# Descriptive Elections and Voter Turnout 

# Jeanette Morehouse Mendez <br> <br> Associate Professor of Political Science 

 <br> <br> Associate Professor of Political Science}

Oklahoma State University
201 Murray Hall
Stillwater, OK 74078
405.744.4477
jeanette.mendez@okstate.edu

Rebekah Herrick<br>Professor of Political Science<br>Oklahoma State University<br>201 Murray Hall<br>Stillwater, OK 74078<br>405.744.8437<br>herrick@okstate.edu


#### Abstract

Since elections are vital to democracy it is critical to understand what affects voter turnout. Here we argue that descriptive elections, those where candidates differ in their gender, affects the likelihood that Americans go to the polls and vote. We suggest that mixed gender races have higher turnout than men only races because their gender diversity decreases voter indifference and alienation and women only races will have higher turnout because they generate greater interest due to their historic nature and voters' desire for descriptive representation. Using survey data we demonstrate that potential voters are more engaged and more likely to vote when the race is mixed gender, albeit with some contextual influences. Examining races at the House, Senate and Gubernatorial level from 1992-2010 largely support these findings. We find that turnout is lowest when there are only men candidates.


Popular elections are a virtual requirement of democracy. Yet in most U.S. elections a majority of Americans choose not to participate. Explanations for why turnout is low are varied. It may have something to do with election rules making it too difficult (e.g. registration requirements), voter characteristics (e.g. low socio-economic status, and apathy), the candidates are unappealing, or some combination thereof. While most research has focused on the first two theoretical approaches, this paper examines how candidate characteristics affect voter turnout. Specifically, we argue that descriptive elections will have higher turnout because they offer voters greater contrast between the candidates and clearer options resulting in less voter alienation and indifference.

Descriptive elections involve candidates who differ in important demographic traits. The term descriptive elections stems from the term descriptive representation, where the demographic make-up of legislatures or other representative bodies resembles that of the people they are to represent (Pitkin 1967). It is not necessary that legislatures match the population in every category but for groups with common interests, particularly those who have been under-represented there is value to having legislators willing to speak on their behalf. Descriptive representation has often been valued because it increases the substantive and symbolic representation of diverse interests and improves the legitimacy of the process. "Descriptive election" differs from "descriptive representation" in that it does not concern the make-up of the representatives in a legislature, but rather the candidates vying for a legislative seat.

Since US elections tend to have just two major candidates it is not possible for the candidates to match the voters in all key political traits. However, elections with two candidates who share race, gender and SES cannot be said to be descriptive. In one paper
it is not possible to fully examine all the different possible categories: here we focus on gender. Gender offers a good case study since there is a fairly strong knowledge base about how candidates' gender affects elections and there is sufficient variation in the gender make-up of elections for empirical analysis. The theory of descriptive elections predicts that mixed gender races increase voter participation by increasing American's engagement (lower levels of alienation and indifference). It also predicts that that races pitting two candidates who share an underrepresented trait will also increase engagement and participation. Specifically, we expect women only races to improve engagement and participation because the uniqueness of the elections will be seen as historic increasing voter interest and because of voters' desire for descriptive representation. These ideas are tested at the individual level with a survey and at the aggregate level by examining election results.

A key assumption here is that candidate characteristics can affect voter turnout; an assumption with empirical support (Brody and Page 1973, Plane and Gershtenson 2004, Ragsdale and Rusk 1993, 1995, Zipp 1985, but see Weisberg and Grofman 1981). This second model suggests that a key, although not only factor affecting turnout is the quality of the candidates. Much of this literature suggests that voters who are indifferent toward the candidates (do not see much difference between them) or are alienated (do not feel close to any of the candidates) are less likely to vote because under these conditions the benefits to do so are small.

The theory of descriptive elections

The theory of descriptive elections predicts that descriptive elections increase voter participation by increasing voter engagement. A key reason engagement (low levels of indifference and alienation) affect turnout is by affecting voters' rational calculations. Rational choice models suggest that voters will vote when the benefits to do so outweigh the costs. Since Downs's classic (1957) it has been thought that although the costs of voting are relatively small they are often larger than the benefits of voting, at least as they relate to affecting the outcomes (the odds that a voter's one vote affects the outcomes are near zero). However, several factors can affect the calculus; of significance here is the strength of voters' preferences. When voters have a strong preference for one candidate the benefits of voting will increase since voters may want to be sure their candidate wins. Voters may also receive psychological benefits by voting for a candidate that they strongly prefer. That is voters simply feel good about casting the vote. Thus when voters are indifferent or aliened they are less likely to vote since there is little benefit to do so; Voters simply see no benefit in affecting who wins or feel good about casting their vote.

The literature examining presidential and senatorial elections has found that voters who do not see a difference between the candidates and/or do not like the choices are less likely to vote. Most of this literature has examined individual level survey data, suggesting that individuals who do not like the candidates and/or see little difference between them are less likely to vote (Brody and Page 1973, Zipp 1985, Ragsdale and Rusk 1993, Plane and Gershtenson 2004). Ragsdale and Rusk (1993) found that out of 5 different types of nonvoters, dissatisfied or alienated made up $41 \%$ of nonvoters in the 1990 midterm Senate elections. Additionally, Plane and Gershtenson (2004) found
similar effects in the aggregate: voter turnout is low in elections where the candidates are similar to each other and/or unpopular.

This literature has not examined House races so it is hard to predict whether indifference and alienation have the same effects on turnout for these races. Since it is usually the higher level offices (top of the ticket races), such as president in presidential election years, and senator and/or governor in midterm election years, that motivate voters to go to the polls, voters may vote in House elections even if they are not happy with the House candidates. That is, since they have already gone to the trouble of going to the polls, they could feel as though they might as well vote. However, some voters may opt against voting for any race where the candidates are not appealing even if they have gone to the polls for another race. This phenomenon, people not voting for items lower on the ticket, is often referred to roll-off voting.

