower probability of partisan change occurring. This result is consistent with both intuition and the literature.

District Competitiveness. As expected, the more lopsided a district is the less likely partisan change does occur. The coefficient appears to be small (-.06) but it does add up. For example, a district with an average presidential vote of 55% for the incumbent party equals a change in the coefficient of -3.3 which is over double the coefficient of challenger quality and higher than a one unit change in the log of out-party

spending. The lower the incumbent party's presidential vote average is, the more likely partisan change will occur in an open seat.

Unemployment. Both economic indicators (unemployment and employment/incumbent presidential party interaction) were significant at the .05 level. The state economic variables were slightly larger but very similar to the national variables. Table 7 provides a breakdown of how the variables affect the predicted probability.

The economic variables show that when the incumbent party candidate is not a member of the President's party and the unemployment rate has decreased, partisan change is more likely. The interaction term shows that if the incumbent party candidate is a member of the President's party and the economic indicators are positive then partisan change is less likely. This supports the notion that the President's party is rewarded for good economic performance and punished for poor performance.

Table 7   Cumulative Effect of Economic Coefficients

Cumulative Economic Coefficients	Incumbent Party is President's Party	Incumbent Party is not President's Party
Unemployment Decreased by 2%	-.44	1.58
Unemployment Increased by 2%	.44	-1.58

It is interesting that open seats where the incumbent party is not the president's party are more affected by changes to the unemployment rate than when the incumbent

party is the president's party. This may suggest that economic changes will

embolden/weaken the non-president party but help/hurt the president's party to a lesser

magnitude.

National Political Trend. The national political trend dummy variable was

expected to be significant and increase the chance of partisan change when the

challenger's party is favored at the national level. This did not occur in the actual model.

The negative sign was counter to what theory would expect, but the standard error was so

large that the actual value could be positive. In neither iteration was it even close to

being statistically significant. A possible explanation for this is that the effects of a

political climate favorable to the challenger was incorporated into the economic

indicators or in/out party spending. Additionally, a dummy variable is unable to

differentiate between a strong national tide and a weak national tide. Thus in 2000 where

the national partisan tide was virtually non-existent and 2008 where the tide was very

strong were treated the same.

An iteration of the model was run with an alternative measure for the national

political trend. To attempt to account for the difference in magnitude of possible national

political trend the range of the variable was from -2 to 2. A -2 meant that the challenger

was facing a strong unfavorable national climate and a -1 was a weak unfavorable

climate. The positive values meant a weak or strong political climate for the challenger.

Even with this more refined measure, the variable remained insignificant and close to 0.

Strategic Retirement. One purpose of this research was to examine whether

strategic retirement could be used as a predictor variable for partisan change occurring in

open seats. There were two possible ways of measuring this within the context of this

research. First, a retirement dummy variable could be added to the model with the expectation that if the value was '1' then partisan change may be more likely. The second method would be to parse the data out before running the model into one group where strategic retirement is a possibility and another group where it is not a possibility and examine the differences between the models.

A retirement variable was added to the model, but after several iterations of running the model it was clear that the retirement variable was statistically insignificant and caused discord among the other variables. It is possible that strategic retirement occurs and in those cases may make partisan change more likely, but it may be too few observations to make a statistically significant effect. Determining which retirements were strategic and which were not requires more knowledge of each individual situation than can be found in a macro-level election model.

When the second method was used none of the resulting models were not useful. Many of the variables were not statistically significant and the overall explanatory power was reduced. In comparison to the models presented in this chapter it was clear that the presented models were much better based on the explanatory power, specification, and goodness-of-fit.

2014 PREDICTIONS

While the developed model fits the data well and provides interesting insights into open seat races, how successful is the open seat partisan change model as a predictive tool? Due to the timing of this research, the model used data from the 2014 midterm elections to predict whether partisan change would occur in the open seat races. Seats with one major party candidate were omitted from the predictions. In addition, due to the unique electoral rules of House elections in Louisiana, any open seats in Louisiana were also excluded.

