Moderators of the Name-Order Effect: The 2004 Presidential Election in Ohio

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ABSTRACT
In trying to gauge for which candidates citizens will vote for, pre-election surveys find that the order that the candidates are ordered in the surveys affects the measurements made. This study explores whether the order of candidates on ballots affects election outcomes, as well as whether certain precinct characteristics and ballot features moderate the magnitude of the name-order effect. If candidates whose names are listed first on a ballot tend to receive more votes as the result, this can have important implications for the validity of the results of closely contested races. Various statistical methods have been used to test name-order effects in past elections, but no studies have yet directly compared these statistical methods to one another to see whether they yield different results. Furthermore, very little research has tested for moderating effects of voter characteristics that make name order effects more or less likely to occur. Using data from over ten thousand precincts for the 2004 presidential race in Ohio where name order is rotated randomly across precincts, I used seemingly unrelated regression to examine name-order effects and to test for moderators. Not only did all presidential candidates tend to receive more votes when listed first, name-order effects were most pronounced in precincts using touch screen voting machines, with high invalidation rates, using longer ballots, with many uneducated citizens and with many Spanish-speaking households. These findings have important and largely unheeded implications for optimal design of pre-election surveys and election ballots.

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Section One: Introduction

In Compton, California in June 2001, Deputy District Attorney Eric Perrodin won the mayoral runoff election, beating former Mayor Omar Bradley by 261 votes. The narrow 2.49% victory margin caused many to question Perrodin’s victory. The City of Compton had failed to rotate the order of the candidates listed on the ballot as mandated by its law, resulting in Perrodin being listed first on every ballot. Bradley sued for denial of equal protection regarding ballot placement. Based on his analyses of ballot order in other elections, expert witness Dr. Jon Krosnick from Ohio State University calculated that had the ballot order been rotated, Bradley would have received 306 more votes. Relying on the empirical evidence, Judge Judith Chirlin overturned the election outcome, reinstating Bradley as mayor (MetNews, 2003). The appeals court decision which later overturned Chirlin’s ruling did not deny the possibility of order effects, but ruled that unintentional error in ballot design alone was not sufficient legal ground to change the election outcome (Bradley v. Perrodin 2003).

In narrow elections, the order of candidates listed on a ballot could lead to different election outcomes. However, it is not clear whether this justifies nationwide ballot law reform which would more equally distribute the advantage of being listed first. Even if the “ballot order effect,” the tendency for candidates listed in certain positions to receive more votes, is statistically significant, its substantive significance may be questionable. Ballot law reform that would remedy such advantages would incur added costs caused by printing of multiple ballot styles, training of poll workers as well as planning ballots rotations. Unless major elections exhibit razor-thin victory margins, the added costs caused by ballot law reform may not outweigh the implications of ballot order effects.

Evidence of ballot order effects extends beyond mayoral elections and appears in a
multitude of elections. Voters who have little information regarding the candidates tend to be most prone to these order effects. Theory thus suggests that order effects are larger for relatively unknown elections, such as for state controller, than for senatorial races. Findings of order effects so far confirm this theory. The magnitude of the ballot order effect in previously conducted studies ranges from small and occasionally significant in general elections, to large and consistently significant in primary elections. Elections for offices with low public awareness exhibit more order effects than for offices with higher public awareness.

The question then arises as to how large and for which elections order effects must appear to warrant ballot law reform. If order effects appear in the most publicized of all elections, the presidential election, then these effects could exist for all other elections which voters are not as informed about.

The implications of order effects in close presidential elections could be rather substantial. The 2000 presidential election in Florida is a case in point. The order of presidential candidates on Florida ballots is not rotated, but lists the candidate of the governor’s party first, resulting Bush being listed first on every ballot in Florida in 2000. Based on their findings of order effects in the 1992 and 2000 presidential races, Krosnick et al. (2003) point out that Bush’s slim victory of less than 600 votes in Florida could have been a victory for Gore had the ballot order been rotated. Being the key state in the 2000 election, ballot order could have great implications.

In the midst of academic debate, election laws remain largely unchanged, leaving ballot order effects to continue to cause mischief. Only twelve states in the US use ballot order rotation of some form across precincts, counties, or assembly districts. Ballots in most other states list as first the candidates from certain parties, such as the party that received the most votes in the previous gubernatorial or congressional election, and keep the same order for all voters
(Krosnick et al 2003). While simple and inexpensive, these non-rotating order schemes exert bias on the final election results that may unfairly favor certain parties or candidates over others.

Academics cannot even agree among themselves as to the substantive significance of order effects. Some dismiss order effects as excessively varying in direction and magnitude that ballot law reform is not necessary. Others propose nationwide ballot reform which would not only rotate all candidates, but also ensure that candidates are listed behind different candidates on each ballot rotation.

In this study, I seek to verify the existence of these ballot order effects in the U.S. presidential election and to quantify the magnitude of these effects. Using the 2004 presidential election returns from all counties in Ohio, I check for ballot order effects that previous studies discover in other races. In addition to using previously used methods, I suggest slight variations to the methods to conduct a robustness check of whether varying methods yield identical results.

The original contribution of this study is its examination of the moderation effect of various ballot features on the order effect. Using the methods for testing the order effect, I examine the impact on order effects of different ballot features, including ballot length, voting method, absentee voting, irregular ballot appearance, and their respective influences on ballot order effects. Based on the findings, I offer policy recommendations of methods which would distribute order effects more equally, such as name order rotation by precinct and optical scan ballots.

My findings show that order effects do exist even in presidential elections for all candidates, both major and minor party candidates, and the effects are approximately the same magnitude for all candidates. The order effects are moderated by various factors resulting from voting and ballot design to precinct characteristics. Primacy effects are larger on electronic touch
screen ballots, smallest on optical scan ballots. Irregular ballot design can contribute to increased primacy effects. Areas with more uneducated individuals and more Spanish-speaking households show signs of increased proneness to primacy effects. Absentee voters are not statistically different from election day voters in terms of proneness to order effects.

Section Two describes the theory and literature pertaining to the ballot order effect, Section Three describes the data, Section Four describes the basic model behind ballot order effects, and Section Five outlines the three main methods used to test for order effects and the accompanying results. Section Six discusses the moderation effect on ballot order effects of ballot features such as ballot length, voting method, absentee voting, and irregular ballot positions. Section Seven concludes with a summary of the general findings, policy implications for ballot design, and directions for future research.

**Section Two: Literature Review**

Researchers have investigated the effect of ordering of response options for over 50 years. Behavioral psychology and survey design studies form the foundation of order effects. The following describes the psychological theories causing the order effect, explains the survey design implications of the theories, and then summarizes findings of order effects on election ballots.

*Theories on the Order Effect.* Two theories from psychological research explain why respondents systematically choose options listed in certain positions more frequently. Researchers typically attribute the order effect to respondents engaging in “satisficing.” In describing the satisficing principle, Simon (1957) suggests that people do not always maximize, but settle for “good enough” suboptimal solutions to minimize costs, as long as the costs of
making a mistake are not substantial (pp. 204-205). When applied to the order of response options, reading answer choices thoroughly incurs cognitive costs that respondents try to minimize. If there making a mistake incurs no considerable cost, satisficing respondents will not maximize by choosing the best answer, but will economize on their costs and pick whatever option seems acceptable. To avoid costs such as time or mental concentration, respondents rely on choice-making mechanisms. Sophisticated choosing based on past recollection or academic wisdom as well a simple choosing based on color, length, or phrasing both classify as mechanisms.

Choosing based on position of the response option creates a mechanism leading to the order effect. In their formulation of the positive hypothesis test strategy, Klayman and Ha (1987) create the psychological basis behind why people tend to choose rather than reject the option listed first. Respondents tend to follow the strategy by reading through response options with a confirmatory, not a disconfirmatory bias. Wason’s (1960) study of subjects’ hypothesis-testing strategies finds that people use positive hypothesis tests more often than negative hypothesis tests. When applied to an experiment setting, if respondents are given the task of discovering a truth-value from a set of response options, “… people tend to test hypotheses by looking at instances where the target property is hypothesized to be present or is known to be present” (Klayman and Ha 1987, p. 225). In other words, when reading through possible response options, respondents try to look for reasons why they should choose the option rather than why they should not.

*Application of Order Effect Theories to Survey Design.* The satisficing principle and the positive hypothesis test strategy both have profound implications for survey design. Applying the two theories to survey design methodology, Krosnick and Alwin (1987) suggest that respondents
will choose “the first acceptable alternative(s) among the offered choices” (p. 203). As a respondent reads through response options in a questionnaire, the later alternatives are subjected to “deeper cognitive processing.” The respondent’s mind grows “cluttered with thoughts about previous alternatives that inhibit extensive consideration of later ones” (Krosnick and Alwin 1987, pp. 202-203). Rather than incur costs greater than necessary, respondents will then choose whatever seems acceptable.

The attractiveness of the first option, otherwise known as the “primacy” effect, lies with the application of the positive hypothesis test to visually presented options. As respondents look for reasons why they should choose each option, instead of rejecting earlier options to cut down on cognitive costs, the respondent picks the first option which seems feasible. Selecting the first acceptable response constitutes a choice-making mechanism. Instead of meticulously considering the various aspects of each response option, “a weak satisficer could simply choose the first response alternative that he or she considers to constitute a reasonable answer” (Krosnick 1991, p. 216).

Satisficing behavior can take form in two ways: the “primacy” effect, the tendency to choose options presented earlier, and the “recency” effect, the tendency to choose items listed last. Both are forms of satisficing because of the relative ease with which respondents can find response options listed near the top or bottom extremes as opposed to the options clustered in the middle. Studies on order effects have confirmed the existence of both primacy and recency effects in surveys on magazine readership (Sekely and Blakney 1994), evidence for criminal court cases (Tetlock 1983), as well as multiple choice tests, beer selection, and more (Krosnick 1999). The ordering of response options does influence respondent choice (Schuman and Presser 1981; Schwarz and Sudman 1992; Tourangeau and Rasinski 1988; all cited by Knauper 1999, p.
Although seemingly the opposite phenomenon, recency effects also result from satisficing and positive hypothesis testing. Recency effects typically occur in surveys where each response option is presented orally, such as in telephone surveys. When response options are presented orally, respondents do not have much time to cognitively process the earlier response options. Short term memory allows respondents to carefully consider only the more recently presented options. Krosnick (1999) and Krosnick and Alwin (1987) shows that while nearly all studies on visual presentation of response options show a primacy effect, nearly all studies on oral presentation of response options show a recency effect (p. 551).

Recency effects can still exist for visually presented choices, especially for internet webpage options. If the respondent has already read or “scrolled” down through all the options, the respondent would have to incur additional cognitive costs to carefully reconsider each of the earlier options. Therefore, the respondent may be more likely to choose the options listed later rather than earlier (Murphy et al. 2006).

Studies on the order effect have proceeded to test which respondent characteristics lead to increased proneness to these order effects. Schuman and Presser (1981), McClendon (1986, 1990), Narayan and Krosnick (1996) and many others find stronger order effects among less educated respondents (Krosnick 1991). Krosnick (1991) surmises that likelihood of satisficing decreases as levels of cognitive sophistication, the ability to “retrieve information from memory and integrate that information into verbally expressed summary judgments,” increase (p. 222). Given the inferior short time memory of older respondents, Knauper (1999) further inquires into education and age of respondents to find greater proneness to order effects for older respondents than younger respondents (p. 354).
Application of Order Effect Theories to Ballot Design. Election ballots are a form of surveys on a larger scale, and the same order effects that exist in surveys are prevalent in elections as well. Early studies on ballot order effect such as Mueller (1970), Brook and Upton (1974), and Volcansek (1981)\(^2\) that examined ballot order effects look at large numbers of elections to see if “candidates listed in different positions did better or worse on average” (Miller and Krosnick 1998, p. 295). For example, in her study examining influential factors in judicial elections, Volcansek (1981) predicts judicial candidate vote share as a function of several factors such as incumbency, bar poll rating, endorsement, and ballot position. As most of the earlier studies find, Volcansek finds that candidates listed first tended to receive more votes than candidates listed later.

The earlier studies share the methodological flaw that all respondents receive identical ballots with non-rotating name order. Eighteen of 26 earlier studies on ballot order effects suffer from this methodological shortcoming. Six partially flawed studies find mixed results, with the 2 remaining methodologically sound studies finding no order effects (Miller and Krosnick 1998; Alvarez et al. 2006). These earlier studies therefore usually observe only the correlation between ballot position and candidate vote share; they cannot draw causal inferences regarding increase in vote share due to ballot position.

Revisiting the topic of ballot order effect on vote share, Miller and Krosnick (1998) correct the statistical methodology for measuring these effects by predicting candidate vote share strictly as a function of ballot position. They argue that “to assess a name-order effect unambiguously, a study must randomly assign groups of voters to receive different name orders,” and thus show that most of the earlier studies on this topic are flawed (p. 295). By using election data from states that rotate the order of candidates listed on a ballot by precinct, Miller and

\(^2\) see Miller and Krosnick (1998) for complete list
Krosnick assume effective randomization of different ballot orders across voters, thus avoiding the methodological flaw they point out in the earlier studies.

As for their specific results, Miller and Krosnick analyze the 1992 general election results from Cuyahoga, Franklin, and Hamilton counties in Ohio for 118 races, to find statistically significant order effects in 48% of them. Ninety-five percent “of the significant effects for two-candidate races were primacy effects,” with the average effect of a 2.74% increase in vote share, ranging from .79 to 5.04% (p. 308). Seventy-five percent of the nonsignificant effects were still in the direction of primacy effects, and had an average magnitude twice as large as the average recency effects. For races with more than two candidates, primacy accounted for 80% of the significant order effects, with 10% recency and 10% middle effects (advantaging those listed in middle of the ballot). Eighty-one percent of the nonsignificant order effects were still in the direction of primacy. Order effects are more pronounced for less-publicized races and candidates which voters have little information about (p. 316). The first position particularly benefits minor party candidates, even in prominent elections such as the presidential and senatorial races (p. 308).

The topic of ballot order effects attracted academic interest, causing several researchers to re-examine the ballot, one of the basic tools of democracy. Although order effects in subsequent studies vary in magnitude depending on election year, race salience, and candidate quality, findings show that ballot order influences voting behavior. These subsequent studies typically examine elections which rotated or randomized ballot order across smaller election units, such as elections held in California or Ohio, to assume effective randomization of ballot orders across voters. Analyzing election results by the 80 assembly districts for 80 statewide races in California from 1978 to 2002, Ho and Imai (2006) find that in general elections, minor party
candidates nearly always benefit from a statistically significant treatment effect of being listed first, but major party candidates show little sign of primacy effects (p. 16). In primary elections, the primacy effect increases and is consistently significant for both types of candidates, averaging 7% for minor party candidates, and ranging from 1 to 2% for major party candidates (p. 18). Contrary to Miller and Krosnick, they find that order effects present themselves across all elections regardless of prominence of the contested office.

Studies of a variety of elections across the U.S. kept finding evidence of ballot order effects. In their study of the 1998 Democratic primary in New York City, Koppell and Steen (2004) find that the probability of voting for the first position increases by about 2% for statewide primaries, and further increases to 4% for local party office primaries (p. 279). Unlike previous studies, they consider “ballot positions as recipients of votes, regardless of whose name appears in them,” and compare the actual vote share the position received in contrast to expected vote share (p. 271). They find with statistical significance that “for all three statewide races with four candidates, the first position received significantly more than 25% of the votes,” the advantages ranging from a 1.6% to a 2.3% increase in vote share. One hundred and sixty-one of the 180 candidates received more votes when listed first, with the effect ranging from -11.6% to 14.5% and averaging at 3.4% (p. 276). Koppell and Steen point out that the magnitude of the primacy effect often exceeded victory margins, suggesting the importance of the rotation scheme (p. 278).

Voting behavior in various countries also exhibits patterns of primacy effects. King and Leigh (2006) examine all Australian federal election results since 1984 when random ballot ordering began. Using two functional forms for their models, King and Leigh predict both candidate vote share and the natural logarithm of vote share by ballot position. Although limited
by non-rotating ballots, their analysis of 1187 races with 7113 candidates finds that candidates randomly assigned to the first position receive 1% more votes. Faas and Shoen (2006) analyze the 2003 Bavarian state elections, also finding primacy effects. A complicated but quasi-experimental ballot order rotation in elections in Bavaria, Germany enable Faas and Schoen to conclude that being listed first can increase votes by 2 to 3% (p. 98).

Given the possible implications of these effects for election outcomes, Krosnick, Miller and Tichy (2004) further advocate ballot law reform based on their examination of election results for the 2000 election in Ohio, North Dakota, and California. In the races with more than two candidates, they find that “37% showed statistically significant or marginally significant name order effects,” 74% of them being primacy effects, 18% middle effects, and 2% recency effects (p. 66). They again find that “the average magnitude of the difference between the first and last positions was notably greater for the significant or marginally significant primacy effects (1.36%) than for the significant or marginally significant recency effect (.40%)” (p. 66).

The possibility that ballot order effects could determine the outcomes of close elections sparked further research interest. In contrast to most previous studies, Meredith and Salant (2007) analyze the influence of ballot position directly on the probability of winning an election. Using California local election results for the 1997, 1999, 2001, and 2003 races, they find that for multi-member elections, “candidates listed first are 9.8 percent more likely to win office than would be expected absent any effect of ballot position” (p. 15). They find that in 5.6% of their sampled elections, candidates win solely because of their ballot position, while candidates listed in the middle tend to suffer vote loss. Their results from city council and school boards elections for years 1999, 2001, 2003, and 2005 in Ohio similarly show that “candidates listed in the first ballot position in Ohio were 6.4 percent more likely to win their precinct than would be expected
if outcomes were independent of order” (p. 16). On a related note, candidates listed directly after high-quality or winning candidates suffer as a result of their position.

Consistent with cognitive cost theory, ballot length increases order effects. Meredith and Salant find that the primacy effect tends to increase as the number of candidates increases (p. 16). Similarly, Ho and Imai’s (2006) analysis shows that in both primary and general elections, primacy effects tend to increase as the number of candidates listed on the ballot increase (p. 22, 32).

Some studies do not, however, find a readily apparent trend for primacy effects. Alvarez, Sinclair, and Hasen (2006) find both primacy and recency effects occurring in salient statewide elections. Applying a statistical approach developed by Tomz, Tucker and Wittenberg (2002), Alvarez et al. use seemingly unrelated regression and log-odds ratios of candidate vote shares to determine relative position effects. The seemingly unrelated regression method corrects for the correlation of error due to the fact that one candidate’s higher log-odds ratio necessarily translates into a lower ratio for another candidate. Predicting the ratio by ballot position, they analyze eight statewide elections in 1998 in California, testing only for the effect of being listed in the first position and in the last position. Their results show both significant primacy and recency results, approximately distributed with a mean of zero (p. 49). Their exclusion of middle positions, however, limits their model’s ability to find tendencies to choose candidates listed earlier, and can only test whether the first and last positions exclusively receive more votes.

This study explores the many aspects of and factors contributing to ballot order. Using the 2004 presidential election returns from all counties in Ohio, I check for ballot order effects that previous studies discover in other races. The original contribution of this study is its examination of the moderation effect of various ballot features on the order effect. After analyzing the
moderation effect of ballot length, voting method, absentee voting, and irregular ballot appearance on order effects, I offer policy recommendations which distribute order effects more equally, such as name order rotation by precinct and optical scan ballots.

*Hypothesis.* Given the extensive media coverage of presidential candidates, voter information about the major party candidates should be the highest of all elections on the ballot. Therefore, in accordance with the Miller and Krosnick (1998) findings, I expect to find little to no order effects for major party candidates Bush and Kerry, but perhaps some primacy effects for minor party candidates such as Badnarik, Nader, and Peroutka. If primacy and recency both exist, I expect that the magnitude of the primacy effect will be substantially larger.

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**Section Three: Data and Ballot Rotation Scheme**

*Ohio’s Ballot Rotation.* In this thesis, I study the results from the 2004 presidential election in all counties in Ohio at the precinct-level. Election results from Ohio are particularly useful in ballot order studies because of the election laws which govern their election process. Similar to most ballots, the names of the candidates running for the same office are grouped together on Ohio ballots. Candidates on an Ohio presidential ballot are listed in a vertical column, with no notation regarding their party or occupation. For the first rotation in the first precinct, the
candidates are listed in alphabetical order by surname. In each following precinct, the candidate listed first in the preceding precinct is listed last, and the other candidates are moved up one place (Ohio election law title 35, 3505.03) (see Appendix 1). The rotation scheme continues until all candidates are listed in each position in an equal number of precincts.

The four main presidential candidates in Ohio for the 2004 election were George W. Bush from the Republican party, John Kerry from the Democratic party, Michael Badnarik from the Libertarian party, and Michael Peroutka from the Constitution party. Ralph Nader was also an independent presidential candidate, but was disqualified in late September of 2004. Although a few counties were able to reprint their ballots thus creating ballots with four candidates, some counties were unable to completely change their ballots, thus resulting in some ballots with five positions.

Applying Ohio election law to the 2004 election specifically, the ballot rotation law resulted in four or five (depending on the county) separate ballot rotations. Each precinct was assigned a rotation according to the precinct’s order on the county list. County election boards create the list of precincts by following various procedures, usually some mixture of alphabetization and ward number assignment. Precinct characteristics such as population are not systematically considered in creating this precinct list, and the list remains largely unaltered across elections (Bartlett 2007, telephone interview). The first precinct on the list was assigned rotation one, second was assigned rotation two and so on. When the fifth precinct was assigned rotation five, then the sixth precinct was assigned rotation one again; this rotation continued until all precincts were assigned a rotation. On the first rotation used in the first precinct, the candidates were listed alphabetically, thus resulting in a ballot order of Badnarik, Bush, Kerry, Nader, and Peroutka. On the second rotation, the candidate listed first is dropped to last, resulting
in an order of Bush, Kerry, Nader, Peroutka, and Badnarik. The rotation scheme was used for all precincts in each county so that each presidential candidate was listed in each position on the ballot approximately an equal number of times.

In their study on ballot order in Californian elections, Ho and Imai (2006) refer to this rotation scheme as systematic random treatment assignment. In California, candidates are listed on the first rotation ballot according to a randomly generated alphabet. The order is then rotated by assembly districts instead of by precinct as in Ohio. For most rotations, candidates end up being listed before and after the same candidate for all but one rotation. Ho and Imai inquire into whether such a systematically rotated ballot satisfies the criteria for random assignment. Their analysis yields that the California rotation scheme “shows no evidence of incomplete randomization” (p. 31). The ideal procedure to test for order effects, which would be a pure random ordering of candidates in each precinct, is usually not feasible because of planning and printing costs. Name order rotation as in California and Ohio is thus not pure random assignment, but the rotation by precinct serves as an effectively random treatment assignment.

By analogy, the precinct rotation assignment in Ohio thus can also be considered effectively random. Voters in each precinct in Ohio receive one of four or five ballot orders which satisfy the required criteria for random assignment. The precinct listing and rotation assignment scheme cancel out all other possible correlations to characteristics of various counties.

To further examine whether ballot order was correlated with any precinct characteristics, I examine correlations between the ballot order variables for each candidate and precinct characteristics (Table 1). The ballot order assigned to each precinct (first column of Table 1) is not statistically significantly correlated with any precinct characteristics. The binary ballot order
variables for Badnarik and Kerry are also not significantly correlated with any precinct characteristics either. The order variable for Kerry is statistically significantly (p<.01) with population percentage of American Indians, but the correlation is quite small at .032.

The biggest problem I face in this study is the statistically significant correlations between precinct characteristics and Peroutka’s order variable. Although all the correlations are below .051, more than half of the precinct characteristics are statistically significantly correlated.

The reason why the order variable for Peroutka is significantly correlated with the order variables for the other candidates are not is probably due to the Nader situation described in greater detail later. Nader was a disqualified candidate in the 2004 presidential election, but his ballot position remained in various forms on most ballots used in Ohio. The order variable for Peroutka is coded in such a way that assumes that voters were able to ignore Nader’s ballot position when it was altered in some way. If voters were able to ignore Nader’s ballot position when Nader’s position was listed first, then Peroutka would be effectively listed “first.” Peroutka is thus coded as being listed “first” 3727 times, as compared to 2163 times for Badnarik, 2150 times for Bush, and 2130 times for Kerry.

The correlations that appear between Peroutka’s order variable and precinct characteristics thus suggest that the solutions to Nader’s ballot position problem were not implemented randomly. In other words, precincts that had ballots that altered Nader’s ballot position were more likely to exhibit certain characteristics than precincts that did not. The characteristics that made a precinct more likely to alter Nader’s ballot position thus ends up being significantly correlated with Peroutka’s ballot position.

To solve this problem requires statistical tools and analysis that are far more advanced than the scope of this paper. Hierarchical models, fixed effects, as well as precinct-census
tract-county clustering problems must also be addressed to fully solve this problem. Unfortunately, solutions that would be able to solve these problems here as well as all other problems with the Ohio 2004 dataset are highly idiosyncratic, and are not typically encountered. A flawless analysis would need to deal with these problems as well.

Although examining only the presidential election in 2004, the number of precincts in Ohio provides enough observations for sufficient statistical power to test for order effects. In Ohio, there are 88 counties with 11404 precincts. The average number of precincts per county is 130, but with a range of 19 in Holmes to 1458 in Cuyahoga. The precincts are relatively similar in size, with votes cast per precinct averaging 489 (excluding absentee precincts) and a standard deviation of 176.

Several counties and a few specific precincts, however, exhibited irregular characteristics that led me to exclude them from the analysis. By rotating the ballot order by voter instead of by precinct, Lucas and Mahoning Counties violated Ohio election law and invalidated any sort of order analysis that would have otherwise been feasible with results from these counties (Limmer 2007, e-mail; Rakocy 2007, email). I also exclude federal-only precincts (precincts tabulating provisional ballots that do not belong in any other precinct) as well as absentee precincts (precincts tabulating all absentee votes within the county) because of the inconsistent order effect within these precincts. Finally, I exclude four precincts which represent outliers in typical voting patterns. Two precincts, Cleveland City 4-D and 14-D in Cuyahoga County, demonstrated irregularities in that Badnarik received 31.5% and 50% (1 of the total of 2) of votes cast when his average vote share in each precinct is .27%. Two other precincts, Cleveland City 4-F and Euclid 3-C in Cuyahoga, also exhibited irregular voting patterns in that Peroutka received 23.1% and 40.3% respectively of total votes cast when his average vote share is .23%. Subtracting Lucas
and Mahoning, the federal-only precincts, the absentee precincts, and the outliers, the dataset consists of presidential election returns from 10,554 precincts. Six counties used a 4 position ballot, while the remaining 80 counties used a 5 position ballot (Table 2).

In theory, conducting a statistical analysis using this data would be relatively simple. Conducting statistical analyses based on this information alone would be simple. A regression predicting candidate vote share based on the candidate’s ballot position would indicate the existence and statistical significance of the order effect.

**Ballot Appearance.** The 2004 presidential election in Ohio, however, had many more complex components to it that would not allow a simple regression testing for order effects. The first irregularity in the election began with the candidacy of Ralph Nader. Unable to obtain the minimum number of required valid signatures, Nader became a disqualified candidate in several states including Ohio. Nader’s failed candidacy in Ohio resulted in ballot appearance irregularities across counties.

On September 29, 2004, thirty-four days before election day, Ohio Secretary of State Kenneth Blackwell issued a directive that Nader was to be removed from the ballot. The directive offered three options for ballot correction: 1) reprint the ballots without Nader’s name, 2) remove Nader’s name “from existing ballots by use of stickers or other method,” or 3) post notices in each precinct where Nader’s name remains on the ballot that votes cast for him would not be counted (Blackwell, Directive 2004-38). The counties were to remove Nader if possible, thus making option three the least desirable final resort.

The county boards of elections’ adherence to this directive resulted in approximately six distinct ballot appearances: 1) four-position four-candidate ballots without any slot or mention of Nader (Appendix 2 & 4), 2) five-position four-candidate ballots with one blank white slot
(Appendix 6), 3) five-position four-candidate ballots with one blank black slot (Appendix 7), 4) five-position four-candidate ballots with “Candidate Removed” (Appendix 8), 5) five-position four-candidate ballots with “Void” printed over Nader’s name (Appendix 9), 6) five-position five-candidate ballots with Nader listed as all other candidates but with signs posted stating his withdrawal (Appendix 3 & 5). Table 2 lists the number of counties and precincts each ballot type was used in.

Adherence to the first option resulted in the ideal ballot appearance, a 4 position ballot listing 4 candidates, a solution that 6 counties were able to implement in the limited time before the election (Appendix 2 & 4).

Fifty-three counties followed the second option by placing a sticker or marking over Nader’s name while leaving the 5 position rotation intact (Appendix 6-8). This second option resulted in 3 distinct ballot appearances. For 33 of these 53 counties, Nader’s name was replaced with a phrase such as “Candidate Removed” (Appendix 8). These ballots usually printed this phrase in a font style and size which was identical to that used for any other candidate’s name, such that upon first glance, the ballot seems to list 5 candidates. Three counties printed or stamped the words “Void” or “Disqualified” across Nader’s name such that Nader’s name was still visible. Ten counties had a blank white slot instead of Nader’s slot (Appendix 6), and the other 7 had a blank black slot (Appendix 7).

Twenty-seven counties followed the third option by leaving Nader’s slot on the ballot untouched, but posting signs in the voting area that Nader had been disqualified and that votes cast for his slot would not be counted (Hogue 2007) (Appendix 3 & 5).

Coding Irregular Positions. Dealing with this ballot position situation could have implications for findings of order effects. The question was whether to consider the irregular
ballot positions as a position when assigned ballot positions to candidates. For example, on a 5 position ballot in rotation 1 when Badnarik is listed first, Bush is listed second, Kerry is listed third, the irregular ballot position would be fourth, and Peroutka is listed fifth. After some deliberation, I decided to code ballots that had a blank white sticker over the irregular ballot positions as a four position ballot. In other words, the ballot just described would effectively code Kerry as third, would skip the irregular position, and code Peroutka as fourth.

Coding the blank black position as well as the other methods was not as straightforward. Unlike a blank white position, black could attract attention, and positions with text often looked as if another candidate was listed. For voters who were paying close attention, the irregular positions were obviously invalid positions. However, for voters not paying close attention, the perception of the irregular position is not as clear. I decided to try two methods of coding, first counting the irregular position as another position, then second ignoring the irregular position. After running analyses using both order variables, I found no significant difference between the two, and thus give the voter the benefit of the doubt, assuming that the voter was able to ignore the irregular position.

Voting Possibility. Whether Nader’s name physically appeared on the ballot did not, however, necessarily mean that voters could cast a vote for his position on the ballot. Table 3 shows the number of counties and precincts in which it was and was not possible to vote for Nader’s position on the ballot. Regardless of the appearance of the ballot, 20 counties made voting for Nader’s position on the ballot physically impossible. Instead of perforating the holes next to each candidate so voters could punch a hole to cast a vote, these 20 counties “masked off” the hole aligned next to Nader’s position so that no voter could punch a hole for that candidate. As for 56 of the counties, a voter could have physically cast a vote for Nader’s
position on the ballot, whether it be for his name or a label, even though the vote eventually
would not have counted. Because of changes in election board personnel since the 2004 election,
Clinton, Madison, Mercer, and Morgan were unable to confirm the physical possibility of voting
for Nader’s position on their 5 position ballots. The data shows that at least 657 voters voted for
Nader’s position even though his ballot position had been altered in some manner.

Section Four: Model for Ballot Order Effects

The model for ballot order effects largely borrows from ideas in Meredith and Salant’s
(unpublished) paper on the causes of order effects, and adds to it Krosnick et al.’s (2003)
observations of the determinants of the magnitude of the order effect. The basic assumption is
that once the individual has decided to vote, his utility is a function of the quality of the
candidate he votes for. Given the set of candidates X = {1, 2, …, n}, the voter v is presented with
σ^V, a voter-specific order of candidates listed on the ballot. Let q^* be the quality that the voter
assigns to candidate i located in position σ^V(i) in the list σ^V(X). The quality q^* is defined by:

\[ q^*_{v,i,\sigma^V} = \bar{q} + \theta_i + \epsilon_{i,v} + \gamma_i \]

where \( \bar{q} \) is the perceived average quality of all candidates, \( \theta_i \) is candidate specific shock, \( \epsilon_{i,v} \)
is idiosyncratic preference for the candidate, and \( \gamma_i \) is voter preference for the first position
which is fixed across all voters.

The effects of these on the voter’s candidate evaluation, however, vary depending on the
voter’s preference strength, a function of the amount of information the voter has, and voter
ambivalence. Specifically, voter preference strength \( \alpha_v \) can be expressed as:

\[ \alpha_v = \Pr(Y = 1 | I, A) = F(I + A) = \frac{1}{1 + e^{-(I + A)}} \]
where $I$ increases in voter information, and $A$ decreases in voter ambivalence. Furthermore, voter preference strength $\alpha_v \in [0,1]$, with $\alpha_v = 1$ representing full certainty resulting from no ambivalence and perfect information, and $\alpha_v = 0$ indicating perfect uncertainty resulting from complete ambivalence and lack of information.