One reason descriptive elections may affect voters' levels of indifference or alienation is offering voters of a minority group the ability to vote for a candidate who better reflects their interests. Looking at gender specifically, the "gender affinity effect" theory predicts that women voters prefer women candidates and although less of a focus men prefer men candidates. Dolan (2008) offers several reasons for such an effect. One reason for same-sex preferences is group solidarity or identity: i.e. voters tend to prefer people like themselves (see Plutzer and Zipp 1996). Thus women who identify as women are likely to prefer women candidates and men who identify as men are likely to prefer men candidates. Gender identity affect is based, in part, on Tolleson-Rinehart (1992) notion of gender consciousness. Gender conscience, according to Tolleson-Rinehart is: "one's recognition that one's relationship to the political world is at least partly but
nonetheless particularly shaped by being female or male. This recognition is followed by identification with others in the "group" of one's sex, positive affect toward the group, and a feeling of interdependence with the group's fortunes (32)." i

Another reason for gender affinity effect is that women may want descriptive representation (see Rosenthal 1995). Voters, particularly women voters, may want descriptive representation if they feel the success of women generally are connected or that women representatives are more likely to represent their interests. Although the research has tended to focus on women wanting gender diversity since women are underrepresented, it is likely that some men would like to see greater gender diversity as well. While this possibility does not strengthen the argument that women are more likely to vote for women, it does offer an additional reason why descriptive elections could decrease voter alienation and indifferences and subsequently increase turnout. ${ }^{\text {ii }}$

Several studies have confirmed the effect of gender affinity (Plutzer and Zipp 1996, Smith and Fox 2001, Dolan 1998, 2008 and Rosenthal 1995, but see Sigleman and Welch 1984). However, the strength of the gender affinity effect is mitigated by factors such as level of office, incumbency and party. For example, Smith and Fox (2001) and Dolan (1998) find that women are more likely to vote for women (and men vote for men) in House races than Senate races. Smith and Fox (2001) also find that women are more likely to vote for women in open seat races, where incumbency will not limit the effect of gender. Dolan (2008) offers considerable evidence as to the complexity of the gender affinity effect when accounting for party. Using NES data on House races from 19902000, she finds that women have greater knowledge about women candidates than men candidates (and that the knowledge gap between men and women declines sharply for
women candidates). She also finds that men too have greater knowledge about women candidates than men candidates but that the change is greater for women. When it comes to having positive affect for candidates she finds that only women see an increase in their affect for women Democrats but not for women Republicans, suggesting there is a strong partisan interaction. She also finds that knowledge does not affect vote choice except when there is less information about Democratic men candidates, but that affect does influence vote choice. The degree of gender affinity affect may also vary by individual voters. For example, Zipp and Plutzer (1985) find some evidence that nonpartisan women are more likely to vote for women particularly when the women candidates are strong on women's issues. Rosenthal's (1995) work also suggests that it is stronger among women than men, particularly women in their 30 s and 40 s, who hold feminist views, who have stronger economic and psychological autonomy and are not politically conservative.

In a related vein there is evidence, that women and most likely men as well, are more engaged when there are women candidates and officeholders. Atkeson (2003) and Hansen (1997) both find that women are more likely to discuss campaigns and influence others where there are viable women candidates. Verba, Burns and Schlozman (1997) too find that women's political knowledge and efficacy (see too Atkeson 2003) are higher where there are women candidates. While this work focuses on the early 1990s some more recent research that has taken into consideration party (Lawless 2004, Dolan 2006) and found less effect of women candidates and politicians on women's engagement. Following these works Reingold and Harrell (2010) take into consideration the congruence of candidate and voter party and find that women are significantly more
likely to be interested in the campaign, discuss politics and try to persuade others when there are women candidates, but that this is most clearly felt where there is party and gender congruence, e.g. Democratic women voters engagement increases when it is a Democratic woman on the ballot.

Not all the work has focused on women voters/constituents and contends that men too are positively affected by women candidates and office holders. Hansen (1997) finds that among both men and women, although larger for women, political interest, media use and political involvement increase when a women in on the ballot. Karp and Banducci (2008) examine whether the percentage of women in legislatures affect men's and women's political participation and views toward the democratic processes across 35 countries. Although they do not find evidence that women in office increase participation, they do find that both men and women have improved views of political processes where there are more women in office. And although Dolan (2006) concludes that there is no overall pattern of women's engagement and participation being affected by the presence of women candidates, she find more situations where both men and women are positively affected women candidacies.

Descriptive elections may also affect turnout due to gender schema. Sanbonmatsu (2002) argues that because voters hold gender stereotypes they may see either women or men as better representatives of their interests. For example, liberal men and women may prefer women candidates because they are perceived to be more liberal on the issues, while conservative men and women prefer men candidates. This leads to some voters having "baseline gender preferences" or predispositions to vote for either a male or a female candidate (Sanbonmatsu 2002, 20). With baseline gender preferences voters of
one sex may prefer candidates of the other sex or have no preference. In her survey, she finds that although $49 \%$ of male subjects and $38 \%$ of female subjects did not have a clear gender preference, $35 \%$ of men and $16 \%$ of women prefer men candidates and $24 \%$ of men and $39 \%$ of women prefer women candidates. This means that most voters have a gender preference - although not necessarily of their own sex.

Relatedly, candidates' gender mix may also affect voter turnout (indifference and alienation) because of voters' gendered based stereotypes of candidates. Voters' gender based stereotypes can fall into two categories - issue/ideology and traits. Voters tend to view women candidates as liberal and more competent on compassion issues such as healthcare, education and civil rights and men candidates as competent on military and economic issues (Sapiro 1981-2, Leeper 1991, Kahn 1994, Dolan 2004, 2010, Sanbonmatsu and Dolan 2009). Context can affect the strength of these stereotypes. First, gender stereotypes interact with party stereotypes such that Republican women are seen as less liberal than Democratic women (Koch 2000, 2002). Koch also finds that the stereotypes are more easily made for Democratic women since their party and gender reinforce a liberal stereotype. Koch (2002) also find that gender stereotypes are larger when there is more information about the candidate, since making inferences based on categories requires voters to be engaged. Specifically, he finds the effects are larger when there is an incumbent in the race. Additionally, Dolan (2010) has indicated that voters' gender stereotypes (particularly issue competence) effect voters' evaluations of candidates such that those who stereotype women as competent on "male" issues are more likely to support women candidates. ${ }^{\text {iii }}$

In addition to gender based issue stereotypes, there are also trait stereotypes. Voters also tend to associate men with masculine traits such as industry and assertiveness; and women with feminine traits such as compassion, warmth and honesty (Sapiro 1981-2, Huddy and Terkildsen 1993, Kahn 1994, Dolan 2010). Even though voters tend to prefer candidates with masculine traits (Huddy and Terklidsen 1993), there is variation among voters as to their preferences on issues and traits.