Table 8 lists the open seats in the 2014 midterm elections, the national and state model's predictions for partisan change occurring, whether partisan change actually did occur, and the election results.

While the state model fit the historical data slightly better, the national model was slightly better for predictive purposes. Each model performed strongly in different areas. The national model only correctly predicted 43% of races that were under 5% in vote difference between candidates. Extending the measure to races that were under 10%, it performed even worse at correctly predicting 40% of seats. It did correctly predict 66% of seats that actually experienced partisan change.

The 'state' model was more responsive to close open seat races, correctly predicting 57% of seats under 5%, and 50% for seats within a 10% vote difference. In seats where partisan change actually occurred, the model predicted half of the seats correctly. In some cases, the models predicted that a seat would be fairly competitive, but ultimately was incorrect. A good example of this is Maine's 2nd District where the

Table 8   2014 Predictions of the Open Seat Partisan Change Model

DISTRICT	NATIONAL	STATE	PARTISAN CHANGE	WIN %	LOSE %	GAP
AL-6	0.35	0.1	No	76.3	23.7	52.6
AZ-7	0	0	No	75	14.8	60.2
AR-2	87.48	87.81	No	51.9	43.6	8.3
AR-4	53.22	52.55	No	53.7	42.6	11.1
CA-11	0.04	0.01	No	66.9	33.1	33.8
CA-31	98.75	99.74	Yes	51.4	48.6	2.8
CA-33	11.36	5.54	No	58.6	41.4	17.2
CA-45	0.27	0.85	No	65.2	34.8	30.4
CO-4	0.07	0.15	No	64.8	29.2	35.6
GA-1	0.02	0.01	No	61.2	38.8	22.4
GA-10	0.03	0.01	No	66.5	33.5	33
HI-1	9.44	6.51	No	51.9	48.1	3.8
IA-1	7.94	7.2	Yes	51.2	48.8	2.4
IA-3	96.38	95.1	No	52.9	42.3	10.6
ME-2	44.89	36.74	Yes	47.1	41.8	5.3
MA-6	72.11	69.39	No	54.6	40.9	13.7
MI-4	1.16	1.14	No	56.5	39.1	17.4
MI-8	23.19	27.96	No	54.8	41.9	12.9
MI-11	28.26	37.48	No	56.1	40.8	15.3
MI-12	0	0	No	65	31.3	33.7
MN-6	2.37	1.88	No	56.3	38.4	17.9
MT-1	37.79	44.16	No	55.5	40.4	15.1
NJ-1	0.02	0.01	No	57.3	39.5	17.8
NJ-3	75.14	92.78	No	54.5	43.8	10.7
NJ-12	0.13	0.04	No	60.9	36.6	24.3
NY-4	61.04	47.86	No	52.7	47.3	5.4
NY-21	51.34	39.44	Yes	55.2	33.5	21.7
NC-6	45.65	68.28	No	58.7	41.3	17.4
NC-7	88.56	78.2	Yes	59.4	37.1	22.3
NC-12	0.28	0.11	No	75.4	24.6	50.8
OK-5	1.81	0.79	No	60.1	36.3	23.8
PA-6	24.62	41.95	No	56.2	43.8	12.4
PA-13	0.97	0.46	No	67.1	32.9	34.2
TX-36	0	0	No	76	22	54
UT-4	99.5	99.38	Yes	50	46.8	3.2
VA-7	16.96	7.45	No	60.9	36.9	24
VA-8	0	0	No	63	31.7	31.3
VA-10	97.17	95.07	No	56.6	40.4	16.2
WV-2	49.76	40.96	No	47.1	43.9	3.2
WI-6	5.85	4.78	No	56.8	40.9	15.9
TOTAL CORRECT	**77.5%**	**75%**				

models gave probabilities of 45% and 37% respectively. Partisan change did end up occurring in that seat in a competitive race with a 5% vote difference. So while the models were incorrect in the absolute sense, they were correct in pointing that the race would be close.

