# Who Serves? Gender, Personality and their Impact on Decision-Making Groups in Local Politics 

Rebecca J. Hannagan<br>Department of Political Science<br>Northern Illinois University<br>Christopher W. Larimer<br>Department of Political Science<br>University of Northern Iowa<br>Matthew V. Hibbing<br>School of Social Sciences, Humanities and Arts<br>University of California, Merced

Please direct all correspondence to:
Rebecca J. Hannagan, Ph.D.
Department of Political Science
Northern Illinois University
415 Zulauf Hall
DeKalb, IL 60115
Phone: 815-753-9675
Email: rhannaga@niu.edu

Financial support for this project was provided by the Political Science Program of the National Science Foundation (SES 1015406 \& SES 1015391). This research was reviewed and approved by the Institutional Review Boards (IRB) at the University of Northern Iowa and Northern Illinois University.


#### Abstract

In a multidisciplinary literature on why diversity in decision-making bodies matters, the implications go beyond descriptive representation to "collective intelligence" and a higher quality of group dynamics. In political science, the study of gender balance or quota laws often focus on women as opposed to the larger context of gender dynamics and changing perceptions of leadership and institutions. In our field study of Iowa - the first state to require gender balance on local boards and commissions - we examine who serves and how it may make a difference by considering both gender and personality. Our findings suggest that, indeed, there appear to be types of people that gravitate to service on certain types of decision-making bodies. We find that the combination of personality, ideology, and gender may reinforce the gendered character of the various boards and commissions. This suggests a particular challenge to gender balance laws and the notion that you can simply "add women and stir" and achieve more representative and collaborative bodies. This sets the stage for more nuanced studies of when and where and how gender matters for political decision-making.


## Introduction

There has been much speculation about how Congress, and particularly the United States Senate, may be very different following the election of a record number of women in 2012. From ensuring the passage of critical legislation, such as the Violence Against Women Act, to facilitating more bi-partisan cooperation, the expectation is that more women means a change in both processes and outcomes. Are we likely to see an increase in cooperation and fairness in decision making when more women are present in decision-making groups? Is it gender composition, or is it just a matter of the personalities of those in the group? If more women are added to Congress, or a board, or committee does it matter if the women are more or less openminded, for example? In other words, is it just about numbers?

We recently conducted an in-depth field study of local boards and commissions in Iowa the first state to pass a gender balance law applied to the local level in the United States. Prior to the law taking effect, we observed 50 meetings of local boards and commissions to assess the differences in decision making processes between those groups that were already gender balanced and those that were not. Our main hypothesis guiding the overall project, consistent with trends in the multidisciplinary literature on gender balance, is that the presence of women improves the quality of group dynamics, though this paper only deals with a small part of the data from our field study. More women in decision making groups increases collective intelligence, and can improve cooperation and efficacy in deliberation (Williams Woolley et al. 2010; Beaman et al. 2012). Knowing what we know about politics, at least anecdotally, it could be that there are certain types of people who tend to get involved and want to make decisions on behalf of others that may result in findings that are distinct from studies of corporate decision-making groups. Does the uniqueness of political decision-making groups mean we should also pay some attention to the types of people who get involved in politics as well as pay attention to gender balance? We explore an answer to this question utilizing data obtained in our field study.

## Gender and Groups

Studies illustrate that when it comes to groups making decisions, gender makes a difference (Burns, Schlozman and Verba 2001; see also Karpowitz, Mendelberg and Shaker 2012; Ambrus, Greiner and Pathak 2009), and the tendency of groups to cooperate is linked specifically to the number of women in a group. An article in the journal Science revealed that groups that feature the right kind of internal dynamics perform well on a number of assignments. Collective intelligence comes from how well the group works together, or cooperates, and social sensitivity was predictive of collective intelligence. Perceiving the emotions of others in the group and responding accordingly is predictive of cooperation and groups with more women tend to be more socially sensitive, more cooperative, more collectively intelligent, and therefore more productive (Williams Woolley, et al. 2010). Such studies make it seem like if we add women to groups, voila! Groups will be more cooperative and produce better outcomes. But is that really true?