We argue that descriptive elections generally and mixed gender races specifically, will have higher voter turnout because voters will see greater contrast and clearer options (one masculine and one feminine) decreasing the odds that segments of voters feel alienated and indifferent. That is, mixed gender races are most likely to give each individual voter his/her preferred option. Voters preferring masculine traits and issues can vote for the man, those preferring feminine traits and issues can vote for the woman. But in men only or women only races some voters are without their preferred type of candidate.

While the purest form of descriptive elections involves two candidates who differ, there is a weaker form that pits two candidates of the same minority status against each other. Since by definition political minorities are under-represented and novel an election that has two minorities is likely to garner increased interest. Again, focusing on gender, women only races are likely the first such race in a state or district and may even result in the first woman holding a given seat, as such these races are often framed as historic. ${ }^{\text {iv }}$ Participating in historical elections likely increases the psychological benefits of voting. Given the uniqueness of women only races they are also likely to garner greater media attention. Voters may find it difficult not to know of the race, and it's implications. This
greater attention is likely to increase the ease with which voters get information, decreasing their costs and increasing their willingness to vote. Much research finds that voter turnout is higher in races where voters have high levels of information (Jackson 1997, Fedderson and Pesendorfer 1999). Thus the historic nature of women only races should increase turnout by increasing the availability of information and psychological benefits of voting. Dolan's (1998) work offers some support for this as she finds voters know more about women candidates than men candidates.

A related reason women only races may increase voter interest is that voters may want increased diversity or more descriptively representative bodies. Such bodies, if nothing else, give an appearance of legitimacy since more interests are at the table. However, in mixed gender races liberals wanting descriptive representation may feel greater indifference if the woman running is a Republican while conservatives wanting descriptive representation may feel greater indifference if the woman running is a Democrat. But if there is a woman Democrat and a woman Republican those wanting diversity will have a good choice. Of course, voters not wanting a women will be left out thus we do expect women only races to have higher levels of indifference and alienation than mixed gender races.

Based on the above, we expect that mixed gender races will result in lower levels of alienation and indifference and as a consequence result in higher participation. Additionally, we expect that women only races will have higher turnout than male only races because they tend to be historic and receive more media attention. To test these predictions we first conducted a series of surveys where subjects were given different scenarios based on candidate gender and asked about their interest in the election and
their likelihood to vote. Additionally, with the survey we used a feeling thermometer question to see if candidates' gender affects alienation and indifference. We then replicate some of these findings by exploring the results of gubernatorial, Senate and House elections from 1992-2010 to see if the gender make-up of the candidates affects turnout. Given the potential effects of party and incumbency we also anticipate that the findings will vary by party and incumbency.

## Individual level analysis

The theory of descriptive elections predicts that mixed gender elections will see high levels of voter turnout followed by women only and men only races because of their effects on voter alienation or indifference. To test this we asked students from a required Introduction to American Politics courses at a large Midwestern university to participate in a survey about one of four hypothetical congressional elections for extra credit. In total, 346 students participated. Students were randomly assigned one of four scenarios to read and then answer questions about what they read and their demographic attributes.

First we created a scenario that briefly describes an open seat House race. ${ }^{\text {v }}$ Then, we created four candidates, 2 male and 2 female: Republican Michael Smith, Democrat Charles Davis, Republican Linda Smith and Democrat Catherine Davis. The candidates were then paired to create four scenarios: Republican man versus Democratic man, Republican woman versus Democratic woman, Republican man versus Democratic woman, Republican woman versus a Democratic man. The order in which each candidate was described was randomized so that for example the Republican was not always
described first. The script of the scenario is available upon request. Following the scenarios, students were asked:

- Did either candidate represent your interests?
- If one candidate did represent your interests, which one?
- On a scale of $1-5$, how interested are you in the campaign described?
- Using a feeling thermometer of $0-100$, please place each candidate based on feeling cold or hot towards the candidate.
- On a scale of 1-5, how likely would you be to vote in the election described?
- If you were likely to vote in the campaign, who would you vote for?

Lastly, students were asked their gender, race, ideology, and a series of four questions to gauge whether they are likely voters: if they are registered, how often they follow politics, if they are following the 2012 election, and if they plan to vote in the 2012 election.

We use four dependent variables. First we use three variables to measure engagement: interest, indifference and alienation. Interest is measured on a five-point scale with the low end representing minimal interest in the election and the high end being a lot of interest in the election. Alienation and indifference are measured based on the feeling thermometer questions. For each candidate, subjects rated the candidate on a five point feeling thermometer as follows: $1=0 \%, 2=25 \%, 3=50 \%, 4=75 \%$ and $5=100 \%$. ${ }^{\text {vi }}$ Although much of the literature on alienation and indifference focuses on issues, we chose a feeling thermometer since it is more inclusive. A voter may feel warmly toward a candidate and be excited by a candidate for reasons other than issues. To test indifference we subtracted the absolute difference between both candidate
evaluations from five. This gives us a five-point scale with the higher numbers indicating more indifference, than scores that were closer together. We measure alienation by subtracting the highest score given for either candidate from five. This creates a fivepoint scale where the higher numbers mean more alienation. Finally, to measure participation we measure subjects' likelihood of voting.