As certainty increases, $q$, $\theta_i$, and $\varepsilon_{i,v}$ hold greater weight in the voter’s candidate evaluations. The weight that the first position bears on the voter’s candidate evaluations decreases as the voter’s certainty increases. The final model thus shows certainty entering the voter’s evaluation of the candidates, and thus voting decision, in the following manner:

$$ q_{v,i,\alpha}^* = \alpha_v (\bar{q} + \theta_i + \varepsilon_{i,v}) + \frac{\gamma_i}{\alpha_v} $$

Voters select their candidate by choosing whoever on the ballot has the highest $q^*$. Ideally, the voter would choose optimally by increasing their certainty level $\alpha_v$. For most voters, $\alpha_v$, $\theta_i$, and $\varepsilon_{i,v}$ are sufficiently large that one of the candidate emerges as the obvious choice, leaving the impact of $\gamma_i$, preference for the first position, irrelevant on the vote decision. However, for voters with low levels of information or certainty of candidate preference, $\gamma_i$ weighs more heavily on the voter’s decision. Voters that are less certain or have less information should thus be more susceptible to primacy effects. Empirically testing for whether $\gamma_i$ weighs at all in a voter’s decision can be accomplished by examining whether candidates receive more votes when listed first.

The idea of moderators of the order effect enters the model through the preference strength or certainty variable $\alpha_v$. Certainty can be influenced by a host of factors, with certainty of candidate preference only constituting a fraction of “certainty” relevant in the voting context.
Familiarity with voting methods and procedures, and ability to reason and determine the optimal candidate both contribute to a voter’s certainty level. The more unfamiliar or difficult the voting procedures are, the more uncertain the voter becomes. Similarly, the lower the voter’s ability, the more uncertain the voter is of his decision.

Section Five: Order Effects

Method 1: Tabulation. Before conducting statistical tests to examine the effect of ballot order, I compute a simple tabulation of candidate vote share by position. Because of the various complications caused by the Nader situation, I tabulate the vote shares for the four consistent candidates in two different ways. The first way counts all fifth positions, whether blank or with text of any kind, as an equally “valid” position which contributes to explanation of the order effect. The second way counts all fifth positions except for blank white positions as an equally valid position. Either way shows approximately the same phenomenon.

Method 1: Results. All candidates appear to all receive more votes when listed first than when listed last (Table 4). When including blanks, the primacy effect as measured by the difference between first and last seems to be .182% for Badnarik, .310% for Bush, .161% for Kerry, and .102 for Peroutka. Excluding the blanks only slightly changes the estimates of the primacy effect to .165% for Badnarik, .292% for Bush, .146% for Kerry, and .105% for Peroutka (Table 5). The vote shares seem to roughly decrease the further down the ballot the candidate is listed. The exception to this trend is Kerry’s vote share which seems to peak in the middle positions. One possible explanation for the deviant voting pattern for Kerry is that Nader’s position directly followed Kerry’s position in four of the five ballot rotations. If Nader’s position was irregular and thus attracting attention, this may have contributed to an increased amount of
attention paid to Kerry when listed in the middle.

All candidates also receive more votes when listed first than the average of all other positions. Regardless of possible deviant voting patterns, the first position performs better on average than all other ballot positions. The magnitude of the primacy effect seems to be largest for Bush (.381 or .367%), second largest for Badnarik (.140 or .131%), and then approximately the same size for Kerry (.051 and .036%) and Peroutka (.063 and .066%). Simple tabulations seem to suggest the presence of a primacy effect.

Recency effects have also received interest in several psychological studies. The trends in the tabulations, however, indicate an absence of recency effects, receiving more votes when listed at the end. All candidates consistently receive more votes when listed fourth than when listed fifth, suggesting that a recency effect does not exist. Kerry receives more votes when listed fourth than third when counting blanks as a position, and Bush receives more votes when listed fourth than third when ignoring blanks, but the trend suggests primacy effects with no recency effects.

**Method 2 Overview.** Although easy to understand, tabulation of vote share by position alone does not test whether the order effects are a mere coincidence. Tabulation provides no way to determine whether the increase in votes is sufficiently large to constitute more than coincidence.

To further probe the relationship between ballot position and candidate vote share, I employ regression analysis. Using regressions instead of tabulation produces estimates accompanied by standard errors that indicate how much of the change in vote share is caused by chance or by ballot position. Values from the regression are thus more insightful.

Regressions estimating ballot order effects are quite simple, involving a dependent
variable representing candidate vote share, and an independent variable for candidate ballot position. Suppose I wish to find order effects for Bush in counties using five position ballots. In counties using five position ballots, Bush was listed first on the second rotation, last on the third rotation, fourth on fourth, third on fifth, and second on the first. The rotation assigned to each precinct is recorded in the dataset. Using Bush’s ballot position and vote share in each precinct, I fit a regression line to the data points and thus predict vote share by ballot position. By replicating this procedure for each candidate, I observe the relative magnitude and significance of the order effect across candidates.

The method I use to estimate the presence of order effects is a model which predicts a log-odds ratio transformation of candidate vote share on the precinct level as a function of their ballot position. The estimation procedure I use is seemingly-unrelated regression which is similar to OLS but accounts for correlations which I explain in further detail below.

*Method 2: Independent Variable.* The principal problem that Miller and Krosnick (1998) pointed with the majority of earlier studies of the ballot order effect was the necessity of candidates having different ballot positions when drawing statistical inferences regarding the effect of position on vote share. They remedy this problem in their study by using election data from Ohio which rotates the order of the candidates on the ballots, allowing for a statistical test of the position effect.

Many methods of coding the ballot position variable have been attempted in the previous literature. Miller and Krosnick (1998) use a continuous order variable which ranges from 0 to 1. When a candidate is listed first on a 5 position ballot, his order variable equals “0,” when second “.25;” third “.50,” fourth “.75,” and fifth“1.” The difference in candidate vote share when listed first relative to when listed last is the magnitude of the coefficient on the linear order variable. If
the order effect is linear, multiplying the coefficient by the position coding such as “.25” or “.50” would give an approximation of vote share change from being listed first to being listed second or third on a 5 position ballot. Because the order variable is coded with a 0 at the first position and a 1 at the last position, negative coefficients indicate primacy effects. A statistically significant and negative coefficient on the linear term signifies a primacy effect with no recency effect. If the coefficient is positive, it suggests a recency effect and no a primacy effect. Coding the ballot position variable in this way gives the coefficient a convenient interpretation. A “-.5” would indicate that the candidate received on average a vote share .5% less when listed last than when listed first. The equation predicting a candidate’s vote share as a linear function of his order variable is:

\[
\text{Vote Share} = a_0 + a_1 \text{(Order)} + \varepsilon \quad (1)
\]

Such coding, however, assumes that all ballot positions are equidistant, in other words, that the difference in position advantage between first and second is equal to being the difference between second and third. Candidates may not experience order effects which are strictly equidistant or linear as in (1). The linear term alone also does not allow for the possibility that primacy and recency effects may both be present simultaneously. Miller and Krosnick thus also include a quadratic order variable term. A quadratic order variable can capture non-linear order effects such as an increase in vote share when listed first, a decrease when listed in the middle positions, and then another increase when listed last. A regression with the quadratic term also could capture a primacy effect followed by a recency effect. The equation specifically is:

\[
\text{Vote Share} = b_0 + b_1 \text{(Order)} + b_2 \text{(Order}^2) + \varepsilon \quad (2)
\]

Although capturing more complex effects, the quadratic order variable still imposes a specific functional form to the data, and complicates the interpretation of the coefficients (Table
6). The coefficients no longer indicate a change in vote share, and only indicate the direction of the effect. If the order effect is linear, then the quadratic term $b_2$ will not be statistically significant; the linear term becomes the only variable of interest. If the order effect is quadratic, several combinations of coefficient direction and significance indicate various effects. A primacy effect is indicated in two ways: 1) $b_1$ and $b_2$ are both negative and statistically significant, or 2) $b_1$ is significant and negative and $b_2$ is significant and positive. Results showing either 1) a statistically significant and positive $b_1$ and $b_2$, or 2) a statistically significant and positive $b_1$ and statistically significant and negative $b_2$ indicate recency effects. Coexistence of primacy and recency effects is evidenced by a nonsignificant $b_1$ and significant and positive $b_2$. “Middle effects,” receiving more votes when listed in the middle, is indicated by a nonsignificant $b_1$ and a significant negative $b_2$ (Miller and Krosnick 1998).

Binary order variables can yield more intuitively interpretable results. Binary order variables also make direct tests for primacy and recency effects quite simple. To test for primacy or recency effects, the position of interest (either first or last position) would be coded “1” and all other positions as “0.” The coefficient on the order variable thus yields immediately interpretable results regarding the specific position’s advantage over all other positions. King and Leigh (2006) employ a similar model in which they predict a logarithmic transformation of vote share as a function of ballot position. Alvarez et al. (2006) also uses a binary order variable to predict the log-odds ratios of vote share.

Although the binary coding of ballot position does not shed light on the general tendency to choose positions listed earlier or later, it can avoid imposing assumptions of form and allows for some nonlinearity in effects. Since this paper is interested primarily in testing primacy effects, particularly for advantages from the first position, and in examining recency effects stemming
from the last position, I decide to use the binary coding instead of the continuous method.

As is described in further detail in Section 3.3, coding the ballot position variable for the 2004 presidential election in Ohio was quite complicated because of the multiple solutions that were used in response to the withdrawal of Nader’s candidacy, creating roughly three distinct ballot appearances. Because the difference between two of the appearances was statistically nonsignificant (see Section 3.3, and Section 6.4 Table 17 for further discussion), the binary variable codes those two appearances similarly according to the coding scheme described in Appendix 1. Specifically, the order variable is coded as either “1” or “0,” depending on whether a candidate is listed first or otherwise. When the slot that is in the first position is either an irregular position or a blank position, the coding scheme “skips” that position, assuming that voters recognize that the position is invalid, and thus do not give the first position advantage to that invalid position. While a somewhat strong assumption, the test for differences in primacy effects shows that this may indeed be the case.

*Method 2: Dependent Variable.* The regression model discussed so far has a problematic statistical implication. When estimating coefficients, statistical regressions assume an unbounded dependent variable, a predicted line which extends beyond the borders of 0 and 1 (Alvarez et al. 2006; Tomz et al. 2002). Candidate vote share, by definition, cannot exceed the boundaries of 0 and 1, so interpretations of the coefficients implicitly truncate the function to be strictly between 0 and 1. Such arbitrary truncation problematically implies that the average of the error term is no longer zero, thus violating one of the key assumptions of an OLS regression and biasing the estimates.

Another problem with using untransformed vote share as the dependent variable is that candidate vote shares in the Ohio data are not normally distributed as OLS would require
(Appendix 2). Although the vote shares for Bush and Kerry appear to be approximately normally distributed, the vote share distributions for minor party candidates Badnarik and Peroutka are far from approximating a normal distribution. Furthermore, the residuals from an OLS regression predicting vote share are not normally distributed (Appendix 3).

To account for the non-normal distribution in vote shares, an alternative solution is to use candidate vote count in each precinct as the dependent variable. Once controlling for precinct size, such a regression could then predict the average increase in number of votes a candidate receives when listed first. The negative binomial distribution is usually suited for count data such as this, and thus would appear to fit the voting model well. The problem with the negative binomial distribution is that it does not adjust estimates of the coefficients to account for high correlation between the residuals of candidate vote counts, which will be discussed in further detail below. Furthermore, constructing a regression that would account for such correlation, a seemingly unrelated negative binomial regression, would require creating software which constructs a multivariate negative binomial distribution.

A solution that partially alleviates the truncation problem is to use a logarithmic functional form. Although not strictly between 0 and 1, most of the variance in any natural log function occurs within a much smaller interval than vote share alone. The natural log function constrains the predicted values to a smaller interval, such that the estimates are based on an interval closer to that of 0 to 1 than in the previous regression (Alvarez et al. 2006). Although solving the normality problem, the constraint still does not warrant that predictions remain within the required range.

Another solution is to use a logit transformation of the dependent variable. The logit transformation of candidate vote share alleviates many of statistical problems mentioned above.
Firstly, the logit transformation of candidate vote share results in a normally distributed dependent variable for each candidate. Secondly, the logit transformation ensures that predicted candidate vote shares cannot lie outside the 0 to 1 range, even though the dependent variable itself will be unbounded (Green, Carmone, and Wachspress 1977). A regression equation using the logit transformation would thus be as the following:

\[ L_i = a_0 + a_1(Ballot\ Position) + \epsilon \quad (3) \]

where “\( L_i \)” is the logit transformation of candidate i’s vote share:

\[ L_i = \ln[p_i/(1-p_i)] \quad (4) \]

The problem with this approach, however, is pointed out in detail in the analysis in Katz and King (1999). Although the logit transformation constrains predicted percentages to be within the 0 to 1 range, the possibility remains that the sum of all candidate vote shares may exceed 1, thus making the results inaccurate.

The method I use to estimate the presence of order effects is to predict a log-odds ratio transformation of candidate vote share. The method is based on the statistical approach developed by Tomz, Tucker, and Wittenberg (2002), adapted to the ballot order context by Alvarez, Sinclair, and Hasen (2006). Alvarez et al. (2006) choose one of the candidates to be the reference candidate, whose vote share always appears in the denominator. Alvarez et al. (2006) thus run J-1 regressions, and use seemingly unrelated regression to predicts the log-odds ratios of candidate vote shares by binary ballot position variables. The regression equation is as follows:

\[ LR_i = a_0 + a_1(Ballot\ Position) + \epsilon \quad (5) \]

where “\( LR_i \)” is the log-odds ratio of candidate i’s vote share with respect to candidate j’s:

\[ LR_i = \ln\left( \frac{p_i}{p_j} \right) \quad (6) \]
The significance level of the coefficients only indicates the significance of the contribution of candidate i’s ballot position to the change in candidate i’s vote share, all relative to candidate j’s vote share (Jackson 2002). Therefore, although the significance levels of the coefficients will vary depending on the reference candidate, the overall results do not depend on the chosen reference candidate (Jackson 2002).

The log-odds ratio transformation has several desirable characteristics well suited for the ballot order context, one of which is a normally distributed dependent variable for each candidate. Secondly, the log-odds transformation constrains predicted candidate vote shares to lie within the 0 to 1 range, even though the dependent variable itself will be unbounded (Green, Carmone, and Wachspress 1977). Thirdly, the log-odds transformation ensures that the sum of all candidate vote shares is 1.

Using log-odds transformations becomes problematic when candidates receive zero votes in a high number of precincts. In the 2004 election in Ohio, Badnarik receives zero votes in about 4000 precincts, while Peroutka receives zero votes in about 5000. When minor party candidates receive zero votes and a major party candidate is the reference candidate, then the vote share ratio is zero. When the vote share or ratio is zero, then the log-ratio of vote share is undefined, thus resulting in an invalid observation which cannot be used for analysis. We fix this problem by adding “1” to each candidate’s vote count in each precinct, preserving the distance in absolute number of votes between candidates and only slightly skewing the percentages.

The problem with the results from a regression using a dependent variable of a log-odds ratio of candidate vote shares is that the significance level of the coefficients would only indicate the direction of the primacy effect for the various candidates relative to the changes in vote share of the reference candidate. Because it is unclear how the vote shares of the candidates respond to
changes in the vote share of the reference candidate, the coefficients alone therefore do not indicate whether there is a primacy effect or not.

To see whether the primacy effect exists, I produce percentage point estimates using Clarify, a statistical program for Stata created by King, Tomz, and Wittenberg (2000). Using statistical simulations, Clarify is able to produce estimates of percentages changes when the other variables are held constant at a specified level, as well as standard deviations of those estimates. I run simulations for each of the regressions using this program to find the primacy effect (see Appendix 13 and 14 for further Stata coding and commands).

Method 2: Estimation Method. The correct specification of the dependent and independent variables still does not warrant accurate results. Estimating order effects using an OLS model as in Miller and Krosnick (1998), Krosnick et al. (2004), and King and Leigh (2006) has the potential of overstating the magnitude of the order effects, and understating its prevalence. The OLS regression model has several problematic statistical implications which lead to this result. One is that although OLS estimates order effects for each candidate separately, candidate vote shares must sum to 1 in each precinct, and are thus not independent (Tomz et al 2002). The vote shares of Bush and Kerry are highly negatively correlated at -.9994 (p<.001) (Table 7). The correlation of the residuals of separate OLS regressions for each candidate also show that the residuals for Bush and Kerry are correlated at -.9993 (p<.001) (Table 7). When using OLS, the magnitude and significance of the order effect is calculated for each candidate one at a time, using their ballot position and corresponding vote share in each precinct to construct a regression line. OLS models predicting vote share thus cannot account for the relationship that a larger vote share for one candidate translates into a smaller vote share for other candidates.

The coefficient estimates can be adjusted for the correlation between candidate vote
shares through an estimation procedure known as seemingly unrelated regression (SUR). SUR is a statistical method suited for systems of equations that have correlated errors (Tomz et al. 2002). Zellner (1962) explains that estimates using SUR are more efficient than using OLS when the independent variables are not correlated but the error terms are highly correlated. The seemingly unrelated regression corrects for the vote share correlation among candidates by allowing for correlation of the error terms across the J-1 regressions (Alvarez et al. 2006).

The mechanism behind SUR is slightly complex. Estimating the system of equations first by OLS, SUR then computes the correlations between the error terms of the equations to separate out the uncorrelated error (Greene 2003). SUR takes the autocorrelation, the constant error shared by all the equations, into account and then uses OLS again to re-estimate the parameters. A SUR regression is able to capture the vote share correlation and thus stop attributing to order effects what is caused by other factors. If no autocorrelation exists across equations, the coefficient estimates will be the same as from a normal OLS regression.

Several other methods that have been used in other papers were also considered besides the ones aforementioned. Koppell and Steen (2000) use a sophisticated method which assigns each ballot position an equal expected percentage (e.g. on a 5 position ballot, each position is assigned an expected vote share of 20%) and use test-statistics to examine whether the vote share the position received is statistically different from the uniform distribution. Although this method worked for their examination of order effects in New York primaries, the magnitude of the order effect is also larger in primaries than in the presidential election that I examine in this paper. Using the Koppell and Steen method, I was unable to find any statistically significant order effects due to the very small order effects that may or may not be present for presidential candidates. Meredith and Salant (2007) employ an innovative method of testing for order effects

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3 For further explanation, see Zellner (1962), Tomz et al. (2002), and Greene (2003).
by predicting the probability that a certain candidate will “win” the majority of the votes in each separate precinct depending on ballot order. Although well suited for races in which multiple candidates are relatively competitive, this method does not work for the 2004 presidential election. Except for extremely rare occasions, the minor party candidates do not win the majority of the vote in any precinct. Using the probability method would only shed some light on the order effect for Bush and Kerry and not for minor party candidates. I therefore choose not to use this method as well. The final model used in this paper is thus a seemingly unrelated regression that predicts a log-odds ratio of candidate vote shares as a function of a binary ballot position variable while weighting by precinct size (in my regressions, not weighting by precinct size seemed to make little difference).

*Method 2: Results.* The results from the *Clarify* indicate that all candidates seem to receive more votes when listed first (Table 8). Badnarik receives .582\% when first, .435\% when other; Bush receives 51.688\% and 50.108\%; Kerry receives 49.537\% and 48.489\%; Peroutka receives .418\% and .411\%. The primacy effect appears for all candidates, but is only statistically significant for Badnarik. The effect size ranges, and is .147\% for Badnarik (p<.001), 1.580\% for Bush (p<.2), 1.047\% for Kerry (n.s.), and .007\% for Badnarik (n.s.).

To see if there is any recency effect, an advantage from being listed first, I then run a regression with a binary variable which equals one when the candidate is listed last, and then equals zero when the candidate is listed in other positions (Table 8). The results show that except for Badnarik, candidates receive slightly more when listed last in comparison to the other positions. The results are, however, only marginally significant for Bush (1.723\%, p<.1), and not statistically significant for Kerry or Peroutka. Badnarik receives least when listed last (.068\%, p<.001). The general trend suggests being listed last has no large advantage.
Using the Miller and Krosnick linear and quadratic order variables, I find that the trend in the data is towards primacy effects, not recency effects, if towards anything at all. Although not statistically significant, the results from running regression Equation 1 with the linear continuous order variable show that Bush and Kerry receive about a fourth of a percentage point more when listed first (Table 9). The primacy effect is statistically significant for Badnarik, but is quite small at .147%. The primacy effect is both tiny and statistically nonsignificant for Peroutka.

The results from running regression Equation 2 with the linear and continuous order variable show slightly different results (Table 9). The primacy effect is only statistically significant for Badnarik (.166%, p<.001), but the magnitude of the effect appears to grow for Bush to 1.339% (p<.2). The primacy effect is still small for both Kerry and Peroutka.

The results from a seemingly-unrelated regression predicting log-odds ratios are quite different from ones that could be obtained from a typical OLS regression predicting candidate vote share (Table 10). Percentage estimates generated a typical OLS regression would show a statistically significant primacy effect for Badnarik (.163%), Bush (.988%), and Peroutka (.078%), with a statistically significant recency effect for Kerry (-1.158%). Although more consistent with the tabulations, the OLS estimates cannot account for the correlations as described earlier nor the 0 and 1 truncation problem.

Section Six: Moderators of the Ballot Order Effect

Literature Review & Hypothesis. Response quality is influenced by a host of factors other than just order of response options. Respondent satisficing in answering questions, which results in a loss of response quality, occurs because of a combination of three factors: “The first is the inherent difficulty of the task that the respondent confronts; the second is the respondent’s ability
to perform the required task; and the third is the respondent’s motivation to perform the task…

The greater the task difficulty, and the lower the respondent’s ability and motivation to optimize, the more likely satisficing is to occur” (emphasis original) (Krosnick 1991, 221).

Depending on the difficulty of the task, an individual faces varying degrees of cognitive costs to find the optimal answer. As Simon (1957) noted, the easier an individual finds it to “discover satisfactory alternatives,” the more an individual’s “aspiration level” rises (p. 253).

Consequently, the more difficult it is to find those alternatives, the individual’s aspiration to find the alternative falls. Task difficulty depends on the features of the questions themselves as well as the setting in which the question is asked. Questions with unfamiliar or ambiguous words, unclear rating scales, many words or items required to be held in memory, regarding complex preference orderings, as well as something not readily accessible such as past attitudes all can act to increase task difficulty. Distractions for the respondent, such as those present in a home with children in contrast to a more isolated conference room, also make fully considering each question more difficult. (Krosnick 1991, 221-222). The pace of the interview can also increase task difficulty. Respondents are more likely to feel pressured to answer quickly when the interviewer sets a fast pace, and thus do not fully consider the question and each of the answer choices (Krosnick 1991, 222) (Krosnick 1999, 548-549).

Task difficulty could be seen as having two effects on response order effects. Order effects may be present for excessively simple tasks. Although respondents may be capable of

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**Figure 1.** Moderator Model (adapted from Baron and Kenny, 1986)
giving answers of higher quality if they fully understand the nature of the simpler questions, the respondents soon bore of the task and again engage in satisficing. Given that the question requires higher levels of concentration to answer correctly, respondents may concentrate more fully and thus give answers of higher quality. However, increased task difficulty typically has the opposite effect (Krosnick 1999). Individual tend to give up trying to fully comprehend the question and carefully consider all answer choices, and engage in increased satisficing, resulting in greater proneness to order effects.

The second determinant of satisficing, respondent ability, stems not necessarily from intelligence but from training in “performing complex mental operations, practiced at thinking about the topic of a question, and equipped with preformulated judgments on the issue” (Krosnick 1999, 548-549). Also referred to cognitive sophistication, respondent ability is the combination of abilities “needed to retrieve information from memory and integrate that information into verbally expressed summary judgments… The better an individual is able to perform these operations, the less likely he or she is to satisfice in a survey” (Krosnick 1991, 222-223). Respondent ability also comes from practice in thinking about certain topics and issues as well as upbringing or background which reinforces opinions on certain matters (p. 223). Studies on acquiescence also find that acquiescence is more frequent among respondents with lower cognitive skills (Krosnick 1999).

The many factors that increase likelihood of satisficing for survey questions also can influence the magnitude of an individual’s susceptibility to order effects. Characteristics of questions and individuals which contribute to varied levels of task difficulty and respondent ability respectively can act to magnify or shrink the magnitude as well as reverse the direction of the order effect. Factors that “affect the direction and/or strength of the relations between an
independent or predictor variable and a dependent or criterion variable” are otherwise known as moderators (Baron and Kenny 1986, p. 1174). Unlike mediators which serve as the mechanism through which the independent variable impacts the dependent variable, moderators do not indicate why such effects occur, and merely “specify when certain effects will hold (Baron and Kenny 1986, p. 1176).

The factors that contribute to satisficing thus are all plausible moderators of order effects as well. To test whether the moderator does increase order effects requires a regression of candidate vote share on ballot order, the moderator, and an interaction of order and the moderator (see Figure 1). If the interaction term is statistically significant, the factor in question does act as a moderator of order effects (Baron and Kenny 1986, 1174).

To test whether any moderators of the order effect exist, I examine available measures of task difficulty and respondent ability, both which impact likelihood of satisficing, as moderators into the regressions. I first describe my methods, data, and results for available measures of task difficulty, and then do the same for measures of respondent ability.

6.1 Ballot Length and Order Effects (Task Difficulty)

*Literature Review & Hypothesis.* Question format can influence response quality (Schwarz & Sudman 1991). In keeping with the cognitive cost theory, individuals may satisfice more when presented a longer list of alternatives. In their summary of findings, Schuman and Presser (1981) note that primacy effects are more readily apparent on longer lists (p. 72-73). In investigating response-order effects, Schwarz, Hippler, and Noelle-Neumann (1991) found that order effects for longer lists of response alternatives were more likely to show signs of both primacy and recency then just primacy alone (p. 195). They refer to Ring’s (1974, 1975) survey
results which showed that when respondents were presented with a list of 18 famous people and told to select their favorites, those listed first and last were most likely to be chosen. They note that those listed first received much more than those listed in the middle, but not much more than those listed last, indicating simultaneity of primacy and recency effects. They also note that because the primacy effect is somewhat diluted by the recency effect for the last positions, “the size of primacy effects in long lists has typically been underestimated in the literature” (emphasis original) (p. 196).

On election ballots, Brook and Upton (1974) find that an increasing number of candidates listed increases the magnitude of the primacy effect (p. 416). Mueller (1970) finds in his observation of candidate vote share in the election of 133 candidates that those listed at the top of the ballot received more votes than those listed at the end, but that those listed at the very last received more than those right before last. In accordance with these studies, I expect to find increased primacy effects on ballots listing more candidates.

Data. The features of ballots used in the 2004 Ohio presidential election varied several different aspects, one of them being the length of the list of candidates. Seventy-one of the valid 86 counties created similar ballots which listed the presidential candidates vertically, with the vice presidential candidates listed to the right of each presidential candidate, thus resulting in a ballot that showed two columns of 4 or 5 names (Table 11) (Appendix 2 & 4). For 15 of the counties, although the presidential candidates were still listed vertically, the election-day ballot listed the vice presidential candidates directly below each corresponding presidential candidate, thus resulting in a ballot that showed one column of eight or ten names (Appendix 3 & 5). The dataset includes this information coded as a dummy variable, indicating whether or not each county used a “long” or “short” ballot.”
Method. To test whether ballot length acts as a moderator of order effects, the coefficients on the order variable would be different for precincts using long instead of short ballots. If ballot length increases primacy effects, the coefficients would be more negative. In this case, the moderator is a binary variable (ballot length is either long or short) and the independent variable is a binary ballot position variable (ballot position is either first/last or other positions).

A comparison of the magnitudes of the coefficients of two separate regressions would yield some insight as to the effect of ballot length on order effect. However, an ideal test would examine whether the coefficient on the order variable is statistically different for long ballots and short ballots. Using the Baron and Kenny (1986) method, I predict the log-odds ratio of candidate vote share by the ballot position variable, ballot length, and an interaction between the position and length. “Long” is the binary moderator which equals “1” when the ballot appears to have twice as many candidates, and “0” otherwise. The following equations test for moderation effect of ballot length on order effects:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Long}) + a_3(\text{Long}*\text{First}) + \epsilon \quad (7)
\]

The interpretation of the coefficients follows rather intuitively. If the coefficient on the “long” variable is significant, then depending on the sign of the coefficient, voters using long ballots are more or less likely to vote for the certain candidate. The coefficient on the order variable merely indicates whether there is an order effect as discussed in previous sections. This information does not, however, show whether order effects are different for voters using long ballots. When testing for the influence of ballot length on order effects, the only coefficient of interest would be that on the interaction term; this coefficient alone tests the statistical significance of the moderation hypothesis (Baron and Kenny 1986, p. 1174). The coefficient on the interaction term is only significant when the ballot length and the magnitude of the order
effect change simultaneously. If this interaction term is significant, then the effect of order on vote share is different for long and short ballots. If the coefficient on the interaction term is statistically significant and negative, the moderator increases the primacy effect. If statistically significant and positive, the moderator decreases the primacy effect.

The problem with interpreting the coefficients from a log-odds ratio regression, however, is that the statistical significance depends on the percentage changes relative to the reference candidate. Changing the reference candidate could change the statistical significance of the regression coefficients, leaving unclear whether the primacy effect increased in absolute terms or not. I therefore use a statistical package called Clarify to generate percentage estimates of the difference in vote share that each candidate receives when listed first and listed otherwise on long ballots. The estimates from Clarify generate z-statistics for the percentage estimates, making clear whether the percentage change is statistically significant or not. Next, I use Clarify again to generate percentage estimates of the primacy effect, excluding long ballots. Finally, I estimate the first difference between the two primacy effect estimates to see if the difference in the primacy effect is statistically significant.

A similar test can be done on four and five position ballots. The moderator would be a binary variable “Five” which equals “1” when the ballot used in the precinct was a five position ballot, and “0” for precincts using four position ballots. The equations would be identical to that of the “Long” ballot test:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Five}) + a_3(\text{Five}*\text{First}) + \epsilon \quad (8)
\]

If the generated percentage difference between the two primacy effects is positive and statistically significant, then the primacy effect is larger on the five position ballots than on the four position ballots.
Results. The results from the regressions using equation 7 show that the primacy effect on long ballots is statistically significant for all candidates but Peroutka (Table 12). The primacy effect on long ballots for Badnarik is .212% (p<.001), for Bush is 2.861% (p<.05), and for Kerry is 2.480% (p<.05), showing rather large primacy effects, especially considering that this is a well-publicized presidential election. The primacy effect on short ballots is much smaller and is statistically significant only for Badnarik (.132%, p<.001), with an effect size of 1.126% (n.s.) for Bush, and .796% (n.s.) for Kerry.

The primary estimate of interest, the difference in the magnitude of the primacy effect, is listed on seventh row of figures on Table 12. Although not statistically significant, the primacy effect seems to grow larger on longer ballots by 1.735% and 1.684% for Bush and Kerry respectively. The increase in primacy for Badnarik is statistically significant, increasing his vote share by .079% (p<.05). The findings together suggest that primacy effects do exist on ballots, and are more pronounced on longer ballots than on shorter ones.

The results show that primacy effects do appear on five position ballots as well, but only statistically significant for Badnarik (.153%, p<.001) and near marginal significance for Bush (1.606%, p<.2) (Table 12). Kerry also seems to have a general trend towards primacy as well on five position ballots, and receives 1.219% (p<.2) more votes when listed first than in other positions.

The primacy effect diminishes on four position ballots. Although primacy still exists for Badnarik (.065%, p<.1), on four position ballots, the difference in vote share when being first and listed in other positions becomes negative for Bush and Peroutka, suggesting that primacy no longer exists on four position ballots for these two candidates.

The difference in primacy effects between five position ballots and four position ballots
and is statistically significant for Badnarik only (.088%, p<.05), but is positive for all candidates, suggesting a general trend of greater primacy effects on five position ballots than four position ballots. Although the results are not as strikingly obvious as one may hope, the general trend is that the longer the ballot, the greater the primacy effect.

6.2 Voting Method and Order Effects (Task Difficulty)

*Literature Review and Hypothesis.* Although increases in task difficulty usually have adverse effects on response quality, survey mechanisms which require respondents by construct to carefully consider each question and answer increase response quality. Sudman and Bradburn (1982) speculate that response satisficing weakens when a respondent is forced to answer yes/no to each question, presumably because he must more carefully consider each item on the list. Consistent with Sudman and Bradburn’s hypothesis, Smyth et al. (2006) finds that forced answers to yes/no questions for each item yields more complete responses than the “check all that apply” question format, possibly because the yes/no format requires more time and thus deeper cognitive processing on the behalf of the respondent (pp. 67-68, 75).

Casting a vote entails the same question, thus keeping the “task” relatively constant across all voting methods. The time required to complete tasks of varying difficulty, however, may have implications for voting with ballots. Even if the format of the question and task is the same (i.e. vote for the candidate of your choice), the ballot format which requires respondents to spend the most time in indicating their answer should show signs of the least satisficing if the difficulty is kept constant. Respondents would have more time to reconsider their option while indicating their answer choice, and thus would be less prone to order effects. Based on this extension of response time to answer quality, I expect that the voting method that requires the
most time to indicate candidate choice would show the least signs of order effects.

Voting methods all vary in level of difficulty and time required to cast a vote. Punch card ballots, the most typically used ballot, require that voters align candidate names with their ballot, and then use a stylus to punch out the “chad” next to the candidate of their choice. Most people typically do not use such methods in their everyday lives, and are used to using pencil and paper to indicate their votes, thus increasing the likelihood of casting an invalid vote on punch cards (Jones testimony, 2001, p. 5). In addition to being an unfamiliar task, the time and “cost” required to cast a valid vote as well as to correct a mistake is rather high in comparison to optical scan and electronic ballots mentioned late (Tomz and Van Houweling, 2003).