The Utah 4th District is also an interesting case. Both models gave the probability of partisan change occurring at 99%. This was largely due to the district competitiveness measure and the vast disparity in spending. While the final vote difference was only 3%, the model had high confidence that partisan change would occur.

An interesting aspect of the 2014 midterm elections was that the spending advantage was not as prevalent as in previous years. In only 82.5% of cases did the winning candidate outspend the losing candidate; the lowest since 2002. In every case where the higher spending candidate was defeated, the candidate was a Democrat. This speaks to the effect that a strong national political trend can have on an election. Strong national factors can overshadow candidate shortcomings in experience or spending.

While the 77.5% correct prediction rate is less than optimal, this logit model could have practical uses. It could be used to determine which open seats may be competitive in the upcoming election well before polling results are available. The model does not take into account unique circumstances such as scandals or political gaffes, so in some cases it may predict a lower chance of partisan change than the reality of a race.

The model could also be used by political parties to determine the optimal way to distribute money to open seat races. Using theoretical or expected values for some of the candidate variables, one could input different levels of spending to get an estimate on how each level of spending would affect the probability of partisan change occurring.

The logit model may not be as good a predictor of the actual outcome of a seat as vote-share models, but it may be more useful for long-term planning.

A robust analysis of a House open seat would analyze polling results, traditional vote-share models, and a partisan change logit model. Each provides unique insights into an open seat race. For example, public polling and traditional vote-share models showed that the UT-4 race was going to be fairly close. The final result in the race was fairly close, but was the outcome ever actually in question? According to the open seat logit model: no. This could suggest that too much funding and attention was given to a race that was going to experience partisan change regardless of spending levels. On the flip side, if one merely looked at the open seat logit model one could come away with the false conclusion that Mia Love would win by a large percentage (and subsequently be surprised on Election Day). The use of a range of models should provide a more nuanced and accurate analysis of an open seat race.

CASE STUDIES

The logit model fit the 2000-2012 data very well and correctly predicted outcomes in close to 90% of races. Using the model's results to predict 2014 seats had mixed results, but the performance was not as strong as hoped. Examining the circumstances of races where incorrect predictions were made may provide an insight into how the model could be improved. This chapter will examine two outliers: one where partisan change was incorrectly predicted to occur and one where partisan change was incorrectly not expected to occur. The first case will be the Arkansas 2nd District and the second will be the Iowa 1st District.

Arkansas 2nd

The Arkansas 2nd District is traditionally the most liberal district in Arkansas. It is based around Little Rock, and is considered an urban district. The incumbent party for the 2014 elections was the Republicans who captured the seat in the 2010 Republican surge. Prior to this Republican victory, the seat had been held by a Democrat for several decades. The seat was expected to lean Republican or be a toss-up at best.

The district competitiveness variable was 54.7, a good number for Republicans, but not solidly Republican. The national partisan tide also favored Republicans. Unemployment in Arkansas had declined since 2012 by 1.2% and the national unemployment rate declined by 1.7%, which would suggest that the Democrat candidate would receive some benefit from these positive economic variables.

The Republicans put forward French Hill, a former policy advisor to both George W. Bush and Mike Huckabee, as their candidate while Democrats put forward former Little Rock mayor Patrick Hays. Hays held the candidate quality advantage over Hill because Hill had not held elected office. Hill did have the spending advantage in the race, spending around 2 million while Hays spent 1.5 million.

According to both models, the seat was primed for partisan change, projecting an 87% chance of partisan change occurring. Hays experience and favorable economic conditions were enough to overcome the fairly small discrepancy in spending. With spending being the dominant variable in the model, it was surprising that the models predicted partisan change in a seat where the challenger was outspent by the incumbent party candidate.

The final vote difference was 8%, which signifies that it was somewhat of a close race, but not nearly as close as the models would have suggested. Prior to the election, polls showed a close race with a mild Hays lead. So what went wrong?