To test the effects of descriptive elections on interest, alienation and indifference we use ordered logistic regression with each of these serving as dependent variables in three separate models. The independent variables include three dummy variables for level of descriptive election - mixed gender (Democratic woman), mixed gender (Democratic man) and women only. Men only races are the excluded category. We take into consideration the party gender mix of candidates since this could affect voters' reactions to candidates. Additionally, we control for characteristics of the student: gender, race, ideology, attention to government, interest in 2012 election, registered to vote, and 2012 vote intent. The results of these models are presented in Table 1.
[Insert Table 1 here]
All three models help to explain levels of engagement and the control variables tend to have the expected effects. Subjects’ alienation and indifference are lower for subjects planning to vote in 2012. Gender is significant for interest and alienation: female subjects are more interested in the hypothetical election, yet more alienated. Male subjects are less alienated. Conservative subjects are also found to be more interested as well as less alienated and less indifferent compared to more liberal students. Most importantly descriptive elections affect levels of engagement. Mixed gender races with a Democratic woman show significant effects. Across the five categories of interest, the
probability of being more interested increases by 0.05 for mixed gender races with Democratic women compared to other races. For example, for those who read the mixed gender Democratic woman scenario, the probability of reporting a " 3 ," a " 4 " or a " 5 " on the interest scale is 0.57 . However, the probability of scoring a " 3 ," a " 4 " or a " 5 " for all other scenarios is 0.42 . As columns 2 and 3 show, the mixed gender Democratic woman scenario results in lower levels of both alienation and indifference. The probability of less alienation (" 1 " or " 2 "), is 0.47 when the race is mixed gender Democratic woman compared to 0.33 for other races. The probability for higher levels of feeling alienation ("3," " 4 " and " 5 "), is 0.51 with a mixed gender Democratic women race and 0.66 for other races. This shows that mixed gender races with a Democratic female create less alienation in the subjects. The same is true for indifference. The probability of scoring a " 1 " or " 2 ," meaning less indifferent, is 0.13 for mixed gender Democratic women races and 0.06 for other races. Further, the probability of exhibiting higher levels of indifference (" 3 ," " 4 " or " 5 ") is 0.77 with mixed gender Democratic women races and 0.93 for all other races. The direction of the relationships for mixed gender races with a Democratic man and women only races are in the expected direction, but do not reach normal levels of statistical significance. That mixed gender races with Democratic women have the strongest effect on engagement is likely due to races pitting women Democrats against men Republicans offering the clearest contrast. Both women and Democrats are stereotyped as liberal and both men and Republicans stereotyped as conservative.

Effects on Participation

To measure participation we use likelihood of voting as a proxy for voting. This is a five-point scale with the low end representing less intent to vote and the high end representing greater likelihood of voting. Since we do not hold an actual hypothetical election, we think reported intention to vote best mirror likelihood of voting if this election were actually taking place. Using ordered logistic regressions with level of descriptive election, and student identifiers: gender, race, ideology, attention to government, interest in 2012 election, registered to vote, and 2012 vote intent, as our independent variables; we model the effects of gender on likelihood of voting. In a second model we also include as controls, interest in the hypothetical election, alienation and indifference. We do this to first estimate the effects of descriptive elections on participation and then to estimate whether changes in participation are affected by changes in engagement. The results are presented in Table 2.

## [Insert Table 2 here]

For the first model the variables do well explaining difference in participation. Several controls proved to be significant. Those who pay regular attention to government affairs and also those planning to vote in 2012 are more likely to vote based on the hypothetical scenario. Female subjects are more likely to vote than male subjects. Further, conservative subjects were also more likely to vote in the election compared to liberal subjects. The results parallel those from Table 1. The coefficients for the election scenarios are in the predicted direction, but only mixed gender races with a Democratic woman lead to a statistically significant higher likelihood of voting than men only races. Those is the mixed gender Democratic women scenarios have a 0.72 probability of
indicating a " 3 ," " 4 " or " 5 " in terms of interest to vote compared to 0.61 for those who read the other scenarios.

When we add in the controls for interest, alienation and indifference, the effects of the gender dyads disappear. Interest in the mock-election does positively affect likelihood to vote and those who are less alienated are more likely to vote. For example, those who are least interested in the election (they scored a " 1 " on the interest scale) only have a 0.01 probability of scoring a " 5 " on the likelihood to vote scaled compared to a 0.33 for those who scored a " 5 " on the interest scale. And, the probability of indicating a " 5 " on the likelihood to vote scale is 0.01 for those who are most alienated (they scored a " 5 ") compared to 0.14 for those who are least alienated (they scored a " 0 " on the alienation scale). Overall, given the results shown in Table 1, the gendered nature of the race is important, and likely does affect turnout, but through mediating factors- such as interest, alienation and indifference.

Aggregate level turnout
Our survey of students offers considerable support for the descriptive election theory. However, since we rely on a convenience sample in a hypothetical election we want to try to replicate our findings using real elections. To do this we estimate whether turnout varies by the gender mix of candidates in congressional and gubernatorial races between 1992-2010. We limit our analysis to those races with two major party candidates. Our key independent variables create a series of dummy variables based on the type of race used in the survey: women only, mixed gender Democrat woman, mixed gender Republican woman, with men only serving as the reference group (coded 1 if of a
type and 0 if not). Data used to create these variables come from Congressional Quarterly's Voting and Elections Center for American Women in Politics.

The dependent variable varied by level of office (statewide or House). For the Senate and gubernatorial races we used actual turnout as our measure. We calculated this by dividing the total ballots cast per race by the voting eligible population (VEP) in each state and multiplying it by 100 for a percent of voter turnout. We obtained the VEP data from the United States Election Project organized by Professor Michael McDonald at George Mason University. For the House races, district level information on VEP is not available. Therefore we used roll-off as our measure of turnout. Roll-off is the number of votes cast in the House race divided by the number of votes cast in the current presidential race (or past presidential race in midterm election years) multiplied by 100 . This gives us a percentage, which serves as a proxy to the percentage of turnout we use for statewide elections. Higher numbers, therefore, reflect less roll-off from the higher office election and thus greater turnout. A description of this calculation can be found in Hayes and McKee (2012). ${ }^{\text {vii }}$ We recognize that the non-presidential election years will have higher levels of roll-off (and thus, lower turnout). Hayes and McGee calculate rolloff as a function of House vote and presidential vote in presidential years, but in midterm years calculated roll-off as a function of House vote compared to top of the ticket (Senate or gubernatorial) vote. Because some states do not have top if the ticket races held in midterm election years, and because roll-off when measured against presidential vote is usually higher, we choose to calculate our midterm roll-off as a function of the previous presidential year vote total. We feel this better accounts for the differences between presidential years and midterm years since roll-off varies based on which top of the ticket
race is used. Further there is great variation across states in the level of interest in Senate and gubernatorial elections and using these to measure roll-off would introduce more variation into our model. Hayes and McGee (2012) found that average roll-off is $7 \%$ in presidential years, $5 \%$ when the Senate election is top of the ballot and $3 \%$ when the gubernatorial election is top of the ballot. Our data for presidential vote per congressional election was obtained through Polidata. viii

In our analysis we also control for several conditions that affect voter turnout (Ragsdale and Rusk 1993, 1995, Plane and Gershtenson 2004). First, we control for district/state levels of education, income and racial diversity. To control for these we use Census data arranged per congressional district and per state for the years of interest. We used the available census data closest to each election. Education was calculated as the percentage of the population over the age of 25 who obtained a Bachelor's degree or higher. Income is measured as median household income. For race we used percentages for black and Hispanic. Additionally, we control for incumbency. When voters are more familiar with a candidate as in the case of incumbents the effect of gender may vary.