Optical scan ballots are the second most frequently used ballot in the U.S. (Jones testimony, 2001), and require the voter to either darken the oval or to connect an arrow by the desired candidate’s name using a pencil or pen. In addition to being a somewhat more familiar task to most individuals, correcting a mistake on such ballots is somewhat easier. Many counties using optical scan ballots also have the technology available which alerts each voter to unintentional invalid votes cast. Although perhaps easier than punch card ballots, optical scan ballots still require some time from the voter in filling in the oval.

Electronic ballots often resemble ATM machines in that voters make their selection for candidate by pushing buttons on a screen or pulling levers corresponding to certain candidates. Such electronic ballots require the least time and effort from the voters, and make voting in all and any race quite simple.

Characteristics of the various voting technologies may exert influence on voting behavior. Shocket, Heighberger, and Brown (1992) designed an experiment which randomly assigned respondents to three voting technologies which correspond to optical scan, punch card, and
electronic ballots (p. 527). After being shown political commercials of 18 simulated candidates for city council, the respondents were asked to choose up to 9 candidates on their ballots. Their results show that those using punch card ballots were substantially less likely to use up their nine votes than those using paper and electronic ballots. They conclude that paper and electronic ballots are easier to use and present fewer barriers to casting valid votes than punch card ballots.

Tourangeau and Smith (1996) examine various methods of data collection, and note that although computerization reduces skipped or incorrectly answered questions, respondents are sometimes unfamiliar with a computer interface, causing some respondents to be more hesitant about participating (p. 282). They also note the possible differences in responses between questions that are self-administered and administered by an interviewer. The privacy of self-administered questionnaires could allow respondents to answer more honestly questions that they may be embarrassed to answer candidly to another person. Having a third-party interviewer administer or intervene may also distract the respondents, but could also help respondents stay motivated to complete the questionnaire or survey (p. 282).

Based on past studies, voting method could be a plausible moderator of order effects. The level of difficulty as far as the intellectual aspect of the question is constant across all voting technologies, thus leaving the actual casting of the ballot to be the only difference. In considering the time and effort required to cast a vote, I expect that both optical scan ballots and punch card ballots would show less signs of order effects than electronic ballots. If the task difficulty of answering the question itself was greater for punch card and optical scan ballots, then I would expect the reverse. However, by effectively forcing voters to take time to indicate their preference by punching a hole or darkening an oval, voters yield more “complete” responses as Smyth et al. (2006) found. I thus expect electronic ballots to have the greatest order effects. In
comparing optical scan ballots with punch card ballots, optical scan ballots are easier because of the familiarity factor so may have higher order effects. However, since the cost of fixing mistaken votes on a punch card ballot may prevent voters from fixing an error they otherwise would have on other ballot types, I am uncertain as to which voting method of the two would have larger order effects.

Viewed from a policy standpoint, if the magnitude of order effects does change depending on voting method, certain types of ballots should be preferred to others. States and counties which find rotation scheme too cumbersome particularly should consider voting methods to mitigate order effects.

Data. Similar to ballot appearance design, counties in Ohio also determine their own voting method. The three methods in descending order of use by number of counties are punch card ballots, optical scan ballots, and several forms of electronic ballots (Table 11). The dataset codes the voting method each county uses.

Candidate names are displayed in larger letters on punch card ballots than on optical scan ballots. Candidates on optical scan ballots are listed as a few lines, taking up barely more than a few lines. The appearances of touch screen ballots vary, but some include features such as prompting messages or blinking red lights to remind the voter of elections not yet voted in (Schaub 2007, telephone interview; Damschroder 2007, telephone interview). One key difference between these voting methods is the time required to place a vote. Whereas the vote itself takes a fraction of a second on punch card or touch screen ballots, optical scan ballots require the voter to fill in an oval by pencil.

Method. Testing for the moderation effect of voting method, I insert a dummy variable for “punch card” and “electronic touch screen.” I include interaction terms between the order
variable and the voting method dummy variables to see if order effect does vary between voting methods. Specifically, the equations are such that:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Punch Card}) + a_3(\text{Touch Screen}) + a_d(\text{Punch Card*First}) \\
+ a_d(\text{Touch Screen*First}) + \epsilon \\
\]  

(9)

To avoid collinearity, a dummy variable for voting method “optical scan” is excluded and thus the “baseline” of the regression. The coefficients on the interaction terms describe the change in order effects of optical scan and touch screen ballots relative to punch card ballots. Equation 9 does not test for the statistical difference between optical scan and touch screen ballots. Therefore, to test for the statistical difference for each combination of voting methods, I switch optical scan and punch card ballots as the base category, thus including a dummy variable and interactions for optical scan to get:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Optical Scan}) + a_3(\text{Touch Screen}) + a_d(\text{Optical Scan*First}) \\
+ a_d(\text{Touch Screen*First}) + \epsilon \\
\]  

(10)

Results. The estimates show that the voting method used in the county does have influence on order effects (Tables 13). Punch card ballots seem to have a statistically non-significant primacy effect of 1.203% (p<.2) and .719% (n.s.) for Bush and Kerry. When compared to the order effect on optical scan ballots, punch card ballots seem to have a larger primacy effect for all candidates than optical scan ballots, but the difference is statistically significant only for Badnarik.

Optical scan ballots similarly seem have no substantive primacy effect either. Badnarik is the only candidate with a statistically significant primacy effect, and votes for Kerry show a slight recency effect on optical scan ballots. The primacy effect seems to be smaller than that on punch card ballots.
The primacy effect on touch screen machines is 3.856% (p<.01) for Kerry and 3.907% (p<.05) for Bush, and is marginally statistically different from the primacy effect on optical scan ballots. The differences in primacy effects among voting methods comes primarily from touch screen voting machines. The primacy effect increases nearly 4% for both major party candidates on touch screen machines than on optical scan ballots.

The larger primacy effect from touch screen ballots still remains when compared against punch card ballots. The primacy effect is 2.704% (p<.2) larger for Bush on touch screen ballots than on punch card ballots. The 3.128% (p<.1) larger primacy effect for Kerry on touch screen ballots suggests that touch screen ballots truly to exhibit larger primacy effects than all other voting methods used in this election.

In theory, the change in order effects across voting methods may not be caused by characteristics of the voting method itself. Voting methods are not necessarily randomly assigned to counties, and thus could be correlated with certain county characteristics. Possible county characteristics such as per capita income or population density could lead to differences in average education levels. If voters in counties that use optical scan ballots are typically better educated, the difference in order effects would be consistent with the literature’s expectations. Using data from the U.S. Census in 1999, I examine if observable county characteristics are correlated with voting method used in each county. Using the mlogit function in Stata, I place voting method used in each county as the dependent variable with county characteristics such as electorate size, age, income, education, household language, race, and rurality as independent variables. A few county characteristics were statistically significant predictors of voting method (Table 14). Touch screen voting machines were more likely to be used in counties with more households that speak other languages. Touch screen voting machines were also marginally more
likely to be used in counties that had more of the population with less than a high school education.

The county characteristics that were statistically significantly correlated with punch card ballots were urbanicity (negatively) and percentage of households speaking other languages, suggesting that punch card ballots tend to be used in more rural counties (Table 15). Touch screen ballots are marginally significantly correlated with urbanicity as well, suggesting that touch screen ballots tend to be used in more urban areas. Other county characteristics were not statistically significantly correlated with voting methods at the conventional levels. Given the relatively few incidences of significant correlation, voting methods are nearly randomly distributed across counties. If I can assume that voting method is effectively randomly distributed, at least across observable county characteristics, then differences in name-order effects can be causally attributed to some inherent characteristics of touch screen voting machines.

If the difference in primacy effects is not caused by county characteristics, one may wonder what inherent characteristics of touch screen ballots could cause this large difference. Psychological literature has identified various factors that contribute to a voter’s susceptibility to order effects. While Krosnick and Schuman (1988) suggest that those with least involvement with the question’s topic are not necessarily the most influenced by question characteristics, Converse (1974), Cantril (1944), Payne (1951), and Bishop (1990) find that involvement does play a role in response effects (Bishop 1990, p. 209). Extended to the ballot order situation, level of involvement during an election could determine which individuals proactively gather and retain information about the candidates. Order effects may thus be greater for individuals who have lower involvement.
The added order effect from electronic ballots may be a result of the tapping into each individual’s involvement level. Electronic ballots by design often remind voters of elections left blank, thus possibly causing voters to vote for races that they would not have otherwise voted in. Whereas paper ballots would not have made uninvolved individuals feel obligated to cast a valid vote in each race, such reminder features on electronic ballots may create a feeling of obligation, causing uninvolved individuals to cast votes in races they have no information about.

Time voters spend recording a vote may also explain the difference in order effects. Tasks that are “too easy,” such as pressing a button on a touch screen machine, fail to engage and stimulate individuals sufficiently to cause them to consider their choice. Tasks that are slightly strenuous or demanding, such as punching out the “chad” or making marks with a pencil, require more concentration and thus may cause individuals to more carefully consider the option they are exerting the effort to cast a vote for. The time required for a voter to press a button on an electronic voting screen is a small fraction of the time and concentration required for a voter to fill in an oval with a pencil on an optical scan ballot. The time that the voter spends filling in candidate choices may reduce unintentional voting for minor party candidates, and may encourage greater deliberation over candidate choice, hence leading to decreased primacy effects as the results show here.

6.3 Absentee Voters and Order Effects (Task Difficulty)

*Literature Review and Hypothesis.* The voting experience is not identical for all voters. Few studies inquire into the impact of the difference in voting environment between voters who vote absentee and those who vote on election day in polling places. A polling place voter typically is stopping by to vote on his way elsewhere, has been standing in line, and has little
helpful information in the polling booth to guide his voting decision. In contrast, the absentee voter can vote at his leisure, consulting friends, newspapers or magazines when choosing among candidates and initiatives.

The advantage that absentee voters have by being able to refer to other information could greatly influence proneness to order effects. Sudman and Bradburn (1974) examine the effect on respondents of having records available, receiving aided recall, or having neither when reporting their own activities in some time in the past. The results suggest the intuitive finding that those who have records available are less likely to omit or exaggerate activities. Horn’s (1960) findings based on a survey conducted in the Netherlands indicated that “47 percent of respondents who consulted records gave the correct balance in their savings accounts while only 31 percent of respondents who did not consult records gave the correct balance” (qtd in Sudman & Bradburn 1974, p. 811). Looking at relevant information could thus have the impact of increasing answer quality.

Absentee voters may also differ from polling place voters in other regards. In summarizing the literature’s findings of absentee voters, Barreto et al. (2006) notes that absentee voters are more likely to be white, male, conservative, Republican, politically active, living in rural areas, better educated, and perhaps older than the average voter (p. 227). As will be examined in further detail later, higher levels of education would suggest decreased proneness to order effects as well.

Because of lack of time pressure and distractions, the absentee voter can more easily concentrate on the ballot, thus lessening the difficulty of the task. The typical characteristics of absentee voters, especially higher levels of education, also indicate that absentee voters would be better able to provide answers of higher quality. The absentee voter is thus arguably less prone to
order effects. I expect order effects to be considerably weaker and perhaps nonexistent for absentee voters in comparison to the polling place voters.

Data. Variance in tabulation procedures across counties made the absentee vote totals for the 2004 election in Ohio particularly difficult to find. All counties except for Lucas and Lorain did not keep separate absentee results which would indicate the breakdown of the absentee vote by precinct and by candidate. Six counties pool all absentee votes into a separate “precinct,” thus keeping absentee and election day votes separate. The separation is ideal to find the order effect purely for election day voters. The other counties did not keep a detailed record, and counted the absentee ballots and the election day ballots together. Three counties did not keep any separate record of absentee votes cast by precinct. The dataset thus lists total absentee votes cast in 6183 of the precincts in 77 counties, but not separated by candidate for whom the votes were cast.

Of the 77 counties that had absentee information but not by candidate, 22 did not have totals in readily available form. The only method of obtaining the desired absentee data was through a manual count of records of returned valid absentee ballots in their county-wide absentee ledgers. I requested the absentee voter registration lists from these 22 counties and scoured through the thousands of pages of absentee voter registration lists. I matched each absentee voter with the precinct he or she was registered in, and then tabulated by precinct only voters who returned a valid ballot.

The analyses conducted for this study exclude the pooled absentee precincts. The county pooled absentee precincts gather absentee ballots from voters from all precincts within the county. Absentee ballots are rotated by precinct as well, resulting in multiple ballot orders within the absentee precinct. An order effect analysis of the precincts would require a re-examination of the vote and order of each absentee ballot.
Method. The limited availability of absentee data prohibits separate regression for only absentee votes and only election day votes except for Lorain county (Lucas data cannot be used because the ballots at the polling places were rotated by voter whereas the absentee ballots were rotated by precinct, thus not allowing for a comparison within the county). The typical models predicting vote share based on ballot position therefore cannot be used. Only Lorain County recorded absentee votes separately for each candidate, so this ruled out the possibility of conducting separate order effect tests on absentee votes by precinct.

The total absentee votes cast per precinct, however, can be used to gauge the impact that voting absentee has on order effects. If absentee voters are less prone to order effects as hypothesized earlier, then order effects should weaken as the percentage of absentee votes cast in each precinct increases. Absentee percentage therefore also acts as a moderator, and its effect can be estimated in a similar fashion to ballot length described earlier. The available data allows for a test of whether absentee votes act to moderate order effects by using the moderation effect model described by Baron and Kenny (1986). The absentee percentage moderator is a binary variable here, and equals one when the percentage of absentee voters in a precinct is particularly high (equal to or above the 75th percentile in Ohio, more than 12.7% of the total vote). The moderator is therefore a dichotomous variable, and the independent variable is a categorical variable (candidate position on the ballot). I use the SUR methods with continuous order variables, testing for the moderation effect of absentee percentage on vote share with the following equations:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Absentee}%') + a_3(\text{Absentee}%'\times\text{First}) + \epsilon 
\]

Interpreting the estimates from these models is again very similar to as in the ballot length case. The coefficient on the interaction term is the only coefficient that tests whether absentee percentage is a significant moderator (Baron and Kenny 1986, p. 1174). Significance of
the coefficient on the interaction term signifies that the influence of order effects changes as the percentage of absentee voters changes.

In estimating the coefficients for the moderation effects model, I implicitly rely upon the assumption that counties that included absentee votes with election day votes are not systematically different from counties that did not. If this assumption is violated, then our estimates may be biased. This bias may occur if counties that count absentee and election day ballots together are systematically different than counties that have separate pooled absentee precincts, such as having lower levels of education. Past research suggests that individuals with lower levels of education are more likely to be influenced by order effects. If there is a strong correlation between county education levels and having a separate pooled absentee precinct, then the coefficient on the interaction term would not represent a pure moderation effect.

Results. The results do not show much moderation effect of absentee voters on the order effect (Table 16). There appears to be a general trend of primacy in precincts with a high percentage of absentee voters, but the primacy effect is only statistically significant for Badnarik. The 1.3% primacy effect for both major party candidates is not statistically significant at conventional levels.

The difference in primacy effect between precincts with a high percentage of absentee voters was not statistically significant from precincts with a lower percentage of absentee voters. Order effects thus appear to be approximately the same for absentee voters as they are for election day voters. Although absentee voters have the option of spending more time on their choices on the ballots, the evidence suggests that absentee voters actually do not necessarily expend more time or effort when voting. The statistical significance levels suggests absentee voters are not markedly different from election-day voters.
6.4 Irregular Ballot Design and Order Effects (Task Difficulty)

*Literature Review & Hypothesis.* Questions and answer choices may sometimes, intentionally or unintentionally, appear in ways that are unfamiliar to an individual and thus change survey responses (Smith 1995; Sanchez 1992). Irregular spacing, asymmetrical layout and design, out-of-place response options and the like could all influence response quality by increasing the perceived difficulty of casting a vote for the preferred candidate. In their examination of questionnaire design and layout, Tourangeau, Couper, and Conrad (2004) find that visual “cut-offs” in the presentation of response options can influence responses (Figure 2). In their web-based survey, they randomly assign respondents to receive on of two versions of a certain question. One version had a line above the last two options “Don’t know” and “No opinion,” while the other version listed all responses without any line. The visual midpoint of the first version thus fell on the option “About the right amount,” while the visual midpoint of the second version fell on the option “Too little.” Not only were the nonsubstantive options selected more frequently with the divider, the distribution of responses to the substantive options were statistically significantly different across the two versions. The change in distribution suggests that “the meaning of each response option is partly based on its relative position within the array of response options. As an option appears to move to one side or other of the visual midpoint, the meaning respondents assign to it may shift as well” (p. 376).

Tourangeau et al. (2004) also examine the effect of uneven spacing between horizontally placed response options on response (Figure 3). Again, they found that respondents with the unevenly spaced options were more likely to choose options to the right side of the midpoint when unevenly spaced as opposed to when evenly spaced. The authors attribute this tendency
again to the theory that respondents “use not only the verbal label attached to a scale point, but also its position relative to the visual midpoint to infer what specific value the scale point is supposed to represent” (p. 380).

**Ballot Appearance in Ohio.** Layout and visual design of ballots thus could conceivably influence order effects as well. Specific elements of ballot design, however, usually appear to be the same regardless of ballot used. In the 2004 election in Ohio, however, ballot length was not the only variant ballot feature across counties and precincts. The failed candidacy of Ralph Nader

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**Figure 2.** Formats for displaying nonsubstantive options (from Tourangeau, Couper, and Conrad (2004), p. 375)
in Ohio resulted in several ballot appearance irregularities across counties.

Unable to obtain the minimum number of required valid signatures, Nader became a disqualified candidate in several states including Ohio. On September 29, 2004, thirty-four days before the election, Ohio Secretary of State Kenneth Blackwell issued a directive that Nader was to be removed from the ballot. Many of the Ohio election boards, however, had already printed ballots prior to the directive. The directive thus offered three options for ballot correction: 1) to reprint the ballots without Nader’s name, 2) to remove Nader’s name “from existing ballots by use of stickers or other method,” or 3) to post notices in each precinct where Nader’s name remains on the ballot that votes cast for him would not be counted (Blackwell, Directive 2004-38). The counties were to remove Nader if possible, thus making option three the least desirable.

The county boards of elections’ adherence to this directive resulted in approximately six
distinct ballot appearances: 1) four-position four-candidate ballots without any slot or mention of Nader, 2) five-position four-candidate ballots with one blank white slot, 3) five-position four-candidate ballots with one blank black slot, 4) five-position four-candidate ballots with a slot indicating “Candidate Removed,” 5) five-position four-candidate ballots with “Void” printed over Nader’s name, 6) five-position five-candidate ballots with Nader listed as all other candidates but with signs posted stating his withdrawal. Table 3 lists the number of counties and precincts each ballot type was used in.

Given the limited time and the various options, only a few counties made the most ideal changes. Six counties implemented the ideal ballot appearance, a 4 position ballot listing 4 candidates (Appendices 5 & 7). Fifty-three counties followed the second option by placing a sticker or marking over Nader’s name while leaving the 5 position rotation intact. This second option resulted in 3 distinct ballot appearances (Appendices 9-12). For 33 of these 53 counties, Nader’s name was replaced with a phrase such as “Candidate Removed” (Appendix 11). These ballots usually printed this phrase in a font style and size which was identical to that used for any other candidate’s name, such that upon first glance, the ballot seems to list 5 candidates. Three counties printed or stamped the words “Void” or “Disqualified” across Nader’s name such that Nader’s name was still visible (Appendix 12). Ten counties had a blank white slot instead of Nader’s slot (Appendix 9), and the other 7 had a blank black slot (Appendix 10). Twenty-seven counties followed the third option by leaving Nader’s slot on the ballot untouched, but posting signs in the voting area that Nader had been disqualified and that votes cast for his slot would not be counted (Hogue 2007) (Appendices 6 & 8).

Voting Possibility. Whether Nader’s name physically appeared on the ballot did not, however, necessarily mean that voters could cast a vote for his position on the ballot. Table 3
shows the number of counties and precincts in which it was and was not possible to vote for Nader’s position on the ballot. Regardless of the appearance of the ballot, 20 counties made voting for Nader’s position on the ballot physically impossible. Instead of perforating the holes next to each candidate so voters could punch a hole to cast a vote, these 20 counties “masked off” the hole aligned next to Nader’s position so that no voter could punch a hole for that candidate. As for 56 of the counties, a voter could have physically cast a vote for Nader’s position, whether it be for his name or a label, even though the vote eventually would not have counted. Because of changes in election board personnel since the 2004 election, Clinton, Madison, Mercer, and Morgan were unable to confirm the physical possibility of voting for Nader’s position on their 5 position ballots. The data shows that at least 657 voters voted for Nader’s position even though his ballot position had been altered in some manner.

Hypothesis. Analyzing the order effects on irregular ballots proves to be slightly more difficult. A blank spot on the ballot or a slot that read “Candidate Removed” probably would draw a voter’s attention more to that ballot position than if the position had simply listed another candidate’s name. Irregular ballot designs such as this could lead to a disruption in order effects. If the voter’s attention is drawn to the irregular position, then the position immediately following the irregular position may experience a “first-position” advantage. The irregular position could cause a “break” in the voter’s concentration, thus effectively partitioning the ballot into two smaller ballots.

Data and Method. The ballot appearances as well as the possibility of voting for Nader are coded in the dataset. To test for moderation of the order effect, I create models with a dummy variable for normal ballots (indicating four and five position ballots that list all candidate names), “blank” (indicating a five position ballot with a white or black blank position), and “irregular”
indicating a five position ballot with some other alteration to Nader’s position), all various ballots used in the election. The omitted appearance category is “irregular” which would have 5 positions on the ballot, but with some irregular alteration to Nader’s ballot that is not a blank white or black slot. I interact the order variables with the appearance variables to yield the equations:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Blank}) + a_3(\text{Normal}) + a_4(\text{Blank*First}) + a_5(\text{Normal*First}) + \epsilon 
\]

**Results.** The primacy effect on correctly printed ballots is the smallest, with the largest effect size being .893% (n.s.) for Bush and .541% (n.s.) for Kerry, both of which are statistically nonsignificant (Table 17). The ballot appearance on which voters demonstrated the largest primacy effects was on ballots with irregular positions. The primacy effect was 1.571% (p<.2) for Bush, 1.357% (p<.2) for Kerry, and smaller for Badnarik and Peroutka. Although the primacy effect for Badnarik is the only one that was statistically significant, the primacy effect seems to be largest on the irregular ballots. Ballots with blank positions were the ballots with next largest primacy effect, with 1.328% (n.s.) for Bush and .931% (n.s.) for Kerry, neither of which is close to statistical significance.

In testing the differences between the primacy effects of the various ballot appearances, the results show that ballot appearances irregularities usually do not affect primacy effects. The only instances of statistically significant differences between ballot appearances occurred for Badnarik, and were substantively quite small. I thus feel somewhat justified in using the order variable that I do which numbers ballots with irregular positions and blank positions in a similar fashion.
6.5 Invalid Votes and Order Effects

*Literature Review and Hypothesis.* Most studies regarding invalid votes investigate county characteristics that could contribute to invalidation rates. Voting method, for example, influences invalidation rates. In a comparison of invalid votes depending on voting method, Knack and Kropf (2003) find that hand-counted paper ballots, lever machines, and optical scanning ballots had statistically fewer invalid votes than punch card ballots. “Lever machines appear to perform the best, with a rate of voided ballots 1.2 percentage points lower than for punch card counties” (p. 888). In their analysis of unrecorded votes, Kimball and Kropf (2005) find that counties which have an “error correction feature” such as that in precinct-count optical scan ballots have statistically fewer unrecorded votes than other voting methods (p. 520). Tomz and Houweling (2003) show that optical scan, electronic, and lever machine ballots are relatively easier to notice both votes cast unintentionally for the wrong candidate or under votes than on punch card ballots. They also point out that the “cost” to the voter of fixing their mistake is higher on punch card ballots than on optical scan and electronic ballots (p. 48).

In their experiment with a simulated multi-candidate election for city council, Shocket, Heighburg, and Smith (1992) found that invalidation rates varied by voting technology, with punch card ballots showing the highest percentage of invalid votes, followed by paper ballots, with no invalid votes cast on electronic ballots. In his testimony before the United States Civil Rights Commission, Dr. Douglas W. Jones, associate professor of computer science at the University of Iowa, testified that punch card ballots were most difficult in terms of casting a valid vote.

African-American as well as Hispanic population also leads to more voided ballots (Kimball and Kropf 2005, Knack and Kropf 2003, Brady et al. 2001, Herron & Sekhon 2001,
Posner 2001, Tomz & Houweling 2003). Based on 2000 presidential election data from South Carolina, Tomz and Houweling (2003) find that proportion of nonwhites in the population tends to increase invalid votes cast regardless of voting method used, but least for electronic ballots. Given that African Americans tended to report higher incidence of intentional undervote for the presidential election, the difference in invalid votes on electronic ballots could, however, be due to intentional abstention (p. 58).

The relationship between invalid responses and response order, however, has been less fully examined. The extent to which percent of invalid votes moderate effects may indicate the joint effect of various county characteristics such as voting method, race, and education. Because of the characteristics found to be causing invalidation rates resemble those which could arguably contribute to order effects, I expect to find greater order effects in areas with higher invalidation rates.

Data and Method. Similar to the other tests for moderation effects, I calculate the percentage of total votes cast that are invalid in each precinct, and test whether that percentage acts as a moderator of order effects. The moderator here is a binary variable which equals one when the percentage of invalid votes in the precinct is greater than the 75th percentile in Ohio, or over 2.27%. The equation I estimate is:

$$\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Invalid Votes}) + a_3(\text{Invalid Votes}*\text{First}) + \epsilon$$  \hspace{1cm} (13)

I then test invalidation rates along with voting method to see whether invalidation rates still act as a moderator of the primacy effect when controlling for the various changes in the order effect caused by voting methods. Certain voting methods have higher rates of invalidation, thus possibly driving the results here. The mean percentage of invalid votes for precincts using punch card ballots is 19.08%, while the mean percentage of invalid votes for precincts using
touch screen ballots is 11.59% and 12.05% for optical scan ballots. Because the means for touch screen and optical scan ballots are so similar and because the primacy effect seems to be most pronounced for punch card ballots, I run a regression with a dummy variable and interaction term for punch card ballots, as well as for invalid votes, thus using the following equation:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Invalid Votes}) + a_3(\text{Punch}) + a_4(\text{Invalid Votes} \times \text{First}) + a_5(\text{Punch} \times \text{First}) + \epsilon
\]  

(14)

Results. The primacy effect is particularly well pronounced in precincts with a high level of invalid votes (Table 18). The primacy effect is statistically significant for all candidates but Peroutka, and is 5.375% \(p<.001\) for Bush, 3.171\% \(p<.01\) for Kerry, and 0.028\% \(p<.2\) for Badnarik.

The primacy effect is notably smaller in precincts with lower levels of invalid votes. The primacy effect for Bush is statistically significant at 2.907\% \(p<.01\), and for Badnarik at 1.298\% \(p<.2\), but only marginally so for Kerry at 0.009\% (n.s.).

The primacy effect does appear to be larger in precincts with high levels of invalid votes, but the difference is statistically significant for only Bush and Badnarik.

These results suggest that some unobserved characteristic of these precincts that have higher vote invalidation rates makes their voters more susceptible to primacy effects, but mostly for Badnarik and Bush. The idea of a consistent primacy effect for only two candidates does not adhere precisely to phenomenon that could be explained by satisficing. There is a possibility that some voters in Ohio were willing for anyone listed except for Kerry. That could potentially explain the presence of increased primacy effects for all other candidates except for Kerry.

In precincts using punch card ballots and with many invalid votes, the primacy effect is still statistically significant and positive for all but Peroutka, with 0.213\% \(p<.001\) for Badnarik, 5.541\% \(p<.001\) for Bush, and 3.160\% \(p<.01\) for Kerry. In precincts not using punch card
ballots but with many invalid votes, the primacy effect is present and positive but smaller, with .332% (p<.001) for Badnarik, 4.055% (p<.01) for Bush, and 2.880% (p<.05) for Kerry.

The statistical significance as well as the magnitude of the primacy effect seems to diminish rather sharply once looking at precincts with fewer invalid votes. In precincts using punch card ballots but with few invalid votes, the primacy effect is statistically significant for Badnarik (.114%, p<.001) and Bush (3.333%, p<=.01), but is not for Kerry (1.030%, n.s.) or Peroutka. Precincts that do not use punch card ballots and do not have high invalidation rates have primacy effects for Badnarik only, with the magnitude of the effect falling for all candidates, .209% (p<.001) for Badnarik, 1.788% (p<.2) for Bush, 1.957% (p<.1) for Kerry, and .008% for Peroutka (n.s.).

The results thus suggest that there is something about precincts with high invalidation rates that seem to increase the primacy effects to about three times larger than the state average. Areas with voters who tend to cast invalid votes more frequently are much more highly prone to primacy effects. The effect can be mitigated somewhat by using voting methods other than punch card ballots.

Somewhat surprised by the magnitude of the order effect in areas with high invalidation rates, I examine the correlation between invalidation rates and precinct characteristics (Table 19). Most precinct characteristics were statistically significantly correlated with invalidation rates. The precinct characteristics most highly correlated with invalidation rates are percent of the precinct population that 1) completed less than high school education, 2) had low levels of income, 3) were homerenters, and 4) were black. The characteristics most negatively correlated with invalidation rates are percent of the precinct population that 1) completed a college educated, 2) had incomes higher than $60,000, 3) were homeowners, and 4) were white.
6.6 Education and Order Effects

*Literature Review and Hypothesis.* Education arguably influences perception of task difficulty as well as develops respondent ability. Besides training individuals in answering questions, education helps individuals in forming informed opinions and “performing complex mental operations” (Krosnick 1999, 549). An individual’s level of completed education may thus serve as an effective measurement of respondent ability.

Education has already been proven to increase reliability in reported attitudes. Alwin and Krosnick (1991) find that individuals with more education show “a systematic increase in levels of reported attitude measurement reliability,” suggesting that “schooling provides experiences that reduce the tendency to report attitudes randomly” (p. 169).

Because of the increase of respondent ability and decrease in perception of task difficulty, education level of individuals should decrease order effects. Several studies have accordingly shown that education does impact response-order effects (Alwin 1998, Krosnick and Alwin 1987, Alwin and Krosnick 1991, Krosnick 1992, Narayan and Krosnick 1996, McClendon 1986, 1990). Less influenced by striking words and more able to comprehend the point of the question, educated individuals should have smaller order effects than those with less education (Schuman and Presser 1981, p. 6, 62). Schuman and Presser’s (1981) experiment results suggested trends of education as a moderator of the order effect, but failed to yield statistically significant results, causing them to be unsure of the education moderation hypothesis (p. 30-31, 71).

Krosnick and Alwin (1987) follow up on Schuman and Presser’s idea by examining the effect of cognitive sophistication on the order effect. Measuring cognitive sophistication with completed education and vocabulary scores, they find that those with high cognitive sophistication differed markedly from those with low sophistication, with the low sophisticates
choosing alternative listed earlier much more frequently (p. 209). Using college GPA as a proxy for cognitive sophistication, Krosnick (1992) again finds similar results.

Based on a meta-analysis of Schuman and Presser’s experiment, Narayan and Krosnick (1996) tested the education moderation hypothesis again to find significant differences in the order effect between respondents of low and high education. Respondents with low levels of education (those who had not completed high school) had statistically significantly larger order effects than both respondents with medium levels of education (high school graduates) and high levels of education (at least some college).

Knauper (1999) argues, however, that the moderation effects of education on order effects may be accounted for by age. Disentangling the order effect for age and education, he finds that age accounts for more individual differences in response order effects than education. He does, however, find instances where education does act as a moderator of the order effect, and suggests that the changes in signs for the education coefficients may indicate that “education may in some cases suppress the effects of aging.” (p. 362). In related findings, Knack and Kropf (2003) find that in Florida in the 1996 presidential election, areas with higher percentages of high school graduates have fewer voided ballots (p. 882).

To summarize the findings, the higher the respondent’s cognitive sophistication, the less likely the respondent is to satisfice, and thus the less susceptible the respondent will be to response order effects. I thus expect to find larger primacy effects among less-educated individuals.

Data. To test the impact of education levels on order effects, I use U.S. Census Bureau data from the 1999 census survey. The Census Bureau data was divided into townships and cities of 1587 geographies for the entire state of Ohio. The variables for education, income, age, home
ownership, household language, race, and urbanicity were not available at the detailed precinct level, so I matched as many precincts as possible to cities and townships with matching names. Perfect matches were found for 1535 of the townships and cities to 9882 of the precincts. The 676 precincts as well as the 52 cities and townships that did not have matches were omitted from the regressions. Although not a perfect solution, the census data gave relatively fine-grained data on education as well as other precinct characteristics.

Using such aggregate-level instead of individual-level data leads to problems with the ecological fallacy. Robinson (1950) proves that ecological correlations cannot be validly used “as substitutes for individual correlations” (p. 357). Robinson argues that the theoretical possibility of the individual correlations being the same as the ecological correlations is not necessarily common (p. 357). As Piantadosi et al. (1988) further notes, “Serious errors can results when an investigator makes the seemingly natural assumption that the inferences from an ecological analysis must pertain either to the individuals within the groups or to individuals across groups (p. 893).

Kramer (1983) describes the fallacy at work in economic and sociotropic voting, where studies based on aggregate-level data find “macroeconomic conditions and election outcomes operating in intuitively plausible directions,” while studies based on individual-level data are “unable to detect any comparable relationship between individual voting behavior and personal economic circumstances (p. 92). Kramer circumvents the ecological fallacy problem by establishing that aggregate-level time-series analyses better explain individual-level behavior than individual-level time-series data does (p. 92).

