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UNIVERSITY OF CALIFORNIA,
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Who Runs the World?:
Collective Political Representation of Women, Political Efficacy, and Participation

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Psychological Science

by

Angela Rene Robinson

Dissertation Committee:
Associate Professor Paul Piff, Chair
Professor Roxane Silver
Associate Professor Michael Tesler

2020

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Abstract of the Dissertation

Who Runs the World?:

Collective Political Representation of Women, Political Efficacy, and Participation

by

Angela Rene Robinson

Doctor of Philosophy in Psychological Science

University of California, Irvine, 2020

Associate Professor Paul Piff, Chair

In recent years, the number of women in political office has increased to the highest level in American history. This dissertation examined how increases in women's representation might impact females and males both psychologically and behaviorally. Study 1 demonstrated that among representative samples of American adults surveyed over the period from 1948 to 2016, observed levels of women's representation in elected office were positively associated with perceptions that one can participate effectively in politics; beliefs that government is responsive to citizens' needs; and levels of voting and broader self-reported political participation among both females and males. In Study 2, females and males who anticipated larger increases in the number of women in elected office reported greater intentions to vote and engage in other forms of political participation. Study 3 utilized experimental methods to induce beliefs that the number of women in office would either increase or remain stagnant over the next 10 years. Among both females and males, inducing expectations that women's representation would increase resulted in

elevated beliefs that government would be responsive to citizens' needs; greater anticipated feelings of enthusiasm; and reductions in anticipated anxiety and anger. Inducing beliefs that representation would increase had no impact on intended political participation for females but decreased intended participation among males. Overall, the results suggested remarkable similarities in how females and males might respond to future increases in the number of women in elected office. The findings have important implications for how demographic shifts among elected officials might empower non-dominant groups and advance democratic ideals that embrace equitable opportunities for political participation.

Introduction

In recent years, Americans have seemed increasingly attentive to the gender identities of their elected representatives. Women's underrepresentation in political office grew salient after Hillary Clinton's surprising loss in the 2016 presidential election (Does et al., 2018). Just two years later, the 2018 midterm election brought a record high number of women to Congress (Center for American Women and Politics, 2019e), and some of the most highly visible new leaders were women of color (Cormack & Karl, 2018). While current levels of women's representation are notable and record-breaking, inequalities in political representation and power persist. Currently women comprise 23.7% of the United States Congress, 18.0% of state governors, 29.1% of state legislators, and 22.0% of mayors in cities over 30,000 people—far below levels of parity, since women comprise just over 50% of the electorate (Center for American Women and Politics, 2019a). In this dissertation, I examined the psychological impact of current and changing levels of women's representation.

With continued public attention to the identities of our elected officials, it is important to investigate how changes in representation impact people's perceptions of and engagement with the political process. Such an inquiry can help us understand the ways in which members of currently dominant and non-dominant groups might embrace or resist shifts toward greater political equality—an important line of research in a political climate that can be quite divisive along the lines of social identities like gender, race, and social class. I conducted three studies to investigate the psychological correlates and consequences of changes in women's representation. In particular, I examined how political representation of women is associated with political efficacy—feelings that one can understand and impact the political process, and that representatives are responsive to the people's interests (Balch, 1974; Niemi et al., 1991)—and

political participation, including voting behavior, involvement in political campaigns, contact with elected officials, and other forms of civic engagement. Based on predictions informed by social identity theory, I examined whether these relationships differed according to participant gender. I also examined the extent to which these relationships were explained by emotional responses (i.e., enthusiasm, anxiety, and anger) that people might experience in light of changing levels of representation. This research built on existing literature by (1) examining the specific causal impact of increases in women's representation on political efficacy and participation; (2) utilizing predictions from social identity theory to investigate similarities and differences in the psychological responses of females and males to changes in representation; (3) contributing a psychological perspective to understanding how responses are shaped by subjective perceptions of the political environment and affective responses to them; and (4) identifying potential avenues that could be explored to address gender gaps in political participation. The work provided insight into the patterns of psychological and behavioral responses that we might expect to see as the result of recent and anticipated changes in women's representation in elected office.

I begin my literature review by introducing social identity theory and its relevance to understanding how members of different groups respond to changes in political representation. Next, I define various types of political representation to situate my research questions within this broader literature. Then I review existing research on descriptive representation—the extent to which representatives mirror the characteristics of the electorate (Pitkin, 1967)—and argue that descriptive representation matters on account of its potential psychological and behavioral consequences. I also introduce emotion as a hypothesized mediator that might provide a deeper

psychological understanding of the nature of these effects. Finally, I introduce my research questions and hypotheses before describing the methods and results of my studies.

Social Identity Theory and American Politics Today

Social identity theory is a foundational social psychological approach to understanding how individuals make sense of themselves as social beings. According to social identity theory, people are motivated to maintain a positive sense of identity, much of which is shaped by social group memberships (Tajfel, 1981). Merely making mental distinctions between groups can have important consequences for social cognition and behavior (Tajfel, 1981; Tajfel & Turner, 1979), including preferential treatment of ingroup members at the expense of the outgroup (Brewer, 1999). Social group identification can also affect political attitudes and behaviors. For example, some people are motivated to take political action when it might benefit a group with which they strongly identify (Fowler & Kam, 2007). However, people may selectively embrace or reject group affiliations according to whether membership provides opportunities to maintain positive social identity in the current intergroup context (Tajfel, 1981; Tajfel & Turner, 1979). The extent to which a given identity is salient or relevant may depend on the situation (Hogg et al., 2006; Turner et al., 2007). When gender is a salient campaign issue on a widespread scale—such as during the so-called “Year of the Woman” in 1992 when many female candidates made gender inequality central to their platform—then voters tend to vote differently on the basis of their own gender and the attitudes they hold about women (Plutzer & Zipp, 1996; Valentino et al., 2018).

Many would consider gender to be a highly salient group identity in the current American political context. In the 2016 U.S. election, Hillary Clinton’s historic role as the first woman presidential candidate nominated by a major political party and her opponent’s sexist rhetoric made gender a central theme of the campaign (Bracic et al., 2019). *TIME Magazine*

subsequently recognized the cultural importance of the #MeToo Movement by naming “the silence breakers” (those women who shared their experiences with sexual harassment) as the 2017 Person of the Year (Zacharek et al., 2017). Commentators named 2018 the second “Year of the Woman” in recognition of a bump in the number of women candidates running for and winning political office in the most recent midterm election (Cormack & Karl, 2018; Lawless & Fox, 2018). It is not only activists who are currently attentive to gender inequalities in the political arena.

Given the salience of gender in today’s political environment, one could predict based on social identity theory that females and males should respond to changes in women’s representation through the lens of their own group membership. As members of a lower-status group, females might be expected to embrace opportunities to elevate their group’s status when these are available (Tajfel, 1981; Tajfel & Turner, 1979). Thus, females might view increasing levels of ingroup political representation as an opportunity to further advance group goals through greater political engagement (Fowler & Kam, 2007). Recognizing the disadvantaged status of one’s group and committing to act according to group interests results in a ‘group consciousness’ that may increase political participation (Stokes, 2003). As women’s representation increases, there are corresponding decreases in men’s current political dominance and overrepresentation—the effects of which have been less commonly explored in the literature (Bjarnegård & Murray, 2018; Krook, 2015). Since the political domain has been chronically dominated by men throughout U.S. history, males might not be expected to respond with alarm to small or incremental losses in representation. However, group memberships that were once unimportant in politics might become salient as intergroup competition is perceived to increase (Huddy, 2001). Thus, larger and faster shifts toward political equality (particularly when

highlighted by the media) could activate a stronger motivation among males to protect their group's dominant political status (Krook, 2015).

On the other hand, some unique features of gender as a form of social identity might lead to alternative predictions. Identifying as a group member does not automatically lead to gender consciousness, which is characterized by not only group identification but also discontent, a view that inequality is illegitimate, and prioritization of group goals (Gurin, 1985). While gender group identification is strong among females in particular, a minority of women report high levels of gender consciousness and support for organized action (Henderson-King & Stewart, 1994; Huddy, Neely, & Lafay, 2000). Further, gender relations are characterized by interdependence to a greater extent than other dimensions of intergroup identity, where intergroup contact may be less frequent and often less intimate (Rudman & Glick, 2012). Because of this interdependence, gender might not be viewed as a relevant dimension for intergroup competition over material resources (Monroe, Hankin, & Vechten, 2000). Males and females may not see women's representation in elected office as a zero-sum competition for symbolic influence either (Kane, 1992; Kehn & Ruthig, 2013). It is therefore possible that females and males could perceive similar benefits to women's political representation, or both groups may even view it as largely inconsequential.

Since social identity theory could elicit predictions that females and males would respond differently to increases in women's representation (and concurrent decreases in the overrepresentation of men), my studies explicitly compared the psychological responses of female and male participants. These studies provided new insights into how observed levels and potential future shifts in representation might impact political efficacy and participation among females and males—including the group-based feelings that might mediate such effects. Before

summarizing existing studies that informed my specific research questions and hypotheses, I provide a brief overview of the literature on four types of political representation—a body of work that has largely been built upon the view that certain valued group identities are likely to shape political attitudes and behavior.

Types of Political Representation

Scholars have distinguished between several different ideas of what constitutes political representation for a group. For example, Pitkin (1967) identified four forms of representation: formal representation (i.e., the institutional policies that determine how representatives are chosen), substantive representation (i.e., the extent to which the legislature enacts policies that match the interests and desires of constituents), descriptive representation (i.e., the extent to which representatives are similar to constituents, often in terms of social identities such as gender, race, ethnicity, or social class), and symbolic representation (i.e., constituents' views on the extent to which they are represented fairly). Pitkin theorized that these four forms of representation are richly interconnected, a notion that is supported by empirical work (e.g., Schwindt-Bayer & Mishler, 2005). Much of the research on various forms of representation has focused on group-based representation, examining how well elected officials reflect their electorate in terms of membership in a social identity group (e.g., on the basis of their gender). Due to recent (and historic) increases in women's representation in political office in the United States, I focused this set of studies on some of the psychological correlates and consequences of descriptive representation.

Scholars have further distinguished between two forms of descriptive representation: dyadic and collective. Dyadic representation occurs when one shares an identity with the politician who represents their own district (e.g., a woman is represented by a woman), while

collective representation refers to numeric representation of one's group among elected officials as a whole (Weissberg, 1978). Harden and Clark referred to dyadic representation as having "a *legislator* like themselves," while collective representation means having "a *legislature* like themselves" (emphasis added; Harden & Clark, 2016, p. 248). I focused on levels of collective representation, or the increased overall representation of women in political office. Specifically, I examined how women's increased presence in politics is associated with feelings of political efficacy and participation among females and males.

I chose to investigate the psychological impact of collective representation for two key reasons. First, much of the research on descriptive representation has focused on the impact of dyadic representation. This work has generally overlooked the ways in which constituents are simultaneously represented at multiple levels within their districts and may even feel represented by highly visible elected officials from other locales. Most studies on dyadic representation operationalize it by including representation at only one level (e.g., focusing on whether one shares an identity with one's representative to the U.S. House), ignoring dyadic representation at other levels (e.g., in the U.S. Senate or at the state and local level). Additionally, studies that focus solely on dyadic representation may overlook the importance of political figures outside of one's home district. Those who are represented by a House member who does not share their political ideology report looking to other individuals or organizations to represent their political interests (English et al., 2018). Surveys suggest that only about one third of Americans can name their representative in the U.S. House (e.g., Mendes, 2013); meanwhile, those who follow national news are exposed to media coverage of prominent political issues, trends, and leaders from across the country. Google searches that I conducted in May of 2019 suggested that news mentions of Alexandria Ocasio-Cortez (AOC), the highly visible freshman U.S. House

representative from New York’s 14th district, outstripped mentions of Katie Porter, freshman representative from California’s 45th district (where UCI is located) at a ratio of more than 120:1 on WashingtonPost.com, over 15:1 on CNN.com, and more than 2:1 even on regional news sites like LATimes.com.¹ As a result of these imbalances in visibility and coverage, trends in collective representation might be expected to have important psychological outcomes. However, research on the effects of collective representation is lacking.

Second, theory and empirical research suggest that people should and do value collective representation, perhaps even more so than dyadic representation. Weissberg (1978) argued that constituents—particularly those from political minorities—are better represented overall when using collective rather than dyadic representation as a benchmark, since group interests can be supported by group representatives inside and outside of one’s own district. Further, Harden and Clark (2016) found that participants preferred collective over dyadic representation on the basis of both race and political party. That people value collective representation suggests there might be important psychological responses to gaining or losing it, providing another impetus for further research.

Changing Levels of Women’s Descriptive Representation

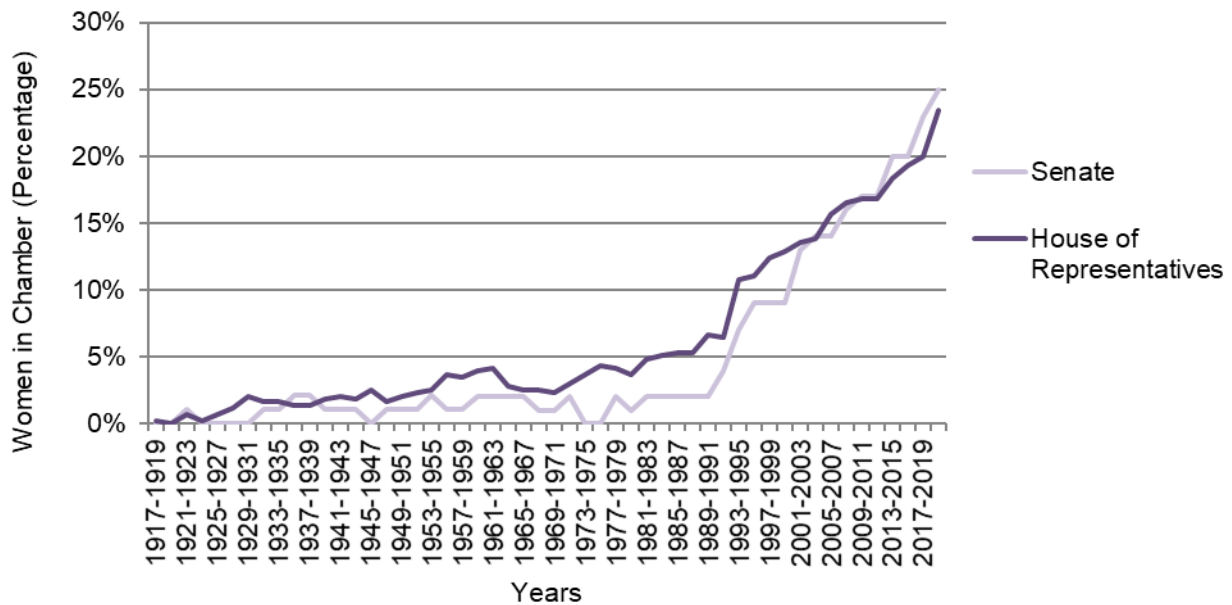
Women have been underrepresented in elected office throughout American history. Before women won the right to vote in 1920, only a few women had held elected office in the United States, including one woman mayor, one superintendent, four state legislators, and one representative to the U.S. House (Center for American Women and Politics, 2019f). Women

¹ Katie Porter was mentioned more than eight times as frequently as AOC on the website of the Orange County Register (the local paper covering Porter’s district). AOC was mentioned 953 times more often on NYTimes.com, the website for her local paper.

comprised less than 5% of both houses of Congress until the mid-1980s, when women’s representation began to increase slowly but steadily (see Figure 1; Center for American Women and Politics, 2019b). Currently women comprise 25% or less of U.S. Senators, U.S. House members, U.S. governors, and mayors of U.S. cities over 30,000 people, with slightly higher representation (29.1%) in state legislatures (Center for American Women and Politics, 2019a).

Figure 1

Percentage of Seats in the U.S. Senate and House Held by Women, 1917-2019



Despite persistent inequalities, increases in women’s representation have received substantial media attention. For example, the media dubbed 1992 the “Year of the Woman” in U.S. politics due to the salience of gender during that campaign year and the number of women who ran for political office (Dolan, 2007). After the 1992 election, women held 10% of congressional seats for the first time in history (Center for American Women and Politics, 2019e). Some referred to 2018 as the second “Year of the Woman” due to another increase in the

number of women running for congressional seats and winning elections at various levels of government (Cormack & Karl, 2018; Lawless & Fox, 2018). While media coverage of these milestones might make progress salient, it could also increase knowledge of existing inequalities among those previously unaware of the degree to which women continue to be underrepresented. Social psychological research can help provide an understanding of how people perceive and respond to such changes in women's collective representation.

A Brief Note About Descriptive Representation Based on Race

Just as women's representation in elected office has been on the rise, there are currently a record number of racial minorities serving in Congress (Bialik, 2019). Descriptive representation of racial groups (especially Black Americans) has been perhaps more richly studied in the scholarly literature than descriptive representation of women, though dyadic representation has received far more attention than collective representation when it comes to race as well. While it was tempting to study collective representation on the basis of race and gender simultaneously, I focused solely on representation of women for theoretical and practical reasons. There are important psychological differences in the ways in which people relate to their racial and gender groups, and these differences likely shape the ways in which race and gender influence political attitudes. For example, political ideology is more starkly differentiated across racial groups than it is between females and males (Karp & Banducci, 2008), and intersections of race and gender may shape differential responses to various forms of collective representation (Gay & Tate, 1998; Uhlaner & Scola, 2016). Since a proper investigation of intersectionality as it relates to collective representation was beyond the scope of this project, I chose to focus my studies mainly on collective representation of women, though I did conduct exploratory analyses on minorities' collective representation in Study 1. I also drew upon research on descriptive representation of

minorities in my literature review in order to inform my research questions and hypotheses. Study 1 provided initial insights into whether the correlates of collective representation look similar across race and gender, though more research is needed to truly understand the drivers behind the similarities and differences that I found across these two forms of identity.

In this section I introduced different forms of political representation for social identity groups and identified collective representation of women as the focus of this research. I also summarized historical shifts in women's collective representation and briefly explained how research on descriptive racial representation informed my hypotheses. Next, I shift to summarizing research on the potential psychological and behavioral consequences of descriptive representation.

Potential Effects of Descriptive Representation

Theorists have identified two main potential benefits of descriptive representation: (1) it could lead to substantive rewards, such that group members in elected office advance group-friendly policies, and (2) it may symbolize the group's inclusion in the political process and increase perceptions of system legitimacy (Harden & Clark, 2016; Phillips, 1995; Schwindt-Bayer & Mishler, 2005). Schwindt-Bayer and Mishler (2005) found that descriptive representation does indeed predict symbolic feelings of inclusion, which in turn correlate with political engagement. For members of non-dominant groups, descriptive representation among elected officials and political candidates has been associated with increased political knowledge (Koch, 1997; Verba et al., 2006), greater reported interest in political campaigns (Koch, 1997; Tate, 2003), and lower feelings of disconnection from politics (Pantoja & Segura, 2003). Such outcomes might have important implications for the ways in which individuals judge their own ability to influence politics and their sense that governmental institutions are responsive to their

needs. I focus next on how descriptive representation might relate to a construct that embodies these types of evaluations regarding citizen influence: sense of political efficacy. Then I review existing theory and research that suggests a link between descriptive representation and political participation. I argue that on the whole, past research suggested that descriptive representation is likely associated with political efficacy and engagement. However, the existing research had yet to sufficiently examine the *causal* impact of collective representation on these important outcomes.

Descriptive Representation and Political Efficacy

Political efficacy refers to one's sense that individuals can influence political processes and outcomes, with two separable dimensions: internal political efficacy and external political efficacy (Balch, 1974). Internal efficacy reflects a belief that one can personally understand, engage in, and influence politics, while external efficacy refers to the belief that governmental institutions, representatives, and authorities care about and respond to citizens' influence attempts (Balch, 1974; Niemi et al., 1991). Since democracies are healthiest when individuals believe they are able to participate and that institutions are responsive to such engagement, political efficacy is a central democratic value (Abramson, 1983). Not surprisingly, those who possess higher levels of political efficacy also tend to engage in higher levels of political activity (Atkeson & Carrillo, 2007; Pantoja & Segura, 2003). Thus, understanding the link between descriptive representation and political efficacy has implications for how individuals relate to and participate in politics—both of which are important to well-functioning democratic systems.

Some scholars have identified a relationship between dyadic representation and political efficacy as a singular construct, collapsing across its internal and external dimensions. For instance, High-Pippert and Comer (2010) found that women represented by a woman in the U.S.

House reported higher levels of political efficacy than women represented by a man. Merolla, Sellers, and Fowler (2013) examined American National Election Study panel data before and after Obama's election in 2008 and found that Black participants experienced increases in political efficacy relative to Whites during the primary campaign and the general election. The findings from these two studies provided evidence that descriptive representation might be linked to overall political efficacy. Next, I review literature suggesting that descriptive representation is linked to both the internal and external dimensions of political efficacy, which could in turn encourage increased political participation.

Internal Political Efficacy

Past research suggested that levels of descriptive representation may be positively associated with a sense of internal political efficacy. While few studies had examined this potential link, work by Merolla et al. (2013) provided some indirect support for such a relationship. They found that descriptive representation was associated with increased attention to, interest in, and feelings of being knowledgeable about politics. I hypothesized that this could in turn increase confidence in one's ability to participate effectively. Further, researchers have theorized that descriptive representation could increase the sense that group members' voices (including one's own voice) are more likely to be valued and respected (Atkeson & Carrillo, 2007). According to social identity theory, those from dominant groups should already possess high levels of internal political efficacy, while those from lower-status groups might reap psychological rewards from increased ingroup political representation.

An extensive literature search did not locate any studies that specifically investigated the relationship between collective representation and internal political efficacy, though a few existing studies had previously examined the relationship between internal efficacy and *dyadic*

representation. In line with the prediction derived from social identity theory, Atkeson (2003) found that political races which included a viable female candidate (as compared to races with two male candidates) were associated with higher internal political efficacy among females but not males. However, Wolak (2015) presented participants with information about a purportedly real, competitive congressional matchup in another state and found that women candidates had no impact on the internal (or external) efficacy of females or males. Existing research is also ambivalent regarding the association between dyadic racial representation and internal political efficacy among minorities, with Gleason and Stout (2014) reporting that dyadic representation was associated with non-significantly higher levels of internal efficacy among Blacks. Thus, previous evidence regarding the relationship between dyadic representation and internal political efficacy was mixed. However, collective representation may provide a stronger symbolic signal that females' voices are valued. Thus, two of my studies examined the specific link between *collective* representation and internal political efficacy.

External Political Efficacy

There was more robust existing evidence to support a link between descriptive representation and external efficacy. Scholars had previously suggested that greater descriptive representation might make the legislature appear more open and accessible to citizens, and women legislators could be perceived as more aware of other females' policy views and more capable of implementing them (Atkeson & Carrillo, 2007). Both males and females reported greater satisfaction with elected officials when descriptive representation of women was higher (Lawless, 2004; Schwindt-Bayer & Mishler, 2005), which may coincide with enhanced beliefs about the responsiveness of the legislature to constituents. Further, since better substantive representation is one consequence of increased descriptive representation (e.g., Schwindt-Bayer

& Mishler, 2005), greater collective representation of women could increase the sense that government is responsive to the needs of citizens identifying with that group in particular.

In correlational research, some researchers have found empirical support for a link between collective representation and women's external political efficacy. Karp and Banducci's (2008) cross-national study found that both females and males were more satisfied with democracy and more strongly believed that election outcomes reflected voters' views when there was a higher percentage of women in the lower house of the legislature, and cross-national research found similar relationships between the percentage of women in governmental cabinets and confidence in government among both gender groups (Barnes & Taylor-Robinson, 2018). Atkeson and Carrillo (2007) examined the 1988-1998 waves of the American National Election Studies and found that a higher percentage of women in the state legislature was associated with increased external political efficacy for females but not for males. These studies supported a link between collective representation and external efficacy; however, the findings were contradictory as to whether these effects would be specific to lower-status groups or also increase external efficacy among the broader electorate.

Through observational, correlational, and experimental studies, I tested relationships between collective representation and internal and external political efficacy in dynamic political contexts. Importantly, to my knowledge, Study 3 was the first experimental study to examine the effects of changing levels of collective representation on political efficacy among members of dominant and non-dominant groups.

Descriptive Representation and Political Participation

I also hypothesized that changes in descriptive representation might impact an important set of behavioral outcomes: political participation. Research suggested that there may be gender

gaps in political participation, with females less likely than males to engage in at least some forms of public political behavior (e.g., Coffé & Bolzendahl, 2010, 2011; Schlozman, Burns, & Verba, 2006; Verba et al., 2006). If salient changes in collective representation increase political participation among females, then understanding such effects might provide potential avenues for interventions to reduce gender gaps in political activity.

There were multiple reasons to think that greater descriptive representation might encourage higher levels of political participation among non-dominant groups (e.g., females, minorities). High levels of descriptive representation can signal that non-dominant groups hold real political power, while low descriptive representation can signal that political power lies exclusively with White men. As a result, low levels of representation could reduce perceived incentives and motivation to participate in the political process (Wängnerud, 2009). Additionally, both internal and external political efficacy tend to be associated with higher levels of political participation (e.g., Abramson, 1983; Atkeson & Carrillo, 2007; Converse, Dotson, Hoag, & McGee, 1980; Merolla et al., 2013). In particular, the sense that representatives are responsive to constituent needs may empower people and is associated with higher levels of political activity (Atkeson & Carrillo, 2007; Pantoja & Segura, 2003). As a result, the proposed effects of collective representation on sense of efficacy might be associated with related increases in political participation.

There have been a few notable correlational studies on the relationship between women's collective representation and political participation. Using large cross-national data sets, Wolbrecht and Campbell (2007) and Desposato and Norrander (2009) found that greater collective representation of women (as indexed by the percentage of seats held by women in the national legislature's lower chamber) was associated with higher levels of political participation

among adult females. Wolbrecht and Campbell (2007) also found that women's representation was associated with higher levels of political discussion and higher intended future political participation among adolescent girls. Their findings suggested that political engagement among males and boys was unrelated to women's collective representation, and they predicted that gender gaps in political participation would close when women hold about 33% of legislative seats. Similarly, Barnes and Burchard (2012) conducted a cross-sectional 20-year study on sub-Saharan African national legislatures, finding that greater collective representation of women predicted increases in political participation among females but not males one year later. Their study suggested that gender gaps in participation might close when women achieve 25-35% of legislative seats. Lawless (2004) also found that collective representation of women in the United States Congress was significantly associated with higher rates of self-reported voting and political activism among females but not males. Further, females' political participation was higher in those countries where women comprised a greater percentage of governmental cabinet positions (Liu & Banaszak, 2017). However, Karp and Banducci (2008) and Reingold and Swers (2011) both reported that women's collective representation in legislatures was unrelated to females' political participation. In sum, past findings suggested that collective representation might have important political benefits for females with little risk of reducing political participation or inciting backlash among males. My studies used a variety of methods in order to further examine the relationship between collective representation and political participation among dominant and non-dominant groups, including an experimental test comparing the causal effects of anticipated shifts in representation.

The Mediating Role of Emotions

One key contribution of the social psychological perspective is that it can help illuminate *why* people respond as they do to changes in the political environment. What emotional or cognitive forces might explain any potential link between collective representation and political efficacy and participation? Affective responses are one psychological mechanism that might explain why collective representation is linked to political efficacy and participation. For females, increased representation could generate positive emotions such as enthusiasm and hope—feelings that are associated with more involvement in political campaigns (Marcus & MacKuen, 2006). Males, however, might be expected to respond in one of several ways: (1) Changes in women’s representation may seem largely irrelevant to males, who still dominate politics, and these shifts may not substantially impact how they feel about the political environment. (2) Since males and females are interdependent, and males also benefit from policies that address ‘women’s issues’ such as health care and education, males may also experience enthusiasm in response to increases in women’s representation. (3) Increasing representation of women (and decreasing overrepresentation of men) could be viewed as a threat to group status and therefore generate anxiety, which tends to be associated with avoidance, sensitivity to threat, and deliberative information processing (Huddy et al., 2007; Valentino et al., 2011). (4) Increases in women’s representation may elicit frustration or resentment in males, who are losing representation for their own group, leading to *increased* political participation as a means of defending their group’s political dominance (a prediction in line with social identity theory if females and males view collective representation as a form of intergroup competition). Existing research suggests that anger might particularly motivate political action among sexists when women are viable candidates for elected office (Valentino et al., 2018). Thus, I examined the

mediating role of three distinct clusters of emotions: enthusiasm, anxiety, and anger. I expected that enthusiasm would play a particularly important role among females, while anxiety and anger would be more likely to explain how males respond to increases in women's collective representation.

Overview of Research Questions and Hypotheses

I began my review of the literature by introducing social identity theory as a framework for understanding how females and males might respond to changing levels of women's political representation. I then summarized various types of political representation and reviewed existing research on descriptive representation, presenting past research that has explored the potential impact of collective representation on political efficacy and participation. I then introduced emotions as hypothesized mediators. Now I turn to my research questions and hypotheses for a program of research that systematically examined how changes in women's collective representation might impact important psychological and behavioral outcomes.

This dissertation explored three research questions: (1) How are changes in collective representation of women associated with political efficacy and political participation among females? (2) Do these relationships differ among males? (3) What affective responses might mediate these effects?

Based on theory and past empirical work, I predicted increased collective representation of women would be associated with higher levels of political efficacy and participation among females. As there were reasons to believe that changes in collective representation would impact dominant and non-dominant groups differently, I expected that these relationships might be weaker or null among males. Finally, I predicted that feelings of enthusiasm, anxiety, and anger

might mediate some of the effects of collective representation on political efficacy and participation, with affective responses differing between females and males.

I investigated these questions across three studies, utilizing various methods in order to understand the psychological correlates and consequences of changes in collective representation. In Study 1, I used data from a large-scale election survey to observe how historical levels of collective representation were associated with political efficacy and participation over time. Study 2 employed correlational data to examine how anticipated changes in collective representation were associated with intentions to engage in political behavior. Finally, in Study 3, I used an experimental design to determine whether anticipated change in collective representation caused shifts in political efficacy, intended participation, and political behavior. I now outline the methods and results of these studies in detail.

RESEARCH DESIGN, METHODS, AND RESULTS

Study 1: Associations with Observed Levels of Collective Representation

In Study 1, I explored the relationship between observed levels of women's collective representation and political efficacy and participation. Utilizing publicly available data from a long-running cross-sectional survey, I examined how real-world levels of collective representation (changing over time) have been associated with political efficacy and participation among females and males. I also examined observed levels of collective representation of minorities and their association with political efficacy and participation among non-Whites and Whites. These data provided an opportunity to observe real-world associations between collective representation and political efficacy and participation among a diverse representative sample of American adults.

Research Questions

Q1: How are levels of women's collective representation related to political efficacy and participation among females and males?

Q2: How are levels of minorities' collective representation related to political efficacy and participation among non-Whites and Whites?