We also control for "closing date:" when voter registration ends since late closing dates increase voter turnout (Plane and Gershtenson 2004). This was obtained through The Book of States (various years) for each election cycle. This measures how many days before the election the registration process closes, therefore same day registration is coded as a 0 . Smaller scores indicate voters had more time to register to vote and should be associated with higher turnout.

Lastly, we control for the competitiveness of the race using two measures. First, we subtract the Republican vote share from the Democratic vote share and then subtract
this from 100, and convert it to absolute numbers. This gives us a scale where the high end reflects more competition. We expect increased competition to increase turnout (Abramson, Diskin, and Felsenthal 2007). Second, we calculate the difference in money spent (scaled per $\$ 100,000$ ) between candidates. Lower numbers on this scale reflect great competition as measured by closer amounts of finances raised between the candidates.

The above control variables and our key independent variable make up the models we use for the statewide offices and House races. For both types of races we use OLS regression given the continuous nature of the dependent variables (roll-off for House races and turnout for statewide races). For the House we use a two-way cluster model to correct the standard errors since our observations are clustered on both territorial units and time points (Peterson 2008). The two-way cluster uses state and districts as the clusters. To account for the time component, we add dummy variables for each of the election years, and we use 2010 as the omitted dummy variable. For the Senate we cluster on state, and again use the year dummy variables. We do note that the dependent variables are censored between $0 \%$ and $100 \%$, and also used a tobit to confirm the OLS results. For both models the OLS results are identical to those with the tobit, so we choose to report the more easily interpreted OLS results.

## Findings

The results of the OLS models for both the House and Senate/gubernatorial elections are presented in Table 1. First we look at House races. The model performs very well. The $\mathrm{R}^{2}$ is 0.80 and most of the control variables have the expected effects on turnout. We see increases in turnout in presidential years, when voter registration is same
day or close to the election, and when there is competition, both in terms of vote share and equitable finances. Further, turnout decreases in districts with higher percentages of Hispanics. Most importantly, the gender mix of the candidates does affect turnout. In House races both women only races and mixed gender races with a Democratic woman increase turnout. Since roll-off is measured as a percentage, this shows that turnout increases (by a smaller amount of roll-off) by $1.88 \%$ in women only races and $0.81 \%$ for mixed gender races with a women Democratic candidate.
[Table 3 about here]
In a separate analysis (not shown) for the House, we ran the models separately for open seat races and incumbent races. We find that the gender mix matters for incumbent races, and for women only open seat races, but not mixed gender open seat races. The magnitudes of the effects are the same as found in the full model, meaning turnout increase just under $2 \%$ in women only incumbent races, nearly $1 \%$ for mixed gender incumbent races, and $2.6 \%$ for women only open seat races. This supports the work of Dolan and Koch who have found stereotypes are strong when an incumbent is present.

The same patterns are revealed in Senate and gubernatorial elections. The model performs well $\left(\mathrm{R}^{2}=.58\right)$ and most controls have the expected effect. Turnout increases in presidential years, where there is same day voter registration, and where a higher percentage of the population is college educated. Turnout decreases in districts with larger percentages of blacks and Hispanics. Also, mixed gender races with a woman Democratic candidate increase turnout by $1.50 \%$. However, although signed correctly to suggest an increase in turnout, women only races failed to reach significance. Since the
size of the coefficient is similar to that of the House model, we assume the lack of statistical significance is caused by the smaller sample size.

## Conclusion

We offered a theory of descriptive elections that predicts when there is diversity of candidates, specifically a man and a woman or in a less pure form two women, voters will feel less indifferent and alienated from the election but have greater interest and participation. We then test it with a survey of students as well as with real election results. While we find considerable support for our expectations we also find the support nuanced. We find in the survey that while gender mixed races, particularly if there is a woman Democrat and a man Republican; would-be-voters have more interest, less alienation and less indifference and are more likely to vote. However, when engagement is controlled gender mix does not have a significant effect on vote. Although the real election data do not test for the effects of descriptive elections on engagement they do find that women only races and races with incumbent women Democrats do have higher turnout. Thus these findings suggest that the value of descriptive elections is stronger when there is a Democrat woman and a Republican man in mixed gender races. This condition is foreshadowed by the work of Koch (2002) who finds stereotypes are stronger when they are reinforcing. Democratic women are stereotyped as liberal for being women as well as being Democrats and Republican men are likely doubly stereotyped as conservative. Also foreshadowed by the work of Koch is that the effects with the real election results are stronger when there is an incumbent in the race. The other nuance of the findings is that in the experimental survey women only races did not have a
significant effect on turnout, but it did in the real House elections. We attribute this difference to the artificialness of the experiment. In the hypothetical scenarios we did not stress the uniqueness of the women only races for fear of signally to the subjects the goal of the project.

The descriptive election theory has implications beyond gender and politics. While we have focused on descriptive elections as they relate to gender we believe that it is true for other minority groups. Anecdotally, the high turnout and voter interest in the 2008 presidential election is in part to the contrast of President Barack Obama a young and African-American and his elder white opponent: Senate John McCain. Also Vanerleeuw and Sowers $(2007,946-7)$ find that roll-off declines in biracial elections and research finds that voters, particularly from racial and ethnic minority groups, are more engaged when minority candidates are on the ballot (see for example Gay 2001).