In politics there is some evidence that women lead differently than men in terms of their leadership style (e.g., Simon Rosenthal 2001, 2001; Swers 2002), productivity (e.g., Volden, Wiseman and Wittmer 2010), and influence on citizens' political efficacy (e.g., Atkeson and Carrillo 2007; Campbell and Wolbrecht 2006). How women add to the larger group dynamic of a legislative body and impact decision-making processes and outcomes, however, is less explored because the focus has been to look at women in politics separate from men. There is an abundance of scholarship in political science on the matter of gender balance and quotas (e.g., Childs and Krook 2006; Childs and Krook 2008; Franceschet, Krook, and Piscopo 2012) and creating decision making bodies that are more diverse (e.g., Krook 2006), but in the United States with its lack of quota laws not much has been pursued in terms of the impact of "balancing."

Some U.S. states actually have adopted gender balance laws. The State of Illinois, in its Civil Administration Code, requires gender balance for all boards, commissions, committees, and councils of the State (20 ILCS 5/5-510). The State of Iowa likewise has required gender balance on state-level board and commissions for many years under Iowa Code section 69-16A. The Iowa

General Assembly most recently passed legislation (HF243) that applies this requirement to the local level. Whether such efforts are creating more collaborative and collectively intelligent decision making bodies is still being explored. Previous research has shown that in laboratory settings, the gender composition of a group can affect individual and group behavior. Karpowitz, Mendelberg, and Shaker $(2012,544)$ show that the decision rule, unanimous or majority rule, along with group gender composition, affects speech patterns of men and women thus affecting the "gender gap in voice." Women tend to participate more under majority rule, but only when women are the dominant gender of the group. Hannagan and Larimer (2010) conduct a series of laboratory experiments testing whether the gender composition of a group (all-male, mixed gender, or all-female) affects individual preferences and group outcomes. As reported by the authors, all-female groups tend to make decisions that approximate the median preference of the group and most closely resemble what individual group members would do had they made the decision alone. But, to date, such work has not been widely tested in the field.

Our project contributes to this larger body of work on gender group dynamics, women's representation, as well as gender balance and quota laws, but here we specifically explore the idea that it may not be gender alone that makes a group more or less cooperative thus affecting the quality of group interaction, but also the personality of group members may play a role. Who serves and where they serve may have to do with the inherently gendered nature of political institutions that can be diminished (or may be reinforced) by quotas. Following a brief literature review on gender and personality in political behavior, we will present an analysis exploring this idea. We conclude with a discussion of this notion of gendered political institutions and why they might pose a challenge for gender balance laws as well as give us some insight on studying the when, where, and how gender makes a difference in political decision-making bodies.

## Gender, Personality and Political Behavior

If our premise is that the uniqueness of political decision-making groups may attract certain types of people - and that may impact how we make sense of group dynamics and
decision-making in addition to considerations of gender - it makes sense to consider what we know about gender and "personality." ${ }^{1}$ The literature suggests there are small but empirically consistent differences between men and women ${ }^{2}$ on two of the big five personality constructs. ${ }^{3}$ Men tend to score higher on particular measures of extraversion, especially those emphasizing "assertiveness" more than general sociability (Goldberg et al. 1998). Women tend to score higher on most measures of agreeableness (Feingold 1994). Perhaps most relevant for present purposes, Mondak (2010) analyzed the link between gender and the Big Five personality dimensions using brief scales (2-6 measures per trait) and found consistent small but significant relationships between gender and three Big Five dimensions. Women were significantly more likely to selfreport as agreeable and as conscientious. In contrast with past findings, Mondak also found that women reported higher levels of extraversion than men (Mondak 2010, 80-83).