Schwartz (1994), however, argues that studies based on ecological aggregate-level data are still useful if not necessary to “examine structural, contextual, and sociological effects on
human behavior and disease development” (p. 823). She also notes several aspects of ecological-level models that are superior to individual-level models, for example, the lack of response bias, recall bias, and naysaying for aggregate-level data. Furthermore, “the grouping process itself may control for some confounding variables not controlled for in an individual-level model” (p. 820). Although acknowledging that ecological studies do not serve as a substitute for individual-level studies, Schwartz emphasizes that individual-level studies cannot consider “the potential etiological influence of aggregate-level variables, distinct from the effects of the same measures on an individual level” (p. 822).

Although whatever findings result from the statistical regression of the aggregate-level census data cannot be interpreted as strictly causal, the potential for individual-level inferences as well as the “potential etiological influence” of the variables make these findings of interest.

To test for the effect of education levels on the primacy effect, I use a binary moderator which is equal to 1 when the percentage of people in the township that have not completed high school is 11.27% (25th percentile of Ohio) or higher, thus looking at the change in primacy effects for reasonably highly educated areas. Similar to the other tests of moderation conducted earlier, I then interact the education variable with the order variable to get the regression equation:

$$\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Education}) + a_3(\text{Education}*\text{First}) + \varepsilon \quad (15)$$

**Results.** The primacy effect in precincts where less than 11.27% of the population have less than a high school education (i.e. well-educated precincts), the primacy effect is quite small and statistically nonsignificant (Table 20). The primacy effect in precincts with more than 11.27% of the population with less than high school education is rather large in comparison. The primacy effect is .175% (p<.001), for Badnarik 1.878% (p<.1) for Bush, 1.243% (p<.2) for Kerry,
and negligible for Peroutka. The difference between the two is not statistically significant except for Badnarik, but the differences are in the expected direction, with less education leading to larger primacy effects.

6.7 Household Language and Order Effects

*Literature Review and Hypothesis.* Although education appears to influence attitude reliability as well as order effects, the effect of household language has hardly been examined. Based on Krosnick’s (1999) analysis of task difficulty and ability, however, one can assume that task difficulty increases and ability decreases when the individual is forced to answer questions in a language that is not their native tongue. As task difficulty increases as respondent ability decreases, proneness to order effects thus should increase as well. Accordingly, in conducting this exploratory analysis, I would expect that areas with more voters whose native language is not English would show increased proneness to primacy effects.

*Data and Method.* The U.S. Census Bureau data for Ohio furnished data on percentages of various languages spoken in each household. The languages included were English, Spanish, Indo-European, Asian, and other. I test whether the percentage of households that speak Spanish acts as a moderator of the order effect. After attempting various cuts, I choose to use a binary variable for Spanish-speaking households which equals one when above the 75th percentile (3.23% in Ohio) in percentage of Spanish-speaking households, and equals zero when equal to or below the 75th percentile. I then insert a variable to test for the moderation effect of Spanish-speaking households by interacting the binary variable with each candidates order variable to get the following equations:

\[
\text{Log Ratio} = a_0 + a_1(\text{First}) + a_2(\text{Spanish}) + a_3(\text{Spanish}*\text{First}) + \epsilon \quad (16)
\]
Results. Precincts in areas with more Spanish-speaking households show statistically significant primacy effects for all candidates but Peroutka, with the primacy effect 2.937% (p=.018) for Bush, 2.213% (p=.049) for Kerry, and .180% (p<.001) for Badnarik (Table 20). Precincts with fewer Spanish-speaking households show much smaller primacy effects, .948% for Bush and .595% for Kerry, and are statistically significant for only Badnarik. The difference in the primacy effect, however, is not large enough to be statistically significant for any candidates.

6.8 Age and Order Effects

Literature and Hypothesis. The working memory capacity of an individual influences response quality. Respondents with low working memory, “the ability to simultaneously process and elaborate new incoming information while at the same time executing rehearsal or storage processes on earlier encoded information (cf. Baddeley 1986),” are particularly “susceptible to response effects in surveys (Knauper 1999, p. 349). Individuals with lower cognitive ability are more significantly strongly affected by question difficulty than those with higher cognitive ability, showing that an individual’s cognitive ability acts as a moderator of question difficulty (Knauper et al. 1997, 194-195).

Working memory capacity appears to be strongly correlated with age, and drops off sharply around age 65 (Schaie 1996). Most studies show that older respondents exhibit “greater decreases in accuracy as the number of required integration operations increased” (Salthouse, Babcock, and Shaw 1991). “The cognitive decline [due to aging] has been found to results in, among others, text comprehension problems (see Kemper and Kemtes 1998) and problems in learning and reasoning (for overviews, seek Craik and Salthouse 1992)” (Knauper 1999, p. 349).
The high correlation between aging and decrease cognitive ability suggests that age could be perhaps a weaker but valid proxy for cognitive ability. Accordingly, Knauper (1999) finds that responses of older respondents vary considerably by age, and tend towards primacy, a tendency that is independent of educational differences (p. 363).

Because of previous findings regarding the relationship between working memory capacity and age, I expect that areas that have a higher percentage of people over the age 65 would show increased primacy effects. Furthermore, I expect areas with a higher percentage of people between ages 18 to 25 to have decreased primacy effects because of the absence of the memory capacity problem, and because of the increased incidence of first-time voters who arguably are most motivated and hence least susceptible to response order effects.

*Data and Method.* Using the U.S. Census Bureau data from the 1999 census, I pick 65 and over at the age category for which I would expect increased proneness to primacy effects. Since I expect precincts with a high concentration of old people to exhibit larger primacy effects, I test the moderation effect by creating a binary variable which equals one when the concentration of old people is above 20.96% (Ohio’s 75th percentile) of the precinct’s population.

Furthermore, to test whether the number of younger voters and thus possibly more first-time voters with high involvement have decreased susceptibility to order effects, I choose the age group from 18 to 25. Since I expect precincts with a high concentration of young people to have smaller primacy effects, I create a binary variable which equals one when the concentration of young people is above 13.25% (Ohio’s 75th percentile) of the precinct’s population, and thus for the moderation effect.

*Results.* The impact of percentage of population in certain age groups appears to be
opposite of what I expected (Tables 27-28). In precincts with a high percentage of the population under the age of 25, the primacy effect is relatively small and nonsignificant except for Badnarik. The primacy effect is 2.217% (p<.1) for Bush, and 1.684% (p<.1) for Kerry. However, in precincts with a lower percentage of the population under the age of 25, the primacy effect is smaller still and only statistically significant for Badnarik, with a primacy effect of .973% for Bush and .666% for Kerry. The percentage of the population under the age of 25, the segment of the population that should be experiencing its peak cognitive abilities, does not show any signs of decreased proneness to primacy effects. In fact, the only statistically significant finding, the difference in primacy for Badnarik, shows that young voters are slightly more prone to order effects. Although the difference is not statistically significant for the other candidates, the results suggest that precincts with a larger number of young voters do not have smaller primacy effects, but rather the opposite.

The findings for voters over the age of 65 were equally counterintuitive. None of the differences are statistically significant, and the sign of the differences suggest that voters in precincts with many older voters are slightly less prone to the order effect than are other precincts. Therefore, the idea that young first-time voters are more deeply involved and thus pay closer attention to candidate choice is not apparent here. Furthermore, the percentage of the population that is 65 or older, the segment of the population experiencing a decline of cognitive abilities, also shows no effect.

6.9 Race, Income, and Order Effects

*Literature and Hypothesis.* The relation between race and response effects has not been examined very extensively. The high correlation between voided ballots and percentage of blacks
and Hispanic voters, however, has been established in several studies. Knack and Kropf (2003) Hansen (2000), and Herron and Sekhon (2001) find more voided ballots in counties with higher percentages of blacks and Hispanics. Posner (2001) suggests possible rationale for this phenomenon in nothing that “blacks are more prone than whites to commit voting errors on average, due to low education, illiteracy, and other socioeconomic factors (p. 80-81) (qtd from Tomz and Houweling 2003, 47). Another possible rationale is that blacks are less willing than whites to ask for help or correct their mistakes when voting (USCCR 2001). On the other hand, Tomz and Houweling (2003) suggest that the gap in voided ballots cast by blacks and whites can largely be attributed to specific voting methods and higher likelihood of intentional undervoting among blacks. Regardless of explanation, however, areas with high percentages of black and Hispanic voters exhibit irregular voting patterns which suggest difficulty in casting valid votes.

In this exploratory analysis, I expect to see the primacy effect to increase in areas with a high percentage of blacks and Hispanics, as well as in areas with a high percentage of low income households.

Data and Method. Using the U.S. Census Bureau data, I choose a cutoff percentage of blacks at the 75th percentile (16.46% in Ohio) to create a binary variable that equals 1 for precincts with a high percentage of blacks, and 0 for precincts with low percentages. I choose this cutoff point because I expect that areas with a high percentage of blacks may proxy for inner-city areas with lower education and income levels. Also using the Census data, I find the percentage of the precinct population with annual incomes equal to or lower than $30,000. I choose a cutoff percentage for low income at the 75th percentile (44.90% in Ohio), and create a binary moderator which equals one when there are many low income households in a precinct, and equals zero when there are fewer low income households in a precinct.
Results. The trends towards primacy in precincts with a high percentage of blacks are not statistically significant for the candidates except for Badnarik (Table 22). The primacy effect is 1.085% for Bush and 1.431% for Kerry, but these are not statistically significant. The trends towards primacy in precincts with a lower percentage of blacks are also not significant, even though the magnitude of the effect looks somewhat diminished. The difference in the magnitude is not statistically significant, indicating that percentage of blacks is not a moderator of the primacy effect.

Primacy effects do seem to be slightly larger in precincts with many low-income households, but none of the differences are statistically significant (Table 30). The primacy effect is statistically nonsignificant for Bush (1.139%, n.s.) and Kerry (1.496%, n.s.) in precincts with many low-income households. The primacy effect is also present although not statistically significant in precincts with few low-income households. The primacy effect actually increases slightly for Bush in the relatively rich precincts.

6.10 Election Competitiveness

Literature and Hypothesis. Respondent motivation is the third major contributing factor to satisficing and consequently order effects. Salience of the election, prominence of groups endorsing certain candidates, and voter partisanship are all possible venues in which respondent motivation is affected. Candidates in elections for salient offices and with more media attention tend to have smaller primacy effects than candidates in more obscure elections (Koppell and Steen 2004, Miller and Krosnick 1998). Order effects are smaller in general elections, especially for major party candidates, but much larger in primary elections for all candidates (Ho and Imai, forthcoming). Areas with the weakest voter partisanship showed signs of strongest order effects
Candidates endorsed by prominent groups as well as candidates whose listed occupation on the ballot is education-related tend to receive a boost, irrespective of their ballot position (Mueller 1970). The magnitude of order effects thus appear to depend on election characteristics that motivate individuals to vote.

Although the connection between election competitiveness and primacy effects have not been examined, election competitiveness influences voter motivation by increasing turnout the more hotly contested the election (Hill and Leighley 1993, Holbrook and Dunk 1998). Because of its effect on motivation, we expect that closer elections would show smaller primacy effects.

**Data and Method.** For this exploratory analysis of election competitiveness on the primacy effect, I choose to test the moderation effect in two ways. I create a variable called “Difference” which is the absolute percentage difference between the vote share for Bush and Kerry, the two major party candidates in the race. To look at the change in primacy specifically in runaway elections, I then created a cutoff point at the 75th percentile, where the difference between the two candidates is greater than 41.5% of the vote. Using the cutoff point, I made a binary variable which equals one when such a runaway election occurs in a precinct, and test to see if runaway elections exhibit larger or smaller primacy effects.

Considering, however, that changes in the primacy effect may also be present in close elections, I choose another cutoff point at the 25th percentile, where the difference between the two candidates is smaller than 4.71% of the vote. I thus create a binary variable which equals one when elections are closely contested, and zero otherwise, and then test for its moderating effect.

**Results.** When looking at the moderating effect of the continuous variable that computes the difference between Bush and Kerry, it appears as if, in general, the primacy effect seems to get larger as elections get further and further apart (Table 23). Although not statistically
significant, the primacy effect seems to increase a little bit for runaway elections. Such a result may suggest either that voters in runaway elections are less attentive to detail, or that voters in precincts that have lop-sided elections tend to exhibit characteristics that make them more prone to primacy.

The results from the binary moderator looking at closely contested elections, however, show the same result, specifically, that the primacy effect seems to grow again for very closely contested elections.

It thus appears that the primacy effect may increase in both closely contested races and runaway elections, and is smallest in the races that do not fit either category. The increase in primacy in closely contested races is unexpected, and is consistent with the theory of voter ambivalence contributing to larger primacy effects. The more undecided a precinct is, the more the name order of candidates may impact who the voters choose.

Section Seven: Discussion of Results

Discussion. Trends towards primacy effects do exist for all candidates in the presidential election, the most publicized of all American elections. The effect size is over 1% for both Bush and Kerry, and smaller effects appear for the minor party candidates. The fact that such effects are consistent for both major and minor party candidates suggests that these effects must be paid attention to. Effect sizes of anything greater than .02% would have easily overturned the election result in Florida of 2000, and thus rotation must be given serious consideration especially if the election will be closely contested.

Moderators of order effects also apparently exist, even in the presidential election. As for factors influencing the magnitude of the name order effect, ballot length and touch screen ballots
in particular may act to increase primacy effects from 1.5 to 4%. The fact that optical scan ballots exhibit almost no order effect, whereas touch screen ballots show the largest primacy effects suggest that voters are less prone to order effects if they must spend more time finalizing their answers (i.e. filling in an oval as opposed to pressing a button or punching a hole).

One of the more substantively important moderators is the invalidation rate. The primacy effect was as large as 5.3% for Bush and 2.6% for Kerry, nationally well-known candidates, in precincts where the invalidation rates were high, suggesting that rotation of name order is particularly important in areas where characteristics correlated with low levels of cognitive sophistication are prevalent.

Precincts with more absentee voters tend to have smaller primacy effects, although not statistically significant. Among measures for respondent ability, education level and language spoken at home appear to moderate order effects.

*Implications for Ballot Design.* Policy recommendations regarding ballot order effects have varied across researchers. Based on the limited magnitude and ambiguous direction of order effects in their findings, Alvarez et al. (2006) claim that courts should not intervene in state election procedures without more substantial evidence of ballot order effects. They argue that current evidence does not justify an increase in election administration costs which would be caused by rotation assignments, multiple ballot style printing and additional training.

Most policy recommendations based on ballot order studies, however, call for rotation of name order by smaller election districts or precincts as Ohio law mandates. In advocating the ballot reform, Krosnick et al. (2004) point to the narrow victory margin and possibility of a different presidential election outcome in the 2000 Florida general election. Meredith and Salant (2007) extend this recommendation to include not only rotation, but the addition of multiple
ballot orders to ensure effective randomization. Their suggested models of rotation schemes equally distribute any possible order disadvantages by listing candidates in each ballot position as well as behind different candidates each time. Their rotation model would not incur expenses or difficulty much greater than the Ohio rotation system.

The analyses presented in this paper offer some policy implications for election and ballot law. The fact that trends toward primacy effects exist for all presidential candidates, and are largely and statistically significant on touch screen ballots and in precincts with high invalidation rates supports national implementation of a ballot order rotation scheme such as Ohio uses to equally distribute the order effects advantages and disadvantages. The results also discourage the use of touch screen ballots. Besides the undesirable result of leaving no paper record, voters using touch screen ballots are most prone to order effects.

Shorter ballots which are vertically condensed are also better because of the reduction in cognitive processing costs. Instead of listing vice presidential running mates below the presidential candidate, listing running mates horizontally seems to be a viable and already largely implemented solution.

The optimal removal solution from the ballot of withdrawn candidates is clearly to completely remove the candidate and the position from the ballot, as evidenced by the smaller primacy effects. The irregular ballot positions do appear to disrupt order effects, making primacy effects larger than normal. Not only does an extra slot create a longer ballot and thus more order effects for the other candidates, but the extra position could introduce confusion for voters.

Finally, whether or not the ballot rotation scheme is adopted, this study suggests that all states use optical scan ballots. Besides the paper trail and voter verification that reduces invalid ballots, optical scan ballots are correlated with the least order effects, and thus possibly forces
voters to think more carefully about their votes.

Whether victory margins will continue to be close in future elections is a matter of debate. The past two presidential elections in 2000 and 2004 both have had narrow victory margins in key states. Bush received 2% more votes than Kerry in Ohio in 2004 and less than 0.1% more than Gore in Florida in 2000. While ballot order rotation was used in Ohio, the outcome from non-rotating ballots in Florida may be somewhat more questionable. If future elections, especially as salient as the presidential election, continue to have narrow victory margins, ballot order effects should be taken into consideration in preparing the very tools that the nation uses to select the leaders of this country.

**Directions for Future Research.** The Ohio election data has several limitations. Besides analyzing only the presidential election and ignoring potentially larger primacy effects in other elections, the rotation scheme used has some statistical problems. Although the rotation is effectively random, the assignment of candidates to positions is still not truly random. Candidates are always listed behind one specific candidate in four of the five rotations. For example, Kerry is listed behind Bush for every rotation except for one, and in that one rotation, Bush is listed last. In investigating the primacy effect for Kerry, statistical regression alone cannot determine whether the gain in votes for Kerry is caused by his being listed first or by Bush being listed last. Because there is no rotation where Kerry is listed first and Bush is not listed last, the driving factor behind the primacy effect for Kerry remains unclear. Candidates may also lose or gain votes depending on who they are listed before or after, but a rotation scheme does not allow for a rigorous statistical test of this.

The Nader candidacy also resulted in irregular ballot appearances that were difficult to work with. Although I used a few different ballot position coding methods to try to circumvent
the problem of the irregular ballot positions, the magnitude of the disruption of order effects of one irregular slot remains unclear and only muddles results from tests for the primacy effect.

The ideal dataset with which to test for order effects would have random ordering of candidate names for each precinct, as well as a unified ballot design for all voters. Although the number of precincts and therefore observations is smaller by an order of magnitude, election results from states such as North Dakota which create a random assignment of candidate names for each county and then rotate candidate names across precincts would feature random candidate ordering that would be highly desirable for statistical analysis.

The U.S. Census data also has its limitations in determining the moderators of the order effect. Besides not having population characteristics to the precinct level, inferences that can be drawn from the aggregate- instead of from individual-level data are necessarily restricted by the ecological fallacy problem. Collecting such detailed information for each individual voter may be close to impossible, especially because the vote of each voter would have to be known. Although not a perfect solution, registered voter information may provide some better measures of the voting population’s characteristics down on the precinct level.

All in all, analysis of the ballot order effect in the 2004 presidential election in Ohio required a great deal of painstaking effort on the behalf of many individuals over a period of nearly three years. The fact that primacy effects exist in the most salient of American elections should be sufficient warrant to implement ballot rotation across the nation.
Table 1. Correlations between Ballot Order and Precinct Characteristic Percentages

<table>
<thead>
<tr>
<th>Respective Order Variable</th>
<th>Ballot Order</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting Population</td>
<td>.100</td>
<td>.100</td>
<td>.100</td>
<td>.100</td>
<td>.100</td>
</tr>
<tr>
<td>Urban</td>
<td>.016</td>
<td>-.008</td>
<td>-.003</td>
<td>-.005</td>
<td>.051 ***</td>
</tr>
<tr>
<td>Ages 18 to 24</td>
<td>.000</td>
<td>.001</td>
<td>-.001</td>
<td>-.002</td>
<td>.011</td>
</tr>
<tr>
<td>Ages 25 to 29</td>
<td>.010</td>
<td>.000</td>
<td>-.009</td>
<td>-.005</td>
<td>.025</td>
</tr>
<tr>
<td>Ages 30 to 39</td>
<td>.011</td>
<td>-.002</td>
<td>-.008</td>
<td>-.002</td>
<td>.014</td>
</tr>
<tr>
<td>Ages 40 to 49</td>
<td>.000</td>
<td>-.003</td>
<td>.004</td>
<td>-.003</td>
<td>-.014</td>
</tr>
<tr>
<td>Ages 50 to 59</td>
<td>-.007</td>
<td>.004</td>
<td>.001</td>
<td>.003</td>
<td>-.025</td>
</tr>
<tr>
<td>Ages 60 to 64</td>
<td>-.006</td>
<td>.000</td>
<td>.003</td>
<td>.005</td>
<td>-.020</td>
</tr>
<tr>
<td>Ages 65 to 69</td>
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<td>.003</td>
<td>.008</td>
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<td>-.015</td>
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<td>.002</td>
<td>.003</td>
</tr>
<tr>
<td>Ages 75 and up</td>
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<td>.006</td>
<td>.007</td>
<td>-.001</td>
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<td>Less than High School Education</td>
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<td>.003</td>
<td>-.001</td>
<td>-.002</td>
<td>-.008</td>
</tr>
<tr>
<td>High School Education</td>
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<td>.004</td>
<td>.005</td>
<td>.001</td>
<td>-.037</td>
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<td>Some College Education</td>
<td>.008</td>
<td>-.003</td>
<td>.000</td>
<td>-.006</td>
<td>.028 ***</td>
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<tr>
<td>College Education</td>
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<td>-.003</td>
<td>-.002</td>
<td>.003</td>
<td>.024</td>
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<td>Graduate Education</td>
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<td>-.004</td>
<td>.002</td>
<td>.023</td>
</tr>
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<td>Homeowners</td>
<td>-.008</td>
<td>.002</td>
<td>.003</td>
<td>.003</td>
<td>-.029</td>
</tr>
<tr>
<td>Homeowners</td>
<td>.008</td>
<td>-.002</td>
<td>-.003</td>
<td>-.003</td>
<td>.029</td>
</tr>
<tr>
<td>Immigrant</td>
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<td>-.005</td>
<td>-.008</td>
<td>-.001</td>
<td>.048 ***</td>
</tr>
<tr>
<td>Income less than $10K</td>
<td>-.001</td>
<td>.001</td>
<td>.004</td>
<td>.003</td>
<td>.004</td>
</tr>
<tr>
<td>Income between $10-15K</td>
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<td>.004</td>
<td>.007</td>
<td>.000</td>
<td>-.012</td>
</tr>
<tr>
<td>Income between $15-20K</td>
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<td>.006</td>
<td>.003</td>
<td>.001</td>
<td>-.006</td>
</tr>
<tr>
<td>Income between $20-25K</td>
<td>-.008</td>
<td>.003</td>
<td>.004</td>
<td>.004</td>
<td>-.013</td>
</tr>
<tr>
<td>Income between $25-30K</td>
<td>-.004</td>
<td>.006</td>
<td>.000</td>
<td>-.009</td>
<td>-.002</td>
</tr>
<tr>
<td>Income between $30-35K</td>
<td>.016</td>
<td>-.013</td>
<td>-.009</td>
<td>.004</td>
<td>.010</td>
</tr>
<tr>
<td>Income between $35-40K</td>
<td>-.005</td>
<td>.009</td>
<td>-.005</td>
<td>-.003</td>
<td>-.002</td>
</tr>
<tr>
<td>Income between $40-45K</td>
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<td>-.004</td>
<td>.005</td>
<td>-.001</td>
<td>-.004</td>
</tr>
<tr>
<td>Income between $45-50K</td>
<td>-.007</td>
<td>.011</td>
<td>-.008</td>
<td>-.001</td>
<td>-.009</td>
</tr>
<tr>
<td>Income between $50-60K</td>
<td>.004</td>
<td>-.001</td>
<td>-.004</td>
<td>-.002</td>
<td>-.001</td>
</tr>
<tr>
<td>Income between $60-75K</td>
<td>-.002</td>
<td>.002</td>
<td>.004</td>
<td>-.003</td>
<td>-.003</td>
</tr>
<tr>
<td>Income between $75-100K</td>
<td>.003</td>
<td>-.004</td>
<td>-.001</td>
<td>.005</td>
<td>-.001</td>
</tr>
<tr>
<td>Income between $100-125K</td>
<td>.011</td>
<td>-.009</td>
<td>-.004</td>
<td>.004</td>
<td>.011</td>
</tr>
<tr>
<td>Income between $125-150K</td>
<td>.002</td>
<td>-.004</td>
<td>-.001</td>
<td>.005</td>
<td>.004</td>
</tr>
<tr>
<td>Income over $150K</td>
<td>.002</td>
<td>.000</td>
<td>-.003</td>
<td>.000</td>
<td>.008</td>
</tr>
<tr>
<td>English Language Households</td>
<td>-.008</td>
<td>.003</td>
<td>.007</td>
<td>.000</td>
<td>-.043 ***</td>
</tr>
<tr>
<td>Spanish Language Households</td>
<td>.003</td>
<td>-.002</td>
<td>.002</td>
<td>-.005</td>
<td>.024</td>
</tr>
<tr>
<td>Indo-European Language Households</td>
<td>.004</td>
<td>-.001</td>
<td>-.007</td>
<td>.003</td>
<td>.023</td>
</tr>
<tr>
<td>Asian Language Households</td>
<td>.014</td>
<td>-.005</td>
<td>-.009</td>
<td>-.001</td>
<td>.043 ***</td>
</tr>
<tr>
<td>Other Language Households</td>
<td>.009</td>
<td>-.003</td>
<td>-.003</td>
<td>-.002</td>
<td>.049</td>
</tr>
<tr>
<td>White</td>
<td>-.014</td>
<td>.005</td>
<td>.006</td>
<td>.006</td>
<td>-.050 ***</td>
</tr>
<tr>
<td>Black</td>
<td>.013</td>
<td>-.004</td>
<td>-.005</td>
<td>-.006</td>
<td>.047 ***</td>
</tr>
<tr>
<td>Asian</td>
<td>.013</td>
<td>-.004</td>
<td>-.007</td>
<td>-.001</td>
<td>.042 ***</td>
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<tr>
<td>American Indian</td>
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<td>-.011</td>
<td>-.001</td>
<td>.032</td>
<td>-.019</td>
</tr>
<tr>
<td>Other Race</td>
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<td>-.005</td>
<td>-.004</td>
<td>.005</td>
<td>.035</td>
</tr>
</tbody>
</table>

N=9877  *p<.2  *p<.1  *p<.05  **p<.01  ***p<.001
**Table 2.** Tabulation of Ballot Rotation Procedure used by County and by Precinct

<table>
<thead>
<tr>
<th>Order Rotation</th>
<th>No. of Counties</th>
<th>No. of Precincts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Observations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By voter</td>
<td>2</td>
<td>845</td>
</tr>
<tr>
<td>By precinct (4 position)</td>
<td>6</td>
<td>358</td>
</tr>
<tr>
<td>By precinct (5 position)</td>
<td>80</td>
<td>10201</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>88</td>
<td>11404</td>
</tr>
<tr>
<td><strong>After Exclusions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By voter</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>By precinct (4 position)</td>
<td>6</td>
<td>358</td>
</tr>
<tr>
<td>By precinct (5 position)</td>
<td>80</td>
<td>10196</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>86</td>
<td>10554</td>
</tr>
</tbody>
</table>
Table 3. Tabulation of Remedy Methods and Voting Possibility for Nader's Ballot Position by County and by Precinct

<table>
<thead>
<tr>
<th>Ballot Appearance</th>
<th>No. of Counties</th>
<th>No. of Precincts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not listed (4 positions)</td>
<td>6</td>
<td>358</td>
</tr>
<tr>
<td>Blank (white)</td>
<td>10</td>
<td>459</td>
</tr>
<tr>
<td>Blank (black)</td>
<td>7</td>
<td>1451</td>
</tr>
<tr>
<td>&quot;Removed&quot; label</td>
<td>33</td>
<td>6083</td>
</tr>
<tr>
<td>Stamped over</td>
<td>3</td>
<td>248</td>
</tr>
<tr>
<td>Unaltered</td>
<td>27</td>
<td>1955</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>10554</strong></td>
</tr>
</tbody>
</table>

Vote Possibility for Nader's Position

<table>
<thead>
<tr>
<th></th>
<th>No. of Counties</th>
<th>No. of Precincts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No (4 positions)</td>
<td>6</td>
<td>358</td>
</tr>
<tr>
<td>No (blocked)</td>
<td>20</td>
<td>2965</td>
</tr>
<tr>
<td>Yes</td>
<td>56</td>
<td>7,096</td>
</tr>
<tr>
<td>Cannot confirm</td>
<td>4</td>
<td>135</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>10554</strong></td>
</tr>
</tbody>
</table>
Table 4. Tabulation of Mean Candidate Vote Shares by Ballot Position (counting blanks)

<table>
<thead>
<tr>
<th></th>
<th>Badnarik (%)</th>
<th>N</th>
<th>Bush (%)</th>
<th>N</th>
<th>Kerry (%)</th>
<th>N</th>
<th>Peroutka (%)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>.378</td>
<td>2071</td>
<td>50.415</td>
<td>2060</td>
<td>49.449</td>
<td>2042</td>
<td>.267</td>
<td>1996</td>
</tr>
<tr>
<td>2nd</td>
<td>.260</td>
<td>1996</td>
<td>49.969</td>
<td>2071</td>
<td>49.188</td>
<td>2060</td>
<td>.236</td>
<td>2027</td>
</tr>
<tr>
<td>3rd</td>
<td>.264</td>
<td>2027</td>
<td>49.846</td>
<td>1996</td>
<td>49.487</td>
<td>2071</td>
<td>.215</td>
<td>2042</td>
</tr>
<tr>
<td>4th</td>
<td>.231</td>
<td>2042</td>
<td>50.212</td>
<td>2027</td>
<td>49.626</td>
<td>1996</td>
<td>.201</td>
<td>2060</td>
</tr>
<tr>
<td>5th</td>
<td>.196</td>
<td>2060</td>
<td>50.105</td>
<td>2042</td>
<td>49.288</td>
<td>2027</td>
<td>.165</td>
<td>2071</td>
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Difference between First and Last  
Difference between First and Other

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>p</th>
<th>m</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=10196</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p=primacy, r=recency, b=both primacy & recency, m=middle
Table 5. Tabulation of Mean Candidate Vote Shares by Ballot Position (ignoring blanks)

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>N</th>
<th>Bush</th>
<th>N</th>
<th>Kerry</th>
<th>N</th>
<th>Peroutka</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>.362</td>
<td>1975</td>
<td>49.994</td>
<td>1967</td>
<td>49.858</td>
<td>1950</td>
<td>.267</td>
<td>1908</td>
</tr>
<tr>
<td>2nd</td>
<td>.246</td>
<td>1908</td>
<td>49.557</td>
<td>1975</td>
<td>49.613</td>
<td>1967</td>
<td>.232</td>
<td>1937</td>
</tr>
<tr>
<td>3rd</td>
<td>.254</td>
<td>1937</td>
<td>49.445</td>
<td>1908</td>
<td>49.919</td>
<td>1975</td>
<td>.214</td>
<td>1950</td>
</tr>
<tr>
<td>4th</td>
<td>.227</td>
<td>1950</td>
<td>49.801</td>
<td>1937</td>
<td>50.042</td>
<td>1908</td>
<td>.196</td>
<td>1967</td>
</tr>
<tr>
<td>5th</td>
<td>.197</td>
<td>1967</td>
<td>49.701</td>
<td>1950</td>
<td>49.712</td>
<td>1937</td>
<td>.162</td>
<td>1975</td>
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</table>

Difference between First and Last  
.165  .292  .146  .105

Difference between First and Other  
.131  .367  .036  .066

Effect  
p  p  m  p

N=9737

p=primacy, r=recency, b=both primacy & recency, m=middle
<table>
<thead>
<tr>
<th>Effect</th>
<th>Condition 1</th>
<th>Condition 2</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>b₁</td>
<td>b₂</td>
</tr>
<tr>
<td><strong>Linear</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primacy</td>
<td>- &amp; sig.</td>
<td>-</td>
</tr>
<tr>
<td>Recency</td>
<td>+ &amp; sig.</td>
<td>-</td>
</tr>
<tr>
<td><strong>Quadratic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recency</td>
<td>+ &amp; sig.</td>
<td>+ &amp; sig.</td>
</tr>
<tr>
<td>Primacy &amp; Recency</td>
<td>nonsig.</td>
<td>+ &amp; sig.</td>
</tr>
<tr>
<td>Middle</td>
<td>nonsig.</td>
<td>- &amp; sig.</td>
</tr>
</tbody>
</table>
**Table 7.** Correlations between Candidate Vote Count, Vote Shares, Logit of Vote Shares, and OLS Regression Residuals

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Perouka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vote Count</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badnarik</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bush</td>
<td>.1331 ***</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerry</td>
<td>.1531 ***</td>
<td>-.0537 ***</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Peroutka</td>
<td>.2072 ***</td>
<td>.0714 ***</td>
<td>.1054 ***</td>
<td>1.0000</td>
</tr>
<tr>
<td><strong>Vote Count Residuals (OLS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badnarik</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bush</td>
<td>.1347 ***</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerry</td>
<td>.9888 ***</td>
<td>.1337 ***</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Peroutka</td>
<td>.2156 ***</td>
<td>.0744 ***</td>
<td>.2091 ***</td>
<td>1.0000</td>
</tr>
<tr>
<td><strong>Vote Shares</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badnarik</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bush</td>
<td>-.0447 ***</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerry</td>
<td>.0175 +</td>
<td>-.9994 ***</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Peroutka</td>
<td>.2096 ***</td>
<td>-.0665 ***</td>
<td>.0385 ***</td>
<td>1.0000</td>
</tr>
<tr>
<td><strong>Vote Share Residuals (OLS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badnarik</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bush</td>
<td>-.0446 ***</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerry</td>
<td>.0179 +</td>
<td>-.9993 ***</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Peroutka</td>
<td>.2167 ***</td>
<td>-.0635 ***</td>
<td>.0355 ***</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