A key value of this project is it demonstrates the value of diversity in politics, even before legislatures convene. Descriptive representation is valued because it increases the substantive and symbolic representation of diverse interests and improves the legitimacy of the process since it increases the number of interests at the table. And indeed research on officeholders suggests that women are needed to insure that women have a voice: that the issue priorities and preferences of women are represented and acted upon; and that women and girls have political role models to inspire them to be political active. With descriptive elections we see that the legitimacy of elections are improved if for no other reason there are more participants in the process increasing the chances that more Americans become voters and increase the variety of interests held by the voters helping to select our representatives.

## References

Abramson, Paul R., Abraham Diskin, and Dan S. Felsenthal. 2007. Nonvoting and the Decisiveness of Electoral Outcomes. Political Research Quarterly 60 (3) 500-517.

Atkeson, Lonna Rae. 2003. Not All Cues Are Created Equal: The Conditional Impact of Female Candidates on Political Engagement. The Journal of Politics. 65 (4) 10401061.

Brody, Richard A. and Benjamin I. Page. 1973. 'Indifference, Alienations (SIC) and Rational decisions: The Effects of Candidate Evaluations on Turnout and the Vote." Public Choice 15 1-17.

Dolan, Kathleen. 1998. Voting for Women in the "Year of the Woman". American Journal of Political Science 42 (1) 272-293.

Dolan, Kathleen. 2004. 'The impact of Candidate Sex on Evaluations of Candidates for the U.S. House of Representatives." Social Science Quarterly 85 (1) 206-217.

Dolan, Kathleen. 2006. Symbolic Mobilization?: The Impact of Candidate Sex in American Elections. American Politics Research 34 687-704.

Dolan, Kathleen, 2008. Is There a "Gender Affinity Effect" in American Politics? Information, Affect, and Candidate Sex in U.S. House Elections. Political Research Quarterly 61 (1) 79-89.

Dolan, Kathleen. 2010. The impact of Gender Stereotyped Evaluations on Support for Women Candidates. Political Behavior 32 (1) 69-88.

Downs, Anthony. 1957. An Economic Theory of Democracy. New York: Harper Row.

Feddersen Timothy J. and Wolfgang Pesendorfer . 1999. Abstention in Elections with Asymmetric Information and Diverse Preferences. The American Political Science Review 93 (2) 381-398.

Gay, Claudine. 2001. The Effect of Black Congressional Representation on Political Participation. American Political Science Review 95 (3) 589-602.

Hansen, Susan B. 1997. Talking About Politics: Gender and Contextual Effects on Political Proselytizing. The Journal of Politics. 59 (1) 73-103.

Hayes, Danny, and Seth McKee C. 2012. The Intersection of Redistricting, Race, and Participation. American Journal of Political Science 56 (1) 115-130.

Huddy, Leonie and NaydaTerkildsen, 1993. Gender Stereotypes and the Perception of Male and Female Candidates. American Journal of Political Science 27 (1) 119147.

Jackson, Robert. 1997 The Mobilization of U.S. State Electorates in the 1988 and 1990 Elections. The Journal of Politics 59 (2) 520-537

Kahn, KimFridkin. 1994. Does Gender Make a Difference? An Experimental Examination of Sex Stereotypes and Press Patterns in Statewide Campaigns. American Journal of Political Science 38 (1) 162-95.

Karp, Jeffrey A., and Susan Banducci. 2008. When Politics is not Just a Man's Game: Women’s Representation and Political Engagement. Electoral Studies 27 (1) 105115.

Koch, Jeffrey W. 2000. Do Citizens Apply Gender Stereotypes to Infer Candidates' Ideological Orientations? The Journal of Politics 62 (2) 414-429.

Koch, Jeffrey W. 2002. Gender Stereotypes and Citizens' Impressions of House Candidates' Ideological Orientations. American Journal of Political Science 46 (2) 453-462.

Lawless, Jennifer. 2004. Politics of Presence" Congresswomen and symbolic representation. Political Research Quarterly. 77 (1) 81-99

Leeper, Mark S. 1991. The Impact of Prejudice on Female Candidates: An Experimental Look at Voter Inference. American Politics Quarterly 19 248-61.

Paolino, Phillip. 1995. Group-Salient Issues and Group Representation: Support for Women Candidates in the 1992 Senate Elections. American Journal of Political Science 39 (2) 294- 313.

Peterson, Mitchell A. 2008. Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches. Review of Financial Studies 22(1): 435-480.

Pitkin, Hanna F. 1973. The Concept of Representation. Berkeley CA: University of California Press.

Plane, Dennis L. and Joseph Gershtenson. 2004. Candidates' Ideological Locations, Abstention, and Turnout in U.S. Midterm Senate Elections. Political Behavior 26 (1) 69-93.

Plutzer, Eric and John F. Zipp. 1996. Identity Politics, Partisanship, and Voting for Women Candidates. Public Opinion Quarterly 60 (1) 30-57.

Ragsdale, Lyn and Jerrold G. Rusk. 1993. Who are Nonvoters? Profiles from the 1990 Senate Elections. American Journal of Political Science 37 (3) 721-746.

Ragsdale, Lyn and Jerrold G. Rusk. 1995. Candidates, Issues, and Participation in Senate Elections. Legislative Studies Quarterly 20 (3) 305-327.

Reingold, Beth and Jessica Harrell. 2010. The Impact of Descriptive Representation on
Women's Political Engagement. Political Research Quarterly. 63 (2) 280-294.

Rosenthal, Cindy Simon. 1995. The Role of Gender in Descriptive Representation. Political Research Quarterly 599-609.

Sanbonmatsu, Kira. 2002. Gender Stereotypes and Vote Choice. American Journal of Political Science 46 (1) 20-34.

Sanbonmatsu, Kira and Kathleen Dolan. 2009. 'Do Gender Stereotypes Transcend Party." Political Research Quarterly 62 (3): 485-494.

Sapiro, Virginia. 1981-82. If Senator Baker were a Women: An Experimental Study of Candidate Images. Political Psychology 2 61-83.

Sigelman, Lee and Susan Welch. 1984. Race, Gender, and Opinion Toward Black and Female Presidential Candidates. Public Opinion Quarterly 48 467-476.