Research investigating the political relevance of the Big Five has only recently begun to accumulate. Up until the last five to ten years, the few studies that incorporated Big Five dimensions usually focused on political tolerance (e.g. Marcus et al. 1995), and typically, these early works selectively employed one or two trait dimensions instead of examining all five together. During the last few years political scientists have devoted considerably more attention to exploring the possible links between the Big Five and political behavior (see Gerber et al. 2011 for a review). Much of this work has been dedicated to understanding how personality traits predict political attitudes. The most consistent findings are that openness to experience predicts liberal attitudes and liberal self-identification, while conscientiousness predicts conservative issue

[^0]positions and conservative self-identification (e.g. Alford and Hibbing 2007; Carney et al. 2008; Gerber et al. 2010; Mondak and Halperin 2008; Mondak 2010; Mondak and Hibbing 2011). The link between personality and partisan identification follows a similar pattern, with conscientiousness correlating to identification with the Republican Party and openness to experience associated with identification as a Democrat (e.g. Gerber et al. 2011; Mondak 2010). Gerber et al. (2011) have also demonstrated that openness, agreeableness, and extraversion are associated with the strength of partisan attachment, regardless of direction.

Beyond political orientations, scholars have also investigated the link between Big Five traits and political participation. Here the findings have shown more variability based on context, but some consistent patterns have emerged. Not surprisingly, extraversion is strongly related to political participation, especially when that participation involves social interaction (Gerber et al. 2011; Mondak et al. 2010). Openness to experience also exerts consistent positive effects on most forms of political engagement. These results are intuitively appealing and theoretically sensible. Individuals who are more energetic and outgoing are likely to seek out the stimulation provided by political participation, as are those who seek novel experience. On the other hand, conscientiousness has been repeatedly linked with lower levels of participation. This finding is less intuitively appealing since we might expect that individuals who are dutiful and responsible would be more inclined to meet their "civic duty" by engaging in politics, but it appears that, in general, the conscientious do not perceive politics to be among their most important responsibilities (Mondak et al. 2010).

The evidence is mixed for the remaining two Big Five traits. Across numerous dependent variables, agreeableness produces almost no significant coefficients, and the signs on these insignificant coefficients are as likely to be negative as positive (e.g. Mondak 2010). At least in terms of direct effects, agreeableness is the least politically relevant of the Big Five. On the other hand, emotional stability seems to be relevant to political participation, but the direction of this influence is uncertain. Gerber et al. (2011) find that higher levels of emotional stability are
associated with more participation in politics. But Mondak et al. (2010) report findings of roughly equal magnitude in the opposite direction. This discrepancy remains a puzzle for scholars of personality and political behavior. It is important to note that gender differences have not been explored extensively and there are reasons to believe that some personality traits may predict political attitudes and behaviors somewhat differently for men and women - particularly if the behavior involves group interaction.

Given our focus on the idea that it may be personality and/or gender balanced groups that tend to predict more cooperative decisions, we would be remiss if we did not also highlight some past research on the Big Five and success on the job from the organizational psychology literature. Of these findings, the most relevant are those which have been associated with gender. Extraversion shows a positive association with both membership and active involvement in voluntary associations (Bekkers 2005). It has also been found to predict networking behavior in the workplace (Forret and Dougherty 2001). Conscientiousness has been linked to successful job performance across a number of different fields (e.g. Barrick and Mount 1991; Dudley et al. 2006). High levels of conscientiousness are also associated with a strong psychological sense of community (Lounbury, Loveland, and Gibson 2003), but also in lower levels of membership and involvement in voluntary associations (Bekkers 2005). Thus a picture emerges of the conscientious individual as a model performer who maintains a measure of restraint in terms of involvement. Along similar lines, agreeableness has been linked to success in group activities in the workplace (Barrick and Mount 1991).

If we recall that Mondak (2010) found that women were significantly more conscientious and agreeable than men, it raises the possibility that the success of groups with more women is largely driven by the personality traits women bring to the group. The extraversion findings are more difficult to interpret since there has been some past discrepancy in how men and women differ in terms of that trait dimension and how that translates to political behavior. Thus, there is a link between personality and political participation, and indications of links between personality
and gender, but what about the links between personality, gender, and participation in politics?