Hypotheses

H1: I predicted that higher levels of women's collective representation would be associated with higher levels of internal political efficacy, external political efficacy, and political participation among females. Given the very limited literature on how dominant groups respond to descriptive representation, I made no firm predictions about how collective representation of women would relate to political efficacy and participation among males. It could be that dominant group members (e.g., males) disengage as collective representation of their outgroup (e.g., females) increases, since this shift corresponds with decreases in their own collective overrepresentation. Alternatively, dominant group members may display backlash effects, increasing their own political engagement in order to defend their group's relative advantage (Krook, 2015). I explored these competing predictions about the general direction of the relationship between collective representation of women and political participation of males.

H2: I predicted that higher levels of minorities' collective representation would be associated with higher levels of internal political efficacy, external political efficacy, and political participation among non-Whites. Again, I made no firm predictions about the direction of the relationship between collective representation of minorities and political efficacy and participation among Whites.

Methods

I used pooled data from the 1948-2016 waves of the American National Election Studies (ANES; September 10, 2019 release). Thirty-one waves of ANES data have been collected since the study began in 1948, coinciding with every presidential election cycle and some midterm elections. Sample sizes for each wave ranged from $n = 662$ (1948) to $n = 5,914$ (2012), with 90% of waves containing between 1,100 and 2,500 participants ($M = 1,933.68$, $SD = 980.19$).

Participants

The full data set contained 59,944 participants. Participants ranged in age from 17 to 99 ($M = 46.48$, $SD = 17.22$). Approximately 55% of the sample identified as female and 45% identified as male. Sample size was sufficient to detect a very small effect with 80% power ($\alpha = .05$) for females (f^2 effect size = 0.0002) and for males (f^2 effect size = 0.0003).

About 79% of the sample identified as White ($n = 46,035$); 12% identified as Black ($n = 6,906$); 7% identified as Hispanic ($n = 3,942$); 1% identified as Asian ($n = 565$); 1% identified as Other or Multiple Races ($n = 561$); and 0.6% identified as American Indian or Alaska Native ($n = 340$). Thus, I was able to detect a very small effect with 80% power ($\alpha = .05$) for non-Whites (f^2 effect size = 0.0006) and for Whites (f^2 effect size = 0.0002).

On average, participants rated their political ideology as “Moderate, middle of the road” ($M = 4.23$, $SD = 1.42$) on a scale ranging from 1 (*Extremely liberal*) to 7 (*Extremely conservative*). Approximately 38% of participants reported that they preferred the Democratic Party, 25% preferred the Republican Party, 29% identified as Independent, 6% reported no party preference, and 1% preferred a different political party.

Measures

I used individual-level variables included in the data set and appended contextual variables described below based on participant location.

Collective Representation. I appended collective representation data onto the data set. For each year beginning in 1948, I obtained information about the number of U.S. Senators, U.S. House members, and U.S. governors who were women (Center for American Women and Politics, 2019d, 2019c, 2019e) and minorities² (Martin, 2001; McClain & Johnson Carew, 2018; United States House of Representatives, 2019a, 2019b, 2019c; United States Senate, 2019a). Using the total number of non-vacant seats for each role in any given year (obtained from National Governors Association, 2019; United States House of Representatives, 2019d; United States Senate, 2019b), I calculated the percentage of women and minorities in each of these offices.

The ANES data file contained information about the respondent's geographical location, including state. Thus, I also added to the data set the number of women (years 1982 and earlier drawn from Cox, 1996; years 1983-2018 available from Center for American Women and Politics, 2019b, 2019g) in each participant's state legislature during the current year, again using the total number of non-vacant seats (Klarner, 2013) to calculate the percentage who were women. I appended these data to participant records depending on the participant's state of residence and the year in which data collection occurred.³

² Some elected officials identified with more than one non-White identity. For example, Senator Kamala Harris identified as both Black and Asian. In such cases, officials were counted in both of the applicable ethnic categories (e.g., Harris was counted in the "Black" category *and* the "Asian" category) but contributed only one to the summary total of non-White officials.

³ Despite an extensive search, I have not been able to locate any published or unpublished data describing the number of minorities in each state legislature across time. Thus, analyses on

I generated an index measure of women's collective representation by averaging the percentage of seats held by women for all five offices (U.S. senators, U.S. representatives, U.S. governors, state senators in the participant's state, and members of the lower legislative chamber in the participant's state) according to state and year ($\alpha = .93$; ranged from 0.67% to 26.40%; $M = 8.66$, $SD = 7.22$). Similarly, I created an index measure of minorities' collective representation by averaging the percentage of U.S. senators, U.S. representatives, and U.S. governors who were minorities in the year of data collection ($\alpha = .76$; ranged from 0.65% to 12.23%; $M = 5.56$, $SD = 3.46$).

Internal Political Efficacy. The ANES included one item that scholars and political surveyors have frequently employed to measure internal political efficacy, or the sense that one understands and can effectively participate in politics (i.e., "Sometimes politics and government seem so complicated that a person like me can't really understand what's going on," reverse scored; Niemi et al., 1991). Participants could indicate that they agreed (which I coded as 0), disagreed (which I coded as 1), neither agreed nor disagreed (option present only in waves from 1988 onward; coded as 0.5), or were unsure (treated as missing data); $M = 0.30$, $SD = 0.45$.

External Political Efficacy. The two ANES items commonly used by scholars and political surveyors to measure external efficacy, or the sense that government is responsive to citizens' needs, are: "I don't think public officials care much what people like me think" and "People like me don't have any say about what the government does" (both reverse scored; Niemi et al., 1991). I coded response options into the following categories: agree (coded as 0), disagree (coded as 1), neither agree nor disagree (option present only in waves from 1988

collective representation of minorities included only U.S. Senators, U.S. Representatives, and U.S. Governors.

onward; coded as 0.5), or not sure (treated as missing data). Coded responses for the two questions were averaged together to form a single index of external political efficacy ($\alpha = .64$; $M = 0.51$, $SD = 0.42$).

Political Participation. The ANES data set included self-report questions about whether the participant engaged in various political activities during the current election year, including (1) trying to influence another person's vote; (2) attending political meetings; (3) displaying campaign buttons, stickers, or signs; (4) doing work for political candidates or parties; and (5) giving money to a political party or candidate. I created a count variable (ranging from 0 to 5) that summed the number of activities in which each participant reportedly engaged during the current election year; $M = 0.66$, $SD = 1.00$.

Self-Reported Voting Behavior. I examined self-reported voting behavior in the most recent election (1 = reported that they had voted, 0 = reported that they did not vote). Approximately 69% of participants reported voting during the current election year.

Validated Voting Behavior. In select waves⁴, the ANES also validated participants' voting behavior by accessing public records of voter turnout (1 = voted, 0 = did not vote; unmatched records treated as missing data; during survey waves from 1984-1990, validation was not completed for those who self-reported that they were not registered to vote, so I coded those respondents as 0 on this variable). According to records, about 53% of participants voted during the election years for which validation was conducted.

⁴ Voting behavior was validated in 1964, 1976, 1978, 1980, 1984, 1986, 1988, and 1990.

Gender. The ANES asked participants to self-report their gender as female or male. In 2016, the ANES added an “other” response option; I excluded the 11 participants who selected this response from analyses where gender was included as a moderator due to low sample size.

Race. Participants indicated their race from six options: White; Black or African-American; Asian or Pacific Islander; American Indian or Alaska Native; Hispanic; and Other or Multiple Races. I created dummy-coded variables indicating the race of the participant. Fifty-five respondents from the years 1948-1964 were recorded as “non-White and non-Black” in the data set. In analyses using dummy codes for specific racial groups, I treated those responses as missing data since the participant’s race was unknowable to me. In analyses using dummy codes that grouped all non-Whites together, I included these individuals in the “non-White” category.

Individual Level Controls. To disentangle the effects of dyadic versus collective representation, I appended information about levels of women’s dyadic representation for each participant. This was operationalized as the number of elected officials directly representing the participant in the U.S. House, U.S. Senate, or governorship who were women (ranging from zero to four; $M = 0.32$, $SD = 0.65$) during the year in which data was collected (Center for American Women and Politics, 2019d; Lewis et al., 2020; United States House of Representatives, 2020; United States Senate, 2020) cross-referenced with district information from Lewis et al. (2020). Similarly, I appended information about the number of officials directly representing the participant in those same offices who were minorities (ranging from zero to four; $M = 0.17$, $SD = 0.42$) at the time of data collection.

The data set included a number of demographic variables known to correlate with political participation or attitudes toward inequality, including race, gender, age (in years), political party identification, and political ideology as described above. Other demographic

control variables were education level (ranging from 1 = *eight grades or less* to 7 = *advanced degree*, with 4 = *high school equivalency plus non-academic training*; $M = 3.79$, $SD = 1.81$), income (scored by comparing reported income to national benchmarks at time of data collection on a scale from 1 = *0 to 16 percentile* to 5 = *96 to 100 percentile*; $M = 2.87$, $SD = 1.15$), marital status (61% married; 14% never married; 10% widowed; 9% divorced; 3% separated; 3% unmarried but partnered), and employment status (60% working now; 17% retired; 12% homemaker; 4% unemployed; 4% permanently disabled; 3% student; 1% temporarily laid off).

Contextual Controls. Since women and minorities are currently more likely to vote Democratic than Republican and are more likely to run as candidates for the Democratic party (Thomsen, 2015), I appended the percentage of U.S. representatives (United States House of Representatives, 2019d), senators (United States Senate, 2019b), governors (National Governors Association, 2019), state senators from the participant's state (prior to 2009: Klarner, 2013; year 2012 for Minnesota Senate: Minnesota Legislature, 2019; years 2009-2018: National Conference of State Legislatures, 2019), and state representatives from the participant's state (prior to 2009: Klarner, 2013; years 2009-2018: National Conference of State Legislatures, 2019) who represented the Democratic party each year for use as a control variable ($M = 54.85$, $SD = 10.25$). Controlling for partisanship of elected officials was intended to help partial out any potential effects of political party congruence from the relationship that collective representation of women or minorities had with political efficacy and participation.

Results

In all models, I weighted equations using participant probability weights provided in the ANES data files. Using probability weights allowed for generalization of results to the United States population.

Model Specification

Many of my key variables have changed systematically over time, including systematic increases in the percentage of women and minorities in office and temporal changes in most of my criterion variables. As other researchers have found, political efficacy and participation were also systematically higher in presidential election cycles than in midterm years (e.g., Hill, 2017; Wolfinger et al., 1981); see Appendix A for statistical reports of these trends. As a result of these patterns, I controlled for year of data collection and type of election cycle in each subsequent analysis. I also included participant weights so that results were generalizable to the United States population.

In addition to the variables outlined above, each model examining associations with women's collective representation included three predictors: the mean percentage of women across political offices, participant gender, and the interaction of these (Model 1; see Figure 2 for a visual summary of all models). This allowed me to examine the direct relationship between women's collective representation levels and each dependent measure using analysis of simple effects for female and male participants. For models examining associations with collective representation of minorities among non-Whites and Whites, my key predictors were the percentage of minorities across political offices, participant race, and the interaction of these.

I subsequently tested a series of models in which I examined whether relationships held up when accounting for control variables. Since many variables were only collected in certain waves, adding all control variables simultaneously drastically reduced sample size (i.e., a sample with all control variables was about 10-15% the size of a sample without any control variables; see Table 1 for a summary of missing data). As a result, I tested a series of models (Models 2-11)

in which I added just one control variable at a time to Model 1. Trends for these models are reported in the main text, with full regression tables displayed in Appendix A.

Figure 2

Depiction of Predictors in Each Model

Collective Representation of Women	Collective Representation of Minorities
<p>Model 1 Predictors:</p> <ul style="list-style-type: none"> • Women’s collective representation • Gender • Women’s collective representation × Gender • Year • Presidential election year • [Participant weights] 	<p>Model 1 Predictors:</p> <ul style="list-style-type: none"> • Minorities’ collective representation • Race • Minorities’ collective representation × Race • Year • Presidential election year • [Participant weights]
<p>Model 2-11 Predictors:</p> <p>Model 1 Predictors +</p> <ul style="list-style-type: none"> • <i>Model 2:</i> Women’s dyadic representation + Women’s dyadic representation × Gender • <i>Model 3:</i> Race • <i>Model 4:</i> Age • <i>Model 5:</i> Political party • <i>Model 6:</i> Political ideology • <i>Model 7:</i> Education • <i>Model 8:</i> Family income • <i>Model 9:</i> Marital status • <i>Model 10:</i> Employment status • <i>Model 11:</i> Percent of elected officials who were Democrats 	<p>Model 2-11 Predictors:</p> <p>Model 1 Predictors +</p> <ul style="list-style-type: none"> • <i>Model 2:</i> Minorities’ dyadic representation + Minorities’ dyadic representation × Race • <i>Model 3:</i> Gender • <i>Model 4:</i> Age • <i>Model 5:</i> Political party • <i>Model 6:</i> Political ideology • <i>Model 7:</i> Education • <i>Model 8:</i> Family income • <i>Model 9:</i> Marital status • <i>Model 10:</i> Employment status • <i>Model 11:</i> Percent of elected officials who were Democrats

Table 1*Maximum Sample Size, Missing Data, and Missing Waves for Variables in the ANES Data Set*

Variable	Number of Responses	% Missing Data	# Waves Not Included
<i>Criterion Variables</i>			
Internal political efficacy	38,306	34.86%	10
External political efficacy	47,140	19.84%	6
Political participation (full 5-item measure)	47,686	18.91%	5
Self-reported voting behavior	54,489	7.34%	-
Validated voting behavior	15,158	74.22%	22
<i>Predictor and Control Variables</i>			
Gender	58,650	0.26%	-
Race	58,404	0.68%	-
Age	57,604	2.04%	1
Political party	45,857	22.02%	9
Political ideology	32,091	45.43%	13
Education level	58,696	2.12%	1
Family income	54,495	9.19%	1
Marital status	57,458	2.29%	1
Employment status	44,396	24.50%	10

Note. I excluded the 1954 wave from my data set because this wave did not include any of my criterion variables. Excluding the 1954 wave, my total $N = 58,805$.

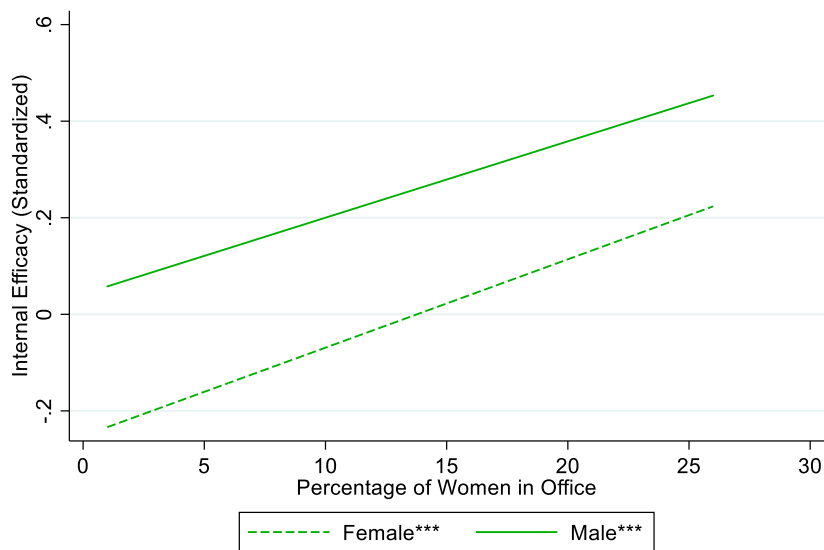
Collective Representation of Women

I first completed a series of analyses examining how collective representation of women was associated with indicators of political efficacy and participation among females and males.

Internal Political Efficacy. Internal political efficacy was z-scored prior to a series of OLS regressions designed to assess its relationship to women's collective representation. As shown in Figure 3, the percent of women in elected office was positively associated with levels of internal political efficacy (which is the sense that one can effectively participate in politics) among females ($b = 0.02, p < .001$) and males ($b = 0.02, p < .001$). The relationship between women's collective representation and internal political efficacy was not significantly moderated by participant gender ($b = -0.002, p = .204$); see Table 2. This means that a 1% increase in the number of women in political office was associated with a small 0.02 standard deviation increase in internal political efficacy among both females and males.

Figure 3

Women's Collective Representation and Internal Political Efficacy



* $p < .05$ ** $p < .01$ *** $p < .001$.

Table 2*Women's Collective Representation and Political Efficacy and Participation*

	Internal Efficacy ^a (<i>N</i> = 38,306)	External Efficacy ^a (<i>N</i> = 47,098)	Political Participation ^a (<i>N</i> = 47,644)	Self-Reported Voting ^b (<i>N</i> = 54,344)	Validated Voting ^b (<i>N</i> = 15,158)
	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	OR (<i>SE</i>)	OR (<i>SE</i>)
Women's collective representation	0.02*** (0.002)	0.02*** (0.002)	0.02*** (0.003)	1.06*** (0.004)	1.10*** (0.01)
Male ^c	0.29*** (0.02)	0.07*** (0.02)	0.31*** (0.03)	1.44*** (0.05)	1.17* (0.08)
Women's collective representation × Male	-0.002 (0.002)	-0.01*** (0.001)	-0.01*** (0.002)	0.98*** (0.003)	0.98 (0.01)
Year ^d	-0.01*** (0.001)	-0.02*** (0.001)	-0.005*** (0.001)	0.99*** (0.001)	0.96*** (0.004)
Presidential election year ^e	0.07*** (0.01)	0.09*** (0.01)	0.39*** (0.02)	2.23*** (0.05)	2.06*** (0.07)
Constant	-0.12*** (0.02)	0.48*** (0.02)	-0.87*** (0.03)	1.29*** (0.04)	1.52*** (0.17)
<i>R</i> ² [f]	.02	.06	.02	.04	.03

Note. Robust standard errors are in parentheses.

^aCoefficients are unstandardized.

^bCoefficients are odds ratios.

^cDummy coded: 0 = female, 1 = male.

^dNumber of years since 1948.

^eDummy coded: 0 = midterm election, 1 = presidential election.

^fPseudo *R*² for political participation, self-reported voting, and validated voting.

p* < .05 *p* < .01 ****p* < .001.

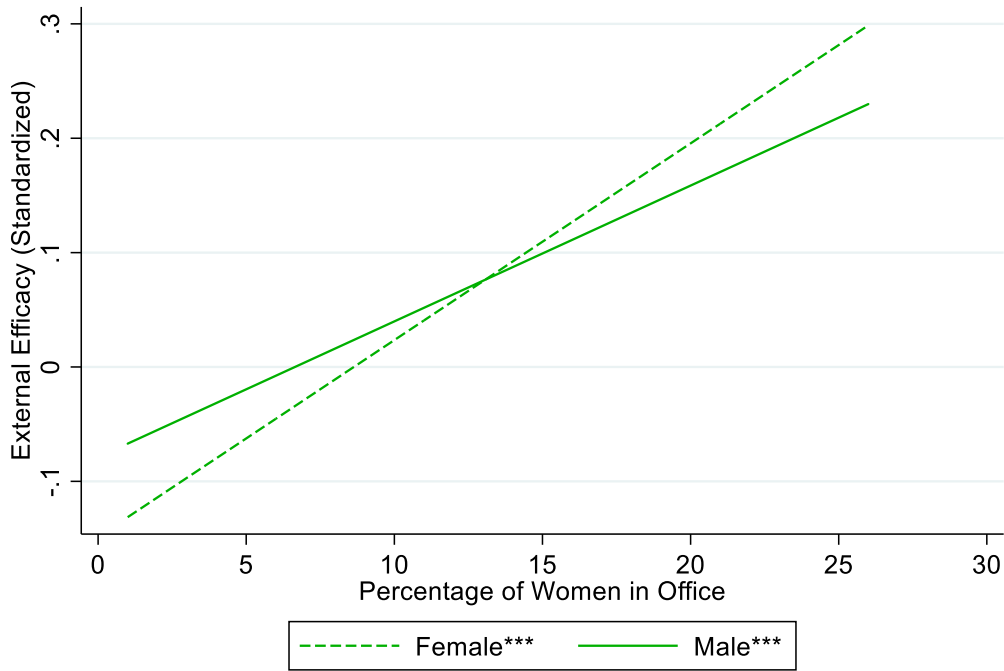
I then tested Models 2-11 to examine whether the relationship between collective representation and internal political efficacy held up when accounting for control variables, including dyadic representation of women (and its interaction with participant gender), race, age, political party identification, political ideology, education level, family income, marital status, employment status, and the composite measure of the percentage of elected officials who were

Democrats. As shown in Appendix A, Table A1, results remained generally consistent across most control variables, with some exceptions that I highlight below. Among female participants, the relationship between collective representation and internal efficacy became non-significant when controlling for political ideology ($b = 0.01, p = .145$). The results for males were more mixed, and women's collective representation did not significantly predict internal political efficacy when controlling for political party ($b = 0.004, p = .112$), political ideology ($b = 0.003, p = .397$), and employment status ($b = 0.01, p = .050$). Thus, while the relationship between women's collective representation and internal political efficacy generally seemed to be positive, it was possible that control variables could account for this relationship among males, and ideology might play a role in explaining the relationship among females.

External Political Efficacy. Next, I examined whether collective representation of women predicted levels of external political efficacy, which is the sense that government is responsive to citizens' needs. External political efficacy was z -scored prior to conducting OLS regressions. As shown in Figure 4, both female ($b = 0.02, p < .001$) and male ($b = 0.01, p < .001$) participants tended to report higher external political efficacy when there was a higher percentage of women in elected office. This relationship was stronger among female participants than among male participants, as indicated by a significant interaction effect ($b = -0.01, p < .001$). On average, a 1% increase in the percent of women in office was associated with a small 0.02 standard deviation increase in external efficacy among females and a 0.01 standard deviation increase among males. In all models accounting for control variables (see Appendix A, Table A2), this relationship held for females. Among males, the relationship was also significant and positive in all models except when controlling for family income ($b = 0.003, p = .136$).

Figure 4

Women's Collective Representation and External Political Efficacy



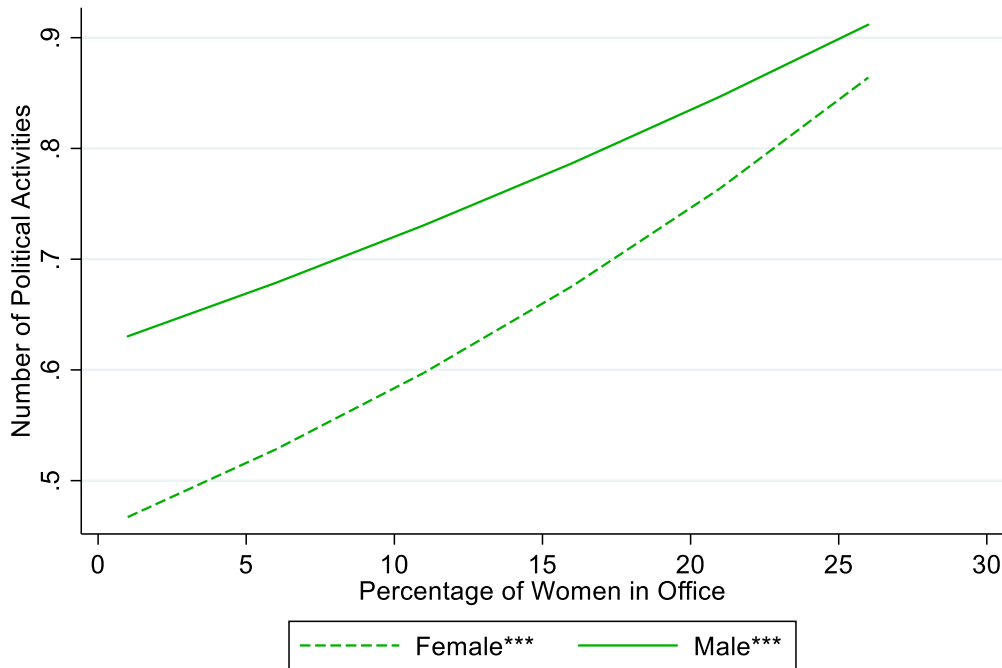
* $p < .05$ ** $p < .01$ *** $p < .001$.

Political Participation. To test whether women's collective representation was associated with political participation among female and male participants, I conducted Poisson regressions since the dependent variable was a self-reported count of political activities. I found a significant and positive relationship between women's collective representation and political participation among both females ($b = 0.01, p < .001$) and males ($b = 0.01, p < .001$); see Figure 5. This relationship was again stronger among female participants than among male participants, as indicated by a significant interaction effect ($b = -0.01, p < .001$). An increase of 1% in the number of women in political office was associated with a small average increase of 0.01 self-reported political activities among females and males. In all models accounting for control

variables, I found the same pattern of results: a positive relationship among both females and males, with a significant interaction effect indicating that the relationship was stronger among females. See Appendix A, Table A3 for full results of Models 2-11.

Figure 5

Women’s Collective Representation and Political Participation



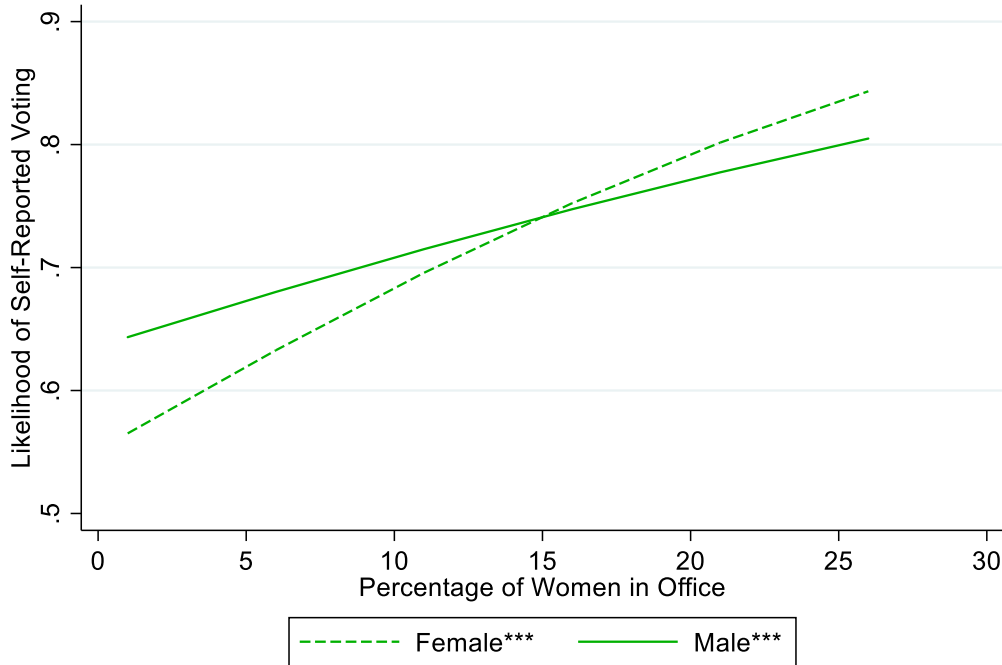
* $p < .05$ ** $p < .01$ *** $p < .001$.

Self-Reported Voting Behavior. With a series of logistic regressions, I examined whether women’s collective representation was associated with self-reported voting behavior among females and males. As shown in Figure 6, I found that higher levels of women’s collective representation predicted greater likelihood of self-reported voting among both groups. A significant interaction effect (OR = 0.98, $p < .001$) showed that the relationship was stronger among females (OR = 1.06, $p < .001$) than among males (OR = 1.03, $p < .001$). For every 1%

increase in the number of women in political office, the odds of self-reported voting were 1.06 times higher among females and 1.03 times higher among males. When accounting for control variables, I consistently found the same pattern of results as shown in Appendix A, Table A4.

Figure 6

Women’s Collective Representation and Self-Reported Voting Behavior



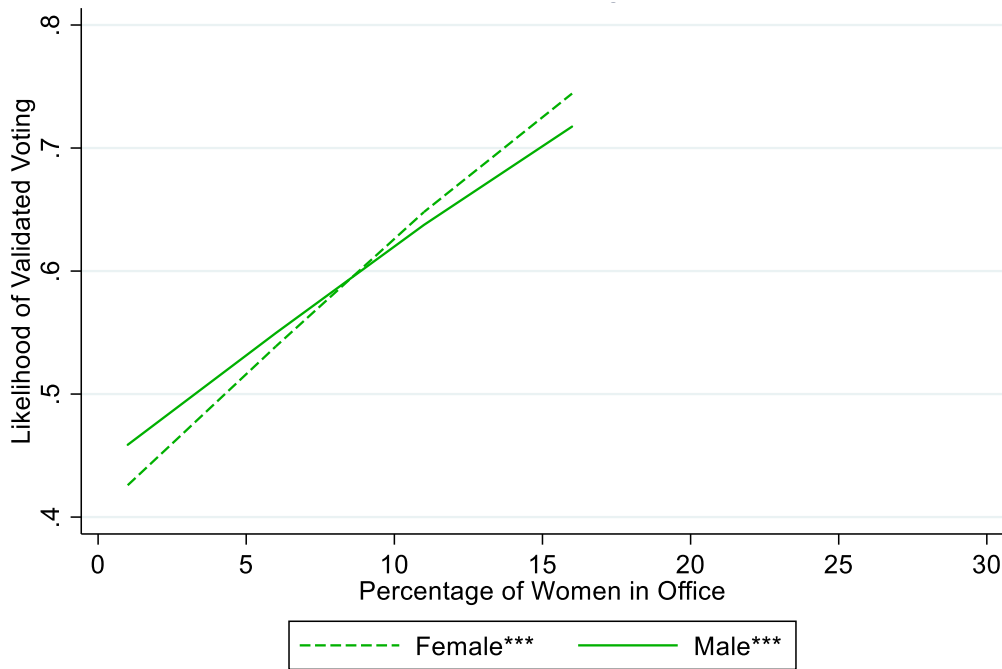
* $p < .05$ ** $p < .01$ *** $p < .001$.

Validated Voting Behavior. Finally, I examined the relationship that women’s collective representation had with females’ and males’ validated voting behavior. As shown in Figure 7, both females (OR = 1.10, $p < .001$) and males (OR = 1.08, $p < .001$) were more likely to vote when there were a higher percentage of women in political office, with no significant moderation by participant gender (OR = 0.98, $p = .100$). With a 1% increase in the number of women in political office, the odds of validated voting behavior were 1.10 times higher among females and

1.08 times higher among males. These analyses held among both females and males when accounting for control variables; see Appendix A, Table A5 for full results.

Figure 7

Women's Collective Representation and Validated Voting Behavior



* $p < .05$ ** $p < .01$ *** $p < .001$.

Subgroup Analyses. While a full analysis of intersectionality was outside the scope of this project, I was interested in whether women's collective representation would have similar associations among Black and White subsamples of female and male participants. As shown in Appendix A, Figures A2-A6, I found that almost all relationships reported above held among subsamples of Black females, White females, Black males, and White males. Among Black males, the percentage of women in elected office did not significantly predict validated voting

behavior. The results provide preliminary evidence that women's collective representation is associated with political efficacy and participation among Black Americans as well as Whites.