Smith, Eric R.A.N. and Richard L. Fox. 2001. The Electoral Fortunes of Women Candidates for Congress. Political Research Quarterly 54 (1) 205-221.

Tolleson Rinehart, Sue. 1992. Gender Consciousness and Politics. New York: Routledge.

Vanderleeuw, James M. and Thomas E Sowers. 2007. Race, Roll-Off and racial Transition: The Influence of Political Change on Racial Group Voter Roll-Off in Urban Elections. Social Science Quarterly 88 (4) 937-952.

Verba, Sidney, Nancy Burns, and Kay Lehman Schlozman. 1997. Knowling and Caring about Politics: Gender and Political Engagement. The Journal of Politics. 59 (4) 1051-1072.

Weisberg, Herbert F. and Bernard Grofman. 1981. Candidate Evaluations and Turnout.

American Politics Quarterly 9 (2) 197-219.
Zipp, John F. 1985. Perceived Representativeness and Voting" An Assessment of the Impact of "Choices" vs. "Echoes." The American Political Science Review 79 (1) 50-61.

Zipp, John F. and Eric Plutzer 1985. Gender Differences in Voting for Female Candidates: Evidence from the 1982 Election. Public Opinion Quarterly 49 (2) 179-197.

Table 1. Experimental Effects of Gendered Dyads on Interest in the Campaign, Alienation and Indifference

|  | Interest | Alienation | Indifference |
| :---: | :---: | :---: | :---: |
| Women only | 0.33 | -0.41 | -0.13 |
|  | (0.28) | (0.28) | (0.29) |
| Mixed gender- Democratic Woman | 0.62* | -0.57* | -0.68* |
|  | (0.28) | (0.29) | (0.29) |
| Mixed Gender- Democratic Man | 0.35 | -0.26 | -0.32 |
|  | (0.27) | (0.28) | (0.28) |
| Male | -0.47+ | 0.71** | 0.39 |
|  | (0.25) | (0.26) | (0.25) |
| White | 0.01 | 0.21 | 0.005 |
|  | $(0.24)$ | $(0.25)$ | (0.25) |
| Ideology | 0.28*** | -0.56*** | -0.45*** |
|  | (0.09) | (0.09) | (0.09) |
| Attention to government affairs | 0.27* | -0.02 | -0.06 |
|  | (0.12) | (0.12) | (0.12) |
| Thought about 2012 election | 0.25* | -0.06 | -0.22* |
|  | (0.10) | (0.10) | (0.10) |
| Registered to Vote | -0.63* | 0.83** | -0.04 |
|  | (0.26) | (0.27) | (0.26) |
| Plan to vote 2012 | 0.07 | -0.33* | -0.29* |
|  | (0.15) | (0.25) | (0.15) |
| Cut point 1 | 0.23 | -4.02 | -5.76 |
|  | (0.55) | (0.59) | (0.67) |
| N | 346 | 346 | 346 |
| LR-Chi2 | 46.35 | 89.76 | 53.71 |
| Prob>Chi2 | 0.00 | 0.00 | 0.00 |
| Pseudo-R2 | 0.05 | 0.10 | 0.06 |

Note: ${ }^{* * *} \mathrm{p}<0.001,{ }^{* *} \mathrm{p}<0.01,{ }^{*} \mathrm{p}<0.05,+\mathrm{p}<0.10$.

Interest: interest in mock-election campaign; scale of 1 to $5.1=$ "not very interested," 5="very interested"

Alienation: 5-the maximum score given on either feeling thermometer; scale is 1 to 5 . High scores indicate more alienation. Low scores indicate less alienation.

Indifference: 5-(|feeling thermometer 1 -feeling thermometer $2 \mid$ ); scale 1 to 5 . High scores indicate more indifference. Low scores mean less indifference.

Women only: woman candidate versus woman candidate scenario
Mixed gender, Democratic Woman: Democratic woman candidate versus Republican
man candidate scenario
Mixed gender, Democratic Man: Democratic Man candidate versus Republican woman
candidate scenario
Male: 1 if subject is male, 0 if female
White: 1 if subject is white, 0 all others
Ideology: scale of 1 to $5.1=$ "more liberal," 5= "more conservative."
Attention to government: scale of 1 to 5 ; $1=$ "Never," $5=$ "Most of the time."
Thought about 2012 election: scale of 1 to 5; -2 'None," -1 "Only a Little," 0 'Don't'
Know," 1 "Some," 2 "Quite a lot."
Registered to vote: 1 if registered to vote, 0 otherwise
Plan to vote in 2012: -1 "no," 0 "don’t know," 1 "yes."

Table 2. Experimental Effects of Gender Dyads on Likelihood of Voting

| Women only | 0.08 | -0.05 |
| :---: | :---: | :---: |
|  | (0.28) | (0.29) |
| Mixed gender- Democratic Woman | 0.54* | 0.34 |
|  | (0.28) | (0.29) |
| Mixed Gender- Democratic Man | 0.37 | 0.22 |
|  | (0.27) | (0.28) |
| Male | -0.92 *** | -0.75*** |
|  | (0.26) | (0.27) |
| White | -0.09 | 0.02 |
|  | (0.24) | (0.25) |
| Ideology | 0.39*** | 0.17+ |
|  | (0.09) |  |
| Attention to government affairs | 0.31* | 0.20 |
|  | (0.12) | (0.13) |
| Thought about 2012 election | 0.15 | 0.11 |
|  | (0.10) | (0.10) |
| Registered to Vote | -0.05 | 0.68* |
|  | (0.26) | (0.28) |
| Plan to vote 2012 | 0.47** | 0.39* |
|  | (0.15) | (0.16) |
| Interest in Mock-Election |  | 0.93*** |
|  |  | (0.11) |
| Alienation |  | -0.66*** |
|  |  | (0.15) |
| Indifference |  | 0.15 |
|  |  | (0.14) |
| Cut point 1 | 0.31 | 1.07 |
|  | (1.41) | (0.79) |