## Design and Methods

## Setting

In 2009, the Iowa General Assembly passed legislation (HF243) requiring gender balance on boards and commissions at the local level. This bill required all boards and commissions to be gender balanced by January 1, 2012. This created an ideal situation in which to examine realworld group gender dynamics. To do so, we conducted field observations of local boards and commissions from a randomly selected group of cities in Iowa. Our purpose was to gain insight into not only the participation patterns of men and women but also whether certain types of women (men) are more (or less) likely to serve on certain types of boards. Moreover, this provided an opportunity to test whether group gender composition affects perceptions of fairness and satisfaction for men and women differently. As discussed above, proponents of gender quotas tend to assume that increasing descriptive representative will improve the overall experience of women on traditional male decision-making bodies. We bring empirical evidence to bear on this question.

## Sample

Field observations began May 10, 2010 and concluded December 31, 2011. A random sample of 20 cities in Iowa was selected for inclusion in the study. City selection was based on a random sort of all cities by congressional district and population. Cities were first sorted by congressional district (as a proxy for location) and then by population. Within each district, four population categories were created $(0-1,000=1 ; 1,001-5,000=2 ; 5,001-10,000=3$; over $10,000=4)$. Within each category, cities were then sorted by a random number, with the first city assigned to our study. Of Iowa's 947 incorporated cities, 910 have a population less than 10,000. This randomization process ensured we would observe an appropriate number of such cities. In sum, 20 cities (4 from each population category * 5 congressional districts) were selected.

In total, we observed 50 meetings of local boards and commissions in 18 different cities in Iowa. ${ }^{4}$ Within each selected city, we observed meetings of one to five different boards or commissions common to most cities in the sample. ${ }^{5}$ For example, we did not observe the meetings of Airport Commissions, as most small towns do not have an airport. Our final group of observations included the following five boards and commissions as these were most common across all selected cities: Library Boards, Historic Preservation Boards, Parks and Recreation Boards, Planning and Zoning Commissions, and Zoning Boards of Adjustment.

The observed gender composition for all of the observed meetings was 54.8 percent male ( 165 males, 136 females). As we discuss in the next section, while we expected to find gender imbalance (since these observations were prior to the implementation of the law), we noticed this imbalance was specifically on certain types of boards and commissions and not on others. This finding adds more complexity to the idea that certain types of people are more or less likely to serve on boards and commissions, and perhaps that a combination of personality, gender, and the gendered nature of the type of board/commission predicts the cooperative nature of the group and fairness in decision making as well as the likely impact of gender balance laws.

Following each meeting, we distributed anonymous surveys to all members of the group present at the meeting with a stamped return envelope. ${ }^{6}$ The survey consisted of a battery of standard demographic and political questions, as well as a short version of the Big Five Index

[^1](BFI). Again, the Big Five are: extraversion, agreeableness, conscientiousness, openness, and emotional stability (or sometimes called its reciprocal, neuroticism). Fundamental to our research questions, the survey also contained contains questions about individual preferences regarding group decisions and perceptions of other decision makers in their group - to gauge cooperation and fairness. Although not analyzed here, the survey also included a question concerning perceptions of the newly implemented gender balance law and the respondent's knowledge of recruitment efforts.

## Findings

In Table 1 we show that of the 50 meetings attended, 19 were of meetings we categorize as "skewed-male;" meetings of boards which are generally considered to be "traditional male boards" where we would expect the gender composition of the group to be overwhelming male. On average, almost three-fourths of the members at such meetings were men ( 74.7 percent male for Planning and Zoning boards and 71.03 for Zoning Boards of Adjustment). The topic of business in these meetings can generally be placed in the category of economic development. This stands in sharp contrast to the 31 other meetings we observed. For Parks and Recreation boards and Historic Preservation boards, the gender composition tended to approximate genderbalance. The average percent female at these meetings was 49.01 and 50.87 , respectively. A third category of boards, consisting of Library Boards, we categorize as "skewed-female," where women comprised almost two-thirds of the board members in attendance ( 65.2 percent). From our conversations with members of the Iowa Commission on the Status of Women as well as several officials in selected cities, that women dominate Library Boards is not particularly surprising. Just as economic boards are traditionally male boards, Library boards are traditionally female boards.