I also examined whether results held among female and male subsamples of participants who preferred the Democratic Party, preferred the Republican Party, identified as Independent, or reported no party preference. As shown in Figures A7-A11, analyses held among the majority of these subgroups with a few exceptions outlined in Appendix A.

Interim Summary and Discussion. To summarize my findings so far, higher levels of women's collective representation were associated with higher levels of internal political efficacy, external political efficacy, political participation, self-reported voting behavior, and validated voting behavior among female and male participants. The strength of the relationship between women's collective representation and internal political efficacy was statistically equivalent for females and males, as was the strength of the relationship between women's collective representation and validated voting behavior. Levels of women's collective representation predicted external political efficacy, political participation, and self-reported voting behavior more strongly among females than among males.

Collective Representation of Minorities

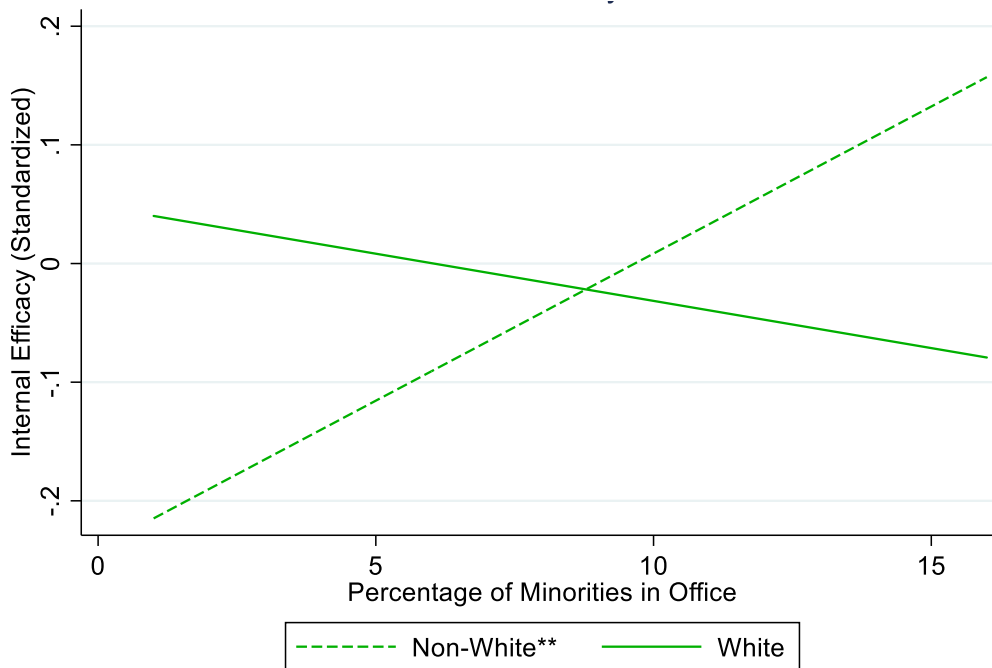
My next series of analyses examined how collective representation of minorities was associated with indicators of political efficacy and participation among non-White and White participants.

Internal Political Efficacy. I assessed the relationship between internal political efficacy and minorities' collective representation among non-White and White participants. As shown in Figure 8, the percent of minorities in elected office was positively associated with levels of internal political efficacy among non-Whites ($b = 0.02, p = .003$) but was not significantly

associated with internal efficacy among Whites ($b = -0.01, p = .308$). The relationship between collective representation of minorities and internal political efficacy was significantly moderated by participant race ($b = -0.03, p < .001$), as shown in Table 3. In other words, a 1% increase in the number of minorities in political office was associated with a small 0.02 standard deviation increase in internal political efficacy among non-Whites.

Figure 8

Minorities' Collective Representation and Internal Political Efficacy



* $p < .05$ ** $p < .01$ *** $p < .001$.

Table 3*Minorities' Collective Representation and Political Efficacy and Participation*

	Internal Efficacy ^a (<i>N</i> = 38,162)	External Efficacy ^a (<i>N</i> = 46,939)	Political Participation ^a (<i>N</i> = 47,453)	Self-Reported Voting ^b (<i>N</i> = 54,135)	Validated Voting ^b (<i>N</i> = 15,105)
	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	OR (<i>SE</i>)	OR (<i>SE</i>)
Minorities' collective representation	0.02** (0.01)	-0.03*** (0.01)	0.08*** (0.01)	1.04* (0.01)	0.96 (0.05)
White ^c	0.29*** (0.03)	0.47*** (0.03)	0.38*** (0.05)	2.71*** (0.15)	1.82** (0.40)
Minorities' collective representation × White	-0.03*** (0.01)	-0.05*** (0.004)	-0.04*** (0.01)	0.93*** (0.01)	1.03 (0.05)
Year ^d	0.001 (0.001)	-0.001 (0.001)	-0.01*** (0.002)	1.01** (0.002)	1.00 (0.004)
Presidential election year ^e	0.09*** (0.01)	0.11*** (0.01)	0.39*** (0.02)	2.36*** (0.05)	2.04*** (0.07)
Constant	-0.33*** (0.03)	-0.06* (0.03)	-1.10*** (0.06)	0.48*** (0.03)	0.56** (0.12)
<i>R</i> ² [f]	.004	.07	.02	.04	.04

Note. Robust standard errors are in parentheses.

^aCoefficients are unstandardized.

^bCoefficients are odds ratios.

^cDummy coded: 0 = non-White, 1 = White.

^dNumber of years since 1948.

^eDummy coded: 0 = midterm election, 1 = presidential election.

^fPseudo *R*² for political participation, self-reported voting, and validated voting.

p* < .05 *p* < .01 ****p* < .001.

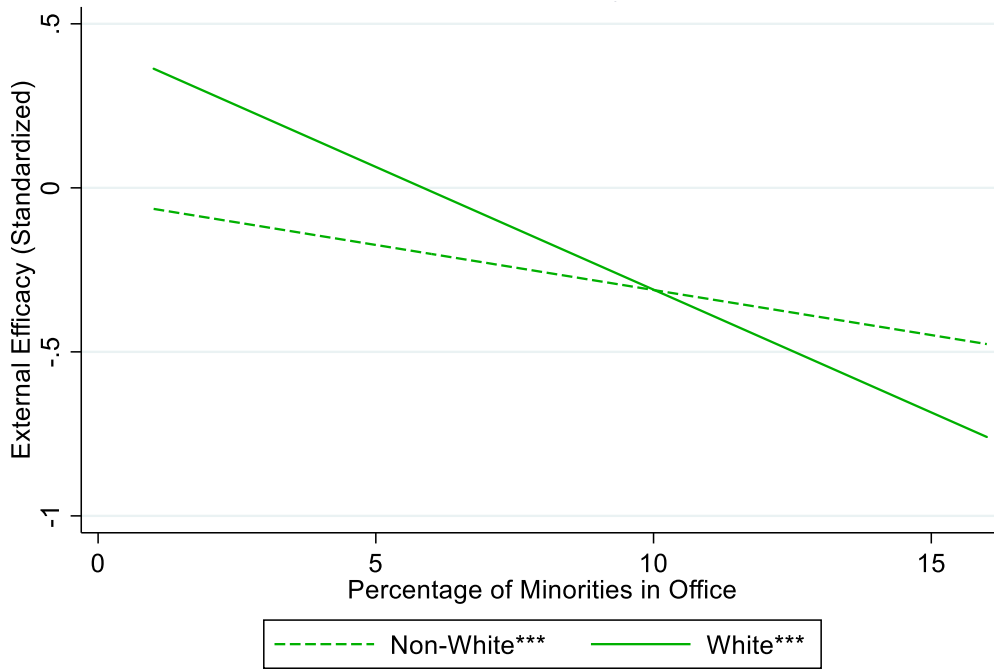
As shown in Appendix A, Table A6, the relationship between minorities' collective representation and internal political efficacy remained significant for non-Whites when controlling for dyadic representation of minorities (and its interaction with race), gender, age, education level, family income, marital status, and the percentage of elected officials representing the Democratic Party. However, this relationship became non-significant when

controlling separately for political party ($b = 0.01, p = .329$), political ideology ($b = 0.01, p = .300$), and employment status ($b = 0.02, p = .085$). Thus, the relationship between minorities' collective representation and internal political efficacy may not be robust to demographic controls among non-White individuals. Among Whites, the relationship remained non-significant in all models accounting for control variables.

External Political Efficacy. In an analysis of the relationship between collective representation of minorities and external political efficacy, I unexpectedly found that both non-White ($b = -0.03, p < .001$) and White ($b = -0.07, p < .001$) participants tended to report *lower* external political efficacy when there was a higher percentage of minorities in elected office (see Figure 9). This relationship was stronger among White participants than among non-White participants, as indicated by a significant interaction effect ($b = -0.05, p < .001$). On average, a 1% increase in the percent of minorities in office was associated with a 0.03 standard deviation decrease in external efficacy among non-Whites and a 0.07 standard deviation decrease among Whites. This pattern of results held in all models accounting for control variables. See Appendix A, Table A7 for full results.

Figure 9

Minorities' Collective Representation and External Political Efficacy



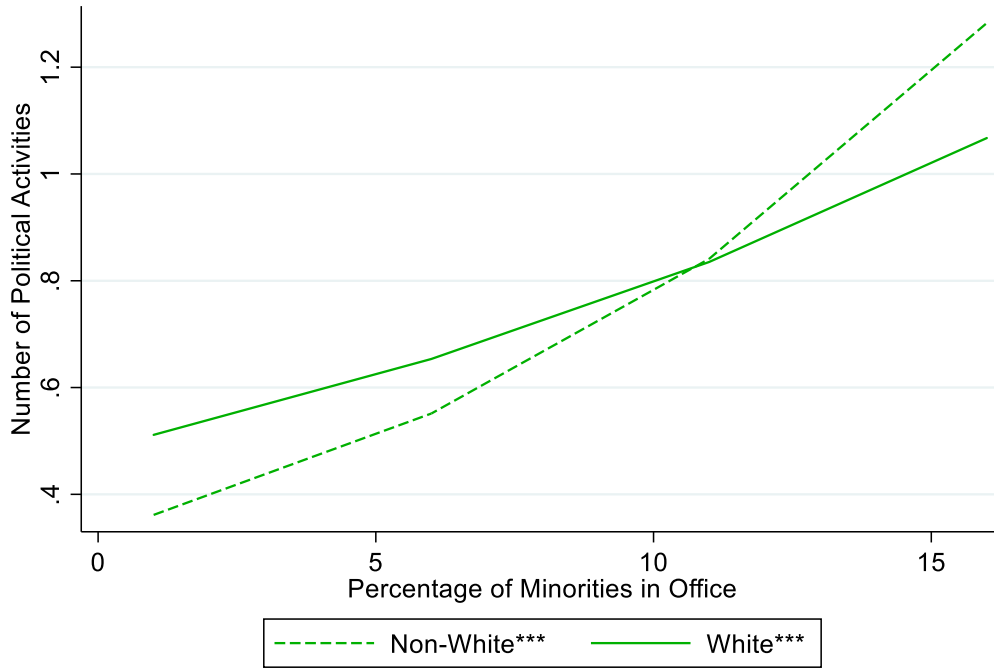
* $p < .05$ ** $p < .01$ *** $p < .001$.

Political Participation. Using Poisson regression, I tested whether minorities' collective representation was associated with political participation among non-White and White participants. As shown in Figure 10, I found a significant and positive relationship between minorities' collective representation and political participation among both non-Whites ($b = 0.05$, $p < .001$) and Whites ($b = 0.03$, $p < .001$). This relationship was stronger among non-White participants than among White participants, as indicated by a significant interaction effect ($b = -0.04$, $p < .001$). An increase of 1% in the number of women in political office was associated with a small average increase of 0.05 self-reported political activities among non-Whites and

0.03 political activities among Whites. In all models accounting for control variables, I found the same pattern of results; see Appendix A, Table A8 for full results.

Figure 10

Minorities' Collective Representation and Political Participation



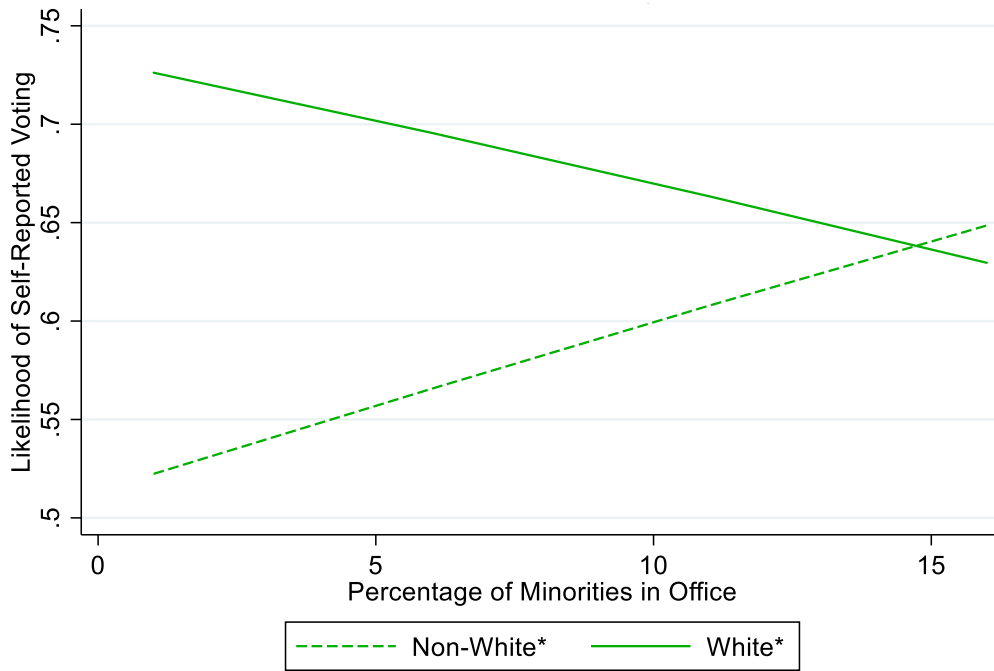
* $p < .05$ ** $p < .01$ *** $p < .001$.

Self-Reported Voting Behavior. To test whether minorities' collective representation was associated with self-reported voting behavior among non-White and White participants, I conducted logistic regressions. As shown in Figure 11, higher levels of minorities' collective representation predicted greater likelihood of self-reported voting among non-Whites (OR = 1.04, $p = .010$) and lower likelihood of self-reported voting among Whites (OR = 0.97, $p = .022$). A significant interaction effect (OR = 0.93, $p < .001$) indicated that the differences between non-Whites and Whites were statistically significant. For every 1% increase in the percentage of

political offices held by women, the odds of self-reported voting were 4% higher among non-Whites and 3% lower among Whites. When accounting for contextual and demographic variables, the relationship between collective representation and self-reported voting became non-significant amongst non-Whites when controlling for political party (OR = 1.00, $p = .809$), political ideology (OR = 0.97, $p = .107$), employment status (OR = 1.02, $p = .144$), or the percentage of political offices held by Democrats (OR = 1.02, $p = .288$). Among Whites, collective representation of minorities no longer significantly predicted self-reported voting when controlling for dyadic representation and its interaction with race (OR = 1.03, $p = .480$), political party preference (OR = 0.98, $p = .185$), age (OR = 0.97, $p = .066$), level of education (OR = 1.00, $p = .777$), marital status (OR = 0.98, $p = .150$), employment status (OR = 0.99, $p = .704$), and family income (OR = 0.97, $p = .067$). Thus, the relationship between collective representation of minorities and self-reported voting was not robust to controls among non-Whites or Whites. Full results are reported in Appendix A, Table A9.

Figure 11

Minorities' Collective Representation and Self-Reported Voting Behavior



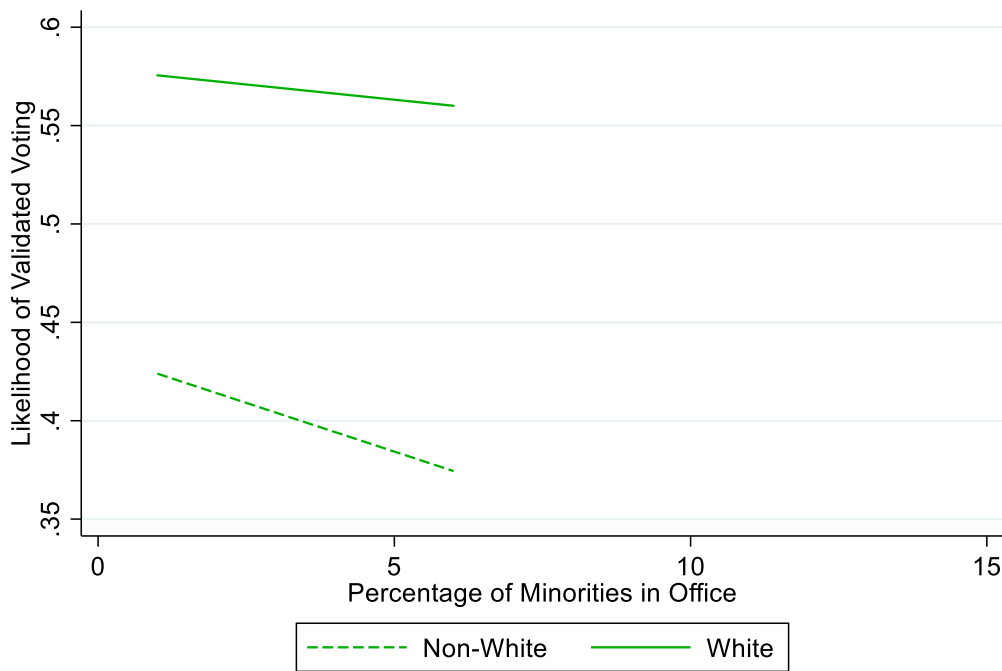
* $p < .05$ ** $p < .01$ *** $p < .001$.

Validated Voting Behavior. Finally, I examined the relationship between minorities' collective representation and validated voting behavior among non-Whites and Whites. Notably, the range for my collective representation variable was restricted due to the limited number of waves in which voting behavior was validated. The percent of minorities in elected office ranged from 1.77% to 6.22% in this analysis as compared to a range of 0.65% to 12.23% in the previous set of analyses on collective representation of minorities and self-reported voting. As a result, my ability to detect relationships was reduced as well. This is reflected in largely null results for this criterion variable.

As shown in Figure 12, I found that collective representation of minorities was unassociated with validated voting among non-Whites (OR = 0.96, $p = .366$) and among Whites (OR = 0.99, $p = .633$) with no significant moderation by participant race (OR = 1.03, $p = .513$). Relationships remained null in most models accounting for control variables. However, when controlling for gender, a higher percentage of offices held by minorities was associated with significantly lower odds of voting among non-Whites (OR = 0.88, $p = .004$) and Whites (OR = 0.92, $p = .003$). By contrast, when controlling for the percent of offices held by Democrats, Whites were more likely to vote when collective representation of minorities was higher (OR = 1.12, $p < .001$). See Appendix A, Table A10 for full results.

Figure 12

Minorities' Collective Representation and Validated Voting Behavior



* $p < .05$ ** $p < .01$ *** $p < .001$.

Interim Summary and Discussion. Among non-Whites, greater representation of minorities in elected office predicted higher levels of internal political efficacy, political participation, and self-reported voting behavior. Unexpectedly, greater collective representation of minorities predicted lower levels of external political efficacy and no change in validated voting behavior. Among Whites, greater collective representation of minorities was associated with higher political participation; lower external political efficacy and self-reported likelihood of voting; and no change in internal political efficacy or validated voting behavior. Thus, relationships between collective representation of minorities and political efficacy and participation were mainly positive among non-Whites (though external efficacy was a notable exception). Among Whites, associations between collective representation of minorities and political efficacy and participation were more mixed.

Discussion

Using representative data collected over a 68-year period, this study established that observed levels of women's collective representation are associated with higher levels of political efficacy and participation among females. Across the same time period, higher observed collective representation of minorities was associated with heightened internal political efficacy, political participation, and self-reported voting behavior among non-Whites. Despite some nuances, it appears that greater collective representation of women and minorities generally co-occurs with higher levels of political efficacy and participation for people who identify with those groups (i.e., females and non-Whites).

In some cases, dominant group members may also participate more when collective representation of non-dominant groups is elevated. I consistently found that higher levels of women's collective representation were associated with greater political efficacy and

participation among males. However, relationships between collective representation of minorities and Whites' political efficacy and participation were less consistent. For example, when more minorities held elected office, Whites tended to report higher levels of political participation but lower levels of self-reported voting. Thus, the data suggest that dominant groups may respond differently to collective representation on the basis of gender and race. These differing patterns may occur for a variety of reasons, none of which were testable here. In keeping with widely held stereotypes about outgroup members, males may view women as warm while Whites may not view minorities as particularly so (Fiske et al., 2002), which could shape political efficacy and participation via perceptions of how responsive these groups might be to their needs when holding elected office. An alternative explanation could relate to the perceived substantive consequences of collective representation based on gender and race. Both women and minorities are seen to pay greater attention to issues of particular interest to their group as compared to dominant group members (McDermott, 1998; Volden et al., 2018). However, while Whites often see resources as zero-sum when it comes to race (Norton & Sommers, 2011), the same is not necessarily true regarding gender (Kane, 1992; Kehn & Ruthig, 2013). Additionally, while now conducted 35 years ago, research conducted by Gurin (1985) found that females and males reported similar levels of gender consciousness, while racial consciousness differed more starkly between non-Whites and Whites. Future research should further examine these and other possible explanations behind different patterns in how dominant groups respond to collective representation of women versus minorities.

Study 1 tracked observed shifts in collective representation over time to examine its relationship to political efficacy and participation. Since collective representation of women and minorities has generally increased since 1948, greater equality in representation has co-occurred

with other temporal shifts that cannot be completely controlled in my analyses. Further, participants in Study 1 were recruited from areas throughout the United States, and some geographic influences on political behavior were undoubtedly left uncontrolled. I addressed these issues in Study 2 by gathering correlational data at a single time point from students at the University of California, Irvine, thus eliminating both temporal and geographic variability as potential explanations for the relationship between collective representation and political efficacy and participation. Lastly, the design of Study 1 assumed that participants had some awareness of levels of women's and minorities' collective representation, but actual knowledge about collective representation may vary across individuals. Thus, in Study 2 I utilized a subjective measure to ensure that psychologically perceived levels of representation (rather than objectively measured levels of representation) shared similar associations with political efficacy and participation.

Study 2: Associations with Anticipated Changes in Collective Representation

Study 1 documented an association between current levels of collective representation and reported political participation. Given this link, we would also expect that anticipated future change in levels of collective representation—that is, individual beliefs about how the number of women in elected office will change in the future—should be associated with intended political participation. Thus, Study 2 used a correlational design to examine how individuals' subjective expectations of future changes in women's collective representation related to their intentions to engage in political activities.

Research Question

Q1: How do anticipated future changes in women's political representation relate to intended political participation among females and males?

Hypothesis

H1: Based on the results from Study 1, I predicted that anticipated future increases in women's collective representation would be associated with higher levels of intended political participation among females and males.

Methods

This study was approved by the Institutional Review Board (IRB) at the University of California, Irvine, as was Study 3.

Participants

I recruited an ethnically diverse convenience sample of university students as part of a broader survey open to all undergraduates. Since voting is an important form of political participation, I made an a priori decision to exclude 269 participants who indicated that they were not eligible to vote in the United States from my analyses. I also dropped participants who failed an attention check ($n = 273$) or chose not to respond to one or both of my two key measures ($n = 28$). Thus, I analyzed data from a final sample of 858 participants (72% female, 28% male). Sample size was sufficient to detect a small effect (f^2 effect size = .01) with 80% power for females and a small to medium effect (f^2 effect size = .03) with 80% power for males ($\alpha = .05$). Participants ranged in age from 18 to 65 ($M = 20.17$, $SD = 3.19$). Ninety percent of participants were born in the United States. According to ethnicity data obtained from the university registrar (with participant consent), about 20% of the sample identified as Chicano/Mexican-American; 19% identified as Chinese/Chinese-American; 17% identified as Vietnamese; 15% identified as White/Caucasian; and 6% identified as Filipino/Filipino-American (all other racial groups 5% or less). On average, participants rated themselves as slightly liberal ($M = 2.78$, $SD = 1.16$) on a scale ranging from 1 (*Very liberal*) to 7 (*Very*

conservative). Sixty-one percent of participants reported that they preferred the Democratic Party, 5% preferred the Republican Party, and 31% identified as Independent or had no party preference (all other parties 2% or less).

Procedure

Participants used an authenticated university account to log in to a Qualtrics study and consented to allow the research team to obtain additional information about them from the university registrar. The Qualtrics survey contained a number of scales related to social attitudes and the undergraduate experience. Demographic items were presented first, followed by 26 blocks containing psychological scales with blocks presented in random order. Both of the key measures for this study (i.e., anticipated change in women's collective representation and intended political participation) were included in a single block, with the two measures presented in random order. No other measures in the broader study were related to political representation or participation.

Measures of Interest

Demographic Measures. Various demographic measures were collected as part of the broader survey. The demographic measures of interest for my inquiry included age, political ideology, political party preference, birth country, and eligibility to vote in the United States. Participant gender and ethnicity data were obtained from the university registrar.

Anticipated Change in Collective Representation of Women. I asked participants to report the change in representation that they expected to see relative to today using a single item: "Overall, how do you think that the number of women holding political office will change over the next 10 years in the United States?" Participants responded on a scale from 1 (*Far fewer women will be elected 10 years from now*) to 7 (*Far more women will be elected 10 years from*

now), with the midpoint of 4 (*The same number of women will be elected 10 years from now*) representing no anticipated change. Less than 2% of participants thought that women's collective representation was likely to decrease over the next 10 years, while about 6% thought levels of women's representation would stay the same and 92% thought it would increase.

In order to make analyses more easily interpretable, I transformed responses so that a score of zero indicated no anticipated change in women's collective representation and so that the standard deviation of all responses was equal to one. On average, participants reported that they anticipated that "somewhat more" women would be elected 10 years from now ($M = 5.43$, $SD = 0.85$). Responses did not differ on the basis of ethnicity, age, political party, or whether the participant was born in the United States. Those who reported more conservative political ideology tended to expect less increase in the number of women in office ($b = -0.10$, $p = .001$).

Intended Political Participation. I asked participants to rate how likely they would be to engage in a number of political activities over the next 12 months on a scale from 1 (*not at all likely*) to 5 (*extremely likely*). Since females and males tend to participate in different ways (Bourque & Grossholtz, 1974; Coffé & Bolzendahl, 2010), I drew upon a number of existing measures in order to capture various forms of engagement. This included Coffé and Bolzendahl's (2010) inventory, asking participants how likely they were to participate in private forms of political action (i.e., sign a petition; boycott or deliberately purchase products for political, ethical, or environmental reasons; donate to or raise money for a social or political activity), collective forms of action (i.e., take part in a demonstration; attend a political meeting or rally), and direct contact (i.e., contact a politician; contact the media; participate in an online forum where people discuss politics). I supplemented this measure with two items taken from Pew Research Center's (2009) civic engagement inventory (i.e., be an active member of a group that

tries to influence public policy or government; work or volunteer for a political party or candidate), two items slightly adapted from the European Social Survey (2018; i.e., post or share information about politics on blogs, via email or on social media; wear or display a campaign button, sticker, or sign), and one item from Kenski and Stroud (2006; i.e., try to convince others how to vote). Finally, I included two items asking how likely participants were to vote (i.e., vote in a primary election; vote in a general election). I randomized the order in which all scale items were presented.

I examined the factor structure of the political participation items from Coffé and Bolzendahl's (2010) inventory. Using SPSS Version 25, I conducted exploratory factor analyses using varimax rotation and examined scree plots, eigenvalues, and factor loadings for one, two, three, four, and five factor solutions. Since analyses suggested a one-factor solution was best (both when restricting to items in Coffé and Bolzendahl's inventory or when including the supplementary items), I averaged responses to all 15 items in a reliable composite ($\alpha = .93$). Mean responses fell below the midpoint of the 5-point scale ($M = 2.30$, $SD = 0.87$). I standardized scale composite scores before running additional analyses.

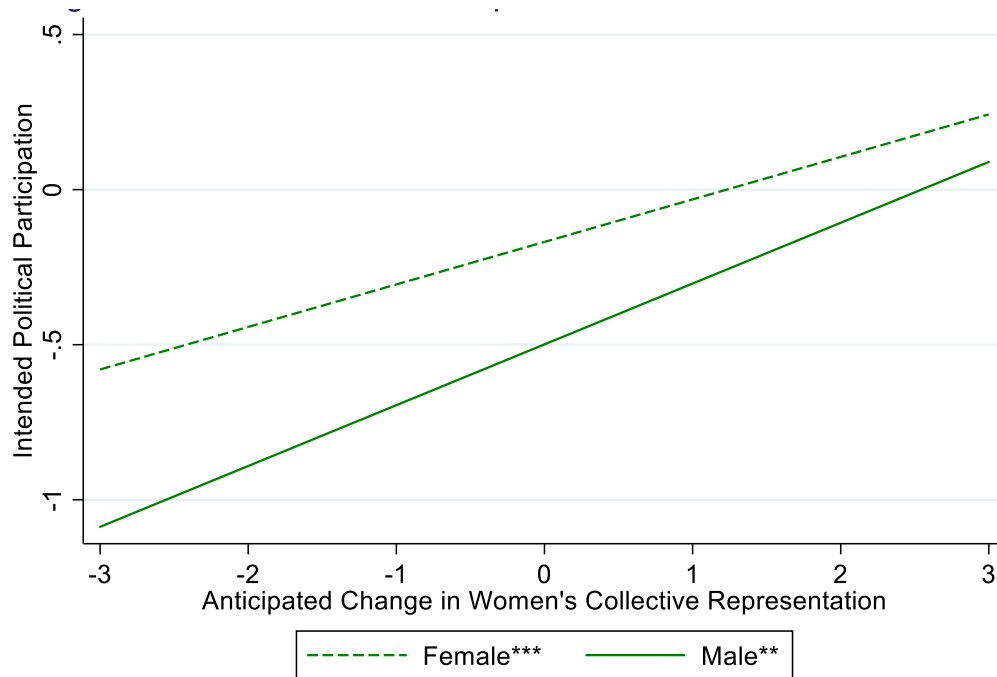
Results

I examined whether anticipated change in women's collective representation was associated with intended political participation among female and male participants. See Figure 13 for results from an OLS regression with intended political participation as the criterion variable and anticipated change in women's collective representation, participant gender, and their interaction as predictors. Among both female ($B = 0.14$, $p < .001$) and male ($B = 0.20$, $p = .005$) participants, those who anticipated greater increases in women's future political representation tended to report higher intended levels of political participation (see Table 4).