Ordered logit analysis.
Likelihood of Voting:
Women only: woman candidate versus woman candidate scenario
Mixed gender, Democratic Woman: Democratic woman candidate versus Republican man candidate scenario
Mixed gender, Democratic Man: Democratic Man candidate versus Republican woman candidate scenario
Male: 1 if subject is male, 0 if female
White: 1 if subject is white, 0 all others
Ideology: scale of 1 to 5.1 "more liberal," 5 "more conservative."
Attention to government: scale of 1 to 5 ; 1 "Never," 5 "Most of the time."
Thought about 2012 election: scale of 1 to 5; -2 "None," -1 "Only a Little," 0 'Don't'
Know," 1 "Some," 2 "Quite a lot."
Registered to vote: 1 if registered to vote, 0 otherwise
Plan to vote in 2012: -1 "no," 0 "don’t know," 1 "yes."
Interest in Mock-Election: interest in mock-election campaign; scale of 1 to 5.1 "not very interested," 5 "very interested"
Alienation: 5-the maximum score given on either feeling thermometer; scale is 1 to 5 .
High scores indicate more alienation. Low scores indicate less alienation.
Indifference: 5-(|feeling thermometer 1-feeling thermometer 2|); scale 1 to 5 . High scores indicate more indifference. Low scores mean less indifference.

Table 3. Turnout Effects for House and Senate/Gubernatorial Races, 1992-2012

|  | House | Senate/Gubernatorial |
| :---: | :---: | :---: |
| Women only | 1.88** | 2.08 |
|  | (0.82) | (1.88) |
| Mixed Gender- Woman Republican | -0.42 | 0.71 |
|  | (0.39) | (1.25) |
| Mixed Gender- Woman Democrat | 0.81* | 1.50+ |
|  | (0.35) | (0.82) |
| Income | -0.0001 | -0.00003 |
|  | (0.0001) | (0.0001) |
| College educated | -0.02 | 0.31+ |
|  | (0.02) | (0.18) |
| Black | -0.07*** | -0.31*** |
|  | (0.02) | (0.85) |
| Hispanic | -0.06** | -0.22*** |
|  | (0.02) | (0.06) |
| Open seat | -0.52 | -0.56 |
|  | (0.41) | (0.97) |
| Closing days | -0.07*** | -0.14* |
|  | (0.04) | (0.07) |
| PVI | 0.02 | -0.13 |
|  | (0.04) | (0.15) |
| Competition | 0.09*** | 0.05 |
|  | (0.03) | (0.04) |
| Finance differential | -0.01*** | -0.002 |
|  | (0.0004) | (0.004) |
| 1992 | 26.38*** |  |
|  | (1.01) |  |
| 1994 | 1.94 |  |
|  | (1.35) |  |
| 1996 | 26.95*** |  |
|  | (0.94) |  |
| 1998 | 7.91*** | -3.67* |
|  | (0.94) | (1.79) |
| 2000 | 28.28*** |  |
|  | (1.03) |  |
| 2002 | 0.09*** | -1.03 |
|  | (0.01) | (1.40) |
| 2004 | 26.70*** |  |
|  | (1.23) |  |
| 2006 | -0.36 | -1.90 |


|  | $(1.14)$ | $(31.81)$ |
| :--- | :--- | :--- |
| 2008 | $28.03^{* * *}$ | $17.16^{* * *}$ |
| Constant | $(1.25)$ | $(2.17)$ |
|  | 66.47 | 42.28 |
| N | $(2.34)$ | $(6.30)$ |
| R-squared | 3790 | 239 |

Note: two-way cluster regression analyses
${ }^{* * *} \mathrm{p}<0.001,{ }^{* *} \mathrm{p}<0.01, * \mathrm{p}<0.05,+\mathrm{p}<0.10$.
House: dependent variable is roll-off: number of ballots cast in race/number of ballots cast in current or past presidential election)*100
Senate: dependent variable is turnout: total votes cast/voting eligible population)*100
Women only: 1 if race is woman versus woman, 0 otherwise
Mixed Gender- Female Republican: 1 if race is Republican woman versus Democratic man, 0
otherwise
Mixed Gender- Female Democrat: 1 if race is Democratic woman versus Republican man
Income: median household income for district/state
College educated: percentage of district/state over age 25 with Bachelor's degree
Black: percentage of district/state who identify as Black
Hispanic: percentage of district/state who identify as Hispanic
Open seat: 1 if the race is open seat, 0 if an incumbent is running for re-election
Closing days: number of days before the election that voter registration ends
Presidential Year: 1 if race year is 1992, 1996, 2000, 2004 or 2008, 0 otherwise
PVI: Absolute value of Cook Report's partisan voting index for district/state; higher scores indicate less competitive district/state
Competition: absolute value of Republican vote share minus Democratic vote share Finance differential: absolute value of money raised by the Democratic candidate minus the money raised by the Republican candidate per $\$ 100,000$
Years: dummy variables for election years. The Senate model omits years in which no female only races were run.

## Notes

${ }^{i}$ Tolleson-Rinehart (1992) focuses on women having a gender consciousness, but acknowledges that some men may have a gender focus as well, (see page 33).
ii Women may also prefer women candidates due to partis an considerations - women are more likely to be Democrats so are more likely to support women - not because of gender but because of partisanship. However, under this condition mixed gender races are not likely to effect indifference/alienation since it is party not gender affecting candidate preference.
iii In his examination of the 1992 elections, Paolino (1995) found that women voters did prefer women but only because of assumed issue positions of women candidates, not because of gender identity. Dolan (1998) too finds in 1992 that part of the reas on women preferred women candidates was because of issues/ideology. However, we make no assumption that women are the only voters who may prefer candidates with female stereotypes.
${ }^{\text {iv }}$ The historical nature of this type of descriptive election are considerable weaker in majorityminority districts since they frequently have two minorities running against each other.
${ }^{v}$ We chose to use an open seat to eliminate the effects of incumbency.
vi We use the 5 point scale instead of the usual 100 degrees. Since feeling thermometers can over-represent the extremes and the middle categories, we feel the five-point scale is appropriate to use here. vii We modified the Hayes and McGee calculation and did not subtract roll-off from 1 because our comparison is turnout and we wanted to compare across House and Senate/gubernatorial elections. Therefore we wanted less roll-off and greater turnout to be the high end of this scale (where it is the low end of Hayes and McGee’s scale).
viii Because of redistricting for Texas and Georgia in 2006, we calculate roll-off based on the 2008 presidential election results.