In terms of leadership on the boards and commissions we observed, Table 1 also shows sharp differences between men and women. Of the 19 boards considered to be skewed-male, a man serves as chair on 16, or just over 80 percent. Although the Parks and Recreation and

Historic Preservation boards were balanced in terms of membership, leadership of such boards is male-dominated, with nine male chairs on Parks and Recreation boards and three male chairs on Historic Preservation boards. Only on Library Boards is both membership and leadership femaleskewed.
[Insert Table 1 about here]
The descriptive data shown in the upper portion of Table 1 suggests implementing the gender balance law in Iowa will require significant effort on the part of municipalities to recruit women to boards relating to zoning and economic development as well as the recruitment of men to library boards. The data thus far also point to a significant leadership gap; though not mentioned explicitly in the Iowa bill (HF243) mandating gender balance, leadership does affect gender dynamics on boards and, quite likely, the outcomes of their decisions as well.

Using the gender gaps observed across the boards and commissions reported in the top portion of Table 1, the bottom portion illustrates the demographics of members on the three categories of boards: skewed-male, balanced, and skewed-female. Respondents serving on skewed-male boards were significantly more conservative $(t=2.45 ; p<.05)$, less religious $(t=-$ 2.02; $\mathrm{p}<.05$ ), and less trusting ( $\mathrm{t}=2.23 ; \mathrm{p}<.05$ ) than respondents serving on skewed-female boards. Respondents on balanced boards were significantly younger $(\mathrm{t}=-2.24 ; \mathrm{p}<.05)$ and more religious $(\mathrm{t}=-3.37 ; \mathrm{p}<.01)$ than respondents on skewed-female boards. In other words, there are clear substantive differences between people serving on different types of boards in terms of basic political attitudes and other personal characteristics. We control for these differences in subsequent analyses and address this more fully when discussing personality differences as measured by the Big Five Index (BFI).

As noted above, in an attempt to consider our question regarding personality types that may be attracted to civic participation and service, our survey included a short version of the Big Five Index (BFI). In Figure 1 we present the mean response to the personality indices by gender and our three categories of boards: skewed-male, balanced, and skewed-female. On skewed-male
boards women score significantly higher on the conscientious scale than do the men on serving on these boards ( $\mathrm{t}=-2.72 ; \mathrm{p}<.05$ ) and this is consistent with the findings by Mondak (2010). No other measures are statistically significantly different between men and women, but women do score higher on extraversion and openness than men on those boards. On balanced and skewedfemale boards, there are no statistically significant differences between personality measures for men or women board members. This is obviously counter to the findings by Mondak (2010), suggesting that context creates a nuance in which to consider gender, personality, and political behavior.
[Insert Figure 1 about here]
Turning to within gender differences, we do see significant variation. Men serving on balanced and skewed-female boards score significantly higher on the openness measure than men serving on skewed-male boards. The mean openness score for male respondents serving on skewed-male boards was 3.61 compared to 3.95 for men serving on female-skewed boards $(\mathrm{t}=$ 2.10; $\mathrm{p}<.05$ ) and 4.03 for men serving on balanced boards $(\mathrm{t}=-2.61 ; \mathrm{p}<.05)$. Among female respondents there was a significant difference in conscientiousness. Women serving on skewedmale boards reported an average score of 4.49 compared to 4.23 for women on skewed-female boards ( $\mathrm{t}=2.00 ; \mathrm{p}<.10$ ). In short, men serving on skewed-female boards tend to be different (more open) than men serving on skewed-male boards. It is also a different type of woman (in terms of conscientiousness) that is serving on a board in which she is in the clear minority than on a board that is more evenly populated by men and other women.