One unique factor in this race was that in a midterm election where nationwide voter turnout was in the mid-30s, Arkansas actually saw higher levels of turnout. In some areas the turnout was over 50%. This shows that the electorate in Arkansas was motivated to vote. A strong turnout performance will almost always favor the nationally favored party. In this case, that would be the Republican Party. Due to the lack of statistical significance and a coefficient that is close to 0, the national political trend variable did not accurately reflect in the model what was present in the Arkansas 2nd District.

It would seem that the importance the models placed on out-party spending and the lack of a significant national political trend effect caused the false positive prediction. A significant national political trend variable that could account for the strength of Republicans in 2014 would have provided a better prediction in this case.

<div align="center">Iowa 1st District</div>

The Iowa 1st District was described as a toss-up in most election prediction models. The district itself is mostly urban and white, and has been represented by Democrat Bruce Braley since 2006. The district voted Democrat in 2012 with 56% of the vote, a solid number for the incumbent party. Unemployment in Iowa has decreased by .7% since 2012, which didn't provide much of a boost for the incumbent party. The district demographics would suggest that partisan change was unlikely to occur.

The candidate variables also painted a picture that would suggest that the Democrats would hold the district. Long-time Iowa state legislator Pat Murphy, who was Speaker of the Iowa House for several years, was the Democratic candidate. He brought in name recognition earned through several decades of being active in Iowa politics and had a strong political base. On the Republican side, CEO Rod Blum, who had unsuccessfully ran for this seat in 2012, had held no elected office and campaigned on not being a career politician. On the candidate quality measure, the challenger Blum scored a -1, which suggested that Murphy would hold the seat for Democrats. Murphy also outspent Blum by over $300,000.

Given the improving economic conditions, the district's left-leaning demographics, an inexperienced challenger, and the challenger being outspent, one would

not expect the race to be close. The models predicted a 7-8% chance of partisan change occurring. Early polls showed Murphy with an advantage over Blum, but by October that had deteriorated and the polls now showed Blum with a small lead. When the dust had settled, Rod Blum emerged the victor by a narrow 2.4% margin. How was the challenger able to overcome nearly all the factors that suggested he would lose?

The district was bombarded with Republican heavy-hitters such as Marco Rubio, Rand Paul, Rick Perry, and Chris Christie, which stirred up the district's Republican base. As in Arkansas, Iowa saw higher rates of voter turnout. Based on state-wide statistics, registered Republicans turned out at over 65% while registered Democrats were around 55%. Non-affiliated voters turned out at a 38% rate. Consistent with the national political trend's expected effect, Republicans showed more enthusiasm, which may have pushed this race into Republican hands.

It is difficult to pin the false negative prediction for this district on anything other than failing to account for the enthusiasm and strength of the Republican tide. All other variables pointed to Pat Murphy having a favorable electoral climate. Even with an adequate national political trend variable, it is conceivable that the models would have still produced a probability of partisan change under 50%. It may have suggested a more competitive race, but the magnitude of the variable would have to be very large to change the prediction. The Iowa 1st District shows that upsets happen. National factors can overcome district or candidate shortcomings. It is entirely possible that the 8% prediction of partisan change was correct. The difference in the race was only 2%, which suggests that if the election happened 10 times, perhaps Rod Blum only does win one out of ten.

The voter turnout data suggests that Democrat apathy likely handed this seat to the

Republicans.

CONCLUSIONS

This research opened with a discussion of the existing literature on House elections and partisan change. A gap existed with open seat research, particularly one focusing primarily on partisan change. The context in with the open seat partisan change model would be developed was then explored, comparing previous findings with current data. A model was then developed based on the theoretically important variables found in the literature and adapted to a logit model. The developed model was then used to predict the 2014 House open seat elections. Finally two case studies were chosen based on the predictions to examine where the model falls short in its predictive ability.