N=10554
Table 8. Regression coefficients and percentage estimates of the primacy and recency effect

<table>
<thead>
<tr>
<th>Regression Coefficients</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>First (Binary Order Variable)</td>
<td>.282 ***</td>
<td>.063 **</td>
<td>.036 **</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>.065 ***</td>
<td>4.895 ***</td>
<td>4.861 ***</td>
<td></td>
</tr>
</tbody>
</table>

| Percentage Estimates | Vote Share when First | .582 *** | 51.688 *** | 49.537 *** | .418 *** |
|                      | Vote Share when Other | .435 *** | 50.108 *** | 48.489 *** | .411 *** |
| Difference            | .147 *** | 1.580 ^ | 1.047 | .007 |

<table>
<thead>
<tr>
<th>Regression Coefficients</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last (Binary Order Variable)</td>
<td>-.162 ***</td>
<td>.088 ***</td>
<td>-0.010</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>.155 ***</td>
<td>4.890 ***</td>
<td>4.871 ***</td>
<td></td>
</tr>
</tbody>
</table>

| Percentage Estimates | Vote Share when Other | .477 *** | 50.067 *** | 48.574 *** | .413 *** |
| Vote Share when Last  | .410 *** | 50.172 *** | 48.926 *** | .417 *** |
| Difference            | .068 *** | -1.723 † | - .352 | - .003 |

N=10554 ^p<.2  †p<.1  *p<.05  **p<.01  ***p<.001

Note: Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. No regression coefficients appear for Peroutka also because he was the reference category. Outlier precincts are removed.
Table 9. Regression coefficients and percentage estimates of the primacy effect using continuous linear and quadratic order variables

<table>
<thead>
<tr>
<th>Regression Coefficients</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order ((a_1))</td>
<td>-0.32</td>
<td>-0.011</td>
<td>-0.007</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.274</td>
<td>4.914***</td>
<td>4.872***</td>
<td></td>
</tr>
</tbody>
</table>

| Percentage Estimates    |           |      |       |          |
| Vote Share when First   | 0.535***  | 50.533*** | 48.937*** | 0.414***  |
| Vote Share when Last    | 0.388***  | 50.279*** | 48.679*** | 0.413***  |
| Difference              | 0.147***  | 0.254 | 0.258 | 0.001    |

| Regression Coefficients |           |      |       |          |
| Order \((b_1)\)        | -0.964*** | -0.273** | 0.212** |          |
| Order\(^2\) \((b_2)\)  | 0.652***  | 0.169*   | -0.232*** |          |
| Constant                | 0.355***  | 4.985*** | 4.857*** |          |

| Vote Share when First   | 0.569***  | 51.387*** | 49.071*** | 0.425***  |
| Vote Share when Last    | 0.403***  | 50.048*** | 48.707*** | 0.406***  |
| Difference              | 0.166***  | 1.339^   | 0.364    | 0.019^    |

N=10554 \(^p<.2\) \(^p<.1\) \(^p<.05\) \(^p<.01\) \(^p<.001\)

Note: Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.
### Table 10. Regression coefficients for the primacy effect

<table>
<thead>
<tr>
<th>Regression Coefficients</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>First (Binary Order Variable)</td>
<td>.136 ***</td>
<td>.538</td>
<td>.166</td>
<td>.062 ***</td>
</tr>
<tr>
<td>Constant</td>
<td>.231 ***</td>
<td>51.860 ***</td>
<td>47.528 ***</td>
<td>.188 ***</td>
</tr>
<tr>
<td>Order (a₁)</td>
<td>-.159 ***</td>
<td>-1.017 *</td>
<td>1.418 ***</td>
<td>-.080 ***</td>
</tr>
<tr>
<td>Constant</td>
<td>.335 ***</td>
<td>52.503 ***</td>
<td>46.747 ***</td>
<td>.244 ***</td>
</tr>
<tr>
<td>Order (b₁)</td>
<td>-.356 ***</td>
<td>-3.519 *</td>
<td>-4.933 ***</td>
<td>-.120 ***</td>
</tr>
<tr>
<td>Order² (b₂)</td>
<td>.193 ***</td>
<td>2.550</td>
<td>6.051 ***</td>
<td>.042</td>
</tr>
<tr>
<td>Constant</td>
<td>.362 ***</td>
<td>52.811 ***</td>
<td>47.507 ***</td>
<td>.247 ***</td>
</tr>
</tbody>
</table>

| Percentage Estimates                     |          |        |        |          |
| Vote Share when First                    | .361 *** | 52.819 *** | 47.490 *** | .247 *** |
| Vote Share when Other                    | .198 *** | 51.831 *** | 48.649 *** | .169 *** |
| Difference                               | .163 *** | .988 †  | -1.158 *  | .078 **  |

N=10554  ^p<.2  †p<.1  *p<.05  **p<.01  ***p<.001

Note: Regression coefficients are from OLS regressions predicting candidate vote shares. Percentage change estimates for the quadratic equation are from Clarify simulations. Outlier precincts are removed.
**Table 11.** Tabulation of Number of Ballot Positions and Voting Method used by County and by Precinct

<table>
<thead>
<tr>
<th>Ballot Length</th>
<th>No. of Counties</th>
<th>No. of Precincts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (4)</td>
<td>1</td>
<td>79</td>
</tr>
<tr>
<td>Extra long (4)</td>
<td>4</td>
<td>279</td>
</tr>
<tr>
<td>Normal (5)</td>
<td>70</td>
<td>8,594</td>
</tr>
<tr>
<td>Extra long (5)</td>
<td>11</td>
<td>1,602</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>10554</strong></td>
</tr>
</tbody>
</table>

Voting Method

<table>
<thead>
<tr>
<th>Method</th>
<th>No. of Counties</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punchcard</td>
<td>68</td>
<td>8340</td>
</tr>
<tr>
<td>Optical Scan</td>
<td>12</td>
<td>984</td>
</tr>
<tr>
<td>Electronic</td>
<td>6</td>
<td>1230</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>10554</strong></td>
</tr>
</tbody>
</table>
Table 12. Percentage estimates of the moderating of name-order effects by ballot length

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long Ballots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.633 ***</td>
<td>54.882 ***</td>
<td>48.475 ***</td>
<td>.392 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.422 ***</td>
<td>52.021 ***</td>
<td>45.996 ***</td>
<td>.380 ***</td>
</tr>
<tr>
<td>Primacy on Long Ballots</td>
<td>.212 ***</td>
<td>2.861</td>
<td>2.480 *</td>
<td>.011</td>
</tr>
<tr>
<td><strong>Short Ballots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.570 ***</td>
<td>50.800 ***</td>
<td>49.841 ***</td>
<td>.425 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.438 ***</td>
<td>49.673 ***</td>
<td>49.045 ***</td>
<td>.419 ***</td>
</tr>
<tr>
<td>Primacy on Short Ballots</td>
<td>.132 ***</td>
<td>1.126</td>
<td>.796</td>
<td>.006</td>
</tr>
<tr>
<td>Added Primacy on Long Ballots</td>
<td>.079 *</td>
<td>1.735</td>
<td>1.684</td>
<td>.006</td>
</tr>
<tr>
<td><strong>Five Position Ballots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.588 ***</td>
<td>51.352 ***</td>
<td>50.035 ***</td>
<td>.417 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.435 ***</td>
<td>49.746 ***</td>
<td>48.816 ***</td>
<td>.410 ***</td>
</tr>
<tr>
<td>Primacy on Five Position Ballots</td>
<td>.153 ***</td>
<td>1.606 ^</td>
<td>1.219 ^</td>
<td>.006</td>
</tr>
<tr>
<td><strong>Four Position Ballots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.470 ***</td>
<td>59.373 ***</td>
<td>38.864 ***</td>
<td>.452 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.405 ***</td>
<td>60.840 ***</td>
<td>38.526 ***</td>
<td>.456 ***</td>
</tr>
<tr>
<td>Primacy on Short Ballots</td>
<td>.065 +</td>
<td>-1.467</td>
<td>.337</td>
<td>-.004</td>
</tr>
<tr>
<td>Added Primacy on Five Position Ballots</td>
<td>.088 *</td>
<td>3.072 ^</td>
<td>.882</td>
<td>.010</td>
</tr>
</tbody>
</table>

N=10554  ^ p<.2  * p<.1  ^ p<.05  ** p<.01  *** p<.001

*Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.*
Table 13. Percentage estimates of the moderating of name-order effects by voting methods

<table>
<thead>
<tr>
<th>Voting Method</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Punch Cards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.568 ***</td>
<td>50.696 ***</td>
<td>49.963 ***</td>
<td>.426 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.439 ***</td>
<td>49.493 ***</td>
<td>49.245 ***</td>
<td>.421 ***</td>
</tr>
<tr>
<td>Primacy on Punch Cards</td>
<td>.129 ***</td>
<td>1.203  ‡</td>
<td>.719</td>
<td>.005</td>
</tr>
<tr>
<td><strong>Optical Scan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.449 ***</td>
<td>61.090 ***</td>
<td>38.208 ***</td>
<td>.372 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.394 ***</td>
<td>60.857 ***</td>
<td>38.324 ***</td>
<td>.372 ***</td>
</tr>
<tr>
<td>Primacy on Optical Scan</td>
<td>.055 *</td>
<td>.233</td>
<td>-.115</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Touch Screen</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.801 ***</td>
<td>50.604 ***</td>
<td>54.740 ***</td>
<td>.400 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.431 ***</td>
<td>46.697 ***</td>
<td>50.884 ***</td>
<td>.381 ***</td>
</tr>
<tr>
<td>Primacy on Touch Screen</td>
<td>.370 ***</td>
<td>3.907 *</td>
<td>3.856 **</td>
<td>.018 †</td>
</tr>
<tr>
<td><strong>Added Primacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touch Screen relative to Punch Card</td>
<td>.241 ***</td>
<td>2.704 †</td>
<td>3.138 ‡</td>
<td>.013</td>
</tr>
<tr>
<td>Touch Screen relative to Optical Scan</td>
<td>.315 ***</td>
<td>3.675 †</td>
<td>3.972 ‡</td>
<td>.018</td>
</tr>
<tr>
<td>Punch Card relative to Optical Scan</td>
<td>.074 *</td>
<td>.971</td>
<td>.834</td>
<td>.005</td>
</tr>
</tbody>
</table>

N=10554  †p<.2   ‡p<.1   *p<.05 **p<.01 ***p<.001

Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.
Table 14. Regression Coefficients Estimated by Multinomial Logit Predicting Voting Method (Base: punch card) using County Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Optical Scan Coefficient</th>
<th>Touchscreen Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting Population</td>
<td>.000 ^</td>
<td>.000</td>
</tr>
<tr>
<td>Urban</td>
<td>3.679</td>
<td>4.999</td>
</tr>
<tr>
<td>Age 30 or less</td>
<td>1.473</td>
<td>21.616</td>
</tr>
<tr>
<td>Age 65 or more</td>
<td>18.895</td>
<td>46.739</td>
</tr>
<tr>
<td>Less than high school</td>
<td>-4.914</td>
<td>50.812 +</td>
</tr>
<tr>
<td>Low Income (&lt;30k)</td>
<td>-6.216</td>
<td>-31.466 ^</td>
</tr>
<tr>
<td>Spanish Language Households</td>
<td>-53.451</td>
<td>-26.256</td>
</tr>
<tr>
<td>Indo-Euro Language Households</td>
<td>5.280</td>
<td>-45.856</td>
</tr>
<tr>
<td>Asian Language Households</td>
<td>-17.065</td>
<td>241.965</td>
</tr>
<tr>
<td>Other Language Households</td>
<td>156.319</td>
<td>778.862 *</td>
</tr>
<tr>
<td>Black</td>
<td>2.098</td>
<td>5.731</td>
</tr>
<tr>
<td>Asian</td>
<td>3.777</td>
<td>-209.112</td>
</tr>
<tr>
<td>American Indian</td>
<td>-25.508</td>
<td>-118.009</td>
</tr>
<tr>
<td>Other Race</td>
<td>57.658</td>
<td>-93.439</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.521</td>
<td>-14.029 ^</td>
</tr>
</tbody>
</table>

N=88  ^ p<.2  + p<.1  * p<.05  ** p<.01  *** p<.001
## Table 15. Correlations between Voting Methods and County Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Punch Card</th>
<th>Optical Scan</th>
<th>Touch Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting Method</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Voting Population</td>
<td>-.072</td>
<td>-.046</td>
<td>.171 ^</td>
</tr>
<tr>
<td>Urban</td>
<td>-.237 *</td>
<td>.126</td>
<td>.203 +</td>
</tr>
<tr>
<td>Age 30 or less</td>
<td>.010</td>
<td>-.015</td>
<td>.005</td>
</tr>
<tr>
<td>Age 65 or more</td>
<td>-.019</td>
<td>.060</td>
<td>-.050</td>
</tr>
<tr>
<td>Less than high school</td>
<td>.169 ^</td>
<td>-.158 ^</td>
<td>-.054</td>
</tr>
<tr>
<td>Low Income (&lt;30k)</td>
<td>.158 ^</td>
<td>-.118</td>
<td>-.090</td>
</tr>
<tr>
<td>Spanish Language Households</td>
<td>-.059</td>
<td>.067</td>
<td>.004</td>
</tr>
<tr>
<td>Indo-Euro Language Households</td>
<td>-.013</td>
<td>-.001</td>
<td>.021</td>
</tr>
<tr>
<td>Asian Language Households</td>
<td>-.117</td>
<td>.020</td>
<td>.155 ^</td>
</tr>
<tr>
<td>Other Language Households</td>
<td>-.202 +</td>
<td>.037</td>
<td>.167 ^</td>
</tr>
<tr>
<td>Black</td>
<td>-.111</td>
<td>.003</td>
<td>.160 ^</td>
</tr>
<tr>
<td>Asian</td>
<td>-.114</td>
<td>.013</td>
<td>.160 ^</td>
</tr>
<tr>
<td>American Indian</td>
<td>.078</td>
<td>-.090</td>
<td>-.003</td>
</tr>
<tr>
<td>Other Race</td>
<td>-.094</td>
<td>.085</td>
<td>.035</td>
</tr>
</tbody>
</table>

N=88  ^p<.2  +p<.1  *p<.05  **p<.01  ***p<.001
### Table 16. Percentage estimates of the moderating of name-order effects by absentee voting (high vs. low)

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Precincts with many absentee voters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.602 ***</td>
<td>46.859 ***</td>
<td>54.324 ***</td>
<td>.423 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.448 ***</td>
<td>45.557 ***</td>
<td>52.990 ***</td>
<td>.416 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.153 ***</td>
<td>1.302 ^</td>
<td>1.333 ^</td>
<td>.007</td>
</tr>
<tr>
<td><strong>Precincts without many absentee voters</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.560 ***</td>
<td>56.952 ***</td>
<td>43.889 ***</td>
<td>.412 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.419 ***</td>
<td>55.472 ***</td>
<td>43.268 ***</td>
<td>.407 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.141 *</td>
<td>1.480 ^</td>
<td>.621</td>
<td>.005</td>
</tr>
</tbody>
</table>

Added Primacy in Precincts with many absentee voters | .013 | -.178 | .712 | .002 |

---

N=10554  ^p<.2  +p<.1  *p<.05  **p<.01  ***p<.001

*Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.*
### Table 17. Percentage estimates of the moderating of name-order effects by ballot appearance

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Precincts with Correct Ballots</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.491 ***</td>
<td>61.038 ***</td>
<td>39.293 ***</td>
<td>.387 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.387 ***</td>
<td>60.145 ***</td>
<td>38.752 ***</td>
<td>.383 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.104 ***</td>
<td>.893</td>
<td>.541</td>
<td>.004</td>
</tr>
<tr>
<td><strong>Precincts with Ballots with Irregular Positions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.616 ***</td>
<td>48.450 ***</td>
<td>52.999 ***</td>
<td>.428 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.450 ***</td>
<td>46.879 ***</td>
<td>51.642 ***</td>
<td>.421 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.166 ***</td>
<td>1.571</td>
<td>1.357</td>
<td>.007</td>
</tr>
<tr>
<td><strong>Precincts with Ballots with Blank Positions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.602 ***</td>
<td>49.484 ***</td>
<td>51.438 ***</td>
<td>.426 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.445 ***</td>
<td>48.156 ***</td>
<td>50.507 ***</td>
<td>.421 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.157 ***</td>
<td>1.328</td>
<td>.931</td>
<td>.006</td>
</tr>
<tr>
<td><strong>Added Primacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct relative to Irregular</td>
<td>-.062 *</td>
<td>-.678</td>
<td>-.816</td>
<td>-.004</td>
</tr>
<tr>
<td>Blank relative to Irregular</td>
<td>-.009</td>
<td>-.243</td>
<td>-.426</td>
<td>-.002</td>
</tr>
<tr>
<td>Correct relative to Blank</td>
<td>-.053 *</td>
<td>-.435</td>
<td>-.390</td>
<td>-.002</td>
</tr>
</tbody>
</table>

N=10554  \( ^* p<.2 \)  \( ^+ p<.1 \)  \( ^* p<.05 \)  \( ** p<.01 \)  \( *** p<.001 \)

*Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.*
<table>
<thead>
<tr>
<th>Table 18. Percentage estimates of the moderating of name-order effects by invalid vote rates and voting method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precincts with many invalid votes</td>
</tr>
<tr>
<td>Vote Share when First</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Vote Share when Other</td>
</tr>
<tr>
<td>Primacy</td>
</tr>
<tr>
<td>Precincts without many invalid votes</td>
</tr>
<tr>
<td>Vote Share when First</td>
</tr>
<tr>
<td>Vote Share when Other</td>
</tr>
<tr>
<td>Primacy</td>
</tr>
<tr>
<td>Added Primacy in Precincts with many invalid votes</td>
</tr>
<tr>
<td>Precincts with many invalid votes with Punch Cards</td>
</tr>
<tr>
<td>Vote Share when First</td>
</tr>
<tr>
<td>Vote Share when Other</td>
</tr>
<tr>
<td>Primacy</td>
</tr>
<tr>
<td>Precincts with many invalid votes without Punch Cards</td>
</tr>
<tr>
<td>Vote Share when First</td>
</tr>
<tr>
<td>Vote Share when Other</td>
</tr>
<tr>
<td>Primacy</td>
</tr>
<tr>
<td>Precincts with few invalid votes with Punch Cards</td>
</tr>
<tr>
<td>Vote Share when First</td>
</tr>
<tr>
<td>Vote Share when Other</td>
</tr>
<tr>
<td>Primacy</td>
</tr>
<tr>
<td>Precincts with few invalid votes without Punch Cards</td>
</tr>
<tr>
<td>Vote Share when First</td>
</tr>
<tr>
<td>Vote Share when Other</td>
</tr>
<tr>
<td>Primacy</td>
</tr>
<tr>
<td>Added Primacy</td>
</tr>
<tr>
<td>From Punch Cards in Precincts with many invalid votes</td>
</tr>
<tr>
<td>From Punch Cards in Precincts with few invalid votes</td>
</tr>
<tr>
<td>From Precincts with many invalid votes, holding punch cards constant</td>
</tr>
</tbody>
</table>

N=10554 \* p<.2  \*\* p<.1  \*\*\* p<.05  \*\*\*\* p<.001

Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.
### Table 19. Correlation between Invalid Votes and Precinct Characteristic Percentages

<table>
<thead>
<tr>
<th>Respective Order Variable</th>
<th>Invalid Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting Population</td>
<td>1.000</td>
</tr>
<tr>
<td>Urban</td>
<td>.014</td>
</tr>
<tr>
<td>Ages 18 to 24</td>
<td>.084 ***</td>
</tr>
<tr>
<td>Ages 25 to 29</td>
<td>.148 ***</td>
</tr>
<tr>
<td>Ages 30 to 39</td>
<td>-.033 ***</td>
</tr>
<tr>
<td>Ages 40 to 49</td>
<td>-.181 ***</td>
</tr>
<tr>
<td>Ages 50 to 59</td>
<td>-.176 ***</td>
</tr>
<tr>
<td>Ages 60 to 64</td>
<td>-.021 *</td>
</tr>
<tr>
<td>Ages 65 to 69</td>
<td>.041 ***</td>
</tr>
<tr>
<td>Ages 70 to 74</td>
<td>.054 ***</td>
</tr>
<tr>
<td>Ages 75 and up</td>
<td>.088 ***</td>
</tr>
<tr>
<td>Less than High School Education</td>
<td>.379 ***</td>
</tr>
<tr>
<td>High School Education</td>
<td>.111 ***</td>
</tr>
<tr>
<td>Some College Education</td>
<td>-.198 ***</td>
</tr>
<tr>
<td>College Education</td>
<td>-.255 ***</td>
</tr>
<tr>
<td>Graduate Education</td>
<td>-.199 ***</td>
</tr>
<tr>
<td>Homeowners</td>
<td>-.243 ***</td>
</tr>
<tr>
<td>Homerenters</td>
<td>.243 ***</td>
</tr>
<tr>
<td>Immigrant</td>
<td>-.120 ***</td>
</tr>
<tr>
<td>Income less than $10K</td>
<td>.349 ***</td>
</tr>
<tr>
<td>Income between $10-15K</td>
<td>.327 ***</td>
</tr>
<tr>
<td>Income between $15-20K</td>
<td>.303 ***</td>
</tr>
<tr>
<td>Income between $20-25K</td>
<td>.277 ***</td>
</tr>
<tr>
<td>Income between $25-30K</td>
<td>.223 ***</td>
</tr>
<tr>
<td>Income between $30-35K</td>
<td>.168 ***</td>
</tr>
<tr>
<td>Income between $35-40K</td>
<td>.090 ***</td>
</tr>
<tr>
<td>Income between $40-45K</td>
<td>.015 *</td>
</tr>
<tr>
<td>Income between $45-50K</td>
<td>-.053 ***</td>
</tr>
<tr>
<td>Income between $50-60K</td>
<td>-.167 ***</td>
</tr>
<tr>
<td>Income between $60-75K</td>
<td>-.281 ***</td>
</tr>
<tr>
<td>Income between $75-100K</td>
<td>-.337 ***</td>
</tr>
<tr>
<td>Income between $100-125K</td>
<td>-.290 ***</td>
</tr>
<tr>
<td>Income between $125-150K</td>
<td>-.267 ***</td>
</tr>
<tr>
<td>Income over $150K</td>
<td>-.193 ***</td>
</tr>
<tr>
<td>English Language Households</td>
<td>-.067 ***</td>
</tr>
<tr>
<td>Spanish Language Households</td>
<td>.091 ***</td>
</tr>
<tr>
<td>Indo-European Language Households</td>
<td>.074 ***</td>
</tr>
<tr>
<td>Asian Language Households</td>
<td>-.101 ***</td>
</tr>
<tr>
<td>Other Language Households</td>
<td>-.069 ***</td>
</tr>
<tr>
<td>White</td>
<td>-.245 ***</td>
</tr>
<tr>
<td>Black</td>
<td>.256 ***</td>
</tr>
<tr>
<td>Asian</td>
<td>-.118 ***</td>
</tr>
<tr>
<td>American Indian</td>
<td>.071 ***</td>
</tr>
<tr>
<td>Other Race</td>
<td>.133 ***</td>
</tr>
</tbody>
</table>

N=9877  \* p<.2  \*\* p<.1  \*\*\* p<.05  \*\*\*\* p<.001
Table 20. Percentage estimates of the moderating of name-order effects by having less than a high school education, and household language (Spanish).

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.623 ***</td>
<td>49.647***</td>
<td>51.930***</td>
<td>.445 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.448 ***</td>
<td>47.769***</td>
<td>50.687***</td>
<td>.437 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.175 ***</td>
<td>1.878^</td>
<td>1.243 ^</td>
<td>.008</td>
</tr>
<tr>
<td>Added Primacy</td>
<td>.097 **</td>
<td>1.428</td>
<td>.591</td>
<td>.006</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.470 ***</td>
<td>57.448***</td>
<td>42.649***</td>
<td>.341 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.392 ***</td>
<td>56.998***</td>
<td>41.996***</td>
<td>.338 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.078 ***</td>
<td>.450</td>
<td>.653</td>
<td>.003</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.626 ***</td>
<td>48.407***</td>
<td>54.820***</td>
<td>.435 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.446 ***</td>
<td>45.470***</td>
<td>52.607***</td>
<td>.423 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.180 ***</td>
<td>2.937 *</td>
<td>2.213 *</td>
<td>.013</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.564 ***</td>
<td>53.068***</td>
<td>47.252***</td>
<td>.410 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.429 ***</td>
<td>52.150***</td>
<td>46.657***</td>
<td>.407 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.135 ***</td>
<td>.918</td>
<td>.595</td>
<td>.004</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.045 ^</td>
<td>2.019 ^</td>
<td>1.618</td>
<td>.009</td>
</tr>
</tbody>
</table>

N=9877  ^p<.2  ^p<.1  *p<.05  **p<.01  ***p<.001

Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.
Table 21. Percentage estimates of the moderating of name-order effects by age less than 25 and age greater than 65

<table>
<thead>
<tr>
<th>Precincts with many under age 25</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.661 ***</td>
<td>42.166 ***</td>
<td>60.028 ***</td>
<td>.456 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.468 ***</td>
<td>39.949 ***</td>
<td>58.344 ***</td>
<td>.445 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.193 ***</td>
<td>2.217 +</td>
<td>1.684 +</td>
<td>.012</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precincts with few under age 25</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.547 ***</td>
<td>55.881 ***</td>
<td>44.638 ***</td>
<td>.401 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.419 ***</td>
<td>54.908 ***</td>
<td>43.903 ***</td>
<td>.396 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.128 ***</td>
<td>.973</td>
<td>.735</td>
<td>.004</td>
</tr>
</tbody>
</table>

| Added Primacy                    | .065 *   | 1.244 | .949  | .007     |

<table>
<thead>
<tr>
<th>Precincts with many over age 65</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.578 ***</td>
<td>53.111 ***</td>
<td>47.315 ***</td>
<td>.417 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.431 ***</td>
<td>52.030 ***</td>
<td>46.753 ***</td>
<td>.412 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.148 ***</td>
<td>1.081</td>
<td>.562</td>
<td>.005</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precincts with few under age 65</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.583 ***</td>
<td>51.095 ***</td>
<td>50.446 ***</td>
<td>.419 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.436 ***</td>
<td>49.393 ***</td>
<td>49.100 ***</td>
<td>.411 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.147 ***</td>
<td>1.702 +</td>
<td>1.346 ^</td>
<td>.008</td>
</tr>
</tbody>
</table>

| Added Primacy                    | .001     | -.621 | -.784 | -.003    |

N=9877  ^ p<.2  + p<.1  * p<.05  ** p<.01  *** p<.001

Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.
Table 22. Percentage estimates of the moderating of name-order effects by race (Black), and having less than an annual income of $30,000.

<table>
<thead>
<tr>
<th></th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Precincts with many low-income households</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.647***</td>
<td>39.835***</td>
<td>61.281***</td>
<td>.480***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.484***</td>
<td>38.696***</td>
<td>59.786***</td>
<td>.472***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.163***</td>
<td>1.139</td>
<td>1.495ˆ</td>
<td>.008</td>
</tr>
<tr>
<td><strong>Precincts with few low-income households</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.558***</td>
<td>55.828***</td>
<td>45.264***</td>
<td>.396***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.417***</td>
<td>54.283***</td>
<td>44.359***</td>
<td>.389***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.141***</td>
<td>1.545ˆ</td>
<td>.905</td>
<td>.006</td>
</tr>
<tr>
<td>Added Primacy</td>
<td>.022</td>
<td>-.406</td>
<td>.590</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Precincts with many Blacks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.668***</td>
<td>35.054***</td>
<td>66.041***</td>
<td>.453***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.468***</td>
<td>33.969***</td>
<td>64.611***</td>
<td>.445***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.201***</td>
<td>1.085</td>
<td>1.431ˆ</td>
<td>.008</td>
</tr>
<tr>
<td><strong>Precincts without many Blacks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vote Share when First</td>
<td>.548***</td>
<td>58.068***</td>
<td>42.560***</td>
<td>.402***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.420***</td>
<td>56.898***</td>
<td>41.838***</td>
<td>.398***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.128***</td>
<td>1.170ˆ</td>
<td>.723</td>
<td>.004</td>
</tr>
<tr>
<td>Added Primacy</td>
<td>.073*</td>
<td>-.085</td>
<td>.708</td>
<td>.004</td>
</tr>
</tbody>
</table>

N=9877  ^p<.2  +p<.1  *p<.05  **p<.01  ***p<.001

*Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.*
Table 23. Percentage estimates of the moderating of name-order effects by race competitiveness (runaway victories and close contests)

<table>
<thead>
<tr>
<th>Precincts with runaway victories</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.659 ***</td>
<td>43.354 ***</td>
<td>58.366 ***</td>
<td>.483 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.489 ***</td>
<td>41.153 ***</td>
<td>57.122 ***</td>
<td>.473 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.170 ***</td>
<td>2.201 ^</td>
<td>1.244</td>
<td>.010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precincts without close contests</th>
<th>Badnarik</th>
<th>Bush</th>
<th>Kerry</th>
<th>Peroutka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Share when First</td>
<td>.557 ***</td>
<td>54.422 ***</td>
<td>46.724 ***</td>
<td>.397 ***</td>
</tr>
<tr>
<td>Vote Share when Other</td>
<td>.417 ***</td>
<td>53.027 ***</td>
<td>45.625 ***</td>
<td>.391 ***</td>
</tr>
<tr>
<td>Primacy</td>
<td>.140 ***</td>
<td>1.395 ^</td>
<td>1.099 ^</td>
<td>.006</td>
</tr>
<tr>
<td>Added Primacy</td>
<td>.030</td>
<td>.806</td>
<td>.146</td>
<td>.004</td>
</tr>
</tbody>
</table>

N=10554  ^p<.2  ^p<.1  *p<.05  **p<.01  ***p<.001

Note: All numbers are percentages. Estimates are from Clarify simulations based on SUR regression that predicts the log-odds ratios of candidate vote shares, where Peroutka is always the reference candidate. Outlier precincts are removed.
**Appendix 1. Binary Ballot Order Variable Coding**

<table>
<thead>
<tr>
<th>Rotation 1</th>
<th>Rotation 2</th>
<th>Rotation 3</th>
<th>Rotation 4</th>
<th>Rotation 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Five-Position Ballot Coding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Badnarik</td>
<td>1 Bush</td>
<td>1 Kerry</td>
<td>1 Nader</td>
<td>1 Peroutka</td>
</tr>
<tr>
<td>0 Bush</td>
<td>0 Kerry</td>
<td>0 Nader</td>
<td>0 Peroutka</td>
<td>0 Badnarik</td>
</tr>
<tr>
<td>0 Kerry</td>
<td>0 Nader</td>
<td>0 Peroutka</td>
<td>0 Badnarik</td>
<td>0 Bush</td>
</tr>
<tr>
<td>0 Nader</td>
<td>0 Peroutka</td>
<td>0 Badnarik</td>
<td>0 Bush</td>
<td>0 Kerry</td>
</tr>
<tr>
<td>0 Peroutka</td>
<td>0 Badnarik</td>
<td>0 Bush</td>
<td>0 Kerry</td>
<td>0 Nader</td>
</tr>
</tbody>
</table>

"Blank" Five-Position Ballot Coding |
| 1 Badnarik | 1 Bush     | 1 Kerry    | .          | 1 Peroutka |
| 0 Bush     | 0 Kerry    | .          | 1 Peroutka | 0 Badnarik |
| 0 Kerry    | .          | 0 Peroutka | 0 Badnarik | 0 Bush     |
| .          | 0 Peroutka | 0 Badnarik | 0 Bush     | .          |

Irregular Five-Position Ballot Coding |
| 1 Badnarik | 1 Bush     | 1 Kerry    | .          | 1 Peroutka |
| 0 Bush     | 0 Kerry    | .          | 1 Peroutka | 0 Badnarik |
| 0 Kerry    | .          | 0 Peroutka | 0 Badnarik | 0 Bush     |
| .          | 0 Peroutka | 0 Badnarik | 0 Bush     | .          |
| 0 Peroutka | 0 Badnarik | 0 Bush     | 0 Kerry    | .          |
Appendix 2: Vote Share Distributions

Badnarik Vote Share

Bush Vote Share

Kerry Vote Share

Peroutka Vote Share

N=10554
Appendix 3: OLS Vote Share Residual Distributions

Badnarik Vote Share Residuals

Bush Vote Share Residuals

Kerry Vote Share Residuals

Peroutka Vote Share Residuals

N=10554
Appendix 4: Log-Odds Ratio Vote Share Distributions

Badnarik Vote Share

Bush Vote Share

Kerry Vote Share
Appendix 5: Four Position Punch Card Ballot

Four position punch card ballot (Guernsey)
Appendix 6: Five Position Punch Card Ballot

Five-position punch card ballot (Gallia)