To further examine the differences between men and women on skewed-male boards and between women on skewed-male boards and women on other boards, we turn to more sophisticated analyses. Parsing out the descriptives in lower portion of Table 1 by gender, we find that women on skewed-male boards are significantly more conservative based on our ideology measure than women on balanced boards. On a 5 -point scale where $1=$ liberal and $5=$ conservative, the mean response for women on skewed-male boards is 3.20 compared to 2.53
for women on balanced boards $(\mathrm{t}=2.00 ; \mathrm{p}<.05)$ and 2.37 for women on skewed-female boards $(\mathrm{t}=2.65 ; \mathrm{p}<.01)$. Taken with the data above on personality, this suggests women on skewedmale boards tend to be more conscientious and more conservative than their female counterparts on skewed-female boards. The other attitudinal variable from Table 1 on which we observe within gender differences is religiosity. Male respondents on skewed-male boards reported attending significantly fewer religious services per month compared to male respondents on skewed-female boards $(M=2.94$ and $M=3.95 ; \mathrm{t}=-2.61, \mathrm{p}<.05)$. Female respondents on balanced boards also reported attending significantly fewer religious services per month compared to female respondents on skewed-female boards $(M=2.67$ and $M=3.46 ; \mathrm{t}=-2.12, \mathrm{p}<.05)$.

In Table 2 we report results from logistic regression predicting membership to each category of board (skewed-male, balanced, and skewed-female) using individual demographic variables. For each category of board, we include a baseline model (Model A) as well as an extended model to allow for interaction terms. We report the coefficients with robust cluster standard errors to account for non-independent observations due to the clustering of individuals within boards.
[Insert Table 2 about here]
On skewed-male boards, Table 2, Model A shows the gender of the respondent is the strongest predictor of membership on such boards as would be expected given the gender composition of boards dominated by men. Men are significantly more likely to be on such boards than women. There are also significant negative relationships with religiosity and openness, suggesting respondents on such boards tend to be less religious and less open than respondents on other boards, confirming earlier analyses. Model B, however, shows that it is not simply the gender or personality of the respondent that matters. When including interaction terms for gender, ideology, and personality, we see a much more nuanced picture. For personality, conscientiousness is a negative predictor while openness is a positive predictor. The interaction between personality and gender, however, shows that men who scored higher on
conscientiousness are more likely to be on skewed-male boards (demonstrated by the positive coefficient for "Male x Conscientiousness") while men who scored higher on openness are less likely to be on such boards (shown by the negative coefficient for "Male x Openness"). Finally, the interaction between gender, political ideology, and openness ("Male x Ideology x Openness") indicates that for conservative men, as openness increases, membership on skewed-male boards becomes less likely.

Turning to balanced boards, Table 2, Models A and B show that the only individual characteristic that significantly predicts membership on such boards is ideology. In fact, the overall models perform quite poorly suggesting that membership on balanced boards perhaps has less to do with observed individual characteristics and more with unobserved individual or community influences - such as personal interest in the preservation of historic sites, being asked by a friend to serve, having children involved in local recreation activities or a dog that enjoys walks in the parks, etc.

Finally, regarding skewed-female boards, the baseline model (Model A) shows that gender (being male) is a strong negative predictor of membership on female-skewed boards while religiosity is a significant positive predictor. Again, this is as expected regarding gender (and was the same for men on skewed-male boards) and confirms our earlier analysis showing both men and women on skewed-female boards to be significantly more religious than their counterparts on other boards. Moving to the full model (Model B), we see that personality again plays a role, but in this case emotional stability, not openness as in skewed-male boards, is critical and interacts with gender and ideology. High emotional stability is a significant positive predictor of membership on skewed-female boards, and this is particularly the case for women. Conservative men who scored higher on emotional stability are less likely to be on skewed-female boards.