There was no evidence of a statistically significant interaction by participant gender ($B = 0.06, p = .459$). Thus, both females and males reported higher intentions to participate in politics when they anticipated greater increases in women's representation.

Figure 13

Anticipated Change in Women's Collective Representation and Intended Political Participation



* $p < .05$ ** $p < .01$ *** $p < .001$.

Table 4*Anticipated Change in Women's Representation and Intended Political Participation*

	Political participation (<i>N</i> = 858)	Non-voting participation (<i>N</i> = 858)	Voting participation (<i>N</i> = 857)
	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)
Anticipated change in women's collective representation	0.14*** (0.04)	0.13** (0.04)	0.13** (0.04)
Male ^a	-0.33* (0.16)	-0.34* (0.16)	-0.11 (0.16)
Anticipated change in women's collective representation × Male	0.06 (0.08)	0.06 (0.08)	0.02 (0.08)
Constant	-0.17* (0.08)	-0.15 (0.08)	-0.19* (0.08)
<i>R</i> ²	.03	.03	.02

Note. Coefficients are centered on the scale midpoint with a standard deviation of 1. Standard errors are in parentheses.

^aDummy coded: 0 = female, 1 = male.

p* < .05 *p* < .01 ****p* < .001.

To mirror Study 1, I examined whether results held up when separating the 13 non-voting forms of political participation ($\alpha = .93$) from the two voting items ($\alpha = .91$). The relationship between anticipated change in women's representation and non-voting forms of political participation was positive among both female ($B = 0.13, p = .001$) and male ($B = 0.18, p = .008$) participants. Likewise, the relationship between anticipated change in women's representation and the composited voting items was positive among both females ($B = 0.13, p = .001$) and males ($B = 0.14, p = .045$). Thus, these patterns held across non-voting and voting forms of political participation.

Finally, I ran a series of separate models controlling for demographic variables (i.e., ethnicity, age, political ideology, political party preference, birth country) one at a time. Supplementary full regression tables for each analysis are reported in Appendix B, Table B1. Results held when accounting for covariates with the exception of one effect. In the model controlling for political ideology, the association between anticipated change in women's collective representation and intended political participation became statistically non-significant among males only ($B = 0.11$, $p = .104$), likely due to lower statistical power to detect effects within this group.

Discussion

This study provided further evidence that levels of collective representation are associated with political participation among both females and males. Study 2 built on findings from Study 1 in several ways. First, this study showed that *anticipated change* in representation is associated with intended political participation, just as the *current* level of representation was associated with recent political participation in Study 1. Though correlational in nature, the findings from this study show that levels of collective representation move with political participation, which provides further support for the possibility of a causal link between the two. Thus, in Study 3 I used an experimental design to test whether anticipated change in collective representation had a causal effect on intended political participation.

Further, Study 2 built on Study 1 by examining subjective perceptions of how representation will change rather than objective levels of representation. My key analysis in this study suggested that perceived changes in collective representation explained about 2% of the variability in intended political participation. While this leaves much of the variance unexplained, even small effects can be of interest when they explain movement in a variable that is difficult to

alter (Prentice & Miller, 1992). Since equitable opportunities for political participation are so crucial to democracy, anything that predicts small shifts in participatory behavior could be considered meaningful and important.

Finally, in this study I collected data from participants on the same university campus at a single point in time. These methods eliminated temporal and geographic variability that could not be fully controlled in Study 1. As a result, this study further supports the possibility that the relationship between collective representation and political participation is robust to temporal and geographic differences that could have served as alternative explanations in the previous study.

Study 3: Effects of Anticipated Changes in Collective Representation

Study 3 built on the previous findings in three ways. First, I used an experimental design to examine the causal impact of anticipated change in collective representation on political efficacy and participation. This was my first test of directionality, as it remained possible that higher levels of political participation among females predicted higher levels of women's collective representation. However, theory and past research suggested that increased political efficacy and participation could also be *consequences* of increases in collective representation (e.g., Atkeson & Carrillo, 2007; Barnes & Burchard, 2012; Lawless, 2004; Pantoja & Segura, 2003; Wängnerud, 2009; Wolbrecht & Campbell, 2007), and experimentation provided the strongest methodology for testing that. Second, this study included a behavioral indicator of political participation, extending the previous findings beyond self-reported attitudes, behavior, and intentions. Third, I examined emotions—specifically, feelings of enthusiasm, anxiety, and anger regarding women's collective representation—as potential mediators of the relationship between anticipated collective representation and anticipated political efficacy and participation.

Past research indicated that both enthusiasm and anger might be expected to increase political participation, whereas anxiety could be associated with decreases or no changes in political activity (Best & Krueger, 2011; Marcus & MacKuen, 2006; Valentino et al., 2011, 2018).

Research Questions

Q1: How do anticipated future increases in women's collective representation impact anticipated political efficacy, intended political participation, and political behavior among females and males?

Q2: Are any effects of anticipated increases in women's representation mediated by anticipated feelings of enthusiasm, anxiety, or anger among females or males?

Hypotheses

H1: I predicted that females and males primed to expect increases in women's collective representation would report higher overall levels of anticipated internal political efficacy, external political efficacy, and political participation, and that they would show elevated levels of political behavior compared to those primed to think that collective representation would remain stagnant.

H2: I expected that the effects of condition would be partially mediated by feelings of enthusiasm for female participants. Since Studies 1 and 2 found that males reported higher levels of political participation when there were more women in office, I predicted that the effects of condition would be partially mediated by feelings of either enthusiasm or anger for male participants.

Methods

The methods and analyses for this study were preregistered at <https://aspredicted.org/blind.php?x=7ja6yg>.

Participants

I used Prolific Academic to recruit a sample of adults residing in the United States. Respondents were paid \$1.00 for their participation. After dropping 20 participants ineligible to vote in the United States and 155 participants who failed an attention check from my analyses, my sample contained 700 participants (350 females and 350 males). My sample was more diverse than most student samples in terms of age ($M = 33.42$, $SD = 11.73$) and level of education (34% had a high school degree or less; 49% had an undergraduate degree; 17% had a graduate degree). The sample was predominantly White (68% White/Caucasian; 14% Asian; 8% Black or African-American; 5% Latino or Hispanic; all other groups <5%). Although the sample contained some political diversity, participants skewed liberal ($M = 3.06$, $SD = 1.53$ as measured on a scale from 1 = *Extremely liberal* to 7 = *Extremely conservative*). There were fewer Republicans and more Independents in my sample than in most waves of the ANES (48% Democratic Party; 14% Republican Party; 26% Independent; 11% No preference; 2% Other). My sample size was sufficient to detect a small effect of condition (f^2 effect size = .02) within each gender group with 80% power ($\alpha = .05$).

Procedure

The study was completed via Qualtrics. Participants were randomly assigned to one of two conditions: a *stagnant representation condition* (in which participants read a short excerpt from a New York times article that was manipulated to suggest that women's collective representation would likely remain unchanged over the next 10 years) or an *increased representation condition* (with the same article manipulated to suggest that women's collective representation is expected to increase by about 10% over that time frame). Participants completed the following measures in order: manipulation check items; scales measuring

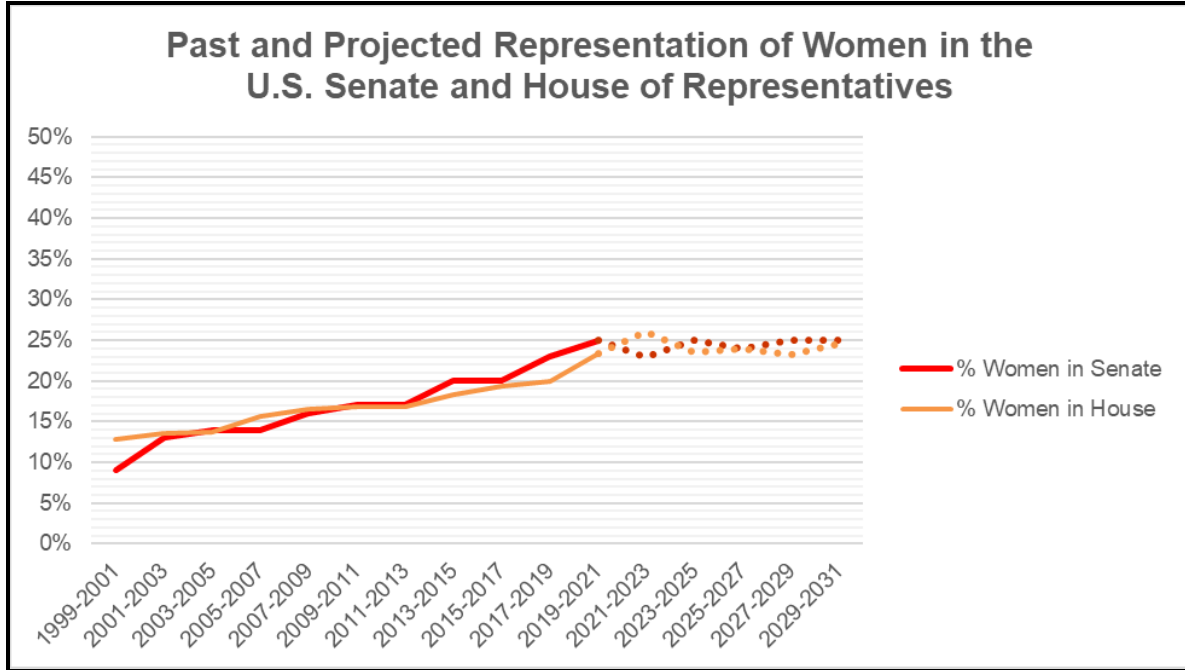
anticipated emotions, anticipated political efficacy, and intended political participation (order of items randomized within each scale); an attention check; a behavioral measure of political activity; and demographic items. At the end of the study, participants read a debriefing statement which revealed that the ‘expert predictions’ in the manipulation were made up for the purposes of the study. Since I utilized deception, participants were given the option to revoke consent to use their data in my analyses.

Manipulations

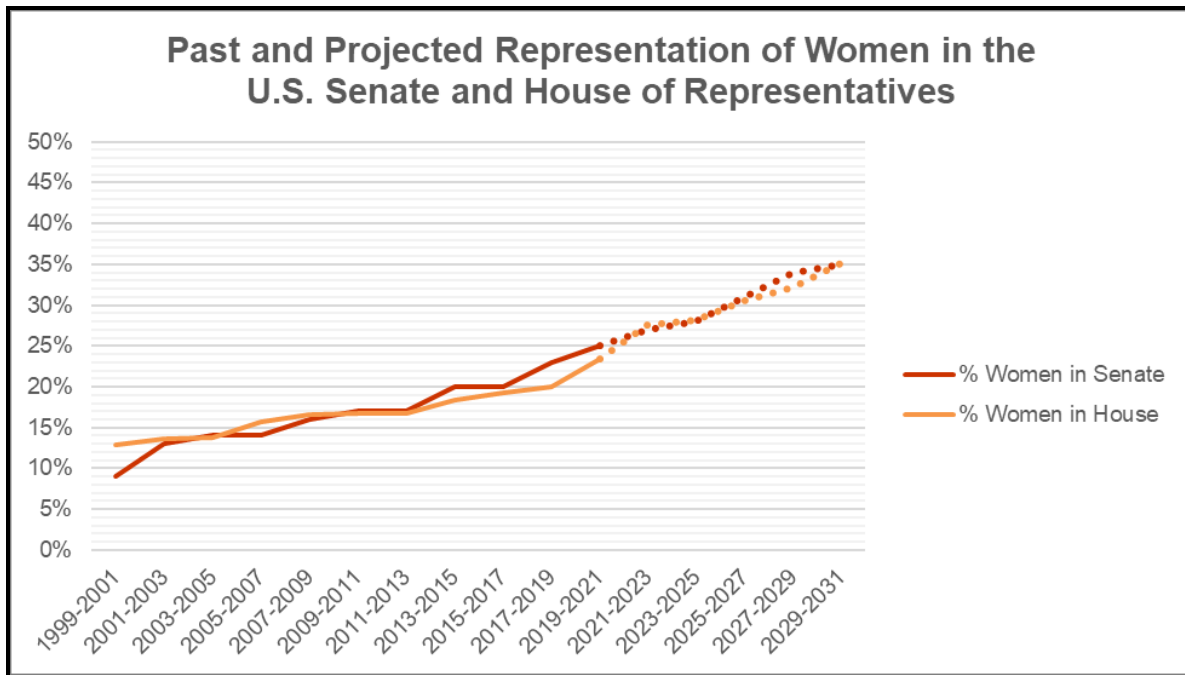
Participants read a brief excerpt from an article ostensibly published in *The New York Times*. The first part of the article was actually published by *The New York Times*; it discussed a project that assessed women’s representation in elected office. The final paragraph in each condition presented an ‘expert prediction’ that I generated for this study in order to manipulate anticipated change in women’s collective representation over the next 10 years. The manipulated sections of the article read as follows, with bolding added here to highlight the sections that differed by condition: “The report found that the current United States Congress includes 23.7% women. Many experts predict that women will **[fail to gain / succeed in gaining]** additional political representation in the next election. Women are expected to **[merely maintain / substantially increase]** their number of seats and are likely to hold about **[25% / 35%]** of all national-, state-, and local-level political offices 10 years from now.” Participants viewed a chart (both versions shown in Figure 14) depicting the supposed expert predictions. Full manipulations are presented in Appendix C.

Figure 14

Manipulated 'Expert Predictions' in the Stagnant Representation Condition (Top) and Increased Representation Condition (Bottom)



Note: Dotted lines show expert future projections.



Note: Dotted lines show expert future projections.

Measures

Manipulation Check. Participants responded to two items measuring their subjective beliefs about how women's collective representation would change. The first item was identical to the measure of anticipated change in representation that I used in Study 2. The second item asked participants to indicate their agreement with the statement, "It seems likely that there will be more women in political office over the next few years than there are now" on a scale from 1 (*Strongly disagree*) to 7 (*Strongly agree*). I averaged responses to these two items ($\alpha = .76$) before standardizing scores ($M = 5.22$, $SD = 1.21$).

Anticipated Emotions. Participants were asked to "rate how you would feel toward levels of women's representation in politics 10 years in the future, assuming that the expert predictions you read earlier are correct." Using items from Marcus et al. (2015), participants used sliders with response options ranging from 0 (*Not at all*) to 100 (*Extremely*) to rate how much they would feel enthusiastic (three items: enthusiastic, hopeful, proud; $\alpha = .94$; $M = 52.64$, $SD = 33.06$), anxious (three items: scared, worried, afraid; $\alpha = .90$; $M = 14.39$, $SD = 21.72$), and angry (four items: hateful, bitter, angry, resentful; $\alpha = .91$; $M = 12.99$, $SD = 20.82$). Responses to items were averaged and standardized for each subscale separately.

Anticipated Political Efficacy. I adapted Niemi et al.'s (1991) measure of political efficacy to ask participants how much they would agree with various statements if living in the political environment described by the article they read. Scale responses ranged from 1 (*Strongly disagree*) to 7 (*Strongly agree*). The scale included four items designed to measure internal political efficacy (e.g., "I would consider myself to be well qualified to participate in politics;" $\alpha = .85$; $M = 4.37$, $SD = 1.32$) and two items measuring external political efficacy (e.g., "I wouldn't think public officials cared much what people like me thought," reverse scored; α

= .76; $M = 4.01$, $SD = 1.55$). For each subscale, I averaged responses across relevant items and standardized participant responses.

Intended Political Participation. I adapted the political participation measure from Study 2, asking participants how likely they would be to engage in each of the activities listed over a 12-month period if living in the political environment described. I included all non-voting items from Study 2. For this study, I utilized a more robust four-item measure of intended voting behavior. Thus, I asked about the likelihood of voting in national-level, state-level, and local-level general elections as well as the likelihood of voting in primary elections. Participants rated their likelihood of engaging in each activity on a scale from 1 (*Not at all likely*) to 5 (*Very likely*). Mean responses were slightly below the scale's midpoint ($M = 2.73$, $SD = 0.85$). Using SPSS Version 25, I conducted an exploratory factor analysis using varimax rotation to examine the factor structure of responses. Eigenvalues, scree plots, and factor loadings from one, two, three, four, and five factor solutions suggested that a two-factor model was the best fit for the data, with all of the non-voting items loading onto a single factor and all of the voting items loading onto a second factor. In keeping with Studies 1 and 2, I created separate composites for intended non-voting political participation ($\alpha = .93$; $M = 2.32$, $SD = 0.92$) and intended voting behavior ($\alpha = .94$; $M = 4.16$, $SD = 1.10$). With median scores on intended voting behavior approaching the scale maximum ($Mdn = 4.75$), analyses of intended voting were subject to ceiling effects. Scores for non-voting and voting forms of participation were standardized for my analyses.

Attention Check. Participants were presented with a brief paragraph, where the first sentence and answer options cued respondents to think that they would be asked about their views on the electoral college. However, the second sentence stated that we were interested in making sure participants were carefully reading the instructions. Participants were told to select

“Other” and type *Green Party* in the text box. I excluded responses from participants who did not follow these instructions when analyzing the data.

Political Behavior. I measured political behavior by telling participants that they would be able to choose the topic for their final activity, which would involve learning about and expressing their views on a particular subject. Participants could choose to express their views about encouraging youth participation in politics (categorized as political behavior) or sports (categorized as non-political behavior). About 70% of participants chose the political topic. In reality, participants did not have to learn about or express their views on the subject that they selected.

Demographics. Participants self-reported their gender (female, male, or other), ethnicity, age, political ideology, political party preference, level of education, and eligibility to vote in the United States.

Results

In a series of OLS regressions (or a logistic regression in the case of political behavior), I entered experimental condition, participant gender, and their interaction as predictors. See Table 5 for full regression results for all key criterion variables.

Table 5*Effect of Experimental Condition on Political Efficacy and Participation*

	Manipulation Check	Internal Efficacy	External Efficacy	Non-Voting Participation	Voting Participation	Political Behavior ^a
	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	<i>b</i> (<i>SE</i>)	OR (<i>SE</i>)
Experimental condition ^b	1.21*** (0.08)	0.16 (0.11)	0.62*** (0.10)	-0.07 (0.11)	-0.10 (0.11)	0.92 (0.22)
Male ^c	-0.06 (0.09)	0.30** (0.11)	0.13 (0.11)	-0.10 (0.11)	-0.34** (0.11)	0.69 (0.17)
Experimental condition × Male	0.10 (0.12)	-0.10 (0.15)	-0.30* (0.15)	-0.16 (0.15)	0.11 (0.15)	1.28 (0.43)
Constant	-0.64*** (0.06)	-0.20** (0.08)	-0.31*** (0.07)	0.13 (0.08)	0.19* (0.08)	2.80*** (0.49)
<i>R</i> ² [d]	.40	.02	.06	.02	.02	.003

Note. *N* = 700 in each analysis.

^aDummy coded: 0 = non-political behavior, 1 = political behavior.

^bDummy coded: 0 = *stagnant representation condition*, 1 = *increased representation condition*.

^cDummy coded: 0 = female, 1 = male.

^dPseudo *R*² for the model predicting political behavior.

p* < .05 *p* < .01 ****p* < .001.

Manipulation Check

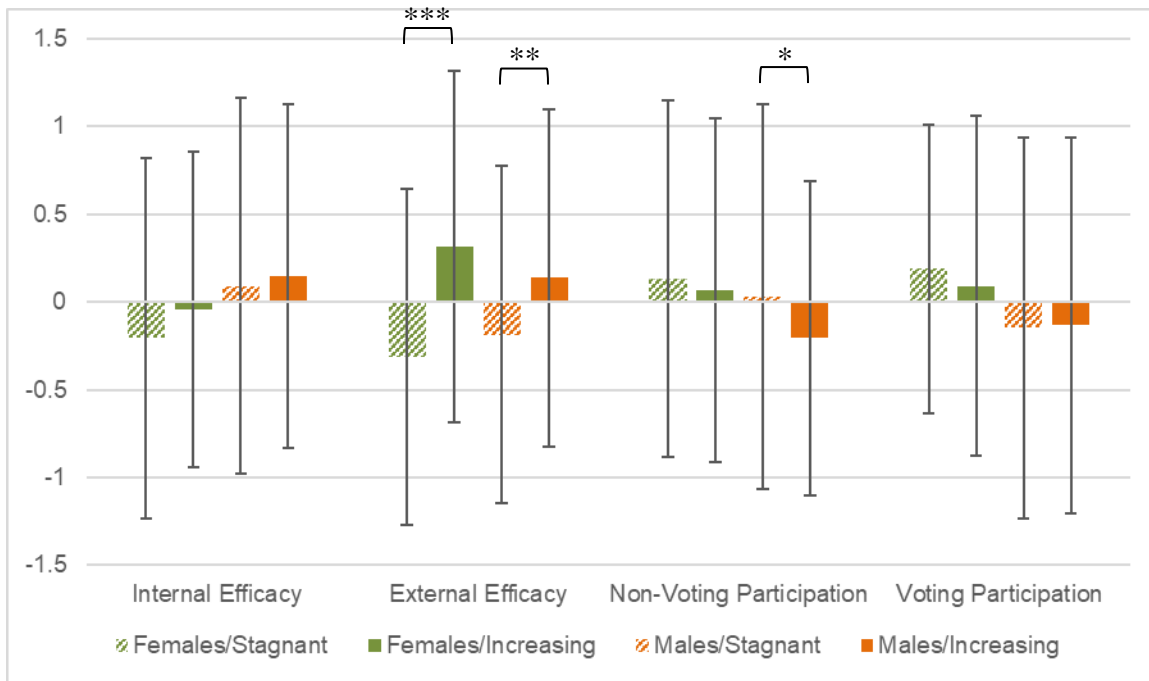
Among both females (*b* = 1.21, *p* < .001) and males (*b* = 1.31, *p* < .001), those in the *increased representation condition* (*M* = 5.94, *SD* = 0.70) reported believing that women's collective representation would increase more than those in the *stagnant representation condition* (*M* = 4.41, *SD* = 1.16). Thus, my manipulation successfully altered anticipated change in women's collective representation by more than a full standard deviation.

Internal Political Efficacy

As shown in Figure 15, among both females ($b = 0.16, p = .130$) and males ($b = 0.06, p = .597$), there was no significant difference in anticipated internal political efficacy among those in the *increased representation condition* compared to those in the *stagnant representation condition*. Thus, priming increases in women’s collective representation did not cause either group to anticipate feeling more efficacious regarding their own ability to participate effectively in politics.

Figure 15

Effects of Experimental Condition on Political Efficacy and Participation



Note. All dependent measures are standardized. Error bars are standard deviations.
 $*p < .05$ $**p < .01$ $***p < .001$.

External Political Efficacy

As shown in Figure 15, both females ($b = 0.62, p < .001$) and males ($b = 0.32, p = .002$) anticipated feeling significantly greater external political efficacy in the *increased representation*

condition than in the *stagnant representation condition*. In other words, expecting greater increases in women's collective representation caused both females and males to expect that government would be more responsive to their needs. These results held when controlling for age, political party, political ideology, education level, and ethnicity in a series of separate regressions; see Appendix D, Table D1 for full regression results.

Non-Voting Political Participation

Females reported no significant difference in level of intended non-voting participation between the *increased representation condition* and the *stagnant representation condition* ($b = -0.07, p = .520$); see Figure 15. Males reported *lower* intention to engage in non-voting participation in the *increased representation condition* as compared to the *stagnant representation condition* ($b = -0.23, p = .029$). This effect held when accounting for control variables, as shown in Appendix D, Table D2. I examine this finding in further detail using mediation models below.

Voting Political Participation

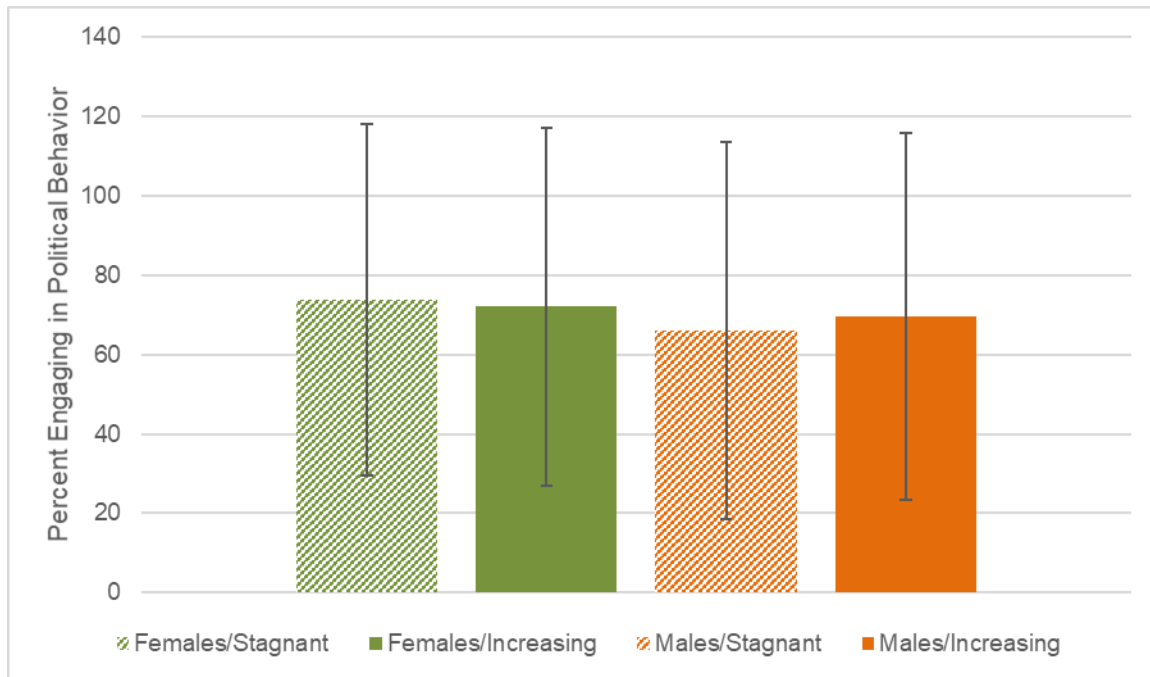
Females ($b = -0.10, p = .354$) and males ($b = 0.01, p = .895$) both reported no difference in intended voting behavior in the *increased representation condition* relative to the *stagnant representation condition*, as shown in Figure 15.

Political Behavior

As shown in Figure 16, those in the *increased representation condition* were no more likely to engage in political behavior than were those in the *stagnant representation condition*. This held true for both females (OR = 0.92, $p = .734$) and males (OR = 1.18, $p = .473$).

Figure 16

Percentage of Participants Engaging in Political Behavior by Experimental Condition



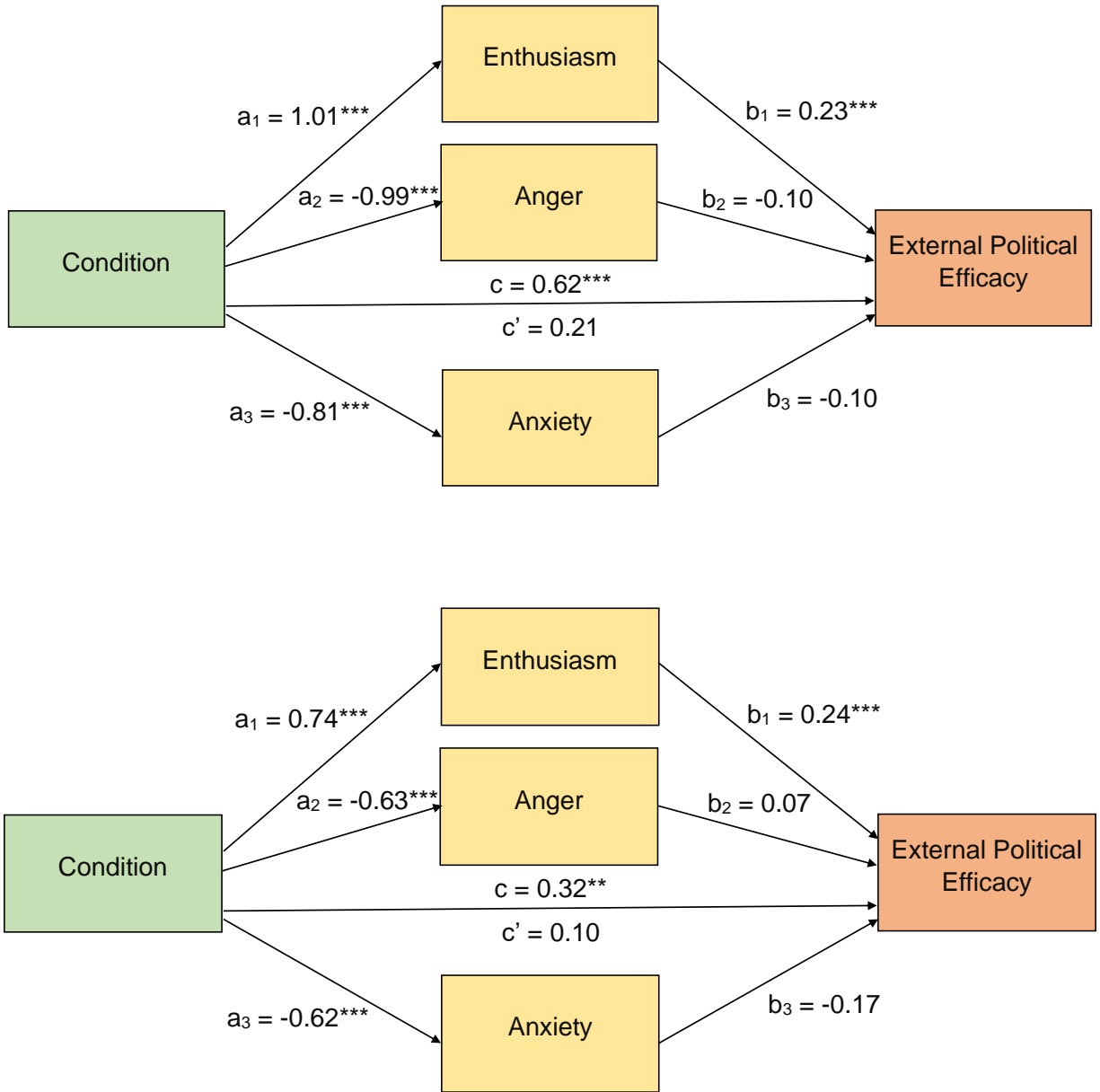
Emotions

As specified in my preregistration, I conducted separate mediations for females and males when experimental condition had a significant impact on a dependent variable. Thus, my first mediation models examined the effects of condition on external political efficacy. This dependent variable was associated with greater anticipated enthusiasm (females: $B = 0.40, p < .001$; males: $B = 0.28, p < .001$), lower anticipated anger (females: $B = -0.35, p < .001$; males: $B = -0.17, p = .003$), and lower anticipated anxiety among both groups (females: $B = -0.34, p < .001$; males: $B = -0.22, p < .001$). When entering all three types of emotions as mediators simultaneously as shown in Figure 17, I found that among females, enthusiasm mediated the relationship between condition and external political efficacy ($b = 0.23, 95\% \text{ CI}[0.09, 0.39]$).