<table>
<thead>
<tr>
<th>For President and Vice-President</th>
<th>For Vice-President</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICHAEL BADNARIK</td>
<td>RICHARD V. CAMPAGNA 2 →</td>
</tr>
<tr>
<td>other-party candidate</td>
<td></td>
</tr>
<tr>
<td>GEORGE W. BUSH</td>
<td>DICK CHENEY 4 →</td>
</tr>
<tr>
<td>Republican</td>
<td></td>
</tr>
<tr>
<td>JOHN F. KERRY</td>
<td>JOHN EDWARDS 6 →</td>
</tr>
<tr>
<td>Democratic</td>
<td></td>
</tr>
<tr>
<td>RALPH NADER</td>
<td>PETER MIGUEL 8 →</td>
</tr>
<tr>
<td>G. CAMEJO</td>
<td></td>
</tr>
<tr>
<td>MICHAEL ANTHONY</td>
<td>CHUCK BALDWIN 10 →</td>
</tr>
<tr>
<td>PEROUTKA</td>
<td>other-party candidate</td>
</tr>
</tbody>
</table>
Appendix 7: Long Four Position Optical Scan Ballot

Long Four position optical scan ballot (Geauga)
Appendix 8: Long Four Position Optical Scan Ballot

Long 5 position optical scan ballot (Erie)
Appendix 9: Five Position Punch Card Ballot with White Blank Position

Blank (white) punch card ballot (Greene)

<table>
<thead>
<tr>
<th>For President:</th>
<th>For Vice-President:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICHAEL BDNARIK</td>
<td>RICHARD V. CAMPAGNA</td>
</tr>
<tr>
<td>Republican</td>
<td>other-party candidate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For President:</th>
<th>For Vice-President:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEORGE W. BUSH</td>
<td>DICK CHENEY</td>
</tr>
<tr>
<td>Republican</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For President:</th>
<th>For Vice-President:</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOHN F. KERRY</td>
<td>JOHN EDWARDS</td>
</tr>
<tr>
<td>Democratic</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For President:</th>
<th>For Vice-President:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICHAEL BALDWIN</td>
<td>CHUCK PEROUTKA</td>
</tr>
<tr>
<td>other-party candidate</td>
<td></td>
</tr>
</tbody>
</table>

To vote for President and Vice-President, punch the hole beside the number for the set of candidates of your choice. Your vote will be counted for each of the candidates for presidential elector whose names have been certified to the Secretary of State. (Vote not more than ONCE)
Appendix 10: Five Position Punch Card Ballot with Black Blank Position

Blank (black) punch card ballot (Brown)

<table>
<thead>
<tr>
<th>For President</th>
<th>For Vice-President</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICHAEL ANTHONY PEROUTKA</td>
<td>CHUCK BALDWIN</td>
</tr>
<tr>
<td>MICHAEL BADNARIK</td>
<td>RICHARD V. CAMPAGNA</td>
</tr>
<tr>
<td>GEORGE W. BUSH</td>
<td>DICK CHENEY</td>
</tr>
<tr>
<td>JOHN F. KERRY</td>
<td>JOHN EDWARDS</td>
</tr>
</tbody>
</table>

To vote for President and Vice-President, punch the hole beside the number for the set of candidates of your choice. Your vote will be counted for each of the candidates for presidential elector whose names have been certified to the Secretary of State. (Vote not more than ONCE)
Appendix 11: Five Position Punch Card Ballot with a “Candidate Removed” Position

“Candidate Removed” ballot (Athens)

<table>
<thead>
<tr>
<th>For President and Vice-President</th>
<th>For Vice-President:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICHAEL BADNARIK</td>
<td>RICHARD V. CAMPAGNA</td>
</tr>
<tr>
<td>other-party candidate</td>
<td>2→</td>
</tr>
<tr>
<td>For President:</td>
<td>For Vice-President:</td>
</tr>
<tr>
<td>GEORGE W. BUSH</td>
<td>DICK CHENEY</td>
</tr>
<tr>
<td>Republican</td>
<td>4→</td>
</tr>
<tr>
<td>For President:</td>
<td>For Vice-President:</td>
</tr>
<tr>
<td>JOHN F. KERRY</td>
<td>JOHN EDWARDS</td>
</tr>
<tr>
<td>Democratic</td>
<td>6→</td>
</tr>
<tr>
<td>For President:</td>
<td>For Vice-President:</td>
</tr>
<tr>
<td>CANDIDATE REMOVED</td>
<td>CANDIDATE REMOVED</td>
</tr>
<tr>
<td>For President:</td>
<td>For Vice-President:</td>
</tr>
<tr>
<td>MICHAEL ANTHONY PEROUTKA</td>
<td>CHUCK BALDWIN</td>
</tr>
<tr>
<td>other-party candidate</td>
<td>10→</td>
</tr>
</tbody>
</table>
Appendix 12: Five Position Punch Card Ballot with a Printed-Over Position

“Stamped-over” touchscreen ballot (Pickaway)
Appendix 13: Stata Do-File: Definition of Variables

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiomergedplus3.dta", clear

gen badnpc = (badn)/(badn+bush+kerr+pero)
gen bushpc = (bush)/(badn+bush+kerr+pero)
gen kerrpc = (kerr)/(badn+bush+kerr+pero)
gen peropc = (pero)/(badn+bush+kerr+pero)

gen vcast4 = badn+bush+kerr+pero
gen vcast5 = badn+bush+kerr+nade+pero

gen badnp1 = badn+1
gen bushp1 = bush+1
gen kerrp1 = kerr+1
gen nade1 = nade+1
gen perop1 = pero+1

gen badnpc4 = (100*badn)/(badn+bush+kerr+pero)
gen bushpc4 = (100*bush)/(badn+bush+kerr+pero)
gen kerrpc4 = (100*kerr)/(badn+bush+kerr+pero)
gen peropc4 = (100*pero)/(badn+bush+kerr+pero)

gen badnpc5 = (100*badn)/(badn+bush+kerr+nade+pero)
gen bushpc5 = (100*bush)/(badn+bush+kerr+nade+pero)
gen kerrpc5 = (100*kerr)/(badn+bush+kerr+nade+pero)
gen peropc5 = (100*pero)/(badn+bush+kerr+nade+pero)

gen badnp4p1 = (badn+1)/(badn+1+bush+1+kerrp1+perop1)
gen bushp4p1 = (bush+1)/(badn+1+bush+1+kerrp1+perop1)
gen kerrp4p1 = (kerrp1)/(badn+1+bush+1+kerrp1+perop1)
gen perop4p1 = (perop1)/(badn+1+bush+1+kerrp1+perop1)

gen badnpc4p1logbushpc4p1 = ln(badnpc4p1/bushpc4p1)
gen badnpc4p1logkerrpc4p1 = ln(badnpc4p1/kerrpc4p1)
gen badnpc4p1logperopc4p1 = ln(badnpc4p1/peropc4p1)

gen bushpc4p1logbadnpc4p1 = ln(bushpc4p1/badnpc4p1)
gen bushpc4p1logkerrpc4p1 = ln(bushpc4p1/kerrpc4p1)
gen bushpc4p1logperopc4p1 = ln(bushpc4p1/peropc4p1)

gen kerrpc4p1logbadnpc4p1 = ln(kerrpc4p1/badnpc4p1)
gen kerrpc4p1logbushpc4p1 = ln(kerrpc4p1/bushpc4p1)
gen kerrpc4p1logperopc4p1 = ln(kerrpc4p1/peropc4p1)

gen perop4p1logbadnpc4p1 = ln(perop4p1/badnpc4p1)
gen perop4p1logbushpc4p1 = ln(perop4p1/bushpc4p1)
gen perop4p1logkerrpc4p1 = ln(perop4p1/kerrpc4p1)

drop if ord==6

gen badnfirstbwcr = ord
recode badnfirstbwcr (1=1) (2=0) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode badnfirstbwcr (1=1) (2=0) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode badnfirstbwcr (1=1) (2=0) (3=0) (4=0) if rotation==0

gen bushfirstbwcr = ord
recode bushfirstbwcr (1=0) (2=1) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode bushfirstbwcr (1=0) (2=1) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode bushfirstbwcr (1=0) (2=1) (3=0) (4=0) if rotation==0

gen kerrfirstbwcr = ord
recode kerrfirstbwcr (1=0) (2=0) (3=1) (4=0) (5=0) if rotation==1 & nmethod==6
recode kerrfirstbwcr (1=0) (2=0) (3=1) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode kerrfirstbwcr (1=0) (2=0) (3=1) (4=0) if rotation==0

gen perofirstbwcr = ord
recode perofirstbwcr (1=0) (2=0) (3=0) (4=0) (5=1) if rotation==1 & nmethod==6
recode perofirstbwcr (1=0) (2=0) (3=0) (4=1) (5=1) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode perofirstbwcr (1=0) (2=0) (3=0) (4=1) if rotation==0

gen badnlastbwcr = ord
recode badnlastbwcr (1=0) (2=1) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode badnlastbwcr (1=0) (2=1) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode badnlastbwcr (1=0) (2=1) (3=0) (4=0) if rotation==0

gen bushlastbwcr = ord
recode bushlastbwcr (1=0) (2=0) (3=1) (4=0) (5=0) if rotation==1 & nmethod==6
recode bushlastbwcr (1=0) (2=0) (3=1) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode bushlastbwcr (1=0) (2=0) (3=1) (4=0) if rotation==0

gen kerrlastbwcr = ord
recode kerrlastbwcr (1=0) (2=0) (3=0) (4=1) (5=0) if rotation==1 & nmethod==6
recode kerrlastbwcr (1=0) (2=0) (3=0) (4=1) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode kerrlastbwcr (1=0) (2=0) (3=0) (4=1) if rotation==0

gen perolastbwcr = ord
recode perolastbwcr (1=1) (2=0) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode perolastbwcr (1=1) (2=0) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode perolastbwcr (1=1) (2=0) (3=0) (4=0) if rotation==0

gen badnordbwcr = ord
recode badnordbwcr (1=0) (2=1) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode badnordbwcr (1=0) (2=1) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode badnordbwcr (1=0) (2=1) (3=0) (4=0) if rotation==0

gen bushordbwcr = ord
recode bushordbwcr (1=0) (2=0) (3=1) (4=0) (5=1) if rotation==1 & nmethod==6
recode bushordbwcr (1=0) (2=0) (3=1) (4=0) (5=1) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode bushordbwcr (1=0) (2=0) (3=1) (4=0) if rotation==0

gen kerrordbwcr = ord
recode kerrordbwcr (1=0) (2=0) (3=0) (4=1) (5=0) if rotation==1 & nmethod==6
recode kerrordbwcr (1=0) (2=0) (3=0) (4=1) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode kerrordbwcr (1=0) (2=0) (3=0) (4=1) if rotation==0

gen peroordbwcr = ord
recode peroordbwcr (1=1) (2=0) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode peroordbwcr (1=1) (2=0) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode peroordbwcr (1=1) (2=0) (3=0) (4=0) if rotation==0

gen badnord2 = ord
recode badnord2 (1=0) (2=1) (3=.75) (4=.5) (5=.25) if rotation==1 & nmethod==6
recode badnord2 (1=0) (2=1) (3=.75) (4=.5) (5=.25) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode badnord2 (1=0) (2=1) (3=.75) (4=.5) (5=.25) if rotation==0

gen bushord2 = ord
recode bushord2 (1=0) (2=0) (3=1) (4=.75) (5=.5) if rotation==1 & nmethod==6
recode bushord2 (1=0) (2=0) (3=1) (4=.75) (5=.5) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode bushord2 (1=0) (2=0) (3=1) (4=.75) if rotation==0

gen kerrord2 = ord
recode kerrord2 (1=0) (2=0) (3=0) (4=1) (5=.75) if rotation==1 & nmethod==6
recode kerrord2 (1=0) (2=0) (3=0) (4=1) (5=.75) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode kerrord2 (1=0) (2=0) (3=0) (4=1) if rotation==0

gen peroord2 = ord
recode peroord2 (1=0) (2=0) (3=0) (4=0) (5=0) if rotation==1 & nmethod==6
recode peroord2 (1=0) (2=0) (3=0) (4=0) (5=0) if rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)
recode peroord2 (1=0) (2=0) (3=0) (4=0) if rotation==0

gen badnordbwcrsq = badnordbwcr^2

gen bushordbwcrsq = bushordbwcr^2

gen kerrordbwcrsq = kerrordbwcr^2

gen peroordbwcrsq = peroordbwcr^2
gen punch = vmethod==0
gen optical = vmethod==1
gen touch = vmethod==2

gen nob = nmethod==1
gen blank = (nmethod==2 | nmethod==3)
gen text = (nmethod==4 | nmethod==5)
gen normalbwcr = (nmethod==1 | nmethod==6)

gen blankwhite = nmethod==2
gen blankblack = nmethod==3
gen normal = nmethod==6
gen bwcr = (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5)

gen lesshi = (pcedulesshi)
gen lesshi10 = (pcedulesshi<-.0750969)
gen lesshi25 = (pcedulesshi<-.1126632)
gen lesshi50 = (pcedulesshi<-.1639458)
gen lesshi75 = (pcedulesshi<-.2266758)
gen pceduposthi = pcedusomecoll+pceducoll+pcedugrad

gen langspanish25 = (pclangspanish>-.0189607)
gen langspanish50 = (pclangspanish>-.0244279)
gen langspanish75 = (pclangspanish>-.0323154)
gen langspanish90 = (pclangspanish>-.0414498)

gen langindoeuro = pclangindoeuro

gen langindoeuro25 = (pclangindoeuro>-.0217024)
gen langindoeuro50 = (pclangindoeuro>-.0356455)
gen langindoeuro75 = (pclangindoeuro>-.046866)
gen langindoeuro90 = (pclangindoeuro>-.0696184)

gen avpc = avcast/vcast4

gen avpc25 = (avpc>=.076555)
gen avpc50 = (avpc>=.097852)
gen avpc75 = (avpc>.1271989)

gen inclow = pcless10k+pc10k15k+pc15k20k+pc20k25k+pc25k30k

gen incmed = pc30k35k+pc35k40k+pc40k45k+pc45k50k+pc50k60k

gen inchigh = pc60k75k+pc75k100k+pc100k125k+pc125k150k+pcmore150k

gen inclow75 = inclow>=.4490357

gen age65up = pcage65+pcage70+pcage75+pcage80+pcage85+pcage90+pcage95+pcage100

gen age25less = pc25less00+pc25less05+pc25less10+pc25less15+pc25less20+pc25less25+pc25less30+pc25less35+pc25less40+pc25less45+pc25less50+pc25less55+pc25less60+pc25less65+pc25less70+pc25less75+pc25less80+pc25less85+pc25less90+pc25less95+pc25less100

gen age65up25 = (age65up>=.1171735)
gen age65up50 = (age65up>=.1512078)
gen age65up75 = (age65up>=.175522)
gen age65up75 = (age65up>=.2096463)

gen pcblack25 = (pcblack>=.0057998)
gen pcblack50 = (pcblack>=.0200818)
gen pcblack75 = (pcblack>.1645603)

gen close = .01*(abs(bushpc4-kerrpc4))
gen closehigh = close>=.415534

gen iv = (1-(vcast4/vcast))
gen iv75= (iv>=.02227)
gen five = rotation==1

gen pcmigrant75 = pcmigrant>.2543841

gen longball_badnfirstbwcr = badnfirstbwcr*longball

gen longball_bushfirstbwcr = bushfirstbwcr*longball
gen longball_kerrfirstbwcr = kerrfirstbwcr*longball
gen longball_perofirstbwcr = perofirstbwcr*longball
gen five_badnfirstbwcr = badnfirstbwcr*five
gen five_bushfirstbwcr = bushfirstbwcr*five
gen five_kerrfirstbwcr = kerrfirstbwcr*five
gen five_perofirstbwcr = perofirstbwcr*five
gen punch_badnfirstbwcr = badnfirstbwcr*punch
gen punch_bushfirstbwcr = bushfirstbwcr*punch
gen punch_kerrfirstbwcr = kerrfirstbwcr*punch
gen punch_perofirstbwcr = perofirstbwcr*punch
gen optical_badnfirstbwcr = badnfirstbwcr*optical
gen optical_bushfirstbwcr = bushfirstbwcr*optical
gen optical_kerrfirstbwcr = kerrfirstbwcr*optical
gen optical_perofirstbwcr = perofirstbwcr*optical
gen touch_badnfirstbwcr = badnfirstbwcr*touch
gen touch_kerrfirstbwcr = kerrfirstbwcr*touch
gen touch_perofirstbwcr = perofirstbwcr*touch
gen text_badnfirstbwcr = badnfirstbwcr*text
gend text_kerrfirstbwcr = kerrfirstbwcr*text
gen text_perofirstbwcr = perofirstbwcr*text
gen normal_badnfirstbwcr = badnfirstbwcr*normal
gen normal_bushfirstbwcr = bushfirstbwcr*normal
gen normal_kerrfirstbwcr = kerrfirstbwcr*normal
gen normal_perofirstbwcr = perofirstbwcr*normal
gen normalbwcr_badnfirstbwcr = badnfirstbwcr*normalbwcr
gen normalbwcr_bushfirstbwcr = bushfirstbwcr*normalbwcr
gen normalbwcr_kerrfirstbwcr = kerrfirstbwcr*normalbwcr
gen normalbwcr_perofirstbwcr = perofirstbwcr*normalbwcr
gen bwcr_badnfirstbwcr = badnfirstbwcr*bwcr
gen bwcr_bushfirstbwcr = bushfirstbwcr*bwcr
gen bwcr_kerrfirstbwcr = kerrfirstbwcr*bwcr
gen bwcr_perofirstbwcr = perofirstbwcr*bwcr
gen blank_badnfirstbwcr = badnfirstbwcr*blank
gen blank_bushfirstbwcr = bushfirstbwcr*blank
gen blank_kerrfirstbwcr = kerrfirstbwcr*blank
gen blank_perofirstbwcr = perofirstbwcr*blank
gen lesshi125_badnfirstbwcr = badnfirstbwcr*lesshi125
gen lesshi125_bushfirstbwcr = bushfirstbwcr*lesshi125
gen lesshi125_kerrfirstbwcr = kerrfirstbwcr*lesshi125
gen lesshi125_perofirstbwcr = perofirstbwcr*lesshi125
gen langspanish75_badnfirstbwcr = badnfirstbwcr*langspanish75
gen langspanish75_bushfirstbwcr = bushfirstbwcr*langspanish75
gen langspanish75_kerrfirstbwcr = kerrfirstbwcr*langspanish75
gen langspanish75_perofirstbwcr = perofirstbwcr*langspanish75
gen avpc_badnfirstbwcr = badnfirstbwcr*avpc
gen avpc_bushfirstbwcr = bushfirstbwcr*avpc
gen avpc_kerrfirstbwcr = kerrfirstbwcr*avpc
gen avpc_perofirstbwcr = perofirstbwcr*avpc
gen avpc75_badnfirstbwcr = badnfirstbwcr*avpc75
gen avpc75_bushfirstbwcr = bushfirstbwcr*avpc75
gen avpc75_kerrfirstbwcr = kerrfirstbwcr*avpc75
gen avpc75_perofirstbwcr = perofirstbwcr*avpc75
gen age65up_badnfirstbwcr = badnfirstbwcr*age65up
gen age65up_bushfirstbwcr = bushfirstbwcr*age65up
gen age65up_kerrfirstbwcr = kerrfirstbwcr*age65up
gen age65up_perofirstbwcr = perofirstbwcr*age65up
gen age65up75_badnfirstbwcr = badnfirstbwcr*age65up75
gen age65up75_bushfirstbwcr = bushfirstbwcr*age65up75
gen age65up75_kerrfirstbwcr = kerrfirstbwcr*age65up75
gen age65up75_perofirstbwcr = perofirstbwcr*age65up75
gen age25less_badnfirstbwcr = badnfirstbwcr*age25less
gen age25less_bushfirstbwcr = bushfirstbwcr*age25less
gen age25less_kerrfirstbwcr = kerrfirstbwcr*age25less
gen age25less_perofirstbwcr = perofirstbwcr*age25less
gen age25less_badlastbwcr = badlastbwcr*age25less
gen age25less_bushlastbwcr = bushlastbwcr*age25less
gen age25less_kerrlastbwcr = kerrlastbwcr*age25less
gen age25less_perolastbwcr = perolastbwcr*age25less
gen age25less75_badfirstbwcr = badfirstbwcr*age25less75
```stata
gen age25less75_bushfirstbwcr = bushfirstbwcr*age25less75
gen age25less75_kerrfirstbwcr = kerrfirstbwcr*age25less75
gen age25less75_perofirstbwcr = perofirstbwcr*age25less75
gen pcblack75_badnfirstbwcr = badnfirstbwcr*pcblack75
gen pcblack75_bushfirstbwcr = bushfirstbwcr*pcblack75
gen pcblack75_kerrfirstbwcr = kerrfirstbwcr*pcblack75
gen pcblack75_perofirstbwcr = perofirstbwcr*pcblack75
gen inclow75_badnfirstbwcr = badnfirstbwcr*inclow75
gen inclow75_bushfirstbwcr = bushfirstbwcr*inclow75
gen inclow75_kerrfirstbwcr = kerrfirstbwcr*inclow75
gen inclow75_perofirstbwcr = perofirstbwcr*inclow75
gen close_badnfirstbwcr = badnfirstbwcr*close
gen close_bushfirstbwcr = bushfirstbwcr*close
gen close_kerrfirstbwcr = kerrfirstbwcr*close
gen close_perofirstbwcr = perofirstbwcr*close
gen closehigh_badnfirstbwcr = badnfirstbwcr*closehigh
gen closehigh_bushfirstbwcr = bushfirstbwcr*closehigh
gen closehigh_kerrfirstbwcr = kerrfirstbwcr*closehigh
gen closehigh_perofirstbwcr = perofirstbwcr*closehigh
gen closelow_badnfirstbwcr = badnfirstbwcr*closelow
gen closelow_bushfirstbwcr = bushfirstbwcr*closelow
gen closelow_kerrfirstbwcr = kerrfirstbwcr*closelow
gen closelow_perofirstbwcr = perofirstbwcr*closelow
gen iv75_badnfirstbwcr = badnfirstbwcr*iv75
gen iv75_bushfirstbwcr = bushfirstbwcr*iv75
gen iv75_kerrfirstbwcr = kerrfirstbwcr*iv75
gen iv75_perofirstbwcr = perofirstbwcr*iv75
gen pcmigrant75_badnfirstbwcr = badnfirstbwcr*pcmigrant75
gen pcmigrant75_bushfirstbwcr = bushfirstbwcr*pcmigrant75
gen pcmigrant75_kerrfirstbwcr = kerrfirstbwcr*pcmigrant75
gen pcmigrant75_perofirstbwcr = perofirstbwcr*pcmigrant75
save "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", replace
```
Appendix 14: Stata Do-File: Commands

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear

tab badnfirstbwcr if peropc4<20 & badnpc4<20
tab bushfirstbwcr if peropc4<20 & badnpc4<20
tab kerrfirstbwcr if peropc4<20 & badnpc4<20
tab perofirstbwcr if peropc4<20 & badnpc4<20

Table 1

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear

pwcorr ord vpop pcurban pcage1824 pcage2529 pcage3039 pcage4049 pcage5059 pcage6064 pcage7074 pcage75up pcedulesshi pceduhi pcedusomecoll pceducoll pcedugrad pchomeowner pchomerenter pcimmigrant pcless10k pc10k15k pc15k20k pc20k25k pc25k30k pc30k35k pc35k40k pc40k45k pc45k50k pc50k60k pc60k75k pc75k100k pc100k125k pc125k150k pc150k175k pc175k200k pc200k225k pc225k250k pc250k275k pc275k300k pc300k325k pc325k350k pc350k375k pc375k400k pc400k425k pc425k450k pc450k475k pc475k500k pc500k525k pc525k550k pc550k575k pc575k600k pclangenglish pclangspanish pclangindoeuro pclangasian pclangother pcwhite pcblack pcasian pcamindian pcotherrace if peropc4<20 & badnpc4<20, sig star(.2)

pwcorr badnfirstbwcr vpop pcurban pcage1824 pcage2529 pcage3039 pcage4049 pcage5059 pcage6064 pcage6569 pcage7074 pcage75up pcedulesshi pceduhi pcedusomecoll pceducoll pcedugrad pchomeowner pchomerenter pcimmigrant pcless10k pc10k15k pc15k20k pc20k25k pc25k30k pc30k35k pc35k40k pc40k45k pc45k50k pc50k60k pc60k75k pc75k100k pc100k125k pc125k150k pc150k175k pc175k200k pc200k225k pc225k250k pc250k275k pc275k300k pc300k325k pc325k350k pc350k375k pc375k400k pc400k425k pc425k450k pc450k475k pc475k500k pclangenglish pclangspanish pclangindoeuro pclangasian pclangother pcwhite pcblack pcasian pcamindian pcotherrace if peropc4<20 & badnpc4<20, sig star(.2)

pwcorr bushfirstbwcr vpop pcurban pcage1824 pcage2529 pcage3039 pcage4049 pcage5059 pcage6064 pcage6569 pcage7074 pcage75up pcedulesshi pceduhi pcedusomecoll pceducoll pcedugrad pchomeowner pchomerenter pcimmigrant pcless10k pc10k15k pc15k20k pc20k25k pc25k30k pc30k35k pc35k40k pc40k45k pc45k50k pc50k60k pc60k75k pc75k100k pc100k125k pc125k150k pc150k175k pc175k200k pc200k225k pc225k250k pc250k275k pc275k300k pc300k325k pc325k350k pc350k375k pc375k400k pc400k425k pc425k450k pc450k475k pc475k500k pclangenglish pclangspanish pclangindoeuro pclangasian pclangother pcwhite pcblack pcasian pcamindian pcotherrace if peropc4<20 & badnpc4<20, sig star(.2)

pwcorr kerrfirstbwcr vpop pcurban pcage1824 pcage2529 pcage3039 pcage4049 pcage5059 pcage6064 pcage6569 pcage7074 pcage75up pcedulesshi pceduhi pcedusomecoll pceducoll pcedugrad pchomeowner pchomerenter pcimmigrant pcless10k pc10k15k pc15k20k pc20k25k pc25k30k pc30k35k pc35k40k pc40k45k pc45k50k pc50k60k pc60k75k pc75k100k pc100k125k pc125k150k pc150k175k pc175k200k pc200k225k pc225k250k pc250k275k pc275k300k pc300k325k pc325k350k pc350k375k pc375k400k pc400k425k pc425k450k pc450k475k pc475k500k pclangenglish pclangspanish pclangindoeuro pclangasian pclangother pcwhite pcblack pcasian pcamindian pcotherrace if peropc4<20 & badnpc4<20, sig star(.2)

pwcorr perofirstbwcr vpop pcurban pcage1824 pcage2529 pcage3039 pcage4049 pcage5059 pcage6064 pcage6569 pcage7074 pcage75up pcedulesshi pceduhi pcedusomecoll pceducoll pcedugrad pchomeowner pchomerenter pcimmigrant pcless10k pc10k15k pc15k20k pc20k25k pc25k30k pc30k35k pc35k40k pc40k45k pc45k50k pc50k60k pc60k75k pc75k100k pc100k125k pc125k150k pc150k175k pc175k200k pc200k225k pc225k250k pc250k275k pc275k300k pc300k325k pc325k350k pc350k375k pc375k400k pc400k425k pc425k450k pc450k475k pc475k500k pclangenglish pclangspanish pclangindoeuro pclangasian pclangother pcwhite pcblack pcasian pcamindian pcotherrace if peropc4<20 & badnpc4<20, sig star(.2)

Table 2

tab rotation if peropc4<20 & badnpc4<20

table if peropc4<20 & badnpc4<20

tab nmethod if peropc4<20 & badnpc4<20
tab npossible if peropc4<20 & badnpc4<20

Table 4

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear

tabstat badnpc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(badnord2) stats(co mean sd)
tabstat bushpc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(bushord2) stats(co mean sd)
tabstat kerrpc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(kerrord2) stats(co mean sd)
tabstat peropc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==2 | nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(peroord2) stats(co mean sd)

Table 5

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear

tabstat badnpc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(badnord2) stats(co mean sd)
tabstat bushpc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(bushord2) stats(co mean sd)
Blocksom 123

```
nmethod==6), by(bushord2) stats(co mean sd)
tabstat peropc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(kerrord2) stats(co mean sd)
tabstat peropc4 if peropc4<20 & badnpc4<20 & rotation==1 & (nmethod==3 | nmethod==4 | nmethod==5 | nmethod==6), by(perorord2) stats(co mean sd)

Table 7

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
pwcorr badn bush kerr pero if peropc4<20 & badnpc4<20, sig star(.2)
reg badn badnfirstbwcr if peropc4<20 & badnpc4<20
predict badnhat, resid
reg bush bushfirstbwcr if peropc4<20 & badnpc4<20
predict bushhat, resid
reg kerr kerrfirstbwcr if peropc4<20 & badnpc4<20
predict kerrhat, resid
reg pero perofirstbwcr if peropc4<20 & badnpc4<20
predict perohat, resid
pwcorr badnhat bushhat kerrhat perohat if peropc4<20 & badnpc4<20, sig star(.2)
pwcorr badnpc4 bushpc4 kerrpc4 pero4 if peropc4<20 & badnpc4<20, sig star(.2)
reg badnpc4 badnfirstbwcr if peropc4<20 & badnpc4<20
predict badnpc4hat, resid
reg bushpc4 bushfirstbwcr if peropc4<20 & badnpc4<20
predict bushpc4hat, resid
reg kerrpc4 kerrfirstbwcr if peropc4<20 & badnpc4<20
predict kerrpc4hat, resid
reg pero perofirstbwcr if peropc4<20 & badnpc4<20
predict peropc4hat, resid
pwcorr badnpc4hat bushpc4hat kerrpc4hat peropc4hat if peropc4<20 & badnpc4<20, sig star(.2)

Table 8

*******************************Order Effect*******************************
*****Order Effect for Badnarik***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2562269 kerrfirstbwcr 0.2538434
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
```