The primary research question asked what factors led to partisan change in open seats from 2000 through 2014. The use of a dichotomous dependent variable for partisan change presented a unique look at the factors that produce open seat partisan change. The logit model performed strongly and fit the data well. It was no surprise that challenger spending was the largest correlate of partisan change. The other variables in the model helped produce the "climate" of the open seat, but it was ultimately the spending by both candidates that drastically affected the predicted probability of partisan change. The statistical significance of changes in the unemployment rate, at both the national and state levels, and the attribution of economic outcomes to the President's party provide evidence that economic indicators should be included in open seat models. While not all of the "presidential pulse" variables were individually significant, they did have joint significance.

The major disappointment of the developed logit model was the failure to adequately incorporate a national political trend variable. As seen in the 2014 predictions and subsequent case studies, a working national political trend variable could greatly improve the accuracy and potential for the model. This presents an excellent opportunity for future researchers to find a better measure for national political trend that would further improve on the applicability of this model.

The interplay between national and district-specific variables was another focus of this research. Are the outcomes of open seats affected by national political and economic factors or are district-specific and candidate variables more important? The research supports the view that national factors do play a role in whether open seats experience partisan change, but more weight in the model was given to the district and candidate factors. Generally the challenger would need to be well funded and be running in a favorable district to improve the probability of partisan change occurring. National economic trends did have a statistically significant role as well. The case studies make it clear that the national political trend is important, though the shortcomings of using a dummy variable were readily apparent. To simply answer which is more important, it appears that district and candidate factors make an open seat competitive and are the primary correlates for partisan change, but the national political tide or economic factors can push some open seats on the margin into experiencing partisan change.

This research contrasted our past understanding of open seats with the realities of the 21st century. Open seats are no longer the primary source of partisan change, nor are they as likely to experience partisan change as in previous decades. While the number of competitive open seats has remained remarkably stable since the 1980s, incumbent

parties are better at retaining open seats. Gaddie and Bullock found that it was partisan change in open seats that determined changes in control of the House of Representatives. In the 21st century, large seat swings have been triggered through incumbents being defeated. It is necessary to continually update our knowledge of House elections to account for the inevitable changes to the electoral climate. Using assumptions based on dated research in current research could provide a misleading picture and ultimately be inaccurate.

This research did not find strong evidence of widespread strategic retirement in U.S. House elections. This is not to say it is not occurring, but rather that it may only affect a small number of open seats. Incorporating strategic retirement variables into the open seat model only resulted in diluted results and less practical applicability.

This research shows the strengths and weaknesses of quantitative analysis. The use of a mathematical model to explore the inner-workings of partisan change in open seats provided interesting findings with practical applicability. But as the failure of a national political trend variable shows, a mathematical model will never be able fully capture the reality of a situation. Our inability to properly quantify abstract variables such as a national political trend is a constant reminder of the limits of quantitative analysis.

The rise of defeating incumbents as the main source of partisan change also presents a new avenue of congressional election research. Has the incumbent advantage decreased in the late 2000s? Are politicians placing too much confidence on their incumbency advantage, causing them to run in unfavorable climates which leads to

defeat? Are open seats becoming less competitive? Is this a consequence of partisan redistricting, natural sorting, or a polarized electorate?

Despite all of the appeal, open seats remain an under-studied subject in political science. Open seats still are the major source of incoming freshman to Congress. They remain, on average, more competitive than seats with incumbents, and they do draw greater media attention and resources. Understanding open seat elections provides us with fascinating insights into our electoral climate and shapes the future of open seat campaigns. Open seats in the 21st century continue to be "where the action is."

REFERENCES

Abramowitz, Alan I., Brad Alexander, and Matthew Gunning. 2006. Incumbency, redistricting, and the decline of competition in U.S. House elections." *The Journal of Politics* 68 (1): 75-88.

Alford, John R., and John R. Hibbing. 1981. Increased incumbency advantage in the House." *The Journal of Politics* 43 (4): 1042-1061.

Ansolabehere, Stephen and James M. Snyder, Jr. 2004. Using term limits to estimate incumbency advantages when officeholders retire strategically. *Legislative Studies Quarterly* 29 (4): 487-515.