Anger ($b = 0.10$, 95% CI[-0.04, 0.24]) and anxiety ($b = 0.08$, 95% CI[-0.04, 0.20]) did not mediate significant variability. Among males, I found the same pattern of results: enthusiasm mediated the effect of condition on external political efficacy ($b = 0.17$, 95% CI[0.08, 0.28]), while anger ($b = -0.04$, 95% CI[-0.17, 0.08]) and anxiety ($b = 0.10$, 95% CI[-0.02, 0.21]) did not mediate the effect. Among both groups, the direct effect of condition became non-significant when accounting for the mediating role of emotions.

Figure 17

Effect of Experimental Condition on External Political Efficacy as Mediated by Emotions for Females (Top) and Males (Bottom)

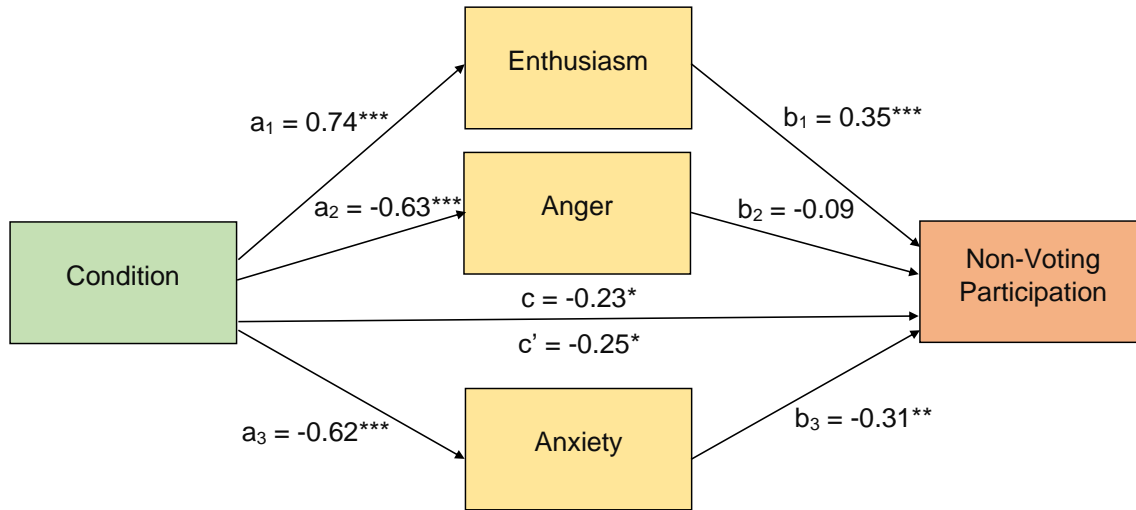


* $p < .05$ ** $p < .01$ *** $p < .001$.

I then tested for mediation of experimental condition's effect on intended non-voting political participation among males. As shown in Figure 18, enthusiasm significantly mediated the effect of condition on non-voting participation ($b = 0.26$, 95% CI[0.16, 0.37]), while anxiety ($b = -0.19$, 95% CI[-0.32, -0.08]) mediated the effect in the opposing direction. Anger ($b = -0.05$, 95% CI[-0.19, 0.07]) did not significantly mediate the effect.

Figure 18

Effects of Experimental Condition on Intended Non-Voting Participation as Mediated by Emotions for Males



* $p < .05$ ** $p < .01$ *** $p < .001$.

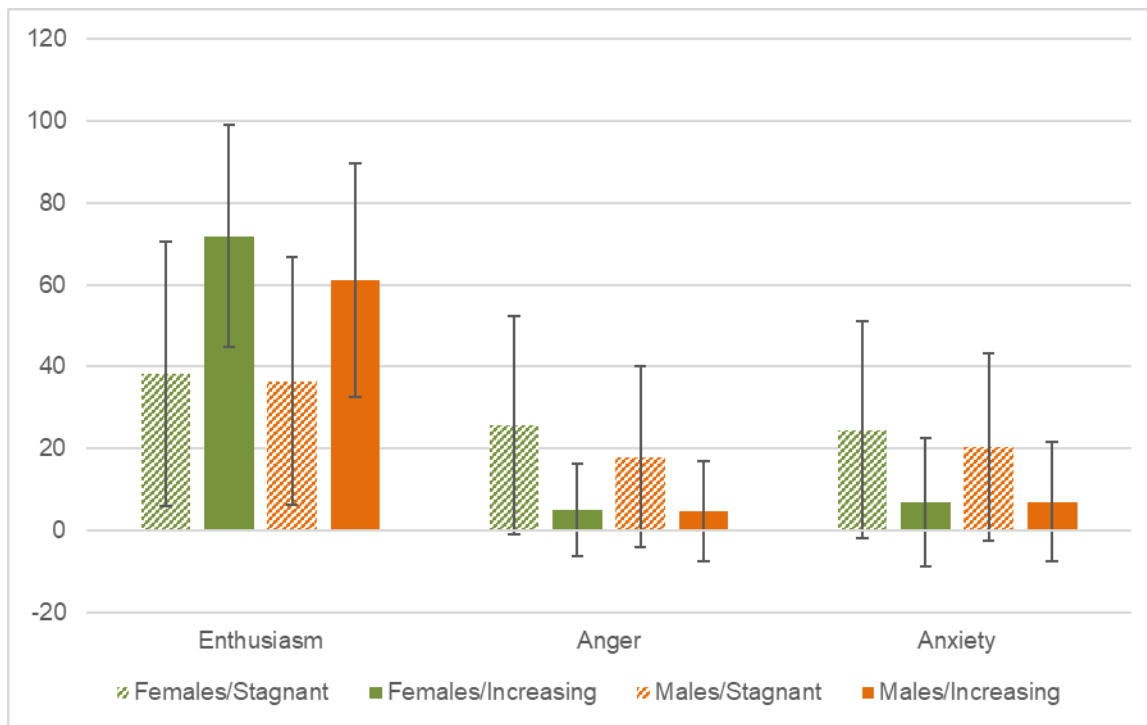
Exploratory Analyses. Since some of my dependent variables were unaffected by my manipulation, I conducted exploratory analyses to examine whether patterns in emotional response could explain any of the null results.

I first assessed how experimental condition impacted anticipated feelings of enthusiasm, anger, and anxiety. Theory would suggest that females would experience higher enthusiasm in the *increasing representation condition*, and males could experience either enthusiasm, anger, or

anxiety. Regression analyses showed that both females ($b = 1.01, p < .001$) and males ($b = 0.74, p < .001$) anticipated feeling greater enthusiasm in the *increasing representation condition* than in the *stagnant representation condition*; see Figure 19. Females and males both anticipated feeling less anger (females: $b = -0.99, p < .001$, males: $b = -0.63, p < .001$) and less anxiety (females: $b = -0.81, p < .001$, males: $b = -0.62, p < .001$) when they imagined representation had increased rather than when they imagined it had remained stagnant.

Figure 19

Anticipated Enthusiasm, Anger, and Anxiety by Experimental Condition



Note: Error bars depict standard deviations.

* $p < .05$ ** $p < .01$ *** $p < .001$.

I then examined how anticipated emotions were associated with my dependent variables among each group. Some correlational work has found that all three emotions are positively associated with political participation, though others have found that anxiety is associated with

political demobilization under some conditions (Best & Krueger, 2011; Marcus & MacKuen, 2006; Valentino et al., 2011). Most relevant to the current analyses, experimental research suggested that induced anger increases political participation while induced enthusiasm and anxiety do not (Valentino et al., 2011). However, as shown in Table 6, I found that enthusiasm, anger, and anxiety were all positively associated with some of my outcomes of interest among females, while I found no significant associations between emotions and the remaining dependent measures among males. Since multiple emotions predicted non-voting participation among females, I conducted one further exploratory analysis to better understand this effect.

Table 6

Correlations Between Anticipated Emotions and Political Efficacy and Participation

	Females			Males	
	Internal Efficacy	Voting Participation	Non-Voting Participation	Internal Efficacy	Voting Participation
Enthusiasm	.11*	.03	.10 ^t	.01	.10 ^t
Anger	.02	.10*	.15**	.07	.001
Anxiety	.01	.04	.12*	.09	.02

Note. Correlations are displayed only for dependent measures not assessed in mediation models above.

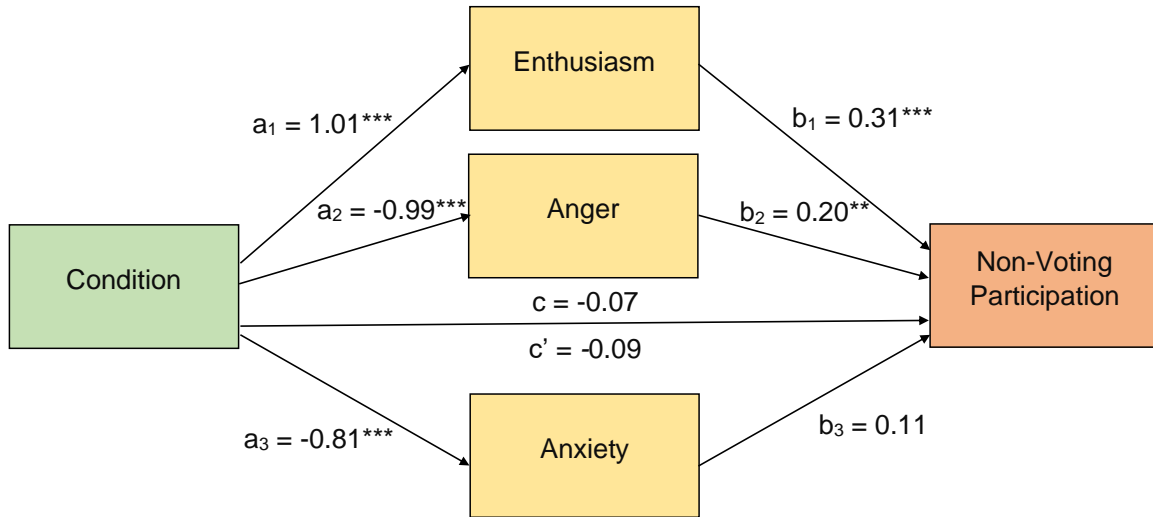
^t $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$.

I had predicted that inducing anticipated increases in women’s representation would increase enthusiasm among females without necessarily impacting anxiety or anger, and thus I hypothesized that the manipulation would increase females’ intended political participation. My exploratory analyses suggested that experimental condition did not merely increase enthusiasm, however. The manipulation decreased anger and anxiety too, and elevated levels of these

emotions were also drivers of political activity. Thus, increased enthusiasm and decreased anger and anxiety could potentially impact intended participation in opposite ways. I conducted a final mediation analysis to examine whether these null effects may have resulted in part from the ways in which mobilizing increases in enthusiasm might have combined with demobilizing reductions in anger and anxiety. As shown in Figure 20, when entering all three emotions into a mediation model simultaneously, increased enthusiasm mediated a significant positive impact of condition on non-voting participation among females ($b = 0.31$, 95% CI[0.17, 0.46]), while decreased anger mediated a significant negative impact of condition ($b = -0.20$, 95% CI[-0.36, -0.06]). Thus, despite generating enthusiasm among female participants, anticipated increases in women's representation had no significant overall impact on participatory intentions—a finding that could be explained by the demobilization that occurs when anger and anxiety were reduced as a result of these same shifts in women's political standing.

Figure 20

Effects of Experimental Condition on Intended Non-Voting Participation as Mediated by Emotions for Females



* $p < .05$ ** $p < .01$ *** $p < .001$.

Discussion

In this study, I conducted an experimental test of how anticipated increases in women’s collective representation impacted political efficacy and participation. I found that inducing anticipated increases in the number of women in office did not alter perceptions of one’s own ability to participate effectively, but it did result in higher expectations that government would be responsive to citizens’ needs among both female and male participants. It is interesting that males expected that their interests would be better represented if a higher percentage of political offices were held by women. Both of the external efficacy items asked about participant perceptions of how responsive the government would be to “people like me,” which suggests that males expect greater collective representation of women to result in more responsiveness to their group’s needs and views in particular—not simply increased responsiveness to the

electorate as a whole. These effects could be related to stereotypes of women as more attuned to the needs of others or to a general sense that the interests of men and women are interdependent (Fiske et al., 2002; Kane, 1992). It would be interesting to conduct comparative research examining whether this pattern of results is specific to women in office, or whether dominant groups also tend to believe that government would be more responsive to their needs with fairer collective representation on the basis of race. The results of Study 1 suggested that collective representation of minorities might elicit decreases in external political efficacy, rather than the increases brought on by anticipated increases in women's collective representation.

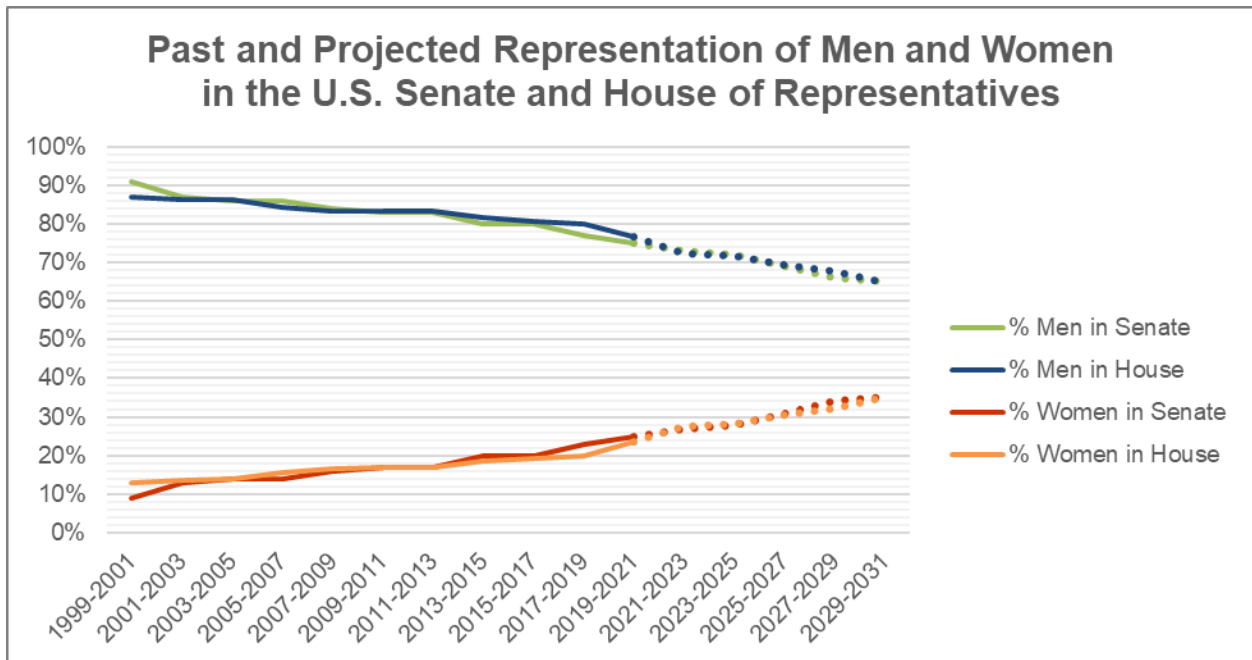
In this study I also examined the effects of anticipated increases in women's collective representation on intended political participation and in-study political behavior. Most of my findings suggested no causal impact of women's collective representation, although priming males to anticipate more women in office did reduce their intentions to engage in non-voting forms of political activity. This pattern of results raises the possibility that while increases in women's collective representation could close gender gaps in political participation, this might be driven by reductions in males' activity rather than increased participation among females. However, further research is needed to understand how other types of manipulations might influence intended participation, particularly since alternative manipulations and real-world shifts in collective representation could elicit different patterns of emotion.

I was surprised to find that female and male participants reported very similar emotional responses to anticipated changes in women's collective representation. While I expected that females would respond with enthusiasm to increases in women's representation, I did not expect them to report such low levels of anxiety and anger when told that women would hold only 35% of elected offices (well below parity) in the year 2030. The drops in anger and anxiety may have

occurred in part because the *increasing representation condition* focused on women’s collective gains without emphasizing ongoing inequalities. A manipulation that emphasized ongoing inequalities might elicit different emotions and thus different behavioral intentions. For example, with the slight shift in framing displayed in Figure 21, participants could simultaneously be primed to expect anticipated increases in women’s representation and to consider the ways in which men would still hold disproportionate power. With such a manipulation displayed visually and described in words, it could be expected that female participants might experience feelings of enthusiasm *without* the accompanying reductions in anger and anxiety—which could be more reflective of the emotional experience that some females might have if these incremental shifts occurred in the real world.

Figure 21

Potential Manipulation Priming Ongoing Inequalities Alongside Increases in Women’s Representation

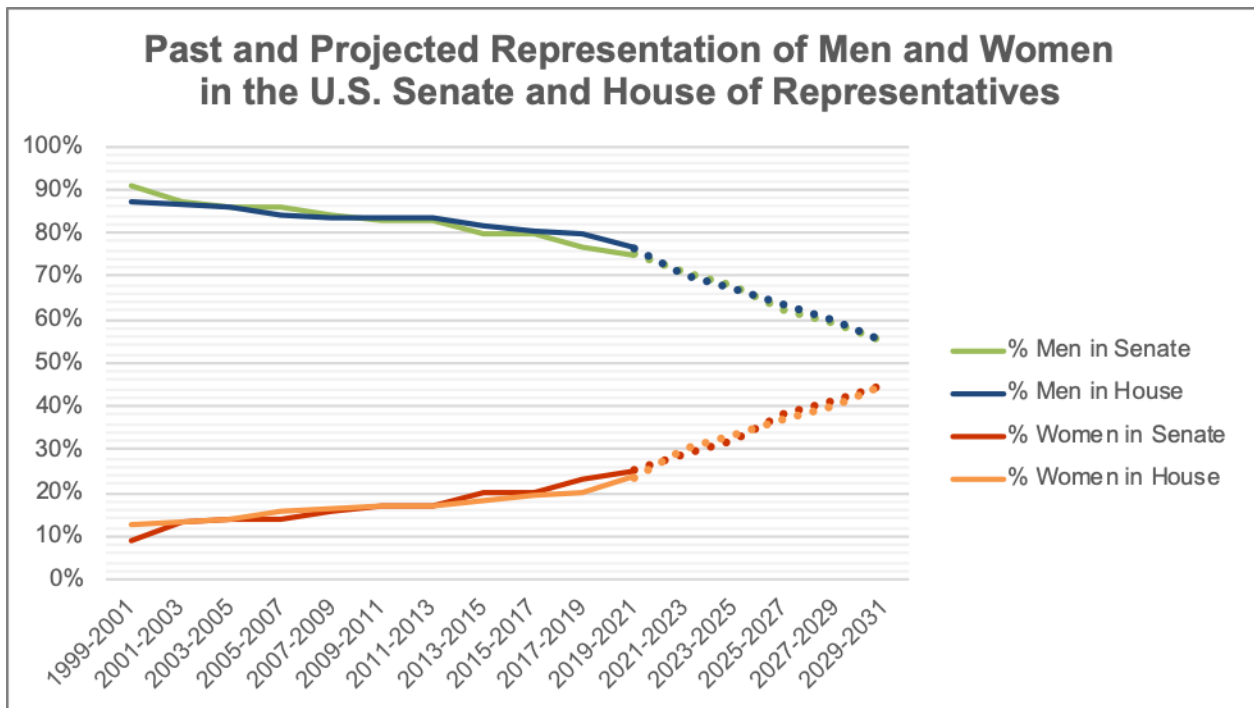
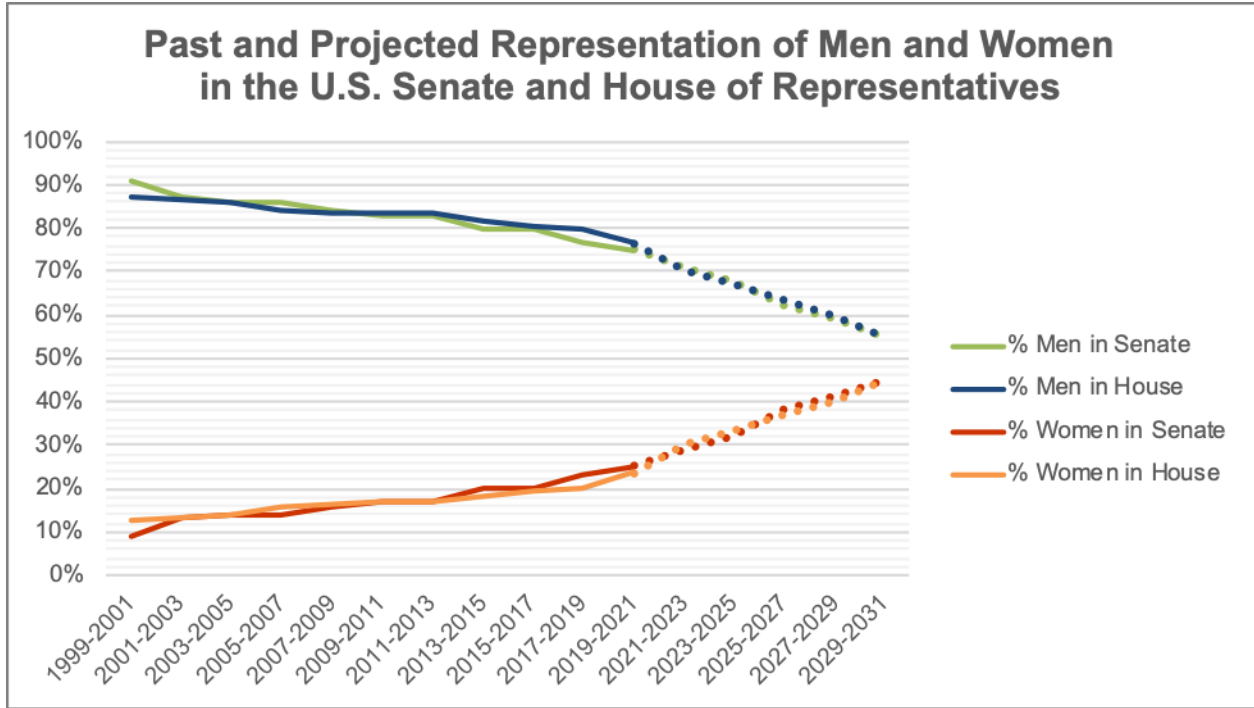


Similarly, I anticipated that some males would respond negatively to increases in women's collective representation. However, on average they seemed to respond very similarly to females, with increases in enthusiasm and reduced levels of anxiety and anger. This was surprising in light of research suggesting that sexism played a substantial role in emotions and voting preferences during the most recent presidential election (Valentino et al., 2018).

Alternative methods—particularly those that reduce or eliminate self-presentation biases—would be particularly useful in determining males' true emotional responses to shifts in anticipated or actual collective representation. Further, it might be interesting to examine whether males display more emotional backlash when anticipating more drastic increases in women's representation. For example, males might respond with greater anxiety or anger if told that women would hold 45% or even 55% of all political offices 10 years in the future as shown in Figure 22. While the comparative effects of these alternative experimental manipulations might be interesting, it is most important to ensure that any manipulation elicits emotional experiences that accurately reflect those occurring when males observe shifts in women's representation in their real, everyday political environment.

Figure 22

Potential Manipulations Priming More Rapidly Closing Gaps in Representation (Top) or Changes in Relative Group Status (Bottom)



While I was surprised by the limited impact that resulted from anticipated increases in women's collective representation, there are a few potential explanations for these results. First, this study relied upon participants' ability to accurately imagine and report how they might feel and behave in a hypothetical political environment 10 years in the future. Although empirical work has shown that intended political participation is a strong predictor of self-reported recent participation two years later (Quintelier & Blais, 2016), it may be that imagining such future scenarios elicited *anticipated* emotional responses but failed to sufficiently impact participants' in vivo emotions and thus motivate shifts in intended levels of political participation. Second, my measure of intended voting behavior was subject to ceiling effects, which may have reduced any ability to detect shifts resulting from anticipated changes in women's collective representation. Finally, exploratory mediation analyses showed that my manipulation may have heightened enthusiasm while reducing anger among female participants, and lower levels of anger could have dampened any positive effects that feelings of enthusiasm might have had on intended future political activity. Future research might examine how people respond to (typically slow) real-world increases in women's collective representation and attempt to manipulate anticipated changes in ways that more effectively mirror these emotional reactions.

General Discussion

Women in the United States now hold elected office in higher numbers than ever before, and yet gender inequalities in political power and participation remain (Center for American Women and Politics, 2019a; Coffé & Bolzendahl, 2010). Social scientists have long been interested in identifying the factors that drive equitable political engagement and democratic participation (Beitz, 1989; Pitkin, 1967; Schwindt-Bayer & Mishler, 2005). Since levels of women's representation remain in flux, researchers have an opportunity to investigate whether

demographic shifts among officeholders trigger psychological, behavioral, and electoral responses from groups that have historically been underrepresented. Past research indicates that social identities such as gender and race matter in political representation, and identifying with elected officials could have important implications for political engagement (e.g., Barnes & Burchard, 2012; Fowler & Kam, 2007; Lawless, 2004; Uhlener & Scola, 2016). Might increasing numbers of women in office reduce existing gender gaps in broader political participation by empowering female citizens? Or might males view these increases in women's political power as destabilizing or threatening, leading them to reassert their group's political dominance? The goal of this investigation was to examine the impact that increasing numbers of women in elected office might have on the broader electorate. In particular, I was interested in how greater numbers of women in office might shape females' and males' perceptions of their own ability to participate in politics, their sense that government cares about people like them, and their motivation to vote and participate in ways that are crucial to a well-functioning democracy.

Based on predictions informed by social identity theory (Tajfel, 1981; Tajfel & Turner, 1979) and my assumption that gender is highly salient in the current political environment, I predicted that females and males might respond differently to increasing numbers of women in political office (e.g., Fowler & Kam, 2007; Huddy, 2001; Plutzer & Zipp, 1996; Valentino, Wayne, & Oceno, 2018). Specifically, I expected that females might be energized and mobilized by growing numbers of women in political office, whereas males might feel angry or anxious and (depending on their emotional reaction) either increase or decrease their political behavior accordingly. In Study 1, I drew upon representative national data collected from over 59,000 American adults over a 68-year period. Among both females and males, I found that higher observed numbers of women in political office were associated with greater confidence in one's

own ability to participate effectively, greater confidence in the government's responsiveness to people like oneself, greater likelihood of voting, increased voting behavior (as validated by public records), and elevated levels of broader political participation. Study 2 demonstrated that higher expected increases in women's political representation were associated with greater intended political participation among both females and males in a student sample. Finally, in Study 3, I manipulated expectations about whether women's representation would increase or remain stagnant over the next 10 years. Both females and males primed to believe that representation would increase reported greater expectations that the government would be responsive to their needs. However, I found little evidence to suggest that anticipated increases in women's representation—at least as operationalized in Study 3—would *cause* changes in intended political participation among females, and it could decrease males' intentions to engage in non-voting forms of participation. Interestingly, both females and males anticipated feeling greater enthusiasm and reduced anxiety and anger when primed to think that representation would increase than when primed to believe it would remain stagnant.

Overall, my results indicate that females and males respond with remarkable similarity to changes in women's collective representation—an interpretation stemming from several features of the current research. First and foremost, the direction of the relationship between women's collective representation and political efficacy and participation was identical in nearly all cases. Second, my findings suggest that females and males anticipate very similar emotional responses to future changes in women's collective representation. Specifically, both expect to feel positively about shifts toward fairer levels of women's collective representation, though females may react more strongly than males. The overall findings were surprising in light of my predictions derived from social identity theory, which were built on my assumption that group

competition would be heightened given gender's salience in the current political environment. Instead, I did not find much evidence that shifts in collective representation might impact females and males in ways that are qualitatively different or via different mechanisms (Fowler & Kam, 2007; Marcus & MacKuen, 2006; Valentino et al., 2011, 2018).

Strengths, Limitations, and Future Directions

Across studies using different operationalizations, samples, and tests, I consistently found that females and males viewed government as more responsive to their needs and reported greater enthusiasm when there were more women in elected office. The present investigation utilized a variety of methods to examine my research questions. Across studies, levels of women's representation were both measured (Studies 1 and 2) and experimentally manipulated (Study 3). I measured women's representation objectively to examine associations in a real-world setting (Study 1) and subjectively to tap into participants' perceptions of the political environment (Study 2). A nationally representative sample collected over a 68-year period allowed for generalizations across time and to the broader population (Study 1), while a correlational study conducted on a university campus at a single time point isolated the relationships of interest from potential spuriousness driven by temporal and geographical diversity (Study 2). While many of my dependent measures were self-reported, I also analyzed validated voter turnout data, and the pattern of results looked similar to analyses based on self-reported voting behavior (Study 1). Finally, measuring participant emotions allowed for an examination of mediators and exploration of how the findings might have been shaped by the specific content of my experimental manipulation (Study 3), which can inform future directions for better understanding applicability to real-world shifts in representation.

When considered individually, each of my studies had important methodological limitations. In Study 1, the level of missing data was quite extensive for some of my key variables. In particular, some of my criterion measures were only included in certain waves of data collection. Further analyses using imputation methods to address missing data would be useful, particularly to aid the interpretability of analyses that utilize participant weights in order to generalize to the broader population of U.S. adults. Additionally, some variables of interest (e.g., internal political efficacy; self-reported voting behavior) were measured using single items, which prevents an assessment of internal reliability.

The methodological limitations of Study 2 largely related to my sample of participants. First, almost 40% of participants were dropped from analyses because they were ineligible to vote, failed an attention check, or did not complete one or both of my key measures. While results did hold when including these participants in analyses, the high number of participants failing an attention check did raise potential concerns about overall attentiveness while completing the survey. Second, more than 90% of participants were under the age of 22. It may be less meaningful to ask young adults to imagine change in the political environment than it would be to ask similar questions of older adults. Those who have observed little change in the political environment may not be able to effectively benchmark the present political environment or their expectations for the future against what they have seen in the past. Third, my measure of anticipated change in women's political representation contained a single item, so internal reliability could not be examined.

In Study 3, I addressed some of the methodological limitations from my previous investigations by drawing upon participants who were older on average than those in Study 2. I also utilized multiple items to measure each variable of interest. However, about 24% of

participants were dropped from analyses in Study 3 because they did not meet eligibility requirements or failed an attention check. This again raised concerns about participant attentiveness, although the results from this study did hold when including all participants in analyses. Some concerns about participant attentiveness can be mitigated by examining the package as a whole, which shows similar results across studies utilizing different methods.