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```stata
Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhatllr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhatllr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhatllr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2573774 bushfirstbwcr 0 kerrfirstbwcr 0.2534507
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhatllr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhatllr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhatllr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2567664 bushfirstbwcr 0.2552232 kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhatllr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhatllr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20
```

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& peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnfirstbwcr) (yhat2lr bushfirstbwcr) (yhat3lr kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3168302 bushfirstbwcr 0.314926 kerrfirstbwcr 0.3119965
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

***********************Order Effect***********************

*****Order Effect for Badnarik***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnlastbwcr 1 bushlastbwcr 0 kerrlastbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnlastbwcr 0 bushlastbwcr 0.2534491 kerrlastbwcr 0.4447882
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnlastbwcr 0 bushlastbwcr 0 kerrlastbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnlastbwcr 0.2552232 bushlastbwcr 0 kerrlastbwcr 0.4437322
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Ohiothesissfinal20080314.dta", clear
tologit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnlastbwcr 0 bushlastbwcr 0 kerrlastbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnlastbwcr 0.3154343 bushlastbwcr 0.3125 kerrlastbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Peroutka**** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Ohiothesissfinal20080314.dta", clear
tologit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnlastbwcr 0 bushlastbwcr 0 kerrlastbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnlastbwcr) (yhat2lr bushlastbwcr) (yhat3lr kerrlastbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnlastbwcr 0.2562269 bushlastbwcr 0.2538434 kerrlastbwcr 0.4454773
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.3174207 bushordbwcr 0.6348414 kerrordbwcr 0.3175195
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 1 bushordbwcr 0 kerrordbwcr 0.3175195
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

Table 9

*****Order Effect for Badnarik***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.3174207 bushordbwcr 0.6348414 kerrordbwcr 0.3175195
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 1 bushordbwcr 0 kerrordbwcr 0.3175195
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a

sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.6814197 bushordbwcr 1 kerrordbwcr 0
simqi, tfunc(logiti) genev(yhat1 b yhat2_b yhat3_b)
gen yhat4_b - 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forevalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
} 
sumqi fd*

*****Order Effect for Kerry*****(Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.6814125 bushordbwcr 1 kerrordbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a - 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.3501557 bushordbwcr 0.6746292 kerrordbwcr 1
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b - 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forevalues i = 1/4 {
    gen fd`i' = yhat`i'\_a - yhat`i'\_b
} 
sumqi fd*

*****Order Effect for Peroutka*****(Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.3246933 bushordbwcr 0.6493866 kerrordbwcr 0.9749799
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a - 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
estsimp sureg (yhat1_b badnordbwcr) (yhat2lr bushordbwcr) (yhat3lr kerrordbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0 bushordbwcr 0.3174207 kerrordbwcr 0.6348414
simq, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_'a - yhat`i'_'b
}
sumqi fd*

******MK LINEAR & QUADRATIC******

*****Order Effect for Badnarik***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 1 bushordbwcr 0 kerrordbwcr 0.3175195 badnordbwcrsq 1 bushordbwcrsq 0 kerrordbwcrsq 0.1018639
simq, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 1 bushordbwcr 0 kerrordbwcr 0.3175195 badnordbwcrsq 1 bushordbwcrsq 0 kerrordbwcrsq 0.1018639
simq, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_'a - yhat`i'_'b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 1 bushordbwcr 0 kerrordbwcr 0.3175195 badnordbwcrsq 1 bushordbwcrsq 0 kerrordbwcrsq
0.1018639
simqi_tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr
kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.6814125 bushordbwcr 1 kerrordbwcr 0 badnordbwcrsq 0.4653903 bushordbwcrsq 1
kerrordbwcrsq 0
simqi_tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)
use "$HOME\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\DataStata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr
kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.6814125 bushordbwcr 1 kerrordbwcr 0 badnordbwcrsq 0.4653903 bushordbwcrsq 1
kerrordbwcrsq 0
simqi_tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr
kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.3501557 bushordbwcr 0.6746292 kerrordbwcr 1 badnordbwcrsq 0.1251797 bushordbwcrsq 1
kerrordbwcrsq 0
simqi_tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*
Order Effect for Peroutka

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\StataOhiostatisticsfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushnpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0.3246933 bushordbwcr 0.6493666 kerrordbwcr 0.9749799 badnordbwcrsq 0.1060462 bushordbwcrsq 0.4241848 kerrordbwcrsq 0.9562148
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
estsimp sureg (yhat1lr badnordbwcr badnordbwcrsq) (yhat2lr bushordbwcr bushordbwcrsq) (yhat3lr kerrordbwcr kerrordbwcrsq) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0 bushordbwcr 0.3174207 kerrordbwcr 0.6348414 badnordbwcrsq 0 bushordbwcrsq 0.1018063 kerrordbwcrsq 0.4072251
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

Table 10

tab badnpc4 badfirstbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m1
tab bushnpc4 bushfirstbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m2
tab kerrpc4 kerrfirstbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m3
tab peropc4 perofirstbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m4
tab badnpc4 badnordbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m5
tab bushpc4 bushordbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m6
tab kerrpc4 kerrordbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m7
tab peropc4 peroordbwcr if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m8
tab badnpc4 badnordbwcrsquared if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m9
tab bushpc4 bushordbwcrsquared if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m10
tab kerrpc4 kerrordbwcrsquared if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m11
reg badnpc4 perodbwcrsquared if badnpc4<20 & peropc4<20 [aw=vcast4] estimates store m12
estout m1, cella(b(fmt(9.3f) star)) p stats(R2 a N, fmt(9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead("") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" ") starlevels(+ 0.10 * 0.05 ** 0.01 *** 0.01) stardetach
estout m2, cella(b(fmt(9.3f) star)) p stats(R2 a N, fmt(9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" ")
estout m3, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m4, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m5, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m6, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m7, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m8, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m9, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m10, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m11, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

estout m12, cells(b(fmt(%9.3f) star) p) stats(r2_a N, fmt(%9.3f %9.0g) labels(R-squared)) legend label collabels(, none) posthead(""") prefoot(""") postfoot(""") varwidth(25) modelwidth(12) delimiter(" "")

************MK OLS Quadratic**************BADNARIK
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
estsimp reg badnpc4 badnordbwcr badnordbwcrsq if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 0 badnordbwcrsq 0
simqi, genev(yhat1_a)
sumi yhat1_a
drop b1
drop b2
drop b3
drop b4
estsimp reg badnpc4 badnordbwcr badnordbwcrsq if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnordbwcr 1 badnordbwcrsq 1
simqi, genev(yhat1_b)
sumi yhat1_b
forvalues i = 1/4 {
    gen fd`i' = yhat`i' - yhat`i' - yhat`i'_b
}
sumi fd*

************MK OLS Quadratic**************BUSH
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
estsimp reg bushpc4 bushordbwcr bushordbwcrsq if badnpc4<20 & peropc4<20 [aw=vcast4]
setx bushordbwcr 0 bushordbwcrsq 0
simqi, genev(yhat1_a)
sumi yhat1_a
drop b1
drop b2
drop b3
Table 11

Table 12

*****Order Effect for Badnarik***** (Peroutka as Reference)---longball
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 longball 1 longball_badnfirstbwcr 1 longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0

simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2648964 kerrfirstbwcr 0.2623057 longball 1 longball_badnfirstbwcr 0 longball_bushfirstbwcr 0.2648964 longball_kerrfirstbwcr 0.2623057
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--longball
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥ohiothesisfinal20080314.dta'', clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 longball 1 longball_badnfirstbwcr 0 longball_bushfirstbwcr 1 longball_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2667959 bushfirstbwcr 0 kerrfirstbwcr 0.2616279 longball 1 longball_badnfirstbwcr
0.2667959 longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0.2616279
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i' - yhat`i' b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) --longball
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 longball 1 longball_badnfirstbwcr
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2661082 bushfirstbwcr 0.2635309 kerrfirstbwcr 0 longball 1 longball_badnfirstbwcr 0.2661082 longball_bushfirstbwcr 0.2635309 longball_kerrfirstbwcr 0 simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i' - yhat`i' b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) --longball
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 longball 1 longball_badnfirstbwcr
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3124054 bushfirstbwcr 0.3093797 kerrfirstbwcr 0.306354 longball 1
longball_badnfirstbwcr 0.3124054 longball_bushfirstbwcr 0.3093797 longball_kerrfirstbwcr 0.306354
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik***** (Peroutka as Reference)--longball
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioYData StataYthesisfina120080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 longball 0 longball_badnfirstbwcr 0
longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2542719 kerrfirstbwcr 0.2519352 longball 0 longball_badnfirstbwcr 0
longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'/_a - yhat`i'/_b
}sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference) -- longball
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioDataStataVohiothesis\final20080314.dta", clear
tlogit badminpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badminfirstbwcr longball longball_badminfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badminpc4<20 & peropc4<20 [aw=vcast4]
setx badminfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 longball 0 longball_badminfirstbwcr 0 longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badminfirstbwcr longball longball_badminfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badminpc4<20 & peropc4<20 [aw=vcast4]
setx badminfirstbwcr 0.2552509 bushfirstbwcr 0 kerrfirstbwcr 0.2516044 longball 0 longball_badminfirstbwcr 0 longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_/a - yhat`i'_/b
}sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) -- longball
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioDataStataVohiothesis\final20080314.dta", clear
tlogit badminpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badminfirstbwcr longball longball_badminfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badminpc4<20 & peropc4<20 [aw=vcast4]
setx badminfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 longball 0 longball_badminfirstbwcr 0 longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a

drop b1
drop b2
drop b3
drop b4
drop b5
drop b6

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drop b7  
drop b8  
drop b9  
drop b10  
drop b11  
drop b12  
drop b13  
drop b14  
drop b15  
drop b16  
drop b17  
drop b18  
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]  
setx badnfirstbwcr 0.2546566 bushfirstbwcr 0.2533469 kerrfirstbwcr 0 longball 0 longball_badnfirstbwcr 0 longball_bushfirstbwcr 0 longball_kerrfirstbwcr 0  
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)  
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b  
sumqi yhat*b  
forvalues i = 1/4 {  
    gen fd`i' = yhat`i'_a - yhat`i'_b  
}  
sumqi fd*  

****Order Effect for Peroutka****(Peroutka as Reference)--longball  
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear  
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)  
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]  
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 longball 0 longball_kerrfirstbwcr 0  
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)  
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a  
sumqi yhat*a  
drop b1  
drop b2  
drop b3  
drop b4  
drop b5  
drop b6  
drop b7  
drop b8  
drop b9  
drop b10  
drop b11  
drop b12  
drop b13  
drop b14  
drop b15  
drop b16  
drop b17  
drop b18  
estsimp sureg (yhat1lr badnfirstbwcr longball longball_badnfirstbwcr) (yhat2lr bushfirstbwcr longball longball_bushfirstbwcr) (yhat3lr kerrfirstbwcr longball longball_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]  
setx badnfirstbwcr 0.3178928 bushfirstbwcr 0.3162579 kerrfirstbwcr 0.3133515 longball 0  
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)  
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b  
sumqi yhat*b  
forvalues i = 1/4 {  
    gen fd`i' = yhat`i'_a - yhat`i'_b  
}  
sumqi fd*
*****Order Effect for Badnarik***** (Peroutka as Reference)--five
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\DataStata\PhDthesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 five 1 five_badnfirstbwcr 1 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2535385 kerrfirstbwcr 0.2513231 five 1 five_badnfirstbwcr 0 five_bushfirstbwcr 0.2535385 five_kerrfirstbwcr 0.2513231
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--five
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\DataStata\PhDthesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 five 1 five_badnfirstbwcr 0 five_bushfirstbwcr 1 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2545477 bushfirstbwcr 0 kerrfirstbwcr 0.2509833 five 1 five_badnfirstbwcr 0.2545477 five_bushfirstbwcr 0 five_kerrfirstbwcr 0.2509833
simqi yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat\*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) --five
use "C:\$Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 five 1 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat\*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2539858 bushfirstbwcr 0.2526367 kerrfirstbwcr 0 five 1 five_badnfirstbwcr 0.2539858 five_bushfirstbwcr 0.2526367 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat\*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) --five
use "C:\$Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 five 1 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3158457 bushfirstbwcr 0.3141681 kerrfirstbwcr 0.3114229 five 1 five_badnfirstbwcr 0.3158457 five_bushfirstbwcr 0.3141681 five_kerrfirstbwcr 0.3114229
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik***** (Peroutka as Reference)--five
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data StataVohiotheslisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.3383459 kerrfirstbwcr 0.3308271 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd'i' = yhat`i' _a - yhat`i' _b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--five
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesissfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3432836 bushfirstbwcr 0 kerrfirstbwcr 0.3283582 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd'i' = yhat`i' _a - yhat`i' _b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--five
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesissfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3407407 bushfirstbwcr 0.3333333 kerrfirstbwcr 0 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--five
use "C:\Windows\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4 a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr five five_badnfirstbwcr) (yhat2lr bushfirstbwcr five five_bushfirstbwcr) (yhat3lr kerrfirstbwcr five five_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3407407 bushfirstbwcr 0.3333333 kerrfirstbwcr 0.3259259 five 0 five_badnfirstbwcr 0 five_bushfirstbwcr 0 five_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
```stata
forvalues i = 1/4 {
    gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

Table 13
*****Order Effect for Badnarik***** (Peroutka as Reference)--punch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4 p1 yhat1 lr bushpc4 p1 yhat2 lr kerrpc4 p1 yhat3 lr, base(peropc4 p1)
estsimp sureg (yhat1 lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2 lr
bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3 lr kerrfirstbwcr punch touch
punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 punch 1 touch 0 punch_badnfirstbwcr 1
touch_badnfirstbwcr 0 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1 a yhat2 a yhat3 a)
gen yhat4 a = 1 - yhat1 a - yhat2 a - yhat3 a
sumqi yhat* a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1 lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2 lr
bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3 lr kerrfirstbwcr punch touch
punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2539133 kerrfirstbwcr 0.2516556 punch 1 touch 0
punch_badnfirstbwcr 0 punch_bushfirstbwcr 0.2539133 touch_bushfirstbwcr 0
punch_kerrfirstbwcr 0.2516556 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1 b yhat2 b yhat3 b)
gen yhat4 b = 1 - yhat1 b - yhat2 b - yhat3 b
sumqi yhat* b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--punch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4 p1 yhat1 lr bushpc4 p1 yhat2 lr kerrpc4 p1 yhat3 lr, base(peropc4 p1)
estsimp sureg (yhat1 lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2 lr
bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3 lr kerrfirstbwcr punch touch
punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 punch 1 touch 0 punch_badnfirstbwcr 0
touch_badnfirstbwcr 0 punch_bushfirstbwcr 1 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0
touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1 a yhat2 a yhat3 a)
gen yhat4 a = 1 - yhat1 a - yhat2 a - yhat3 a
sumqi yhat* a
```

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drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2549226 bushfirstbwcr 0 kerrfirstbwcr 0.2513152 punch 1 touch 0
punch_bushfirstbwcr 0.2549226 touch_bushfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0
punch_kerrfirstbwcr 0.2513152 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i'_a = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) --punch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\StataYthesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 1 touch 0 punch_bushfirstbwcr 0
punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 1
touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2543491 bushfirstbwcr 0.2529994 kerrfirstbwcr 0 punch 1 touch 0
punch_badnfirstbwcr 0.2543491 punch_badnfirstbwcr 0 punch_bushfirstbwcr 0.2529994
punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 punch_kerrfirstbwcr 0

simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd'i' = yhat`i'`a - yhat`i'`b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--punch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\YOhioYData StatavOiothesiasfinal20080314.dta", clear

tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 1 touch 0 punch_badnfirstbwcr 0
punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 punch_kerrfirstbwcr 0

drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3169839 bushfirstbwcr 0.316273 kerrfirstbwcr 0.3134608 punch 1 touch 0
punch_badnfirstbwcr 0.3169839 punch_badnfirstbwcr 0 punch_bushfirstbwcr 0.3134608
punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 punch_kerrfirstbwcr 0

drop b1

drop b2

drop b3

drop b4

drop b5

drop b6

drop b7

drop b8

drop b9

drop b10

drop b11

drop b12

drop b13

drop b14

drop b15

drop b16

drop b17

drop b18

drop b19

drop b20

drop b21

drop b22

drop b23

drop b24

simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
forvalues i = 1/4 {
gen fd'i' = yhat`i'`a - yhat`i'`b
}
******NEW MODERATOR**********

*****Order Effect for Badnarik***** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 touch 1 punch_badnfirstbwcr 0
touch_badnfirstbwcr 1 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)  
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1

drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24

estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2543412 kerrfirstbwcr 0.2533197 punch 0 touch 1
punch_badnfirstbwcr 0 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0.2533197
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)  
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 punch 0 touch 1 punch_badnfirstbwcr 0
touch_badnfirstbwcr 1 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 1 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)  
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] setx badnfirstbwcr 0.2558614 bushfirstbwcr 0 kerrfirstbwcr 0.2528033 punch 0 touch 1 punch_badnfirstbwcr 0 touch_badnfirstbwcr 0.2558614 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0.2528033 simqi, tfunc(logiti) genev(yhat1 b yhat2 b yhat3 b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i' a - yhat`i' b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 0 touch 1 punch_badnfirstbwcr 0 touch_badnfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 1 simqi, tfunc(logiti) genev(yhat1 a yhat2 a yhat3 a)
gen yhat4 a = 1 - yhat1 a - yhat2 a - yhat3 a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch
punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2556008 bushfirstbwcr 0.2556008 kerrfirstbwcr 0 punch 0 touch 1
punch_badnfirstbwcr 0 touch_badnfirstbwcr 0.2556008 punch_bushfirstbwcr 0 touch_bushfirstbwcr
0.2556008 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch
punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 touch 1 punch_badnfirstbwcr 0
punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch
punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3311346 bushfirstbwcr 0.328496 kerrfirstbwcr 0.3271768 punch 0 touch 1
punch_badnfirstbwcr 0 touch_badnfirstbwcr 0.3311346 punch_bushfirstbwcr 0.3311346 punch_kerrfirstbwcr 0
punch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*
****Order Effect for Badnarik**** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 touch 0 punch_badnfirstbwcr 0 touch_badnfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simq1, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumq1 yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2543412 kerrfirstbwcr 0.2533197 punch 0 touch 0 punch_badnfirstbwcr 0 touch_badnfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simq1, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumq1 yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

****Order Effect for Bush**** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 punch 0 touch 0 punch_badnfirstbwcr 0 touch_badnfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simq1, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2559614 bushfirstbwcr 0 kerrfirstbwcr 0.2528033 punch 0 touch 0
punch badnfirstbwcr 0 touch badnfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0
punch_kerrfirstbwcr 0 touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'`_a - yhat`i'`_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\YOhioVData
Stata\Vithesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 0 touch 0
punch badnfirstbwcr 0 punch_bushfirstbwcr 0 touch_bushfirstbwcr 0 punch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2556008 bushfirstbwcr 0.2535642 kerrfirstbwcr 0 punch 0 touch 0
punch_badnfirstbwcr 0 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd'i' = yhat'1'_a - yhat'1'_b
}
simqi fd*

******Order Effect for Peroutka*****(Peroutka as Reference)--touch
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\vohiothesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 touch 0
punch_badnfirstbwcr 0 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0
touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch touch punch_badnfirstbwcr touch_badnfirstbwcr) (yhat2lr bushfirstbwcr punch touch punch_bushfirstbwcr touch_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch touch punch_kerrfirstbwcr touch_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3311346 bushfirstbwcr 0.328496 kerrfirstbwcr 0.3271768 punch 0 touch 0
punch_badnfirstbwcr 0 punch_bushfirstbwcr 0 punch_kerrfirstbwcr 0
touch_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd'i' = yhat'1'_a - yhat'1'_b
}
sumqi fd*

**Table 14**

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData\Stata\ohiocountyresultsall.dta", clear
mlogit vmethod vpcurban pcage30less pcage65up pceduleshi pcless30k pclangspanish pclangindoeuro pclangasian pclangother pcblack pcasian pcamindian pcotherrace

**Table 15**

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData\Stata\ohiocountyresultsall.dta", clear
pwcorr punch vpcurban pcage30less pcage65up pceduleshi pcless30k pclangspanish pclangindoeuro pclangasian pclangother pcblack pcasian pcamindian pcotherrace, sig star(.2)
pwcorr optical vpcurban pcage30less pcage65up pceduleshi pcless30k pclangspanish pclangindoeuro pclangasian pclangother pcblack pcasian pcamindian pcotherrace, sig star(.2)
pwcorr touch vpcurban pcage30less pcage65up pceduleshi pcless30k pclangspanish pclangindoeuro pclangasian pclangother pcblack pcasian pcamindian pcotherrace, sig star(.2)

**Table 16**

*****Order Effect for Badnarik***** (Peroutka as Reference) -- avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 avpc75 1 avpc75_badnfirstbwcr 1 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2518987 kerrfirstbwcr 0.2512658 avpc75 1 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0.2518987 avpc75_kerrfirstbwcr 0.2512658
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'`a - yhat`i'`b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference) -- avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 avpc75 1 avpc75_badnfirstbwcr 0
avpc75_bushfirstbwcr 1 avpc75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.249206 bushfirstbwcr 0 kerrfirstbwcr 0.2521702 avpc75 1 avpc75_badnfirstbwcr 0.249206 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0.2521702
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 avpc75 1 avpc75_badnfirstbwcr 0
avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2490478 bushfirstbwcr 0.2526449 kerrfirstbwcr 0 avpc75 1 avpc75_badnfirstbwcr
0.2490478 avpc75_bushfirstbwcr 0.2526449 avpc75_kerrfirstbwcr 0
simqi tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat_b

define i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

******Order Effect for Peroutka***** (Peroutka as Reference)--avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 avpc75 1 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0
simqi tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3174218 bushfirstbwcr 0.3220065 kerrfirstbwcr 0.3211974 avpc75 1 avpc75_bushfirstbwcr 0.3174218 avpc75_kerrfirstbwcr 0.3211974
simqi tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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******Order Effect for Badnarik***** (Peroutka as Reference)--avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2618461 kerrfirstbwcr 0.2571898 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference) --avpc75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥Yohiothesis¥final20080314.dta", clear
tlogit badnpc4p1 bushnpc4p1 yhat1lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.267862 bushfirstbwcr 0 kerrfirstbwcr 0.2550937 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumq yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
} sumq fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data StataVohiothesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
ssetx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0 simq, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumq yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
ssetx badnfirstbwcr 0.2666306 bushfirstbwcr 0.2585181 kerrfirstbwcr 0 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0 simq, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumq yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
} sumq fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--avpc75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data StataVohiothesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
ssetx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 avpc75 0 avpc75_badnfirstbwcr 0 avpc75_bushfirstbwcr 0 avpc75_kerrfirstbwcr 0 simq, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumq yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr avpc75 avpc75_badnfirstbwcr) (yhat2lr bushfirstbwcr avpc75 avpc75_bushfirstbwcr) (yhat3lr kerrfirstbwcr avpc75 avpc75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
**Order Effect for Bush***** (Peroutka as Reference) -- normalbwcr

```stata
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 normalbwcr 1 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 1 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.273326 bushfirstbwcr 0 kerrfirstbwcr 0.2628979 normalbwcr 1 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*
```

**Order Effect for Kerry***** (Peroutka as Reference) -- normalbwcr

```stata
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 normal bwcr 1 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 1 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.273326 bushfirstbwcr 0 kerrfirstbwcr 0.2628979 normalbwcr 1 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*
```

kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 normalbwcr 1 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 1 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2715376 bushfirstbwcr 0.2677208 kerrfirstbwcr 0 normalbwcr 1 blank 0 normalbwcr_badnfirstbwcr 0.2715376 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0.2677208 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Peroutka****(Peroutka as Reference)-normalbwcr
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\DataStata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 normalbwcr 1 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr
kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2688985 bushfirstbwcr 0.2651188 kerrfirstbwcr 0.2586393 normalbwcr 1 blank 0
normalbwcr_badnfirstbwcr 0.2688985 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0.2651188
blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0.2586393 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Badnarik***** (Peroutka as Reference)--blank
use "C:\\Documents and Settings\\Administrator\\My Documents\\Order Effects\\OhioVData
Stata\Yhiothesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr
kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 normalbwcr 0 blank 1 normalbwcr_badnfirstbwcr
0 blank_badnfirstbwcr 1 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0
blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc420 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2529566 kerrfirstbwcr 0.2509855 normalbwcr 0 blank 1 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0.2529566 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0.2509855
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\'_a - yhat`i'\'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\MY Documents\YOrder Effects\YOhio\YData Stata\ahiothesifinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc420 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 normalbwcr 0 blank 1 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 1 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc420 [aw=vcast4]
setx badnfirstbwcr 0.2544262 bushfirstbwcr 0 kerrfirstbwcr 0.2504918 normalbwcr 0 blank 1 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\'_a - yhat`i'\'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 normalbwcr 0 blank 1 normalbwcr_badnfirstbwcr
0 blank_badnfirstbwcr 0 blank_bushfirstbwcr 0 blank_kerrfirstbwcr

simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24

estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2539267 bushfirstbwcr 0.2519634 kerrfirstbwcr 0 normalbwcr 0 blank 1
normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0.2539267 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr
0.2519634 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr

simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka*****(Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 normalbwcr 0 blank 1 normalbwcr_badnfirstbwcr
0 blank_badnfirstbwcr 0 blank_bushfirstbwcr 0 blank_kerrfirstbwcr

simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estimt sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_blank_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3359307 bushfirstbwcr 0.3333333 kerrfirstbwcr 0.3307359 normalbwcr 0 blank 1
normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0.3359307 normalbwcr_bushfirstbwcr 0
blank_bushfirstbwcr 0.3333333 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0.3307359
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik***** (Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioYData
Stata\Yhiotheses\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimt sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 normalbwcr 0 blank 0 normalbwcr_badnfirstbwcr
0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0
blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat1lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat1lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2520776 kerrfirstbwcr 0.2510882 normalbwcr 0 blank 0
normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0
normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd'i' = yhat`i'_a - yhat`i'_b
} sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\YhiothesisFinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat1lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat1lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2525213 kerrfirstbwcr 0.2509393 normalbwcr 0 blank 0
normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0
normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr)
(yhat1lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat1lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat2lr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat2lr kerrfirstbwcr normal bwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr)
(yhat3lr bushfirstbwcr normalbwcr blank bushfirstbwcr blank_bushfirstbwcr)
(yhat3lr kerrfirstbwcr normalbwcr blank kerrfirstbwcr blank_kerrfirstbwcr)
if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2525213 bushfirstbwcr 0 kerrfirstbwcr 0.2509393 normalbwcr 0 blank 0
normalbwcr_badnfirstbwcr 0 blank badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0
normal bwcr_kerrfirstbwcr 0 blank kerrfirstbwcr 0

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simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat_b

forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 normalbwcr 0 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat\_a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2522718 bushfirstbwcr 0.2516792 kerrfirstbwcr 0 normalbwcr 0 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat\_b

forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--blank
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 normalbwcr 0 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr normalbwcr blank normalbwcr_badnfirstbwcr blank_badnfirstbwcr) (yhat2lr bushfirstbwcr normalbwcr blank normalbwcr_bushfirstbwcr blank_bushfirstbwcr) (yhat3lr kerrfirstbwcr normalbwcr blank normalbwcr_kerrfirstbwcr blank_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]

setx badnfirstbwcr 0.3342932 bushfirstbwcr 0.3335079 kerrfirstbwcr 0.332199 normalbwcr 0 blank 0 normalbwcr_badnfirstbwcr 0 blank_badnfirstbwcr 0 normalbwcr_bushfirstbwcr 0 blank_bushfirstbwcr 0 normalbwcr_kerrfirstbwcr 0 blank_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

Table 18
---Order Effect for Badnarik---(Peroutka as Reference)--iv75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]

setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 iv75 1 iv75_badnfirstbwcr 1 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4 a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.3602344 kerrfirstbwcr 0.2087466 iv75 1 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0.3602344 iv75 0.2087466
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Bush*******(Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 iv75 1 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 1 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.228385 bushfirstbwcr 0 kerrfirstbwcr 0.2517673 iv75 1 iv75_badnfirstbwcr 0.228385 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0.2517673
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Kerry******(Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 iv75 1 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.1931034 bushfirstbwcr 0.3673563 kerrfirstbwcr 0 iv75 1 iv75_badnfirstbwcr 0.1931034 iv75_bushfirstbwcr 0.3673563 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i'$ = yhat`i'`a' - yhat`i'`b'
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) --iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\YOhio\YData Stata\Ordertheisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 iv75 1 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2372881 bushfirstbwcr 0.4514124 kerrfirstbwcr 0.2615819 iv75 1 iv75_badnfirstbwcr
****Order Effect for Badnarik***** (Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2188563 kerrfirstbwcr 0.270047 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

****Order Effect for Bush***** (Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2654989 bushfirstbwcr 0 kerrfirstbwcr 0.2539223 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*
*****Order Effect for Kerry***** (Peroutka as Reference) -- iv75
use "C:\Documents and Settings\Administrator\My Documents\VOrder Effects\Ohio\Data\Stata\OhioThesis\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2789246 bushfirstbwcr 0.2161946 kerrfirstbwcr 0 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 iv75 0 iv75_badnfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr iv75 iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr iv75 iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr iv75 iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3446708 bushfirstbwcr 0.2671544 kerrfirstbwcr 0.3296421 iv75 0 iv75_badnfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Badnarik***** (Peroutka as Reference)--punch & iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 1 iv75 1 punch 1 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24

estim simpl sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.3803863 kerrfirstbwcr 0.2025755 punch 1 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0.3803863 iv75_bushfirstbwcr 0.3803863 punch_kerrfirstbwcr 0.3803863 iv75_kerrfirstbwcr 0.2025755 iv75_kerrfirstbwcr

simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
gen fd'i' = yhat'i'_a - yhat'i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--punch & iv75
use "C:\Documents and Setting\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estim simpl sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 punch 1 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 1 punch_bushfirstbwcr 1 iv75_bushfirstbwcr 1 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2404372 bushfirstbwcr 0 kerrfirstbwcr 0.2483303 punch 1 iv75 1 punch_badnfirstbwcr 0.2404372 iv75_badnfirstbwcr 0.2404372 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 0.2483303 iv75_kerrfirstbwcr 0.2483303

simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat^b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}

*****Order Effect for Kerry***** (Peroutka as Reference) -- punch & iv75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥Ohio¥thesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 1 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 1 iv75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4 a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat^a

drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.1974078 bushfirstbwcr 0.3828514 kerrfirstbwcr 0 punch 1 iv75 1 punch_badnfirstbwcr 0.1974078 iv75_badnfirstbwcr 0.1974078 punch_bushfirstbwcr 0.3828514 iv75_bushfirstbwcr 0.3828514 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0

simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat^b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}

sumqi fd^*
*****Order Effect for Peroutka***** (Peroutka as Reference)--punch & iv75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75
punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 1 iv75 1 punch_badnfirstbwcr 0
iv75_bushfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0
iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75
punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2398546 bushfirstbwcr 0.4651726 kerrfirstbwcr 0.2477286 punch 1 iv75 1
punch_badnfirstbwcr 0.2398546 iv75_badnfirstbwcr 0.2398546 punch_bushfirstbwcr 0.4651726
iv75_bushfirstbwcr 0.4651726 punch_kerrfirstbwcr 0.2477286 iv75_kerrfirstbwcr 0.2477286
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik***** (Peroutka as Reference)--punch CARDS
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75
punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2398546 bushfirstbwcr 0.4651726 kerrfirstbwcr 0.2477286 punch 1 iv75 1
punch_badnfirstbwcr 0.2398546 iv75_badnfirstbwcr 0.2398546 punch_bushfirstbwcr 0.4651726
iv75_bushfirstbwcr 0.4651726 punch_kerrfirstbwcr 0.2477286 iv75_kerrfirstbwcr 0.2477286
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.1987027 kerrfirstbwcr 0.2730811 punch 1 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush******(Peroutka as Reference)--punchCARDS
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioVData Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 punch 1 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 1 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2596884 bushfirstbwcr 0 kerrfirstbwcr 0.2522972 punch 1 iv75 0 punch_badnfirstbwcr 0.2596884 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0.2522972 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) --punchCARDS
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioVData\StataVOhioSfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 1 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 1 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2788503 bushfirstbwcr 0.1971257 kerrfirstbwcr 0 punch 1 iv75 0 punch_badnfirstbwcr 0.2788503 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 1 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
} sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--punchCARDS
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 1 iv75 0 punch badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3529731 bushfirstbwcr 0.2495248 kerrfirstbwcr 0.342927 punch 1 iv75 0 punch badnfirstbwcr 0.3529731 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0.2495248 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0.342927 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Badnarik***** (Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 iv75 1 punch badnfirstbwcr 0 iv75_badnfirstbwcr 1 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b22
drop b23
drop b24
est_simp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.125 bushfirstbwcr 0 kerrfirstbwcr 0.28125 punch 0 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0.28125
simq, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) -- iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr base(peropc4p1)
est_simp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 0 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
est_simp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.1420118 bushfirstbwcr 0.183432 kerrfirstbwcr 0 punch 0 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 iv75_kerrfirstbwcr 0.183432
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) --iv75
**Order Effect for Badnarik**