Bloom, Howard S., and H. Douglas Price. 1975. Voter response to short-run economic conditions: The asymmetric effect of prosperity and recession. *The American Political Science Review* 69 (4): 1240-1254.

Bond, Jon R., Richard Fleisher, and Jeffrey C. Talbert. 1997. Partisan differences in candidate quality in open seat House races, 1976-1994. *Political Research Quarterly* 50 (2) (1997): 281-99.

Born, Richard. 1984. Reassessing the decline of presidential coattails: U.S. House elections from 1952-80. *The Journal of Politics* 46 (1): 60-79.

Campbell, James E. 1986. Predicting seat gains from presidential coattails. *American Journal of Political Science* 30, (1): 165-183.

Erikson, Robert S. 1972. Malapportionment, gerrymandering, and party fortunes in congressional elections. *American Political Science Review* 66 (4): 1234-1245.

Flemming, Gregory N. 1995. Presidential coattails in open-seat elections. *Legislative Studies Quarterly* 20 (2): 197-211.

Gaddie, Ronald Keith. 1997. Congressional seat swings: Revisiting exposure in House elections. *Political Research Quarterly* 50 (3): 699-710.

Gaddie, Ronald Keith, and Charles S. Bullock III. 2000. *Elections to Open Seats in the U.S. House: Where the Action is.* Lanham, Maryland: Rowman & Littlefield Publishers, Inc.

Gelman, Andrew, and Gary King. 1990. Estimating incumbency advantage without bias." *American Journal of Political Science* 34 (4): 1142-1164.

Gerber, Alan. 1998. Estimating the effect of campaign spending on Senate election outcomes using instrumental variables. *The American Political Science Review* 92 (2): 401-411.

Godbout, Jean Francois, and Eric Belanger. 2007. Economic voting and political sophistication in the United States: A reassessment. *Political Research Quarterly* 60 (3): 541-554.

Green, Donald Philip, and Jonathan S. Krasno. 1990. Rebuttal to Jacobson's 'new evidence for old arguments'. *American Journal of Political Science* 34 (2): 884-907.

Grier, Kevin B., and Joseph P. McGarrity. 2002. Presidential party, incumbency, and the effects of economic fluctuations on House elections 1916-1996. *Public Choice* 110 (1/2): 143-162.

Jacobson, Gary. 1985. Money and votes reconsidered: Congressional elections, 1972-1982. *Public Choice* 47 (1): 7-62.

Jacobson, Gary. 1990. The effects of campaign spending in House elections: New evidence for old arguments. *American Journal of Political Science* 34 (2): 334-362.

Mayhew, David R. 1974. Congressional elections: The case of the vanishing marginals. *Polity* 6 (3): 295-317.

Mondak, Jeffrey J., and Carl McCurley. 1994. Cognitive efficiency and the congressional vote: The psychology of coattail voting. *Political Research Quarterly* 47 (1): 151-175.

Newman, Brian, and Charles Ostrom Jr. 2002. Explaining seat changes in the U.S. House of Representatives, 1950-98. *Legislative Studies Quarterly* 27 (3): 383-405.

Norpoth, Helmut. 2001. Divided government and economic voting. *The Journal of Politics* 63 (2): 414-435.

Owens, John R., and Edward C. Olson. 1980. Economic fluctuations and congressional elections. *American Journal of Political Science* 24 (3): 469-493.

Petersen, Seth W. 2010. *Canaries in a coal mine: Are open seat and congressional special elections indicative of national partisan tides?* PhD diss., Georgetown University.

Stone, Walter J., Sarah A. Fulton, Cherie D. Maestas, and L. Sandy Maisel. 2010. Incumbency reconsidered: Prospects, strategic retirement, and incumbent quality in U.S. House elections. *The Journal of Politics* 72 (1): 178-190.

Wolak, Jennifer. 2007. Strategic retirements: The influence of public preferences on voluntary departures from Congress. *Legislative Studies Quarterly* 32 (2): 285-308.