The studies as a package also have important limitations that can be addressed in future research. In particular, most of my measures of past or intended political participation relied upon self-report measures. These scales and my measure of anticipated emotion could be subject to socially desirable responding biases. For example, my results suggest that women's political gains could generate enthusiasm among the male electorate rather than resentment or threat. While this optimistic outlook is heartening, these findings must be interpreted with caution until boundary conditions are explored. For example, if males were primed with manipulations that emphasized not just women's gains in power but also men's losses, might they exhibit different emotional responses? If other strategies for manipulating perceived shifts in collective representation trigger anger or anxiety among males—or if some males experience these emotions in the face of real-world increases in the number of women in office—then the impact on political participation could be different. Further, males may respond differently to incremental changes as opposed to major electoral waves that sweep greater numbers of women into positions once held by men. Lastly, my studies showed that males and females both tend to display quantitatively higher levels of political engagement when there are more women in office. However, my measures did not distinguish between the ideological underpinnings of such participation. It is possible that greater numbers of women in office could motivate males to vote for men or more loudly voice their opposition to policy proposals that address inequality. More

research is needed to understand whether my findings reflect a widespread appreciation for more equal collective representation, idiosyncratic emotional responses to the specific framing presented in my manipulation, or greater enthusiasm among males that is geared toward maintenance of gender-based inequities.

Likewise, more research is needed to understand females' emotional response to shifts in women's collective representation outside of the lab. While it might induce positive emotions in an experimental setting to read that women will make substantial gains over the next 10 years, real-world responses could differ. My manipulation suggested that women would hold 35% of elected offices in 2030, which would leave them with 15% fewer seats than they would hold if representation levels were proportionate to the population. Put another way, such a shift would reduce the gap between collective representation of women as compared to men by 40%, leaving 60% of current inequalities intact. When occurring over a 10-year period, these gains might feel slow, incremental, and unsatisfying for females who feel strongly about women's political representation. Real-world shifts at such a pace might be less likely to elicit decreases in anger and anxiety, even if they still bring about stark increases in enthusiasm. With many unanswered questions about emotional responses to collective representation, it may be beneficial to engage in more naturalistic research that assesses real-world reactions. Increasing our understanding of collective representation's impact on affect outside the lab would allow researchers to conduct experimental work that elicits realistic emotional responses in controlled in-lab environments.

Another limitation of my work is that males and females were treated largely as monolithic groups, which may overlook important individual differences in how people respond to greater numbers of women in politics. Future work might investigate whether the effects of women's collective representation are moderated by individual differences in gender-relevant

attitudes. For example, those who more strongly identify with their gender might be more responsive to changes in women's collective representation than those who are less strongly connected to their ingroup, particularly among females (Bittner & Goodyear-Grant, 2017; Huddy, 2001). Gender attitudes might also be an important moderator among males, as some researchers have found sexism to be highly mobilizing. For example, inducing anger (relative to fear or a control condition) increased reported support for Donald Trump and mobilized voting intentions among sexist individuals prior to the 2016 U.S. presidential election (Valentino et al., 2018). It could be that increasing collective representation of women might trigger sexist males to become more engaged in politics in order to protect their group's relative dominance. Future studies might examine whether gender attitudes and gender identification might moderate relationships between collective representation and political efficacy and participation.

In my studies, I categorized participants on the basis of gender while paying little attention to the effects of intersectionality. In Study 1, I found similar associations between women's collective representation and political participation among subgroups of White and Black females and subgroups of White and Black males. Female and male Democrats, Republicans, and Independents also showed similar patterns of responding. At first glance, this suggests that women's collective representation impacts these subgroups in similar ways. However, a truly intersectional approach would require a deeper analysis of the meaning that groups assign to changes in women's representation, as well as an understanding of how power structures are shaped by elected officials and their constituents simultaneously (McCall & Orloff, 2017; Severs et al., 2016). Individuals might place more value on certain forms of collective representation (i.e., gender- versus race-based representation) that are changing simultaneously, or representation might be more impactful for some groups at the intersection of multiple

identities (Uhlener & Scola, 2016). Taking women of color as an example, racial identity tends to be a stronger predictor of political attitudes, but gender identity may become more salient when these two identities come into conflict (Gay & Tate, 1998). Additionally, it may be nearly impossible to disentangle the ways in which women of color respond to shifts in women's and minorities' representation, since increases in minority representation have largely been driven by the election of women of color (Hardy-Fanta et al., 2013). Thus, the correlational results reported in Study 1 are a rudimentary starting point to understanding how race and gender might interact and co-create responses to women's collective representation.

Implications and Conclusion

At its idealistic core, democracy relies upon equitable political engagement without regard for gender, race, social class, political party, or any of the other social identities that sometimes divide us. Despite these lofty democratic principles, American society was built upon systematic concentration of power within an elite group of White men (Feagin, 2014; Kann, 1998). Feminists have spent hundreds of years working to dismantle inequalities in political representation and participation (e.g., the women's suffrage movement; the fight for equal pay), and those fights continue today (e.g., the Women's March on Washington; the #MeToo movement). Over the past 30 years, their labors have resulted in notable, record-breaking numbers of women in political office. Now social scientists have the opportunity to bring greater understanding to the processes by which greater numbers of women in elected office might help our society actualize more equitable participation across the broader electorate.

The results of the present investigation suggest that more equitable collective participation is one promising avenue for achieving those democratic ideals. Since increases in women's collective representation may lead both females *and* males to view government as more

responsive to their needs, greater numbers of women in political office could result in more equitable levels of political engagement and participation among members of non-dominant groups. Further understanding the processes by which collective representation empowers political participation across the electorate could increase democratic inclusion. In sum, I hope that these findings will inspire new investigations at the intersection of political and social psychology, with far-reaching implications for individual political engagement, for avenues through which to address political inequality, and for the role of social identity in our political environment now and in the future.

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Appendix A
Extended Results for Study 1

Table A1

Women's Collective Representation and Internal Political Efficacy with Control Variables

	Model 2 (N = 38,223)	Model 3 (N = 38,131)	Model 4 (N = 38,095)	Model 5 (N = 29,274)	Model 6 (N = 19,904)	Model 7 (N = 38,023)	Model 8 (N = 35,834)	Model 9 (N = 37,832)	Model 10 (N = 28,043)	Model 11 (N = 38,306)
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Women's collective representation	0.02*** (0.002)	.02*** (.002)	0.02*** (0.002)	0.01* (0.003)	0.01 (0.004)	0.02*** (0.002)	0.02*** (0.002)	0.02*** (0.002)	0.01* (0.003)	0.01*** (0.002)
Male ^a	0.29*** (0.02)	.29*** (0.002)	0.29*** (0.02)	0.28*** (0.02)	0.30*** (0.03)	0.27*** (0.02)	0.25*** (0.02)	0.27*** (0.02)	0.25*** (0.02)	0.29*** (0.02)
Women's collective representation × Male	-0.003 (0.002)	-0.003 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.003)	-0.003 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.0002 (0.002)	-0.002 (0.002)
Year ^b	-0.01*** (0.02)	-0.01*** (.001)	-0.01*** (0.001)	0.0005 (0.001)	-0.0003 (0.002)	-0.01*** (0.001)	-0.004*** (0.001)	-0.01*** (0.001)	0.001 (0.001)	-0.005*** (0.001)
Presidential election year ^c	0.07*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	0.05** (0.01)	0.06** (0.02)	0.07*** (0.01)	0.08*** (0.01)	0.07*** (0.01)	0.05*** (0.01)	-0.003*** (0.001)
Women's dyadic representation	0.05** (0.002)	-	-	-	-	-	-	-	-	-
Women's dyadic representation × Male	0.01 (0.02)	-	-	-	-	-	-	-	-	-
Race ^d	-	-	-	-	-	-	-	-	-	-
Black	-	-0.10*** (0.02)	-	-	-	-	-	-	-	-
Asian	-	0.07 (0.07)	-	-	-	-	-	-	-	-

Hispanic	-	-0.07** (0.02)	-	-	-	-	-	-	-	-
American Indian	-	-0.15* (0.06)	-	-	-	-	-	-	-	-
Other/multiple	-	-0.09 (0.09)	-	-	-	-	-	-	-	-
Age	-	-	-0.004*** (0.0003)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	-0.06*** (0.02)	-	-	-	-	-	-
No party preference	-	-	-	-0.26*** (0.02)	-	-	-	-	-	-
Other party	-	-	-	0.35*** (0.08)	-	-	-	-	-	-
Democrat	-	-	-	-0.14*** (0.02)	-	-	-	-	-	-
Political ideology	-	-	-	-	0.06** (0.02)	-	-	-	-	-
Education	-	-	-	-	-	0.17*** (0.003)	-	-	-	-
Family income	-	-	-	-	-	-	0.15*** (0.005)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.12*** (0.02)	-	-
Divorced	-	-	-	-	-	-	-	0.01 (0.02)	-	-
Separated	-	-	-	-	-	-	-	-0.07* (0.03)	-	-

Widowed	-	-	-	-	-	-	-	-	-0.17*** (0.02)	-	-
Partners; never married	-	-	-	-	-	-	-	-	-0.02 (0.04)	-	-
Employment status ^g	-	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	-	-0.17** (0.05)	-
Unemployed	-	-	-	-	-	-	-	-	-	-0.08* (0.03)	-
Retired	-	-	-	-	-	-	-	-	-	-0.24*** (0.02)	-
Permanently disabled	-	-	-	-	-	-	-	-	-	-0.29*** (0.03)	-
Homemaker	-	-	-	-	-	-	-	-	-	-0.12*** (0.02)	-
Student	-	-	-	-	-	-	-	-	-	0.13** (0.04)	-
Percent Democrats in office	-	-	-	-	-	-	-	-	-	-	0.07*** (0.01)
Constant	-0.12*** (0.02)	-0.12*** (0.02)	0.08** (0.02)	-0.16*** (0.02)	-0.04 (0.05)	-0.54*** (0.02)	-0.55*** (0.02)	-0.08*** (0.02)	-0.21*** (0.04)	0.05 (0.04)	
R^2	.02	.02	.03	.03	.02	.10	.06	.03	.03	.02	

Note: Coefficients are unstandardized with robust standard errors in parentheses.

^aDummy coded: 0 = female, 1 = male.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy codes with White as the reference group.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A2*Women's Collective Representation and External Political Efficacy with Control Variables*

	Model 2 (N = 46,982)	Model 3 (N = 46,872)	Model 4 (N = 46,785)	Model 5 (N = 37,919)	Model 6 (N = 26,713)	Model 7 (N = 46,767)	Model 8 (N = 42,838)	Model 9 (N = 46,598)	Model 10 (N = 36,709)	Model 11 (N = 47,098)
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Women's collective representation	0.02*** (0.002)	0.02*** (0.002)	0.02*** (0.002)	0.01*** (0.002)	0.01*** (0.003)	0.02*** (0.002)	0.01*** (0.002)	0.02*** (0.002)	0.01*** (0.002)	0.01*** (0.002)
Male ^a	0.07*** (0.02)	0.06*** (0.02)	0.07*** (0.02)	0.05** (0.02)	-0.002 (0.02)	0.04** (0.01)	0.01 (0.02)	0.02 (0.02)	0.01 (0.02)	0.07*** (0.02)
Women's collective representation × Male	-0.01*** (0.002)	-0.01*** (0.001)	-0.01*** (0.001)	-0.005** (0.002)	-0.001 (0.002)	-0.005** (0.001)	-0.004** (0.001)	-0.004** (0.001)	-0.003 (0.002)	-0.01*** (0.001)
Year ^b	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)	-0.02*** (0.001)
Presidential election year ^c	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.08*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.14*** (0.01)	0.09*** (0.01)	0.10*** (0.01)	0.08*** (0.01)
Women's dyadic representation	0.01 (0.01)	-	-	-	-	-	-	-	-	-
Women's dyadic representation × Male	0.02 (0.02)	-	-	-	-	-	-	-	-	-
Race ^d	-	-	-	-	-	-	-	-	-	-
Black	-	-0.22*** (0.02)	-	-	-	-	-	-	-	-
Asian	-	0.02 (0.05)	-	-	-	-	-	-	-	-
Hispanic	-	-0.10*** (0.02)	-	-	-	-	-	-	-	-
American Indian	-	-0.31*** (0.06)	-	-	-	-	-	-	-	-

Other/multiple	-	-0.06 (0.06)	-	-	-	-	-	-	-	-
Age	-	-	-0.005*** (0.0003)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	-0.19*** (0.01)	-	-	-	-	-	-
No party preference	-	-	-	-0.38*** (0.02)	-	-	-	-	-	-
Other party	-	-	-	-0.21*** (0.06)	-	-	-	-	-	-
Democrat	-	-	-	-0.18*** (0.01)	-	-	-	-	-	-
Political ideology	-	-	-	-	0.002 (0.005)	-	-	-	-	-
Education	-	-	-	-	-	0.16*** (0.003)	-	-	-	-
Family income	-	-	-	-	-	-	0.17*** (0.004)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.03* (0.01)	-	-
Divorced	-	-	-	-	-	-	-	-0.06** (0.02)	-	-
Separated	-	-	-	-	-	-	-	-0.20*** (0.03)	-	-
Widowed	-	-	-	-	-	-	-	-0.26*** (0.02)	-	-
Partners; never married	-	-	-	-	-	-	-	-0.08* (0.03)	-	-

Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	-0.28***	-
									(0.05)	
Unemployed	-	-	-	-	-	-	-	-	-0.19***	-
									(0.03)	
Retired	-	-	-	-	-	-	-	-	-0.19***	-
									(0.02)	
Permanently disabled	-	-	-	-	-	-	-	-	-0.34***	-
									(0.03)	
Homemaker	-	-	-	-	-	-	-	-	-0.14***	-
									(0.02)	
Student	-	-	-	-	-	-	-	-	0.12***	-
									(0.03)	
Percent Democrats in office	-	-	-	-	-	-	-	-	-	-0.004***
										(0.001)
Constant	0.48***	-0.49***	0.70***	0.60***	0.69***	0.07***	-0.03	0.57***	0.55***	0.73***
	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)
R ²	.06	.06	.07	.04	.04	.13	.10	.07	.04	.06

Note: Coefficients are unstandardized with robust standard errors in parentheses.

^aDummy coded: 0 = female, 1 = male.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy codes with White as the reference group.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A3*Women's Collective Representation and Political Participation with Control Variables*

	Model 2 (N = 47,539)	Model 3 (N = 47,382)	Model 4 (N = 47,320)	Model 5 (N = 41,771)	Model 6 (N = 30,308)	Model 7 (N = 47,271)	Model 8 (N = 43,246)	Model 9 (N = 47,514)	Model 10 (N = 40,606)	Model 11 (N = 47,644)
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Women's collective representation	0.02*** (0.003)	.02*** (.003)	0.02*** (0.003)	0.02*** (0.004)	0.01*** (0.004)	0.02*** (0.003)	0.02*** (0.003)	0.02*** (0.003)	0.02*** (0.004)	0.02*** (0.003)
Male ^a	0.31*** (0.03)	0.31*** (0.03)	0.31*** (0.03)	0.32*** (0.03)	0.21*** (0.04)	0.25*** (0.03)	0.24*** (0.03)	0.27*** (0.03)	0.25*** (0.04)	0.31*** (0.03)
Women's collective representation × Male	-0.01** (0.003)	-0.01*** (0.002)	-0.01*** (0.002)	-0.01*** (0.002)	-0.01* (0.003)	-0.01** (0.002)	-0.01*** (0.002)	-0.01*** (0.002)	-0.01** (0.003)	-0.01*** (0.002)
Year ^b	-0.01*** (0.001)	-0.005*** (.001)	-0.005*** (0.001)	-0.004* (0.002)	-0.003 (0.002)	-0.01*** (0.001)	-0.003** (0.001)	-0.004** (0.001)	-0.003 (0.002)	-0.005*** (0.001)
Presidential election year ^c	0.39*** (0.02)	0.39*** (0.02)	0.38*** (0.02)	0.37*** (0.02)	0.35*** (0.02)	0.40*** (0.02)	0.41*** (0.01)	0.38*** (0.02)	0.37*** (0.02)	0.38*** (0.02)
Women's dyadic representation	0.04* (0.02)	-	-	-	-	-	-	-	-	-
Women's dyadic representation × Male	-0.03 (0.03)	-	-	-	-	-	-	-	-	-
Race ^d	-	-	-	-	-	-	-	-	-	-
Black	-	-0.04 (0.03)	-	-	-	-	-	-	-	-
Asian	-	-0.28** (0.08)	-	-	-	-	-	-	-	-
Hispanic	-	-0.24*** (0.03)	-	-	-	-	-	-	-	-

American Indian	-	-0.14 (0.11)	-	-	-	-	-	-	-	-
Other/multiple	-	0.12 (0.07)	-	-	-	-	-	-	-	-
Age	-	-	0.002** (0.0004)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	-0.34*** (0.02)	-	-	-	-	-	-
No party preference	-	-	-	-1.04*** (0.05)	-	-	-	-	-	-
Other party	-	-	-	-0.10 (0.08)	-	-	-	-	-	-
Democrat	-	-	-	-0.11*** (0.02)	-	-	-	-	-	-
Political ideology	-	-	-	-	-0.02** (0.01)	-	-	-	-	-
Education	-	-	-	-	-	0.19*** (0.005)	-	-	-	-
Family income	-	-	-	-	-	-	0.22*** (0.01)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	-0.11*** (0.02)	-	-
Divorced	-	-	-	-	-	-	-	-0.09** (0.03)	-	-
Separated	-	-	-	-	-	-	-	-0.29*** (0.06)	-	-
Widowed	-	-	-	-	-	-	-	-0.26*** (0.03)	-	-

Partners; never married	-	-	-	-	-	-	-	-	-0.18*** (0.05)	-	-
Employment status ^g	-	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	-	-0.13 (0.07)	-
Unemployed	-	-	-	-	-	-	-	-	-	-0.13** (0.05)	-
Retired	-	-	-	-	-	-	-	-	-	0.01 (0.02)	-
Permanently disabled	-	-	-	-	-	-	-	-	-	-0.23*** (0.05)	-
Homemaker	-	-	-	-	-	-	-	-	-	-0.19*** (0.03)	-
Student	-	-	-	-	-	-	-	-	-	-0.06 (0.05)	-
Percent Democrats in office	-	-	-	-	-	-	-	-	-	-	-0.001 (0.001)
Constant	-0.87*** (0.03)	-0.86*** (0.03)	-0.93*** (0.04)	-0.69*** (0.05)	-0.55*** (0.06)	-1.42*** (0.03)	-1.52*** (0.04)	-0.81*** (0.03)	-0.86*** (0.05)	-0.82*** (0.07)	
Pseudo R^2	.01	.02	.02	.04	.02	.06	.04	.02	.02	.02	

Note: Coefficients are unstandardized with robust standard errors in parentheses.

^aDummy coded: 0 = female, 1 = male.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy codes with White as the reference group.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A4*Women's Collective Representation and Self-Reported Voting Behavior with Control Variables*

	Model 2 (N = 53,561)	Model 3 (N = 54,048)	Model 4 (N = 53,321)	Model 5 (N = 41,973)	Model 6 (N = 30,331)	Model 7 (N = 53,280)	Model 8 (N = 49,734)	Model 9 (N = 53,195)	Model 10 (N = 40,766)	Model 11 (N = 54,344)
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Women's collective representation	1.07*** (0.005)	1.06*** (0.004)	1.06*** (0.005)	1.07*** (0.01)	1.07*** (0.01)	1.07*** (0.005)	1.05*** (0.005)	1.06*** (0.005)	1.06*** (0.01)	1.04*** (0.005)
Male ^a	1.44*** (0.05)	1.42*** (0.05)	1.46*** (0.05)	1.35*** (0.06)	1.22*** (0.07)	1.39*** (0.05)	1.28*** (0.04)	1.39*** (0.05)	1.20*** (0.06)	1.43*** (0.05)
Women's collective representation × Male	0.98*** (0.004)	0.98*** (0.003)	0.98*** (0.003)	0.98*** (0.004)	0.98*** (0.005)	0.98*** (0.003)	0.97*** (0.003)	0.98*** (0.003)	0.99** (0.004)	0.98*** (0.003)
Year ^b	0.98*** (0.001)	0.98*** (0.003)	0.98*** (0.001)	0.98*** (0.002)	0.98*** (0.003)	0.97*** (0.001)	0.99*** (0.001)	0.99*** (0.002)	0.98*** (0.003)	0.99*** (0.001)
Presidential election year ^c	2.27*** (0.05)	2.27*** (0.05)	2.30*** (0.05)	2.46*** (0.06)	2.60*** (0.08)	2.41*** (0.05)	2.36*** (0.06)	2.31*** (0.05)	2.44*** (0.06)	2.19*** (0.05)
Women's dyadic representation	0.99 (0.03)	-	-	-	-	-	-	-	-	-
Women's dyadic representation × Male	1.01 (0.04)	-	-	-	-	-	-	-	-	-
Race ^d	-	-	-	-	-	-	-	-	-	-
Black	-	0.65*** (0.02)	-	-	-	-	-	-	-	-
Asian	-	0.59*** (0.07)	-	-	-	-	-	-	-	-
Hispanic	-	0.47*** (0.02)	-	-	-	-	-	-	-	-
American Indian	-	0.31*** (0.04)	-	-	-	-	-	-	-	-

Other/multiple	-	0.60*** (0.08)	-	-	-	-	-	-	-	-
Age	-	-	1.02*** (0.001)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	0.46*** (0.02)	-	-	-	-	-	-
No party preference	-	-	-	0.19*** (0.01)	-	-	-	-	-	-
Other party	-	-	-	0.40*** (0.05)	-	-	-	-	-	-
Democrat	-	-	-	0.75*** (0.03)	-	-	-	-	-	-
Political ideology	-	-	-	-	1.08*** (0.01)	-	-	-	-	-
Education	-	-	-	-	-	1.38*** (0.01)	-	-	-	-
Family income	-	-	-	-	-	-	1.51*** (0.01)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.49*** (0.02)	-	-
Divorced	-	-	-	-	-	-	-	0.64*** (0.02)	-	-
Separated	-	-	-	-	-	-	-	0.38*** (0.02)	-	-
Widowed	-	-	-	-	-	-	-	0.83*** (0.03)	-	-
Partners; never married	-	-	-	-	-	-	-	0.39*** (0.03)	-	-

Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	0.52*** (0.06)	-
Unemployed	-	-	-	-	-	-	-	-	0.44*** (0.03)	-
Retired	-	-	-	-	-	-	-	-	1.75*** (0.07)	-
Permanently disabled	-	-	-	-	-	-	-	-	0.53*** (0.03)	-
Homemaker	-	-	-	-	-	-	-	-	0.85*** (0.03)	-
Student	-	-	-	-	-	-	-	-	0.61*** (0.04)	-
Percent Democrats in office	-	-	-	-	-	-	-	-	-	0.98*** (0.001)
Constant	1.39*** (0.05)	1.30*** (0.04)	0.46*** (0.02)	2.40*** (0.17)	1.54*** (0.15)	0.61*** (0.02)	1.51*** (0.01)	1.48*** (0.05)	1.48*** (0.11)	3.61*** (0.30)
Pseudo R^2	.04	.04	.06	.07	.04	.08	.07	.05	.06	.04

Note: Coefficients are odds ratios with robust standard errors in parentheses.

^aDummy coded: 0 = female, 1 = male.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy codes with White as the reference group.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A5*Women's Collective Representation and Validated Voting Behavior with Control Variables*

	Model 2 (N = 15,145)	Model 3 (N = 15,096)	Model 4 (N = 15,118)	Model 5 (N = 13,826)	Model 6 (N = 9,670)	Model 7 (N = 15,039)	Model 8 (N = 13,759)	Model 9 (N = 15,120)	Model 10 (N = 13,873)	Model 11 (N = 15,158)
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Women's collective representation	1.10*** (0.01)	1.09*** (0.01)	1.10*** (0.01)	1.11*** (0.01)	1.11*** (0.01)	1.09*** (0.01)	1.08*** (0.01)	1.10*** (0.01)	1.11*** (0.01)	1.05*** (0.01)
Male ^a	1.17* (0.08)	1.14 (0.08)	1.19* (0.09)	1.22* (0.10)	1.18 (0.12)	1.13 (0.08)	1.04 (0.08)	1.17* (0.09)	1.17 (0.10)	1.18* (0.09)
Women's collective representation × Male	0.98 (0.01)	0.98 (0.01)	0.98 (0.01)	0.98 (0.01)	0.97 (0.01)	0.98* (0.01)	0.98 (0.01)	0.98 (0.01)	0.98 (0.01)	0.98 (0.01)
Year ^b	0.96*** (0.004)	0.97*** (0.004)	0.96*** (0.004)	0.95*** (0.01)	0.96*** (0.01)	0.96*** (0.004)	0.97*** (0.004)	0.97*** (0.004)	0.95*** (0.01)	0.96*** (0.004)
Presidential election year ^c	2.06*** (0.07)	2.10*** (0.08)	2.08*** (0.08)	2.08*** (0.08)	2.19*** (0.09)	2.12*** (0.08)	2.13*** (0.08)	2.10*** (0.08)	2.09*** (0.08)	1.94*** (0.07)
Women's dyadic representation	0.93 (0.07)	-	-	-	-	-	-	-	-	-
Women's dyadic representation × Male	1.03 (0.12)	-	-	-	-	-	-	-	-	-
Race ^d	-	-	-	-	-	-	-	-	-	-
Black	-	0.51*** (0.03)	-	-	-	-	-	-	-	-
Asian	-	0.53** (0.12)	-	-	-	-	-	-	-	-
Hispanic	-	0.47*** (0.04)	-	-	-	-	-	-	-	-
American Indian	-	0.33*** (0.06)	-	-	-	-	-	-	-	-

Other/multiple	-	1.19 (0.87)	-	-	-	-	-	-	-	-
Age	-	-	1.02*** (0.001)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	0.54*** (0.03)	-	-	-	-	-	-
No party preference	-	-	-	0.24*** (0.02)	-	-	-	-	-	-
Other party	-	-	-	0.46** (0.13)	-	-	-	-	-	-
Democrat	-	-	-	0.70*** (0.03)	-	-	-	-	-	-
Political ideology	-	-	-	-	1.09*** (0.02)	-	-	-	-	-
Education	-	-	-	-	-	1.28*** (0.01)	-	-	-	-
Family income	-	-	-	-	-	-	1.42*** (0.02)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.51*** (0.03)	-	-
Divorced	-	-	-	-	-	-	-	0.54*** (0.03)	-	-
Separated	-	-	-	-	-	-	-	0.36*** (0.04)	-	-
Widowed	-	-	-	-	-	-	-	0.94 (0.05)	-	-
Partners; never married	-	-	-	-	-	-	-	0.26*** (0.04)	-	-

Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	0.43***	-
									(0.07)	
Unemployed	-	-	-	-	-	-	-	-	0.41***	-
									(0.04)	
Retired	-	-	-	-	-	-	-	-	1.61***	-
									(0.09)	
Permanently disabled	-	-	-	-	-	-	-	-	0.69**	-
									(0.07)	
Homemaker	-	-	-	-	-	-	-	-	1.02	-
									(0.06)	
Student	-	-	-	-	-	-	-	-	0.50***	-
									(0.06)	
Percent Democrats in office	-	-	-	-	-	-	-	-	-	0.97***
										(0.003)
Constant	1.56***	1.41**	0.52***	3.48***	1.51*	0.73**	0.52***	1.48***	2.12***	16.89***
	(0.17)	(0.15)	(0.06)	(0.59)	(0.31)	(0.08)	(0.07)	(0.16)	(0.35)	(3.87)
Pseudo R ²	.03	.04	.06	.05	.03	.06	.06	.05	.04	.04

Note: Coefficients are odds ratios with robust standard errors in parentheses.

^aDummy coded: 0 = female, 1 = male.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy codes with White as the reference group.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A6

Minorities' Collective Representation and Internal Political Efficacy with Control Variables

	Model 2 (N = 38,079)	Model 3 (N = 38,162)	Model 4 (N = 37,960)	Model 5 (N = 29,136)	Model 6 (N = 19,801)	Model 7 (N = 37,894)	Model 8 (N = 35,715)	Model 9 (N = 37,698)	Model 10 (N = 27,907)	Model 11 (N = 38,162)
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Minorities' collective representation	0.02* (0.01)	0.02** (0.002)	0.02** (0.01)	0.01 (0.01)	0.01 (0.01)	0.03*** (0.01)	0.02* (0.01)	0.02** (0.01)	0.02 (0.01)	0.02* (0.01)
White ^a	0.29*** (0.03)	0.27*** (0.03)	0.30*** (0.03)	0.17*** (0.04)	0.23*** (0.06)	0.16*** (0.03)	0.16*** (0.03)	0.27*** (0.03)	0.20*** (0.05)	0.26*** (0.03)
Minorities' collective representation × White	-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.02** (0.01)	-0.02* (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.02* (0.01)	-0.03*** (0.01)
Year ^b	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.005** (0.002)	0.003 (0.002)	-0.01*** (0.001)	0.001 (0.001)	0.0001 (0.001)	0.004* (0.002)	0.0003 (0.001)
Presidential election year ^c	0.08*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.04** (0.01)	0.05** (0.02)	0.09*** (0.01)	0.09*** (0.01)	0.09*** (0.01)	0.05** (0.01)	0.08*** (0.01)
Minorities' dyadic representation	0.06* (0.03)	-	-	-	-	-	-	-	-	-
Minorities' dyadic representation × White	0.03 (0.04)	-	-	-	-	-	-	-	-	-
Male ^d	-	0.28*** (0.01)	-	-	-	-	-	-	-	-
Age	-	-	-0.005*** (0.0003)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	-0.05** (0.02)	-	-	-	-	-	-
No party preference	-	-	-	-0.27*** (0.02)	-	-	-	-	-	-

Other party	-	-	-	0.35*** (0.08)	-	-	-	-	-	-
Democrat	-	-	-	-0.14*** (0.02)	-	-	-	-	-	-
Political ideology	-	-	-	-	-0.02** (0.01)	-	-	-	-	-
Education	-	-	-	-	-	0.17*** (0.003)	-	-	-	-
Family income	-	-	-	-	-	-	0.16*** (0.005)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.13*** (0.02)	-	-
Divorced	-	-	-	-	-	-	-	-0.02 (0.02)	-	-
Separated	-	-	-	-	-	-	-	-0.09* (0.03)	-	-
Widowed	-	-	-	-	-	-	-	-0.26*** (0.02)	-	-
Partners; never married	-	-	-	-	-	-	-	-0.01 (0.04)	-	-
Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	-0.15** (0.05)	-
Unemployed	-	-	-	-	-	-	-	-	-0.10** (0.03)	-
Retired	-	-	-	-	-	-	-	-	-0.25*** (0.02)	-
Permanently disabled	-	-	-	-	-	-	-	-	-0.30*** (0.03)	-

Homemaker	-	-	-	-	-	-	-	-	-0.26***	-
									(0.02)	
Student	-	-	-	-	-	-	-	-	0.11*	-
									(0.04)	
Percent Democrats in office	-	-	-	-	-	-	-	-	-	-0.004***
										(0.001)
Constant	-0.34***	-0.44***	-0.13***	-0.25***	-0.16*	-0.64***	-0.69***	-0.25***	-0.28***	-0.07
	(0.03)	(0.03)	(0.03)	(0.04)	(0.06)	(0.03)	(0.03)	(0.03)	(0.05)	(0.06)
R^2	.01	.02	.01	.01	.003	.09	.04	.01	.01	.01

Note: Coefficients are unstandardized with robust standard errors in parentheses.