```
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1) estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0 simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estimp sureg (yhat1lr badnfirstbwcr punch iv75 punch badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] setx badnfirstbwcr 0.2016807 bushfirstbwcr 0.2605042 kerrfirstbwcr 0.4537815 punch 0 iv75 1 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0.2016807 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0.2605042 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0.4537815 simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*
```

*******************************************
**Order Effect for Badnarik*****(Peroutka as Reference)--iv75
**Order Effect for Badnarik*****(Peroutka as Reference)--iv75
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75
punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnp4<20 & perop4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2790698 kerrfirstbwcr 0.2609819 punch 0 iv75 0 punch_badnfirstbwcr
0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0
iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat\_b

forvalues i = 1/4 {
    gen fd`i' = yhat\_i\_a - yhat\_i\_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Ohiothesisfinal2008314.dta", clear
tlogit badnp4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(perop4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr
bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75
punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnp4<20 & perop4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 punch 0 iv75 0 punch_badnfirstbwcr 0
iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0
iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1 a yhat2 a yhat3 a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat\_a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2841565 bushfirstbwcr 0 kerrfirstbwcr 0.2591405 punch 0 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--iv75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsim sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 punch 0 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.279143 bushfirstbwcr 0.2722117 kerrfirstbwcr 0 punch 0 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*
****Order Effect for Peroutka****(Peroutka as Reference)--iv75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 punch 0 iv75 0 punch_badnfirstbwcr 0 iv75_badnfirstbwcr 0 punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3224163 bushfirstbwcr 0.3144105 kerrfirstbwcr 0.294032 punch 0 iv75 0
punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
drop b19
drop b20
drop b21
drop b22
drop b23
drop b24
estsimp sureg (yhat1lr badnfirstbwcr punch iv75 punch_badnfirstbwcr iv75_badnfirstbwcr) (yhat2lr bushfirstbwcr punch iv75 punch_bushfirstbwcr iv75_bushfirstbwcr) (yhat3lr kerrfirstbwcr punch iv75 punch_kerrfirstbwcr iv75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3224163 bushfirstbwcr 0.3144105 kerrfirstbwcr 0.294032 punch 0 iv75 0
punch_bushfirstbwcr 0 iv75_bushfirstbwcr 0 punch_kerrfirstbwcr 0 iv75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

Table 19

Table 20
****Order Effect for Badnarik****(Peroutka as Reference)--lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr lesshi25 lesshi25_badnfirstbwcr) (yhat2lr bushfirstbwcr lesshi25 lesshi25_bushfirstbwcr) (yhat3lr kerrfirstbwcr lesshi25 lesshi25_kerrfirstbwcr) if badnpc4<20 &
```stata
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 lesshi25 1 lesshi25_badnfirstbwcr 1
lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr lesshi25 lesshi25_badnfirstbwcr) (yhat2lr bushfirstbwcr lesshi25
lesshi25_bushfirstbwcr) (yhat3lr kerrfirstbwcr lesshi25 lesshi25_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2567149 bushfirstbwcr 0.2551653 lesshi25 1
lesshi25_bushfirstbwcr 0.2567149 lesshi25_kerrfirstbwcr 0.2551653
simqi, tfunc(logiti) genev(yhat1 b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
StataYohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr lesshi25 lesshi25_badnfirstbwcr) (yhat2lr bushfirstbwcr lesshi25
lesshi25_bushfirstbwcr) (yhat3lr kerrfirstbwcr lesshi25 lesshi25_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 lesshi25 1
lesshi25_bushfirstbwcr 1 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr lesshi25 lesshi25_badnfirstbwcr) (yhat2lr bushfirstbwcr lesshi25
lesshi25_bushfirstbwcr) (yhat3lr kerrfirstbwcr lesshi25 lesshi25_kerrfirstbwcr) if badnpc4<20 &
peropc4<20 [aw=vcast4]
```
```
setx badnfirstbwcr 0.2528557 bushfirstbwcr 0 kerrfirstbwcr 0.2564901 lesshi25 1 lesshi25_badnfirstbwcr 0.2528557 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0.2564901
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) --lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 lesshi25 1 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
setx badnfirstbwcr 0.2524624 bushfirstbwcr 0.2576464 kerrfirstbwcr 0 lesshi25 1 lesshi25_badnfirstbwcr 0.2524624 lesshi25_bushfirstbwcr 0.2576464 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) --lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 lesshi25 1 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
```
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
setx badnfirstbwcr 0.3150065 bushfirstbwcr 0.3214748 kerrfirstbwcr 0.3195343 lesshi25 1
lesshi25_badnfirstbwcr 0.3150065 lesshi25_bushfirstbwcr 0.3214748 lesshi25_kerrfirstbwcr 0.3195343
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
   gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*******************************************
*******************************************
*******************************************
*****Order Effect for Badnarik*******(Peroutka as Reference)--lesshi25
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥Ohiotheseisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 lesshi25 0
lesshi25_badnfirstbwcr 0
lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
setx badnfirstbwcr 0 bushfirstbwcr 0.2560806 kerrfirstbwcr 0.2534469 lesshi25 0
lesshi25_badnfirstbwcr 0
lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 lesshi25 0 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
setx badnfirstbwcr 0.2587218 bushfirstbwcr 0 kerrfirstbwcr 0.2525471 lesshi25 0 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 lesshi25 0 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
setx badnfirstbwcr 0.2580446 bushfirstbwcr 0.2545035 kerrfirstbwcr 0 lesshi25 0 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
} sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--lesshi25
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Yothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushnpc4p1 yhat2lr kerrnpc4p1 yhat3lr, base(pernpc4p1)
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 lesshi25 0 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
setx badnfirstbwcr 0.3173641 bushfirstbwcr 0.3130089 kerrfirstbwcr 0.3097898 lesshi25 0 lesshi25_badnfirstbwcr 0 lesshi25_bushfirstbwcr 0 lesshi25_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
} sumqi fd*
***************NEW MODERATOR***************

*****Order Effect for Badnarik***** (Peroutka as Reference)--langspanish75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 langspanish75 1 langspanish75_badnfirstbwcr 1 langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2563177 kerrfirstbwcr 0.2511031 langspanish75 1 langspanish75_badnfirstbwcr 0 langspanish75_bushfirstbwcr 0.2563177 langspanish75_kerrfirstbwcr 0.2511031
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--langspanish75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 langspanish75 1 langspanish75_badnfirstbwcr 0 langspanish75_bushfirstbwcr 1 langspanish75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2584 bushfirstbwcr 0.2504 langspanish75 1
langspanish75_badnfirstbwcr 0.2584 langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 0.2504
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sum qi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--langspanish75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2570633 bushfirstbwcr 0.2542778 kerrfirstbwcr 1 langspanish75 1 langspanish75_badnfirstbwcr 0
langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2570633 bushfirstbwcr 0.2542778 kerrfirstbwcr 0 langspanish75 1
langspanish75_badnfirstbwcr 0.2570633 langspanish75_bushfirstbwcr 0.2542778
langspanish75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sum qi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--langspanish75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr

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bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
simqi fd*

******Order Effect for Badnarik***** (Peroutka as Reference)--langspanish75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75 langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
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drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg \{yhat1lr badnfirstbwcr langspanish75 langspanish75\_badnfirstbwcr\} \{yhat2lr
bushfirstbwcr langspanish75 langspanish75\_bushfirstbwcr\} \{yhat3lr kerrfirstbwcr langspanish75
langspanish75\_kerrfirstbwcr\} if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2561885 kerrfirstbwcr 0.2550017 langspanish75 0
langspanish75\_badnfirstbwcr 0 langspanish75\_bushfirstbwcr 0 langspanish75\_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1\_b yhat2\_b yhat3\_b)
gen yhat4\_b = 1 - yhat1\_b - yhat2\_b - yhat3\_b
sumqi yhat\^b

forvalues i = 1/4 {
    gen fd\'_i' = yhat\'_i'_\_a - yhat\'_i'_\_b
}

*****Order Effect for Bush***** (Peroutka as Reference)--langspanish75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio Data
Stata\Vohiothesi\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg \{yhat1lr badnfirstbwcr langspanish75 langspanish75\_badnfirstbwcr\} \{yhat2lr
bushfirstbwcr langspanish75 langspanish75\_bushfirstbwcr\} \{yhat3lr kerrfirstbwcr langspanish75
langspanish75\_kerrfirstbwcr\} if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0.2547425 langspanish75 0
langspanish75\_badnfirstbwcr 0 langspanish75\_bushfirstbwcr 0 langspanish75\_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1\_a yhat2\_a yhat3\_a)
gen yhat4\_a = 1 - yhat1\_a - yhat2\_a - yhat3\_a
sumqi yhat\^a

drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18

estsimp sureg \{yhat1lr badnfirstbwcr langspanish75 langspanish75\_badnfirstbwcr\} \{yhat2lr
bushfirstbwcr langspanish75 langspanish75\_bushfirstbwcr\} \{yhat3lr kerrfirstbwcr langspanish75
langspanish75\_kerrfirstbwcr\} if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2569444 bushfirstbwcr 0 kerrfirstbwcr 0.2547425 langspanish75 0
langspanish75\_badnfirstbwcr 0 langspanish75\_bushfirstbwcr 0 langspanish75\_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1\_b yhat2\_b yhat3\_b)
gen yhat4\_b = 1 - yhat1\_b - yhat2\_b - yhat3\_b
sumqi yhat\^b

forvalues i = 1/4 {
    gen fd\'_i' = yhat\'_i'_\_a - yhat\'_i'_\_b
}

*****Order Effect for Kerry***** (Peroutka as Reference)--langspanish75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio Data
Stata\Vohiothesi\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg \{yhat1lr badnfirstbwcr langspanish75 langspanish75\_badnfirstbwcr\} \{yhat2lr
bushfirstbwcr langspanish75 langspanish75\_bushfirstbwcr\} \{yhat3lr kerrfirstbwcr langspanish75
langspanish75\_kerrfirstbwcr\} if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2561885 kerrfirstbwcr 0.2550017 langspanish75 0
langspanish75\_badnfirstbwcr 0 langspanish75\_bushfirstbwcr 0 langspanish75\_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1\_b yhat2\_b yhat3\_b)
gen yhat4\_b = 1 - yhat1\_b - yhat2\_b - yhat3\_b
sumqi yhat\^b

forvalues i = 1/4 {
    gen fd\'_i' = yhat\'_i'_\_a - yhat\'_i'_\_b
}

sumqi fd\*
langspanish75 kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 langspanish75 0 langspanish75_badnfirstbwcr 0
langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr
bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75
langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2566402 bushfirstbwcr 0.2556251 kerrfirstbwcr 0 langspanish75 0
langspanish75_badnfirstbwcr 0 langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1 b yhat2 b yhat3 b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--langspanish75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr
bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75
langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 langspanish75 0 langspanish75_badnfirstbwcr 0
langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr langspanish75 langspanish75_badnfirstbwcr) (yhat2lr
bushfirstbwcr langspanish75 langspanish75_bushfirstbwcr) (yhat3lr kerrfirstbwcr langspanish75
langspanish75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3149917 bushfirstbwcr 0.3137458 kerrfirstbwcr 0.3122924 langspanish75 0
langspanish75_badnfirstbwcr 0 langspanish75_bushfirstbwcr 0 langspanish75_kerrfirstbwcr 0
simqi_tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

Table 21
*****Order Effect for Badnarik***** (Peroutka as Reference)--age25less75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Yohiothesi2final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 age25less75 1 age25less75_badnfirstbwcr 1
age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0
simqi_tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2561338 kerrfirstbwcr 0.2513011 age25less75 1 age25less75_badnfirstbwcr 0.2561338 age25less75_bushfirstbwcr 0.2513011
simqi_tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--age25less75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Yohiothesi2final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 age25less75 1 age25less75_badnfirstbwcr 0
age25less75_bushfirstbwcr 1 age25less75_kerrfirstbwcr 0
simqi_tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
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```
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estimates sureg (yhat1lr badnfirstbwcr age25less75 age25less75 badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75 bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75 kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2597114 bushfirstbwcr 0 kerrfirstbwcr 0.2500925 age25less75 1
age25less75_badnfirstbwcr 0.2597114 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0.2500925
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) -- age25less75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Ohiothesissfinal20080314.dta", clear
tologit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimates sureg (yhat1lr badnfirstbwcr age25less75 age25less75 badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75 bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75 kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 age25less75 1 age25less75_badnfirstbwcr 0
age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
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sumqi fd*

*****Order Effect for Peroutka*****(Peroutka as Reference)--age25less75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData Stata\iohiothes\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 age25less75 1 age25less75_badnfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 age25less75 0 age25less75_badnfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik*****(Peroutka as Reference)--age25less75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData Stata\iohiothes\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 age25less75 0 age25less75_badnfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] 
setx badnfirstbwcr 0 bushfirstbwcr 0.2562708 kerrfirstbwcr 0.255043 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0 simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b) 
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b 
sumqi yhat*b 
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b 
}
sumqi fd*

****Order Effect for Bush***** (Peroutka as Reference)—age25less75 
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data¥Stata¥ohiothesisfinal20080314.dta", clear 
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1) 
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] 
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0 simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a) 
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a 
sumqi yhat*a 
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4] 
setx badnfirstbwcr 0.2562708 bushfirstbwcr 0 kerrfirstbwcr 0.255043 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0 simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b) 
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b 
sumqi yhat*b 
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b 
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--age25less75

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18

estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2569566 bushfirstbwcr 0.2569566 kerrfirstbwcr 0 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--age25less75

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age25less75 age25less75_badnfirstbwcr) (yhat2lr bushfirstbwcr age25less75 age25less75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age25less75 age25less75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3125134 bushfirstbwcr 0.3125134 kerrfirstbwcr 0.311016 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat\_b

forvalues i = 1/4 {
    gen f'd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi f'd*

***************NEW MODERATOR***************

******Order Effect for Badnarik******(Peroutka as Reference)--age65up75
use "C:\\Documents and Settings\\Administrator\\My Documents\\Order Effects\\Ohio\\Data StataVohiothesis\final\20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 age65up75 1 age65up75_badnfirstbwcr 1 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1\_a yhat2\_a yhat3\_a)
gen yhat4\_a = 1 - yhat1\_a - yhat2\_a - yhat3\_a
sumqi yhat\_a

drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2599513 kerrfirstbwcr 0.2599513 age65up75 1 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0.2599513 age65up75_kerrfirstbwcr 0.2599513
simqi, tfunc(logiti) genev(yhat1\_b yhat2\_b yhat3\_b)
gen yhat4\_b = 1 - yhat1\_b - yhat2\_b - yhat3\_b
sumqi yhat\_b

forvalues i = 1/4 {
    gen f'd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi f'd*

******Order Effect for Bush******(Peroutka as Reference)--age65up75
use "C:\\Documents and Settings\\Administrator\\My Documents\\Order Effects\\Ohio\\Data StataVohiothesis\final\20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3125134 bushfirstbwcr 0.3125134 kerrfirstbwcr 0.311016 age25less75 0 age25less75_badnfirstbwcr 0 age25less75_bushfirstbwcr 0 age25less75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1\_b yhat2\_b yhat3\_b)
gen yhat4\_b = 1 - yhat1\_b - yhat2\_b - yhat3\_b
sumqi yhat\_b

forvalues i = 1/4 {
    gen f'd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi f'd*
age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 age65up75 1 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 1 age65up75_kerrfirstbwcr 0
simqi. tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2614512 bushfirstbwcr 0 kerrfirstbwcr 0.2541548 age65up75 1 age65up75_badnfirstbwcr 0.2614512 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0.2541548
simqi. tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--age65up75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data StataVohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 age65up75 1 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 1
simqi. tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if
badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2600806 bushfirstbwcr 0.2580645 kerrfirstbwcr 0 age65up75 1
age65up75_badnfirstbwcr 0.2600806 age65up75_bushfirstbwcr 0.2580645 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*_b
forvalues i = 1/4 {
  gen fd`i'_b = yhat`i'_b - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) --age65up75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 age65up75 1 age65up75_badnfirstbwcr 0 age65up75_sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
estimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.317734 bushfirstbwcr 0.3152709 kerrfirstbwcr 0.308867 age65up75 1
age65up75_badnfirstbwcr 0.317734 age65up75_bushfirstbwcr 0.3152709 age65up75_kerrfirstbwcr 0.308867
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*_a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.317734 bushfirstbwcr 0.3152709 kerrfirstbwcr 0.308867 age65up75 1
age65up75_badnfirstbwcr 0.317734 age65up75_bushfirstbwcr 0.3152709 age65up75_kerrfirstbwcr 0.308867
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*_b
forvalues i = 1/4 {
  gen fd`i'_b = yhat`i'_b - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik***** (Peroutka as Reference) --age65up75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 age65up75 0 age65up75_badnfirstbwcr 0
age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc<20 & peropc<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2546804 kerrfirstbwcr 0.2534997 age65up75 0
age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--age65up75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data Stata¥V:oidethesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc<20 & peropc<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 age65up75 0 age65up75_badnfirstbwcr 0
age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc<20 & peropc<20 [aw=vcast4]
setx badnfirstbwcr 0.2556847 bushfirstbwcr 0 kerrfirstbwcr 0.2531582 age65up75 0
age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd'i' = yhat`i'/_a - yhat`i'/_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference) -- age65up75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushnfirstbwcr 0 kerrfirstbwcr 1 age65up75 0 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2553836 bushnfirstbwcr 0.2540377 kerrfirstbwcr 0 age65up75 0 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd'i' = yhat`i'/_a - yhat`i'/_b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference) -- age65up75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushnfirstbwcr 0 kerrfirstbwcr 0 age65up75 0 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6

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drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr age65up75 age65up75_badnfirstbwcr) (yhat2lr bushfirstbwcr age65up75 age65up75_bushfirstbwcr) (yhat3lr kerrfirstbwcr age65up75 age65up75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3164478 bushfirstbwcr 0.3147801 kerrfirstbwcr 0.3133208 age65up75 0 age65up75_badnfirstbwcr 0 age65up75_bushfirstbwcr 0 age65up75_kerrfirstbwcr 0
siqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'`a' - yhat`i'`b'
} sumqi fd*

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****Order Effect for Badnarik***** (Peroutka as Reference)--inclow75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 inclow75 1 inclow75_badnfirstbwcr 1 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2610442 kerrfirstbwcr 0.2526104 inclow75 1 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0.2610442 inclow75_kerrfirstbwcr 0.2526104
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'`a' - yhat`i'`b'
} sumqi fd*
*****Order Effect for Bush***** (Peroutka as Reference)--inclow75

use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥ohiothesisfinal20080314.dta"", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 inclow75 1 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 1 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat\*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2631157 bushfirstbwcr 0 kerrfirstbwcr 0.2519023 inclow75 1 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0.2519023
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat\*b
forvalues i = 1/4 {
    gen fd\`i\' = yhat\`i\'_a - yhat\`i\'_b
}
sumqi fd\*

*****Order Effect for Kerry***** (Peroutka as Reference)--inclow75

use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥ohiothesisfinal20080314.dta"", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 inclow75 1 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 1 inclow75_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat\*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15

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drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2609214 bushfirstbwcr 0.2581414 kerrfirstbwcr 0 inclow75 1 inclow75_badnfirstbwcr 0.2609214 inclow75_bushfirstbwcr 0.2581414 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i' _a - yhat`i' _b
}
sumqi fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--inclow75
use "C:\Users\Administrator\Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 inclow75 1 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3198637 bushfirstbwcr 0.3164557 kerrfirstbwcr 0.3062317 inclow75 1 inclow75_badnfirstbwcr 0.3198637 inclow75_bushfirstbwcr 0.3164557 inclow75_kerrfirstbwcr 0.3062317
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i' _a - yhat`i' _b
}
sumqi fd*

*******************************************

*******Order Effect for Badnarik******* (Peroutka as Reference)--inclow75
use "C:\Users\Administrator\Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 inclow75 1 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3198637 bushfirstbwcr 0.3164557 kerrfirstbwcr 0.3062317 inclow75 1 inclow75_badnfirstbwcr 0.3198637 inclow75_bushfirstbwcr 0.3164557 inclow75_kerrfirstbwcr 0.3062317
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i' _a - yhat`i' _b
}
sumqi fd*
StataWohiothesfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_basebadnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 inclow75 0 inclow75_basebadnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat4_a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_basebadnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2541942 kerrfirstbwcr 0.2543637 inclow75 0 inclow75_basebadnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat4_b
forvalues i = 1/4 { 
  gen fd`i' = yhat`i'_a - yhat`i'_b
}sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--inclow75
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
StataWohiothesfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_basebadnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 inclow75 0 inclow75_basebadnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat4_a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17

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drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2549518 bushfirstbwcr 0 kerrfirstbwcr 0.2541053 inclow75 0 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--inclow75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 inclow75 0 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2549949 bushfirstbwcr 0.253979 kerrfirstbwcr 0 inclow75 0 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka*****(Peroutka as Reference)--inclow75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 inclow75 0 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr inclow75 inclow75_badnfirstbwcr) (yhat2lr bushfirstbwcr inclow75 inclow75_bushfirstbwcr) (yhat3lr kerrfirstbwcr inclow75 inclow75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3155248 bushfirstbwcr 0.3142678 kerrfirstbwcr 0.3144773 inclow75 0 inclow75_badnfirstbwcr 0 inclow75_bushfirstbwcr 0 inclow75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b - 1 = yhat1_b + yhat2_b + yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b }
sumqi fd*

*****Order Effect for Badnarik***** (Peroutka as Reference)--pcblack75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1) estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 pcblack75 1 pcblack75_badnfirstbwcr 1 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a - 1 = yhat1_a + yhat2_a + yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2531898 kerrfirstbwcr 0.2488038 pcblack75 1 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0.2531898 pcblack75_kerrfirstbwcr 0.2488038
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b - 1 = yhat1_b + yhat2_b + yhat3_b
sumqi yhat*b

sumqi yhat*b

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forvalues i = 1/4 {
    gen fd'i' = yhat'i'\_a - yhat'i'\_b
}
sumqi fd* 

*****Order Effect for Bush***** (Peroutka as Reference)--pcblack75
use "$C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesis\final20080314.dta", clear 
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75\_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75\_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75\_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 pcblack75 1 pcblack75\_badnfirstbwcr 0 pcblack75\_bushfirstbwcr 1 pcblack75\_kerrfirstbwcr 0 simqi tfunc(logiti) genev(yhat1\_a yhat2\_a yhat3\_a)
gen yhat4\_a = 1 - yhat1\_a - yhat2\_a - yhat3\_a
sumqi yhat\_*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75\_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75\_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75\_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2555644 bushfirstbwcr 0 kerrfirstbwcr 0.2480127 pcblack75 1 pcblack75\_badnfirstbwcr 0.2555644 pcblack75\_bushfirstbwcr 0 pcblack75\_kerrfirstbwcr 0.2480127 simqi tfunc(logiti) genev(yhat1\_b yhat2\_b yhat3\_b)
gen yhat4\_b = 1 - yhat1\_b - yhat2\_b - yhat3\_b
sumqi yhat\_*b 
forvalues i = 1/4 {
    gen fd'i' = yhat'i'\_a - yhat'i'\_b
}
sumqi fd* 

*****Order Effect for Kerry***** (Peroutka as Reference)--pcblack75
use "$C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesis\final20080314.dta", clear 
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75\_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75\_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75\_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 pcblack75 1 pcblack75\_badnfirstbwcr 0 pcblack75\_bushfirstbwcr 0 pcblack75\_kerrfirstbwcr 1 simqi tfunc(logiti) genev(yhat1\_a yhat2\_a yhat3\_a)
gen yhat4\_a = 1 - yhat1\_a - yhat2\_a - yhat3\_a
sumqi yhat\_*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2544519 bushfirstbwcr 0.2512861 kerrfirstbwcr 0 pcblack75 1 pcblack75_badnfirstbwcr 0.2544519 pcblack75_bushfirstbwcr 0.2512861 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

******Order Effect for Peroutka***** (Peroutka as Reference)--pcblack75
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioVData\StataVohiothesifinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 pcblack75 1 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3277268 bushfirstbwcr 0.3236493 kerrfirstbwcr 0.3180428 pcblack75 1 pcblack75_badnfirstbwcr 0.3277268 pcblack75_bushfirstbwcr 0.3236493 pcblack75_kerrfirstbwcr 0.3180428
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
  gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

************************************************************************************
************************************************************************************
*****Order Effect for Badnarik***** (Peroutka as Reference)--pcblack75

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estim sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 pcblack75 0 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estim sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.2575217 kerrfirstbwcr 0.2559918 pcblack75 0 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--pcblack75

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estim sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 pcblack75 0 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12  
drop b13  
drop b14  
drop b15  
drop b16  
drop b17  
drop b18  
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]  
setx badnfirstbwcr 0.2581522 bushfirstbwcr 0 kerrfirstbwcr 0 pcblack75 0 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0  
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)  
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b  
sumqi yhat*b  
forvalues i = 1/4  
    gen fd`i' = yhat`i'_a - yhat`i'_b  
}  
sumqi fd*  
****Order Effect for Kerry*****(Peroutka as Reference)--pcblack75  
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear  
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)  
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]  
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 pcblack75 0 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0  
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)  
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a  
sumqi yhat*a  
drop b1  
drop b2  
drop b3  
drop b4  
drop b5  
drop b6  
drop b7  
drop b8  
drop b9  
drop b10  
drop b11  
drop b12  
drop b13  
drop b14  
drop b15  
drop b16  
drop b17  
drop b18  
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]  
setx badnfirstbwcr 0.2577582 bushfirstbwcr 0.2569103 kerrfirstbwcr 0 pcblack75 0 pcblack75_badnfirstbwcr 0 pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0  
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)  
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b  
sumqi yhat*b  
forvalues i = 1/4  
    gen fd`i' = yhat`i'_a - yhat`i'_b  
}  
sumqi fd*  
****Order Effect for Peroutka*****(Peroutka as Reference)--pcblack75  
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\ohiothesisfinal20080314.dta", clear  
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)  
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if...
badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 pcblack75 0 pcblack75_badnfirstbwcr 0
pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr pcblack75 pcblack75_badnfirstbwcr) (yhat2lr bushfirstbwcr
pcblack75 pcblack75_bushfirstbwcr) (yhat3lr kerrfirstbwcr pcblack75 pcblack75_kerrfirstbwcr) if
badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3124358 bushfirstbwcr 0.311408 kerrfirstbwcr 0.3095581 pcblack75 0
pcblack75_bushfirstbwcr 0 pcblack75_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat'`i'_a - yhat'`i'_b
}
sumqi fd*

Table 23
*****Order Effect for Badnarik***** (Peroutka as Reference)--closehigh

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>use &quot;C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Wohiothesisfinal20080314.dta&quot;, clear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr
| closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if
| badnpc4<20 & peropc4<20 [aw=vcast4] |
| setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 closehigh 1 closehigh_badnfirstbwcr 1
| closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0 |
| gen yhat4 a = 1 - yhat1_a - yhat2_a - yhat3_a |
| sumqi yhat*a |
| drop b1 | drop b2 | drop b3 | drop b4 |
| drop b5 | drop b6 | drop b7 | drop b8 |
| drop b9 | drop b10 | drop b11 | drop b12 |
| drop b13 | drop b14 | drop b15 | drop b16 |
| drop b17 | drop b18 |                |                |
| estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr
|                |                |                |                |
closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.26303522 kerrfirstbwcr 0.2422656 closehigh 1 
closehigh_bushfirstbwcr 0 closehigh_bushfirstbwcr 0.26303522 closehigh_kerrfirstbwcr 0.2422656
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'`a - yhat`i'`b
} sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Yobiosi\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr buphpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 closehigh 1 closehigh_bushfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0 closehigh_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
dero b1
dero b2
dero b3
dero b4
dero b5
dero b6
dero b7
dero b8
dero b9
dero b10
dero b11
dero b12
dero b13
dero b14
dero b15
dero b16
dero b17
dero b18
esteimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2561034 bushfirstbwcr 0 kerrfirstbwcr 0.2436573 closehigh 1 
closehigh_bushfirstbwcr 0.2561034 closehigh_bushfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0.2436573
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'`a - yhat`i'`b
} sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\Yobiosi\final20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 closehigh 1 closehigh_bushfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
dero b1
dero b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.251528 bushfirstbwcr 0.2571697 kerrfirstbwcr 0 closehigh 1
closehigh_badnfirstbwcr 0.251528 closehigh_bushfirstbwcr 0.2571697 closehigh_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka****(Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioData\Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 closehigh 1 closehigh_badnfirstbwcr 0
closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3203593 bushfirstbwcr 0.3275449 kerrfirstbwcr 0.3047904 closehigh 1
closehigh_badnfirstbwcr 0.3203593 closehigh_bushfirstbwcr 0.3275449 closehigh_kerrfirstbwcr 0.3047904
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
}
gen `fd`i' = `yhat`i'\_a - `yhat`i'\_b
}
sumqi `fd*'

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*****Order Effect for Badnarik***** (Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 `yhat1lr' bushpc4p1 `yhat2lr' kerrpc4p1 `yhat3lr', base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_closehigh_closehigh_closehigh_kerrfirstbwcr 0
simqi tfuncl(logiti) genev(`yhat1_a' `yhat2_a' `yhat3_a')
gen `yhat4_a' = 1 - `yhat1_a' - `yhat2_a' - `yhat3_a'
sumqi `yhat*a'
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0.254849 kerrfirstbwcr 0.2577107 closehigh 0 closehigh_closehigh_closehigh_closehigh_kerrfirstbwcr 0
simqi tfuncl(logiti) genev(`yhat1_b' `yhat2_b' `yhat3_b')
gen `yhat4_b' = 1 - `yhat1_b' - `yhat2_b' - `yhat3_b'
sumqi `yhat*b'
forvalues i = 1/4 {
gen `fd`i' = `yhat`i'_\_a - `yhat`i'_\_b
}
sumqi `fd*'

*****Order Effect for Bush***** (Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 `yhat1lr' bushpc4p1 `yhat2lr' kerrpc4p1 `yhat3lr', base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_closehigh_closehigh_closehigh_kerrfirstbwcr 0
simqi tfuncl(logiti) genev(`yhat1_a' `yhat2_a' `yhat3_a')
gen `yhat4_a' = 1 - `yhat1_a' - `yhat2_a' - `yhat3_a'
sumqi `yhat*a'
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18

estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if bdnpc<20 & perpc<20 [aw=vcast4]
setx badnfirstbwcr 0.2577989 bushfirstbwcr 0 kerrfirstbwcr 0.2566904 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0 simqi, tfun(logiri) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

****Order Effect for Kerry*****(Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\MY Documents\Order Effects\Ohio\Data\Stata\Vohiothesisfinal20080314.dta", clear
tlogit bdnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(perpc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if bdnpc<20 & perpc<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0 simqi, tfun(logiri) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a

drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18

estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if bdnpc<20 & perpc<20 [aw=vcast4]
setx badnfirstbwcr 0.2565358 bushfirstbwcr 0.2554567 kerrfirstbwcr 0 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0 simqi, tfun(logiri) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b

forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

****Order Effect for Peroutka*****(Peroutka as Reference)--closehigh
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closehigh closehigh_badnfirstbwcr) (yhat2lr bushfirstbwcr closehigh closehigh_bushfirstbwcr) (yhat3lr kerrfirstbwcr closehigh closehigh_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3156874 bushfirstbwcr 0.3108396 kerrfirstbwcr 0.31433 closehigh 0 closehigh_badnfirstbwcr 0 closehigh_bushfirstbwcr 0 closehigh_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

**************************NEW MODERATOR******************************

****Order Effect for Badnarik*****(Peroutka as Reference)--closelow
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data
Stata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 1 bushfirstbwcr 0 kerrfirstbwcr 0 closelow 1 closelow_badnfirstbwcr 1
closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2270012 bushfirstbwcr 0.2270012 kerrfirstbwcr 0.2712067 closelow 1 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0.2712067 closelow_kerrfirstbwcr if badnpc4<20 & peropc4<20 [aw=vcast4]
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--closelow
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 closelow 1 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 1 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.2520231 bushfirstbwcr 0 kerrfirstbwcr 0.2624277 closelow 1 closelow_badnfirstbwcr 0.2520231 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0.2624277
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd`i' = yhat`i'\_a - yhat`i'\_b
}
sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--closelow
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\Data Stata\Ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
ssetx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 closelow 1 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 1
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
ssetx badnfirstbwcr 0.263285 bushfirstbwcr 0.2294686 kerrfirstbwcr 0 closelow 1 closelow_badnfirstbwcr 0.263285 closelow_bushfirstbwcr 0.2294686 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
gen fd'i' = yhat`i' a - yhat`i' b
}
ssum fd*

*****Order Effect for Peroutka***** (Peroutka as Reference)--closelow
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\OhioVData StataVhiothesiisfinal20080314.dta", clear
tlogit badnpcp4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
ssetx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 closelow 1 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 &
peropc420 [aw=vcast4]
setx badnfirstbwcr 0.3298033 bushfirstbwcr 0.2874433 kerrfirstbwcr 0.3434191 closelow 1

closelow_badnfirstbwcr 0.3298033 closelow_bushfirstbwcr 0.2874433 closelow_kerrfirstbwcr 0.3434191
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

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*****Order Effect for Badnarik***** (Peroutka as Reference)--closelow
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\DataStata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 closelow 0 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
set badnfirstbwcr 0 bushfirstbwcr 0.2594652 kerrfirstbwcr 0.2519195 closelow 0 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Bush***** (Peroutka as Reference)--closelow
use "C:\Documents and Settings\Administrator\My Documents\Order Effects\Ohio\DataStata\ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 1 kerrfirstbwcr 0 closelow 0 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0

simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a

sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18

estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]

setx badnfirstbwcr 0.2579918 bushfirstbwcr 0 kerrfirstbwcr 0.2524207 closelow 0 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0

simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b

sumqi yhat*b

forvalues i = 1/4 {
gen fd`i' = yhat`i'_a - yhat`i'_b
}

sumqi fd*

*****Order Effect for Kerry***** (Peroutka as Reference)--closelow

use "C:\Documents and Settings\Administrator\My Documents\Order Effects\YOhio\Data Stata\VHiothetiesfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]

setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 1 closelow 0 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0

simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a

sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18

estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]

setx badnfirstbwcr 0.2560558 bushfirstbwcr 0.2580305 kerrfirstbwcr 0 closelow 0 closelow_badnfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0 
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b) 
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b 
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'_a - yhat`i'_b
}
sumqi fd*

*****Order Effect for Peroutka****(Peroutka as Reference)--closelow
use "C:¥Documents and Settings¥Administrator¥My Documents¥Order Effects¥Ohio¥Data
Stata¥ohiothesisfinal20080314.dta", clear
tlogit badnpc4p1 yhat1lr bushpc4p1 yhat2lr kerrpc4p1 yhat3lr, base(peropc4p1)
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0 bushfirstbwcr 0 kerrfirstbwcr 0 closelow 0 closelow_badnfirstbwcr 0 
closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_a yhat2_a yhat3_a)
gen yhat4_a = 1 - yhat1_a - yhat2_a - yhat3_a 
sumqi yhat*a
drop b1
drop b2
drop b3
drop b4
drop b5
drop b6
drop b7
drop b8
drop b9
drop b10
drop b11
drop b12
drop b13
drop b14
drop b15
drop b16
drop b17
drop b18
estsimp sureg (yhat1lr badnfirstbwcr closelow closelow_badnfirstbwcr) (yhat2lr bushfirstbwcr closelow 
closelow_bushfirstbwcr) (yhat3lr kerrfirstbwcr closelow closelow_kerrfirstbwcr) if badnpc4<20 & peropc4<20 [aw=vcast4]
setx badnfirstbwcr 0.3154395 bushfirstbwcr 0.3178722 kerrfirstbwcr 0.308628 closelow 0 
closelow_bushfirstbwcr 0 closelow_bushfirstbwcr 0 closelow_kerrfirstbwcr 0
simqi, tfunc(logiti) genev(yhat1_b yhat2_b yhat3_b)
gen yhat4_b = 1 - yhat1_b - yhat2_b - yhat3_b 
sumqi yhat*b
forvalues i = 1/4 {
    gen fd`i' = yhat`i'._a - yhat`i'._b
}
sumqi fd*

Appendix 2
hist badnpc4 if peropc4<20 & badnpc4<20, norm
hist bushpc4 if peropc4<20 & badnpc4<20, norm
hist kerrpc4 if peropc4<20 & badnpc4<20, norm
hist peropc4 if peropc4<20 & badnpc4<20, norm

Appendix 3
hist badnpc4hat if peropc4<20 & badnpc4<20, norm
hist bushpc4hat if peropc4<20 & badnpc4<20, norm
hist kerrpc4hat if peropc4<20 & badnpc4<20, norm
hist peropc4hat if peropc4<20 & badnpc4<20, norm

Appendix 4
hist badnpc4p1logperopc4p1 if peropc4<20 & badnpc4<20, norm
hist bushpc4p1 logperopc4p1 if peropc4<20 & badnpc4<20, norm
hist kerrpc4p1 logperopc4p1 if peropc4<20 & badnpc4<20, norm
hist peropc4p1 logperopc4p1 if peropc4<20 & badnpc4<20, norm
References


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Telephone interview with Kimberly Bartlett, Elections officer at Cuyahoga County Board of Elections Community Outreach Center, Apr. 16, 2007.