^aDummy coded: 0 = non-White, 1 = White.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy coded: 0 = female, 1 = male.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A7*Minorities' Collective Representation and External Political Efficacy with Control Variables*

	Model 2 (N = 46,823)	Model 3 (N = 46,903)	Model 4 (N = 46,636)	Model 5 (N = 37,769)	Model 6 (N = 26,611)	Model 7 (N = 46,622)	Model 8 (N = 42,716)	Model 9 (N = 46,449)	Model 10 (N = 36,559)	Model 11 (N = 46,939)
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Minorities' collective representation	-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)	-0.02*** (0.01)	-0.02* (0.01)	-0.03*** (0.01)	-0.04*** (0.01)	-0.03*** (0.01)
White ^a	0.48*** (0.03)	0.47*** (0.03)	0.49*** (0.03)	0.38*** (0.03)	0.46*** (0.05)	0.36*** (0.03)	0.34*** (0.03)	0.45*** (0.03)	0.41*** (0.04)	0.45*** (0.03)
Minorities' collective representation × White	-0.05*** (0.004)	-0.05*** (0.004)	-0.05*** (0.004)	-0.04*** (0.005)	-0.04*** (0.01)	-0.04*** (0.004)	-0.04*** (0.004)	-0.04*** (0.004)	-0.04*** (0.005)	-0.04*** (0.004)
Year ^b	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.002 (0.001)	0.001 (0.002)	-0.01*** (0.001)	-0.01*** (0.001)	-0.002 (0.001)	0.002 (0.001)	-0.002** (0.001)
Presidential election year ^c	0.11*** (0.01)	0.11*** (0.01)	0.12*** (0.01)	0.08*** (0.01)	0.09*** (0.01)	0.11*** (0.01)	0.15*** (0.004)	0.11*** (0.01)	0.10*** (0.01)	0.10*** (0.01)
Minorities' dyadic representation	0.02 (0.02)	-	-	-	-	-	-	-	-	-
Minorities' dyadic representation × White	0.01 (0.03)	-	-	-	-	-	-	-	-	-
Male ^d	-	0.02* (0.01)	-	-	-	-	-	-	-	-
Age	-	-	-0.01*** (0.0003)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	-0.17*** (0.01)	-	-	-	-	-	-
No party preference	-	-	-	-0.37*** (0.02)	-	-	-	-	-	-

Other party	-	-	-	-0.19**	-	-	-	-	-	-
				(0.06)						
Democrat	-	-	-	-0.15***	-	-	-	-	-	-
				(0.01)						
Political ideology	-	-	-	-	-0.01	-	-	-	-	-
					(0.005)					
Education	-	-	-	-	-	0.16***	-	-	-	-
						(0.003)				
Family income	-	-	-	-	-	-	0.16***	-	-	-
							(0.004)			
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.04**	-	-
								(0.01)		
Divorced	-	-	-	-	-	-	-	-0.06**	-	-
								(0.02)		
Separated	-	-	-	-	-	-	-	-0.15***	-	-
								(0.03)		
Widowed	-	-	-	-	-	-	-	-0.27***	-	-
								(0.02)		
Partners; never married	-	-	-	-	-	-	-	-0.05	-	-
								(0.03)		
Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	-0.24***	-
									(0.05)	
Unemployed	-	-	-	-	-	-	-	-	-0.16***	-
									(0.03)	
Retired	-	-	-	-	-	-	-	-	-0.20***	-
									(0.02)	
Permanently disabled	-	-	-	-	-	-	-	-	-0.32***	-
									(0.03)	

Homemaker	-	-	-	-	-	-	-	-	-0.13***	-
									(0.02)	
Student	-	-	-	-	-	-	-	-	0.14***	-
									(0.03)	
Percent Democrats in office	-	-	-	-	-	-	-	-	-	-0.004***
										(0.001)
Constant	-0.07*	-0.07*	0.15***	0.05	0.07	-0.35***	-0.38***	0.004	-0.06	0.23***
	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)	(0.03)	(0.03)	(0.03)	(0.04)	(0.05)
R^2	.07	.07	.08	.04	.05	.14	.11	.08	.04	.07

Note: Coefficients are unstandardized with robust standard errors in parentheses.

^aDummy coded: 0 = non-White, 1 = White.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy coded: 0 = female, 1 = male.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A8*Minorities' Collective Representation and Political Participation with Control Variables*

	Model 2 (N = 47,348)	Model 3 (N = 47,417)	Model 4 (N = 47,146)	Model 5 (N = 41,598)	Model 6 (N = 30,187)	Model 7 (N = 47,108)	Model 8 (N = 43,108)	Model 9 (N = 47,340)	Model 10 (N = 40,434)	Model 11 (N = 47,453)
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Minorities' collective representation	0.08*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	0.09*** (0.01)	0.08*** (0.01)	0.08*** (0.01)	0.09*** (0.01)	0.08*** (0.01)
White ^a	0.40*** (0.05)	0.36*** (0.05)	0.38*** (0.05)	0.33*** (0.06)	0.26*** (0.07)	0.23*** (0.05)	0.24*** (0.05)	0.35*** (0.05)	0.38*** (0.06)	0.37*** (0.05)
Minorities' collective representation × White	-0.04*** (0.01)	-0.03*** (0.01)	-0.04*** (0.01)	-0.03*** (0.01)	-0.02** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.04*** (0.01)	-0.03*** (0.01)
Year ^b	-0.01*** (0.002)	-0.01*** (0.001)	-0.01*** (0.002)	-0.01** (0.002)	-0.01*** (0.002)	-0.01*** (0.002)	-0.01*** (0.002)	-0.01*** (0.002)	-0.01** (0.002)	-0.01*** (0.002)
Presidential election year ^c	0.39*** (0.02)	0.39*** (0.02)	0.38*** (0.02)	0.36*** (0.02)	0.34*** (0.02)	0.39*** (0.02)	0.41*** (0.02)	0.38*** (0.02)	0.36*** (0.02)	0.38*** (0.02)
Minorities' dyadic representation	-0.03 (0.03)	-	-	-	-	-	-	-	-	-
Minorities' dyadic representation × White	0.14*** (0.04)	-	-	-	-	-	-	-	-	-
Male ^d	-	0.21*** (0.02)	-	-	-	-	-	-	-	-
Age	-	-	0.001** (0.0004)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	-0.32*** (0.02)	-	-	-	-	-	-
No party preference	-	-	-	-1.03*** (0.05)	-	-	-	-	-	-

Other party	-	-	-	-0.10 (0.08)	-	-	-	-	-	-
Democrat	-	-	-	-0.10*** (0.02)	-	-	-	-	-	-
Political ideology	-	-	-	-	-0.02** (0.01)	-	-	-	-	-
Education	-	-	-	-	-	0.19*** (0.005)	-	-	-	-
Family income	-	-	-	-	-	-	0.22*** (0.01)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	-0.10*** (0.02)	-	-
Divorced	-	-	-	-	-	-	-	-0.11*** (0.03)	-	-
Separated	-	-	-	-	-	-	-	-0.29*** (0.06)	-	-
Widowed	-	-	-	-	-	-	-	-0.32*** (0.03)	-	-
Partners; never married	-	-	-	-	-	-	-	-0.19*** (0.05)	-	-
Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	-0.13 (0.08)	-
Unemployed	-	-	-	-	-	-	-	-	-0.13** (0.05)	-
Retired	-	-	-	-	-	-	-	-	-0.001 (0.02)	-
Permanently disabled	-	-	-	-	-	-	-	-	-0.25*** (0.05)	-

Homemaker	-	-	-	-	-	-	-	-	-0.30***	-
									(0.03)	
Student	-	-	-	-	-	-	-	-	-0.07	-
									(0.06)	
Percent Democrats in office	-	-	-	-	-	-	-	-	-	-0.001
										(0.001)
Constant	-1.12***	-1.17***	-1.15***	-0.91***	-0.67***	-1.52***	-1.63***	-1.02***	-1.09***	-1.00***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.08)	(0.06)	(0.06)	(0.06)	(0.06)	(0.10)
Pseudo R^2	.02	.02	.02	.03	.02	.06	.04	.02	.02	.02

Note: Coefficients are unstandardized with robust standard errors in parentheses.

^aDummy coded: 0 = non-White, 1 = White.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy coded: 0 = female, 1 = male.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A9

Minorities' Collective Representation and Self-Reported Voting Behavior with Control Variables

	Model 2 (N = 53,368)	Model 3 (N = 54,098)	Model 4 (N = 53,144)	Model 5 (N = 41,798)	Model 6 (N = 30,211)	Model 7 (N = 53,114)	Model 8 (N = 49,579)	Model 9 (N = 53,018)	Model 10 (N = 40,593)	Model 11 (N = 54,135)
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Minorities' collective representation	1.04** (0.02)	1.04* (0.01)	1.05** (0.02)	1.00 (0.02)	0.97 (0.02)	1.07*** (0.02)	1.03* (0.02)	1.05** (0.02)	1.02 (0.02)	1.02 (0.01)
White ^a	2.70*** (0.16)	2.68*** (0.15)	2.57*** (0.15)	1.93*** (0.15)	1.71*** (0.18)	2.23*** (0.13)	2.09*** (0.12)	2.41*** (0.14)	1.82*** (0.15)	2.43*** (0.14)
Minorities' collective representation × White	0.94*** (0.01)	0.94*** (0.01)	0.93*** (0.01)	0.98* (0.01)	0.99 (0.01)	0.94*** (0.01)	0.94*** (0.01)	0.93*** (0.01)	0.97** (0.01)	0.95*** (0.01)
Year ^b	1.00 (0.002)	1.01** (0.002)	1.00 (0.002)	1.01** (0.003)	1.01** (0.004)	0.99*** (0.002)	1.00 (0.003)	1.01** (0.003)	1.01** (0.003)	1.00 (0.002)
Presidential election year ^c	2.39*** (0.05)	2.37*** (0.05)	2.41*** (0.05)	2.48*** (0.06)	2.57*** (0.08)	2.51*** (0.06)	2.48*** (0.06)	2.41*** (0.05)	2.41*** (0.06)	2.28*** (0.05)
Minorities' dyadic representation	1.15** (0.05)	-	-	-	-	-	-	-	-	-
Minorities' dyadic representation × White	0.90 (0.06)	-	-	-	-	-	-	-	-	-
Male ^d	-	1.17*** (0.03)	-	-	-	-	-	-	-	-
Age	-	-	1.02*** (0.001)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	0.49*** (0.02)	-	-	-	-	-	-
No party preference	-	-	-	0.20*** (0.01)	-	-	-	-	-	-

Other party	-	-	-	0.41*** (0.05)	-	-	-	-	-	-
Democrat	-	-	-	0.84*** (0.03)	-	-	-	-	-	-
Political ideology	-	-	-	-	1.05*** (0.01)	-	-	-	-	-
Education	-	-	-	-	-	1.37*** (0.01)	-	-	-	-
Family income	-	-	-	-	-	-	1.49*** (0.01)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.51*** (0.02)	-	-
Divorced	-	-	-	-	-	-	-	0.63*** (0.02)	-	-
Separated	-	-	-	-	-	-	-	0.42*** (0.03)	-	-
Widowed	-	-	-	-	-	-	-	0.78*** (0.03)	-	-
Partners; never married	-	-	-	-	-	-	-	0.41*** (0.03)	-	-
Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	0.55*** (0.06)	-
Unemployed	-	-	-	-	-	-	-	-	0.45*** (0.03)	-
Retired	-	-	-	-	-	-	-	-	1.70*** (0.07)	-
Permanently disabled	-	-	-	-	-	-	-	-	0.53*** (0.04)	-

Homemaker	-	-	-	-	-	-	-	-	0.80*** (0.03)	-
Student	-	-	-	-	-	-	-	-	0.62*** (0.05)	-
Percent Democrats in office	-	-	-	-	-	-	-	-	-	0.98*** (0.001)
Constant	0.50*** (0.03)	0.45*** (0.03)	0.18*** (0.01)	0.78** (0.07)	0.60*** (0.07)	0.28*** (0.02)	0.20*** (0.01)	0.59*** (0.04)	0.56*** (0.05)	1.62*** (0.16)
Pseudo R^2	.04	.04	.07	.07	.04	.08	.07	.05	.06	.04

Note: Coefficients are odds ratios with robust standard errors in parentheses.

^aDummy coded: 0 = non-White, 1 = White.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy coded: 0 = female, 1 = male.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table A10

Minorities' Collective Representation and Validated Voting Behavior with Control Variables

	Model 2 (N = 15,092)	Model 3 (N = 15,105)	Model 4 (N = 15,066)	Model 5 (N = 13,775)	Model 6 (N = 9,641)	Model 7 (N = 14,991)	Model 8 (N = 13,715)	Model 9 (N = 15,068)	Model 10 (N = 13,823)	Model 11 (N = 15,105)
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Minorities' collective representation	0.95 (0.05)	0.96 (0.05)	0.97 (0.05)	0.96 (0.06)	0.99 (0.08)	0.95 (0.05)	0.94 (0.05)	0.96 (0.05)	0.95 (0.06)	1.05 (0.05)
White ^a	1.86** (0.42)	1.82** (0.40)	1.78* (0.40)	1.59 (0.56)	1.49 (0.68)	1.59* (0.36)	1.42 (0.33)	1.65* (0.37)	1.29 (0.45)	1.42 (0.32)
Minorities' collective representation × White	1.04 (0.05)	1.03 (0.05)	1.02 (0.05)	1.06 (0.07)	1.07 (0.10)	1.03 (0.05)	1.05 (0.05)	1.03 (0.05)	1.08 (0.07)	1.06 (0.05)
Year ^b	1.00 (0.004)	1.00 (0.004)	1.00 (0.004)	1.00 (0.004)	1.00 (0.01)	0.99* (0.004)	1.00 (0.004)	1.00 (0.004)	1.00 (0.004)	0.97*** (0.004)
Presidential election year ^c	2.04*** (0.07)	2.04*** (0.08)	2.05*** (0.08)	2.06*** (0.08)	2.18*** (0.10)	2.09*** (0.08)	2.11*** (0.08)	2.07*** (0.08)	2.07*** (0.08)	1.98*** (0.07)
Minorities' dyadic representation	1.20* (0.10)	-	-	-	-	-	-	-	-	-
Minorities' dyadic representation × White	0.88 (0.10)	-	-	-	-	-	-	-	-	-
Male ^d	-	1.04 (0.04)	-	-	-	-	-	-	-	-
Age	-	-	1.02*** (0.001)	-	-	-	-	-	-	-
Political party ^e	-	-	-	-	-	-	-	-	-	-
Independent	-	-	-	0.57*** (0.03)	-	-	-	-	-	-
No party preference	-	-	-	0.25*** (0.02)	-	-	-	-	-	-

Other party	-	-	-	0.47** (0.13)	-	-	-	-	-	-
Democrat	-	-	-	0.80*** (0.04)	-	-	-	-	-	-
Political ideology	-	-	-	-	1.06*** (0.02)	-	-	-	-	-
Education	-	-	-	-	-	1.26*** (0.01)	-	-	-	-
Family income	-	-	-	-	-	-	1.38*** (0.02)	-	-	-
Marital status ^f	-	-	-	-	-	-	-	-	-	-
Never married	-	-	-	-	-	-	-	0.55*** (0.03)	-	-
Divorced	-	-	-	-	-	-	-	0.55*** (0.03)	-	-
Separated	-	-	-	-	-	-	-	0.44*** (0.04)	-	-
Widowed	-	-	-	-	-	-	-	0.94 (0.05)	-	-
Partners; never married	-	-	-	-	-	-	-	0.29*** (0.04)	-	-
Employment status ^g	-	-	-	-	-	-	-	-	-	-
Temporarily laid off	-	-	-	-	-	-	-	-	0.47*** (0.08)	-
Unemployed	-	-	-	-	-	-	-	-	0.45*** (0.04)	-
Retired	-	-	-	-	-	-	-	-	1.57*** (0.09)	-
Permanently disabled	-	-	-	-	-	-	-	-	0.76* (0.08)	-

Homemaker	-	-	-	-	-	-	-	-	0.97 (0.07)	-
Student	-	-	-	-	-	-	-	-	0.53*** (0.07)	-
Percent Democrats in office	-	-	-	-	-	-	-	-	-	0.96*** (0.003)
Constant	0.55** (0.12)	0.55** (0.12)	0.21*** (0.05)	0.85 (0.29)	0.39* (0.17)	0.33*** (0.07)	0.28*** (0.07)	0.60* (0.13)	0.63 (0.21)	11.01*** (3.39)
Pseudo R^2	.04	.04	.07	.06	.04	.06	.06	.05	.05	.05

Note: Coefficients are odds ratios with robust standard errors in parentheses.

^aDummy coded: 0 = non-White, 1 = White.

^bNumber of years since 1948.

^cDummy coded: 0 = midterm election, 1 = presidential election.

^dDummy coded: 0 = female, 1 = male.

^eDummy codes with Republican as the reference group.

^fDummy codes with Married as the reference group.

^gDummy codes with Employed as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

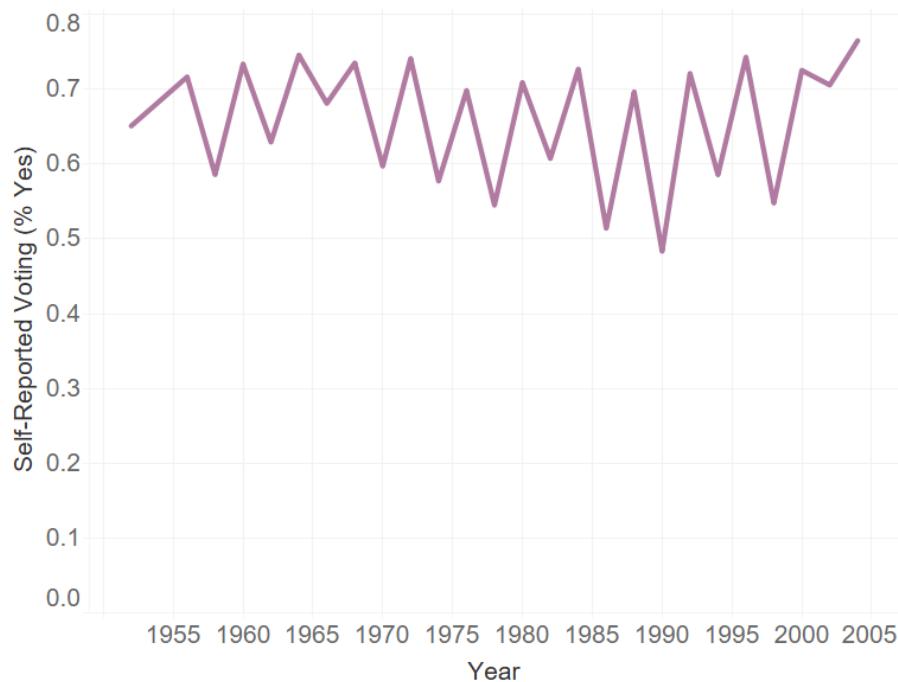
Statistical Support for Temporal and Cyclical Trends

Regressing each variable on year of data collection revealed temporal trends for many of my predictors and criterion variables. The percentage of women in elected office increased significantly over time ($b = 0.34, p < .001$), as did the number of minorities in office ($b = 0.17, p < .001$). While average levels of internal political efficacy have not changed over time ($b = 0.0003, p = .400$), levels of external political efficacy ($b = -0.01, p < .001$) and validated voting behavior decreased ($OR = 0.97, p < .001$). Meanwhile, self-reported political participation ($b = 0.004, p < .001$) and self-reported voting rates ($OR = 1.01, p < .001$) increased over the course of data collection.

I also examined differences in my criterion variables between presidential election years and midterm election years, since political participation and voting rates are known to differ across these types of elections (e.g., Hill, 2017; Wolfinger, Rosenstone, & McIntosh, 1981). For an illustration of this trend in the data set, see Figure A1, which shows consistently higher rates of self-reported voting in presidential elections compared to midterm elections. Internal efficacy ($b = 0.09, p < .001$), external efficacy ($b = 0.07, p < .001$), self-reported political participation ($b = 0.42, p < .001$), self-reported voting ($OR = 2.35, p < .001$), and validated voting behavior ($OR = 2.12, p < .001$) were all higher in presidential election cycles than in midterm years.

Figure A1

Rates of Self-Reported Voting by Year



Subgroup Analyses

I was interested in determining whether relationships held up among particular subsamples of participants. For example, my key analyses regarding collective representation of women examined patterns among female and male subsets of participants. In addition, I was interested in exploring these relationships in a way that accounted for intersectionality (e.g., exploring whether relationships held among both White and Black females).

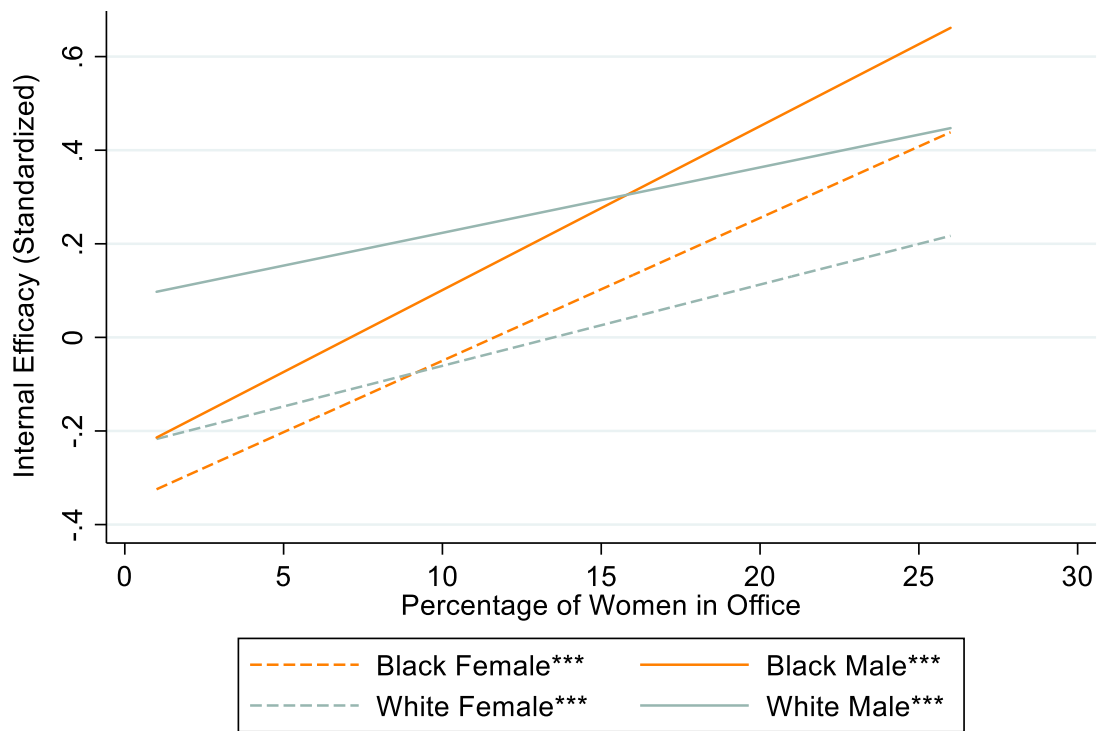
I only conducted subsample analyses that were adequately powered to detect a small effect size ($f^2 = .01$, $\beta = .80$, $\alpha = .05$). Thus, I generally examined subsamples that included at least 787 participants. However, while numbers of Hispanic females ($n = 2,214$) and Hispanic males ($n = 1,812$) surpassed the group size required for adequately powered subgroup analyses, more than 25% of Hispanics in the sample participated in a single wave of the study (year: 2012), and another 25% of Hispanics participated in the other two most recent waves of data collection (years: 2008 and 2016). The remaining 50% of Hispanic participants were spread across 20 waves. By comparison, the three most recent waves of the study contained only about 15% of the White participants and 20% of the Black participants from my full sample. Well-powered analyses also depend on sufficient variability in my predictor variables, and an overwhelming 91% of the variability in women's representation was explained by year of data collection (ICC = .91) with the remaining variability explained by state-level representation. Thus, I did not conduct subgroup analyses involving Hispanic female and Hispanic male participants because data collection was so heavily concentrated in the most recent waves of the study.

Using the criteria outlined above, I was able to explore patterns at the nexus of gender and race (i.e., among Black females, White females, Black males, and White males), as well as gender and political party preference (i.e., subgroups of females and males who identified as Democrats, Republicans, Independents, or no party preference).

As shown in Figures A2-A6 below, both Black and White subsets of female and male participants tended to report higher levels of political efficacy and participation when there were more women in elected office. There was only one exception: among Black males, the percentage of women in elected office did not significantly predict validated voting behavior. Most patterns also held in subsets of females and males identifying as Republicans, Democrats, Independents, and no party preference (see Figures A7-A11 below). However, there was no significant relationship between the number of women in office and internal political efficacy among female and male Republicans and Independents, nor among males with no party preference. The percent of women in office also had no relationship with political participation among males who identified as Independent or no party preference. Lastly, women's representation did not predict validated voting behavior among females or males with no party preference, although these subgroup sizes fell below my cutoff for sufficient statistical power.

Figure A2

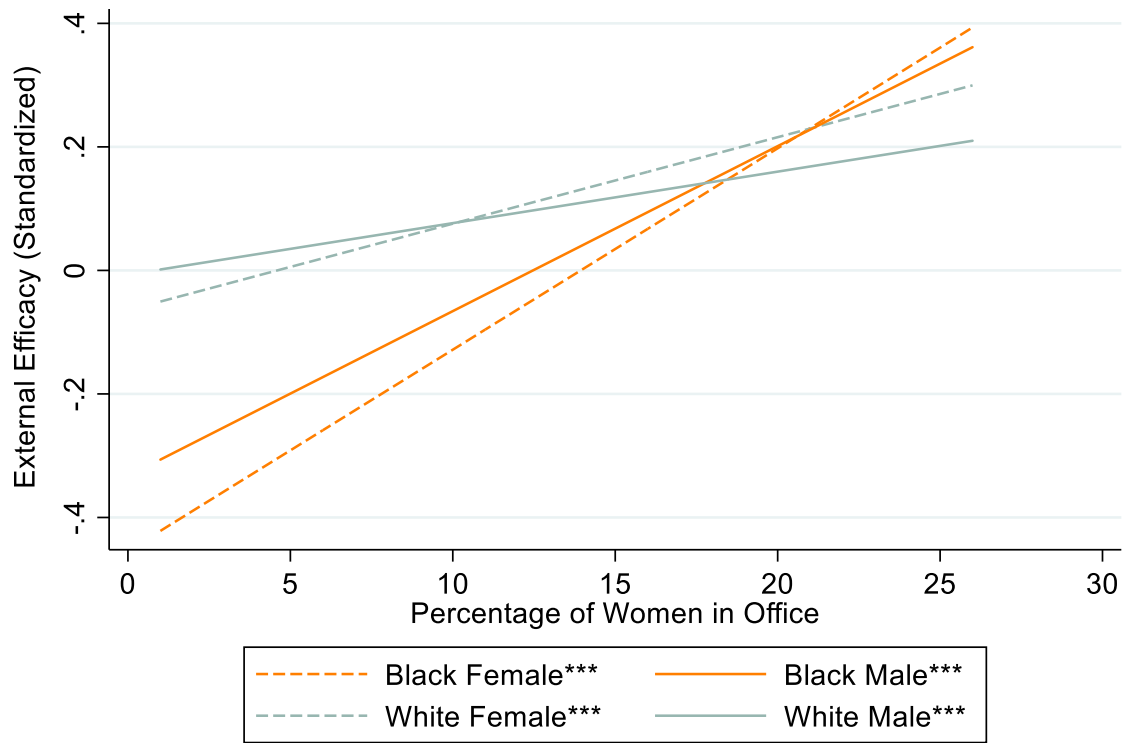
Women's Collective Representation and Internal Political Efficacy by Gender and Race



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A3

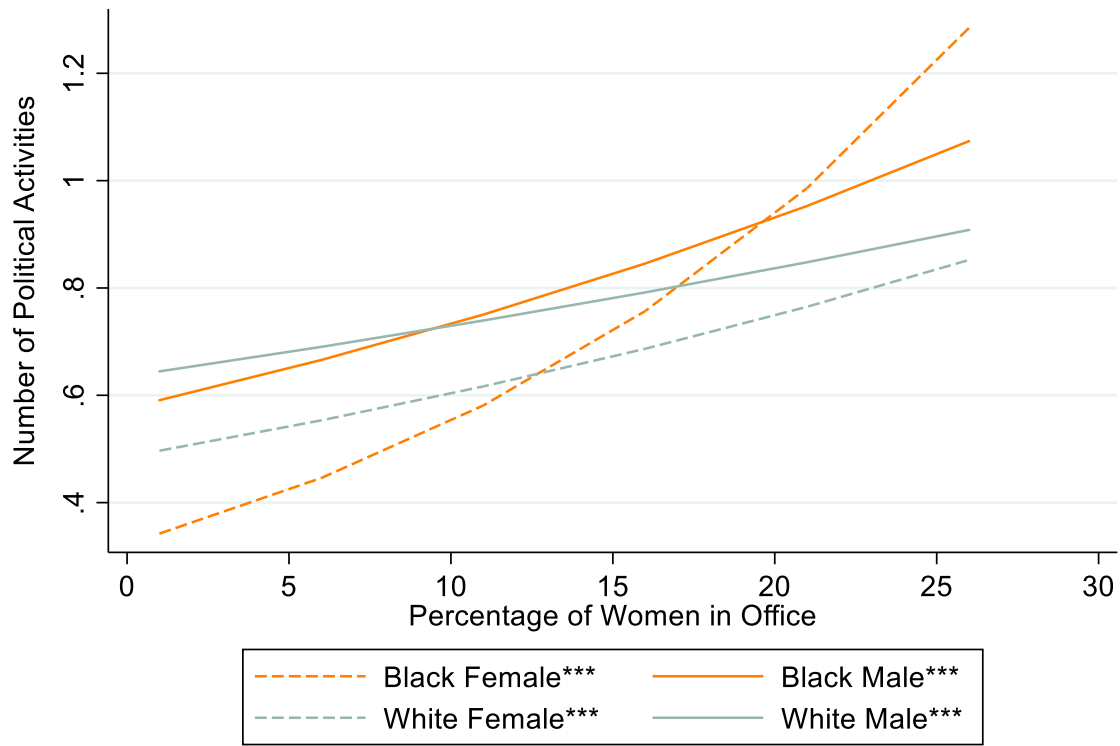
Women's Collective Representation and External Political Efficacy by Gender and Race



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A4

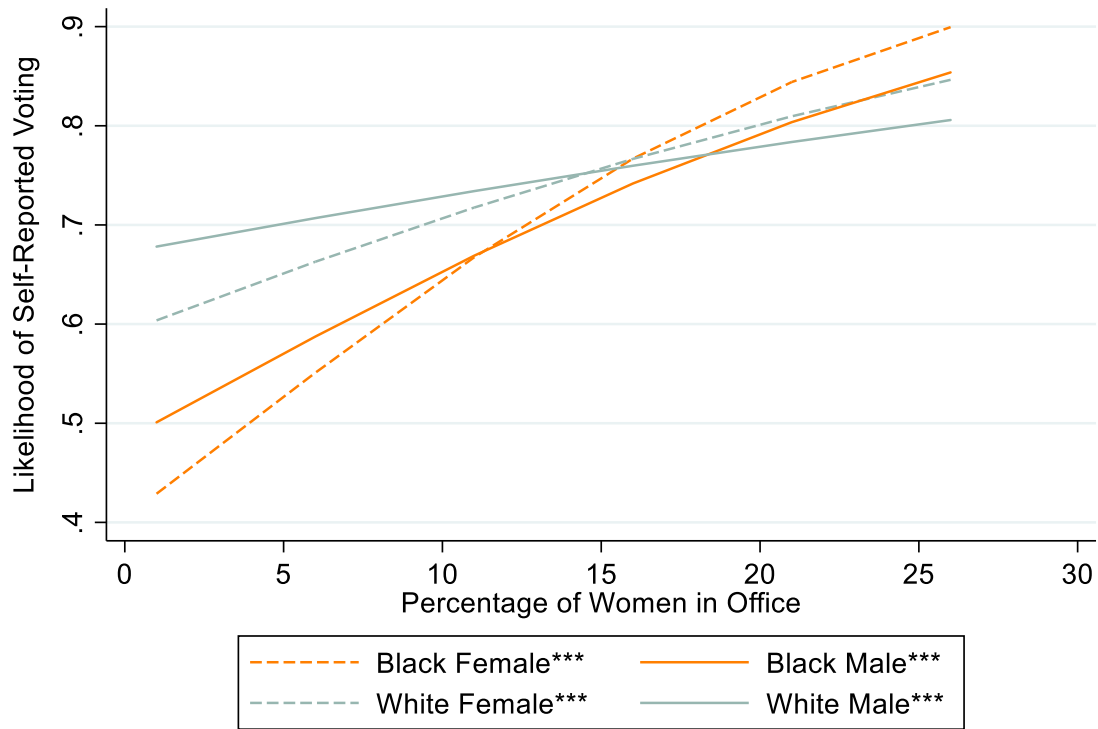
Women's Collective Representation and Political Participation by Gender and Race



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A5

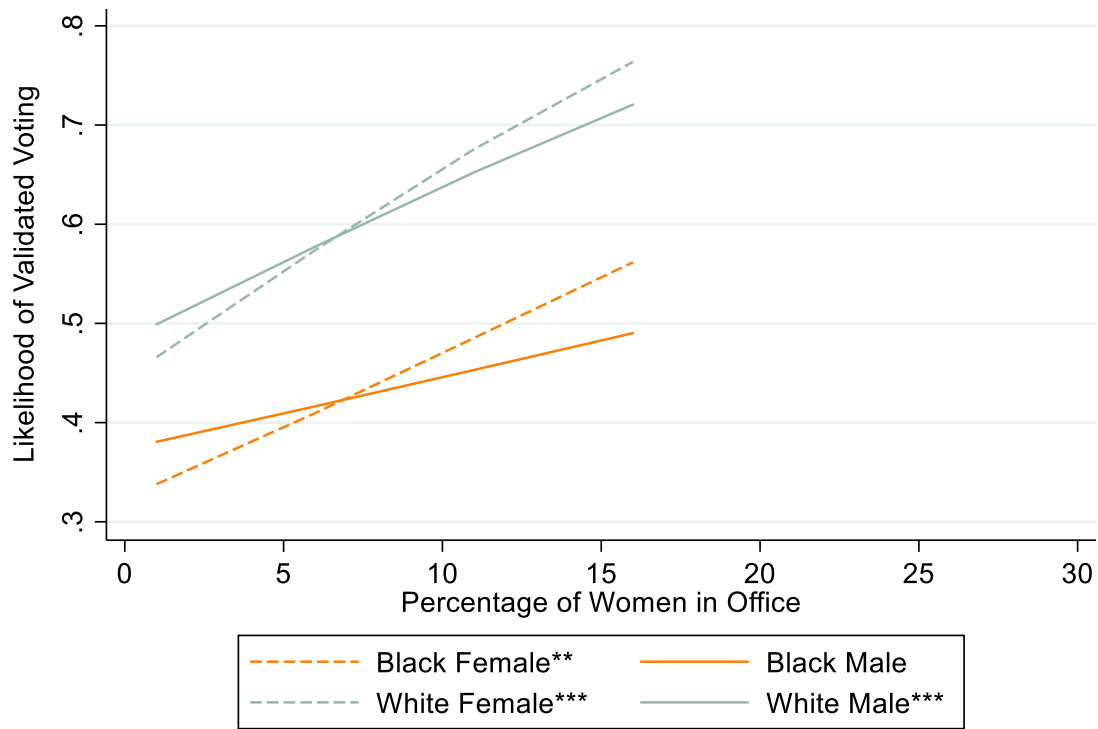
Women's Collective Representation and Self-Reported Voting Behavior by Gender and Race



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A6

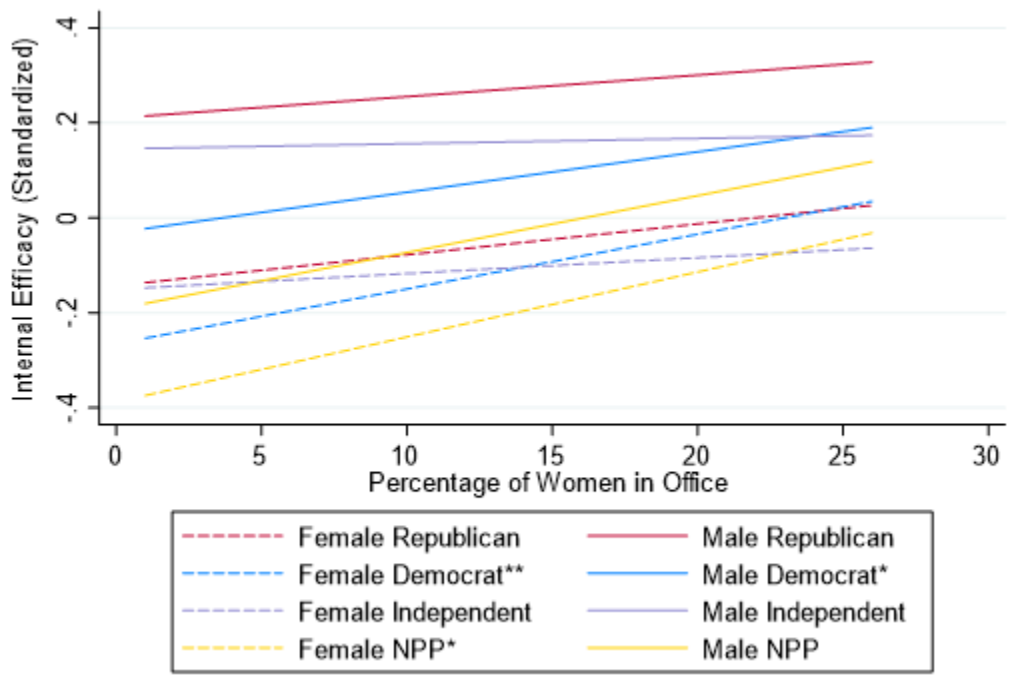
Women's Collective Representation and Validated Voting Behavior by Gender and Race



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A7

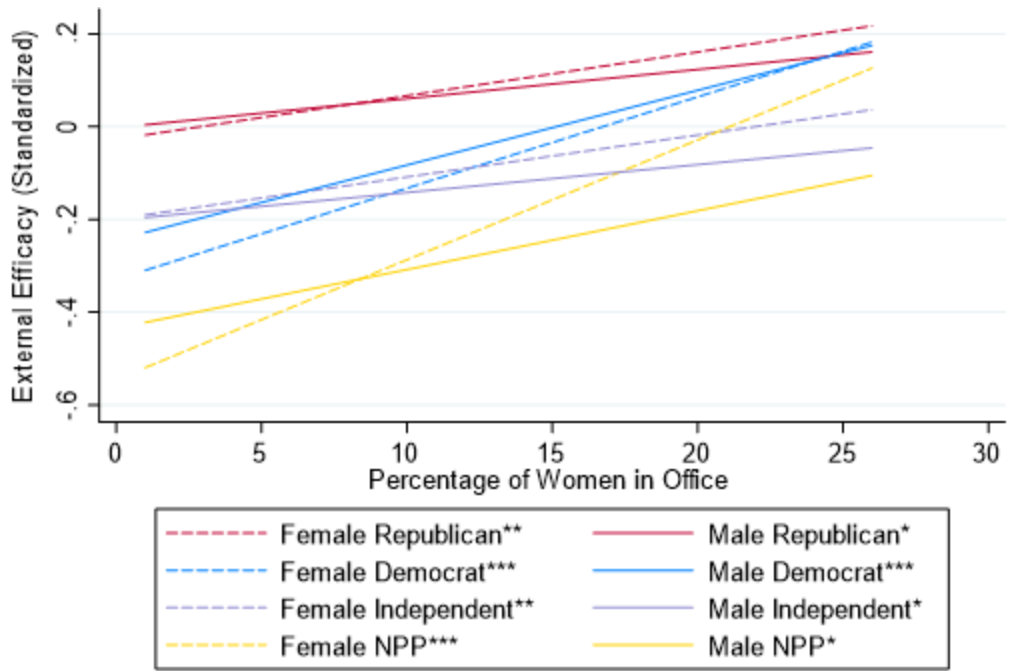
Women's Collective Representation and Internal Political Efficacy by Gender and Party



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A8

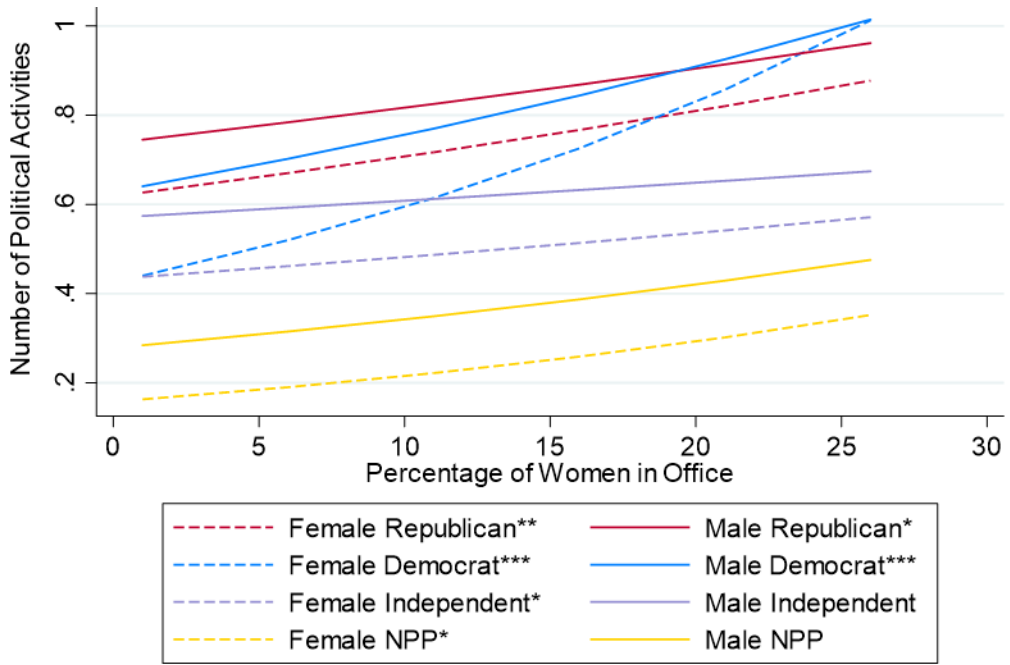
Women's Collective Representation and External Political Efficacy by Gender and Party



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A9

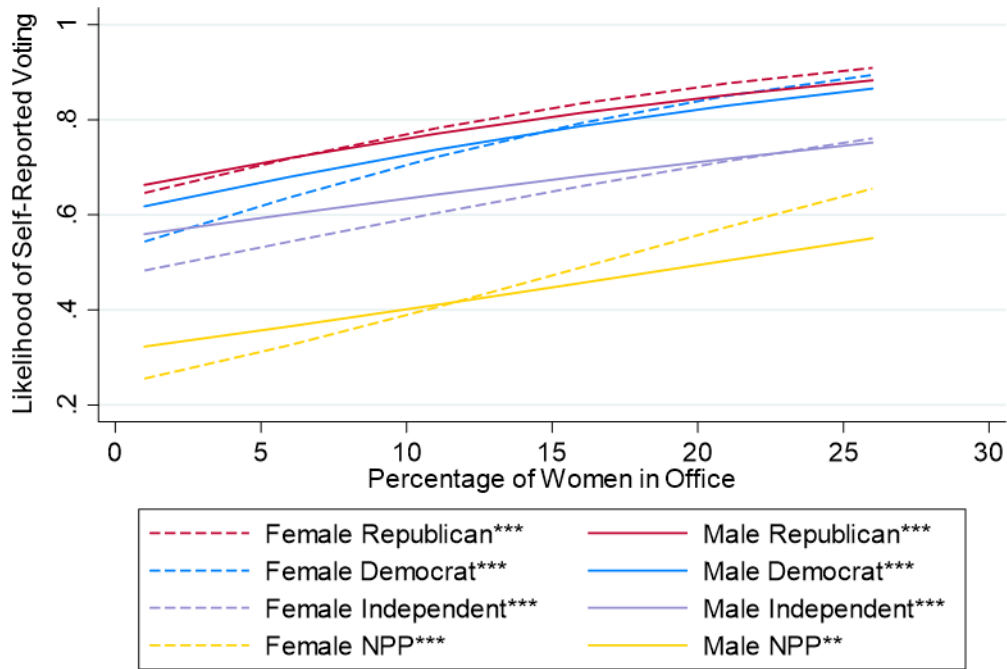
Women's Collective Representation and Political Participation by Gender and Party



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A10

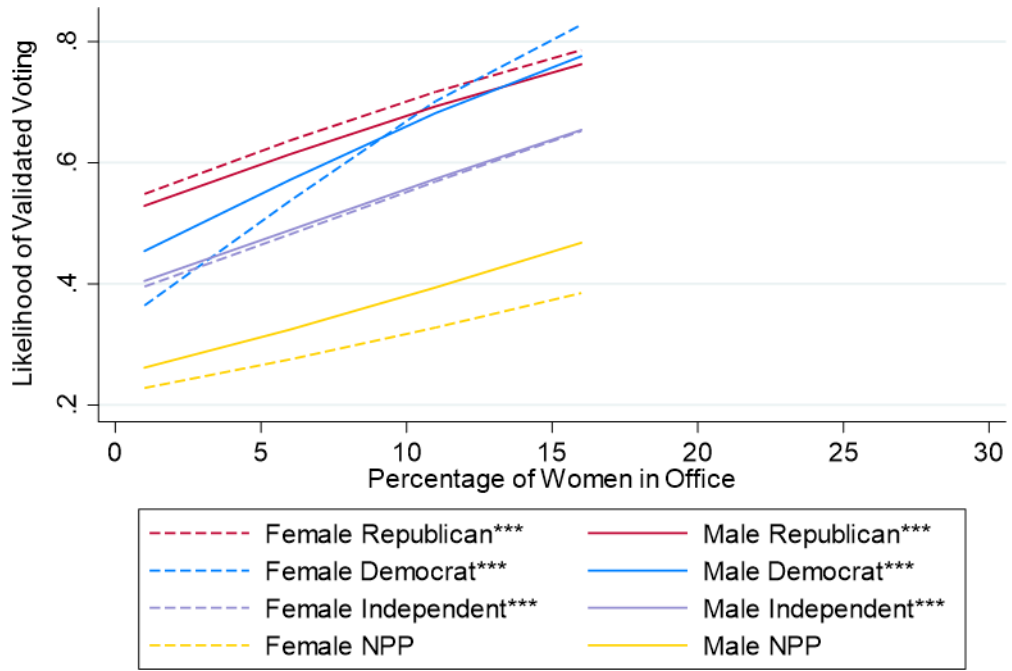
Women's Collective Representation and Self-Reported Voting Behavior by Gender and Party



* $p < .05$ ** $p < .01$ *** $p < .001$.

Figure A11

Women's Collective Representation and Validated Voting Behavior by Gender and Party



* $p < .05$ ** $p < .01$ *** $p < .001$.

Appendix B
Extended Results for Study 2

Table B1

Anticipated Change in Women's Collective Representation and Intended Political Participation With Control Variables

	Model 1 (N = 854)	Model 2 (N = 858)	Model 3 (N = 856)	Model 4 (N = 855)	Model 5 (N = 856)
Anticipated change in women's collective representation	0.13** (0.04)	0.14*** (0.04)	0.11** (0.04)	0.15*** (0.04)	0.14*** (0.04)
Male ^a	-0.27 (0.16)	-0.32* (0.16)	-0.13 (0.15)	-0.19 (0.16)	-0.34* (0.16)
Anticipated change in women's collective representation × Male	-0.03 (0.08)	0.05 (0.08)	-0.004 (0.08)	-0.02 (0.08)	0.06 (0.08)
Ethnicity ^b	-	-	-	-	-
American Indian	-0.03 (0.49)	-	-	-	-
Black/African-American	-0.09 (0.19)	-	-	-	-
Chinese/Chinese-American	-0.57*** (0.10)	-	-	-	-
Decline to State	-0.01 (0.19)	-	-	-	-
East Indian/Pakistani	0.04 (0.19)	-	-	-	-
Filipino/Filipino-American	-0.21 (0.15)	-	-	-	-

Japanese/Japanese-American	-0.50*	-	-	-	-
	(0.24)				
Korean	-0.50**	-	-	-	-
	(0.18)				
Latino/Other Spanish-American	0.08	-	-	-	-
	(0.19)				
Polynesian	-1.15	-	-	-	-
	(0.96)				
Thai/Other Asian	-0.53*	-	-	-	-
	(0.23)				
Vietnamese	-0.33**	-	-	-	-
	(0.11)				
White/Caucasian	0.05	-	-	-	-
	(0.11)				
Age	-	0.02	-	-	-
		(0.01)			
Political ideology	-	-	-0.29***	-	-
			(0.03)		
Political party ^c	-	-	-	-	-
Democratic	-	-	-	-	0.48***
					(0.07)
Republican	-	-	-	-	0.25
					(0.16)
Libertarian	-	-	-	-	0.08
					(0.32)

Green	-	-	-	-	-0.001 (0.36)
Other (Not Listed)	-	-	-	-	1.42*** (0.26)
Birth country ^d	-	-	-	-	0.11 (0.11)
Constant	0.06 (0.10)	-0.58* (0.22)	0.65*** (0.11)	-0.05 (0.08)	-0.27* (0.12)
R^2	.09	.04	.14	.10	.03

Note. Coefficients are standardized with standard errors in parentheses.

^aDummy coded: 0 = female, 1 = male.

^bDummy codes with Chicano/Mexican-American as the reference group.

^cDummy codes with Independent/No Party Preference as the reference group.

^dDummy coded: 0 = not U.S. born; 1 = U.S. born.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Appendix C
Study 3 Manipulations

Stagnant representation condition:

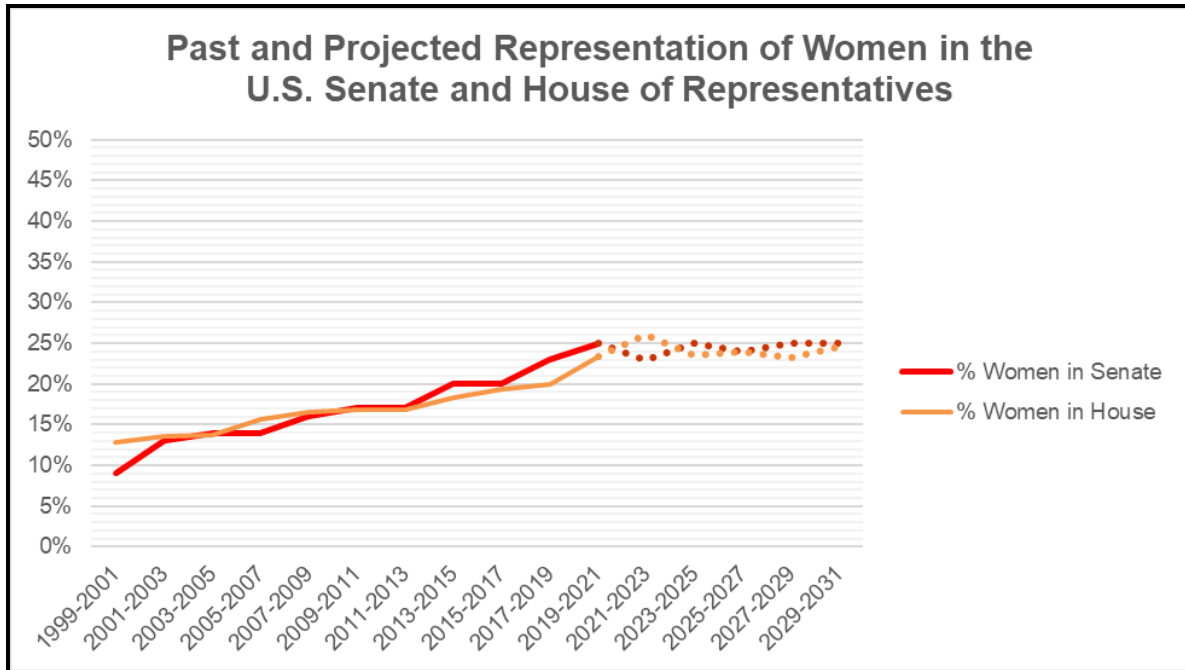
The New York Times

Since Jeannette Rankin became the first woman elected to Congress in 1916, the numbers game for women in elected office has been marked by largely glacial progress. But a new report lays out the extent to which women have gained ground in elections around the country over the last two years.

The report, prepared by The Reflective Democracy Campaign, which studies demographics in American politics, crunched data from nearly 45,000 elected officeholders nationwide, and the findings were telling. (The R.D.C. is a project of the Women Donors Network, which organizes women donors.)

The R.D.C. researchers aggregated data for candidates and elected officials over the past five years using information where a candidate or official had self-identified by gender; as well as email and phone surveys; voter file matching; and gender modeling.

The report found that the current United States Congress includes 23.7% women. Many experts predict that women will fail to gain additional political representation in the next election. Women are expected to merely maintain their number of seats and are likely to still hold about 25% of all national-, state-, and local-level political offices 10 years from now.



Note: Dotted lines show expert future projections.

Increased representation condition:

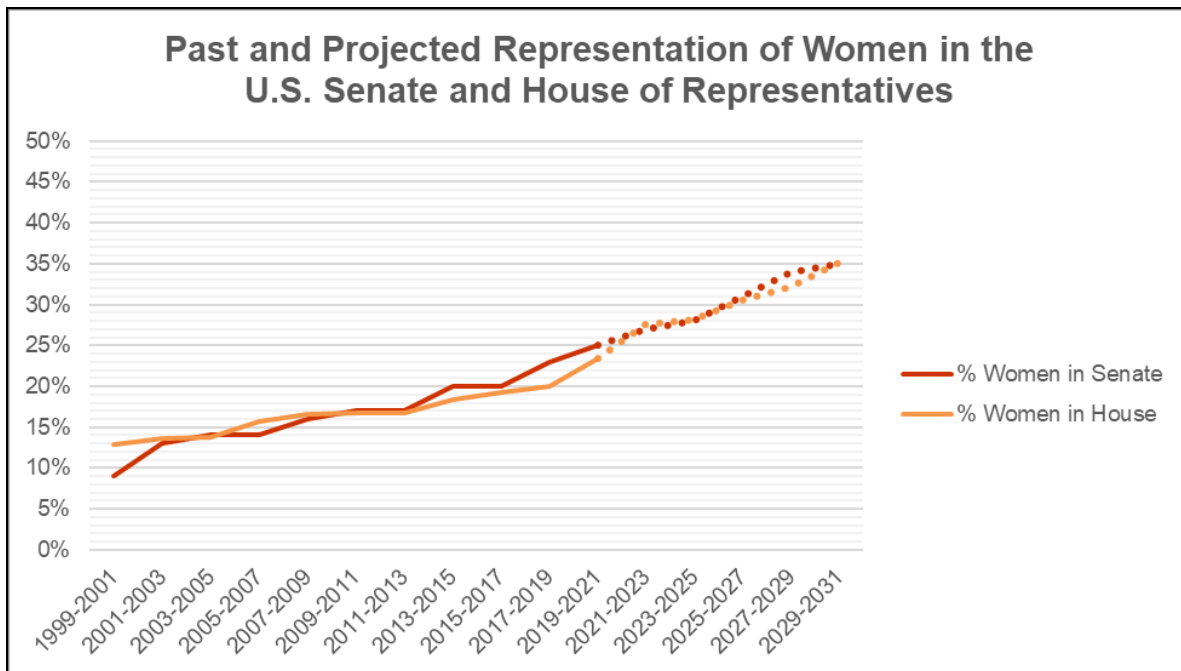
The New York Times

Since Jeannette Rankin became the first woman elected to Congress in 1916, the numbers game for women in elected office has been marked by largely glacial progress. But a new report lays out the extent to which women have gained ground in elections around the country over the last two years.

The report, prepared by The Reflective Democracy Campaign, which studies demographics in American politics, crunched data from nearly 45,000 elected officeholders nationwide, and the findings were telling. (The R.D.C. is a project of the Women Donors Network, which organizes women donors.)

The R.D.C. researchers aggregated data for candidates and elected officials over the past five years using information where a candidate or official had self-identified by gender; as well as email and phone surveys; voter file matching; and gender modeling.

The report found that the current United States Congress includes 23.7% women. Many experts predict that women will succeed in gaining additional political representation in the next election. Women are expected to substantially increase their number of seats and are likely to hold about 35% of all national-, state-, and local-level political offices 10 years from now.



Note: Dotted lines show expert future projections.

Appendix D
Extended Results for Study 3

Table D1

Effect of Condition on External Political Efficacy with Control Variables

	Model 1 (N = 699)	Model 2 (N = 700)	Model 3 (N = 700)	Model 4 (N = 699)	Model 5 (N = 700)
Experimental condition ^a	0.62*** (0.10)	0.62*** (0.10)	0.63*** (0.10)	0.62*** (0.10)	0.64*** (0.10)
Male ^b	0.12 (0.11)	0.13 (0.11)	0.12 (0.11)	0.13 (0.11)	0.13 (0.11)
Experimental condition × Male	-0.30* (0.15)	-0.30* (0.15)	-0.31* (0.15)	-0.30* (0.15)	-0.31* (0.15)
Age	-0.004 (0.003)	-	-	-	-
Political ideology	-	-0.01 (0.02)	-	-	-
Political party ^c	-	-	-	-	-
Republican	-	-	-0.05 (0.11)	-	-
Independent	-	-	-0.24** (0.09)	-	-
No preference	-	-	-0.18 (0.12)	-	-
Other	-	-	-0.60* (0.28)	-	-

Ethnicity ^d	-	-	-	-	-
Asian	-	-	-	-0.02 (0.11)	-
Black or African-American	-	-	-	0.09 (0.14)	-
Native Hawaiian or other Pacific Islander	-	-	-	-0.17 (0.69)	-
Latino or Hispanic	-	-	-	-0.16 (0.18)	-
Multiple ethnicities selected	-	-	-	0.20 (0.18)	-
Other	-	-	-	0.41 (0.37)	-
Education level	-	-	-	-	0.12* (0.05)
Constant	-0.16 (0.13)	-0.27** (0.10)	-0.21* (0.08)	-0.21* (0.08)	-0.66*** (0.17)
R^2	.06	.06	.08	0.07	.06

Note. Coefficients are unstandardized OLS regression coefficients for models with standard errors in parentheses.

^aDummy coded: 0 = *stagnant representation condition*, 1 = *increased representation condition*.

^bDummy coded: 0 = female, 1 = male.

^cDummy codes with Democratic as the reference group.

^dDummy codes with White or Caucasian as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table D2*Effect of Condition on Non-Voting Forms of Participation with Control Variables*

	Model 1 (N = 699)	Model 2 (N = 700)	Model 3 (N = 700)	Model 4 (N = 699)	Model 5 (N = 700)
Experimental condition ^a	-0.24* (0.11)	-0.27* (0.10)	-0.23* (0.10)	-0.21* (0.11)	-0.22* (0.11)
Female ^b	0.10 (0.11)	0.03 (0.11)	0.09 (0.11)	0.09 (0.11)	0.10 (0.11)
Experimental condition × Female	0.18 (0.15)	0.18 (0.14)	0.16 (0.15)	0.16 (0.15)	0.17 (0.15)
Age	0.01* (0.003)	-	-	-	-
Political ideology	-	-0.18*** (0.02)	-	-	-
Political party ^c	-	-	-	-	-
Republican	-	-	-0.31** (0.11)	-	-
Independent	-	-	-0.34*** (0.09)	-	-
No preference	-	-	-0.61*** (0.12)	-	-
Other	-	-	0.07 (0.29)	-	-

Ethnicity ^d	-	-	-	-	-
Asian	-	-	-	-0.33**	-
				(0.11)	
Black or African-American	-	-	-	-0.02	-
				(0.14)	
Native Hawaiian or other Pacific Islander	-	-	-	0.36	-
				(0.70)	
Latino or Hispanic	-	-	-	-0.23	-
				(0.18)	
Multiple ethnicities selected	-	-	-	-0.12	-
				(0.18)	
Other	-	-	-	-0.48	-
				(0.38)	
Education level	-	-	-	-	0.12*
					(0.05)
Constant	-0.24	0.64***	0.23**	0.09	-0.33
	(0.13)	(0.11)	(0.09)	(0.08)	(0.17)
R^2	.03	.10	.06	.03	.02

Note. Coefficients are unstandardized OLS regression coefficients for models with standard errors in parentheses.

^aDummy coded: 0 = *stagnant representation condition*, 1 = *increased representation condition*.

^bDummy coded: 0 = male, 1 = female. Note that this is reversed from all other tables presented. This allows the reader to more easily interpret simple effects of condition for males.

^cDummy codes with Democratic as the reference group.

^dDummy codes with White or Caucasian as the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$.