To sum up, people serving on skewed-male, balanced, and skewed-female boards have distinct belief systems. Moreover, it is not simply the gender of an individual that predicts their membership on a particular board type. It is not likely that we would find just any man serving
on skewed-male boards. Our data suggests a particular type of man is likely to serve on these types of boards: one who is conservative, scored higher on conscientiousness and lower on openness to experience compared to other men. Men can and do serve on skewed-female boards, of course, but they tend to have different beliefs (not as conservative), personality (score higher on openness), and other traits (more likely to attend religious services) than men serving on other types of boards. We suspect understanding these nuances are as important to predicting gender dynamics as understanding the impact of adding more women.

## Fairness and Satisfaction by Gender and Group Type

To place our examination of personality and gender balance on local boards and commissions within the larger literature on why groups with more women are likely to be more cooperative and make better decisions, we now turn to consider responses to our survey questions concerning perceptions of other group members' fairness as well as satisfaction with the group decision making process. We take responses to these questions to be a proxy for likely collaboration and "collective intelligence" - which are the dependent variables in previous studies (i.e., Williams Woolley et al. 2010).

In Figures 2 and 3 we present the mean responses to the two items measuring each group member's perceptions of their decision making group. Specifically, we ask each subject how fair the group was in making decisions and how satisfied they were with the group's decision.
[Insert Figure 2 and Figure 3 about here]
As shown in Figures 2 and 3, there is more variation among female respondents between the types of boards they are serving on than there is for the male respondents. On skewed-male boards, women perceive the group as fairer (Figure 2; $\mathrm{t}=-2.54$ ) and are more satisfied (Figure 3; $t=-2.61)$ with the decision as compared to men on such boards. These differences are significant
at the conventional .05 level. ${ }^{7}$ On balanced and female-skewed boards, the responses of women and men to both the fairness and satisfaction questions are virtually identical, with no statistical difference identified.

Instead of just comparing men and women within board types, however, we also find important differences within gender, specifically by comparing women between types of boards on which they serve. Looking at Figure 2, female respondents on skewed-male boards actually perceive the group as fairer than female respondents on balanced boards and female respondents on skewed-female boards. The mean response in the former is 1.20 (on a scale of 7) compared to 1.94 and 1.73 in the latter two (1=very fair and 7=very unfair). There are statistically significant differences between female respondents on skewed-male boards and female respondents on balanced boards $(\mathrm{t}=-2.97, \mathrm{p}<.01)$, and between female respondents on skewed-male boards and female respondents on skewed-female boards $(t=-2.23, p<.05)$. We see a similar story presented in Figure 3 regarding satisfaction with the group's decisions. Female respondents on skewed-male boards are significantly more satisfied with the decisions their group made than female respondents on balanced boards $(t=-3.75, \mathrm{p}<.01)$, and more satisfied than female respondents on skewed-female boards $(\mathrm{t}=-2.87, \mathrm{p}<.01)$.

In short, women on skewed-male boards have different perceptions of group interactions than women serving on other types of boards. For men, the gender composition of the board has no bearing on their perception of fairness of other board members or their satisfaction with the board's decision. Women, however, seem to have a better experience on boards, as measured by perceptions of fairness and satisfaction, when surrounded mostly by men than when surrounded by their own gender or an even mix of men and women. Without an examination of personality or other characteristics, this would be an odd finding, indeed. We suggest this finding is a feature of the personalities of women who are more likely to volunteer to be on a board or commission

[^2]where they are likely to be the only woman or one of very few women. Previous studies have shown that women tend to be more cognizant of existing gender stereotypes regarding the role of women in social settings (Eagly 1987), and when surrounded by mostly men may be less likely to be competitive or disruptive to the group (Karpowitz, Mendelberg, and Shaker 2012; Croson and Gneezy 2009; Kanter 1977). The women on skewed-male boards may have been reporting this socially acceptable response to being one of few or the only woman, or their response was a feature of their conservatism and conscientiousness.

As Karpowitz, Mendelberg, and Shaker $(2012,534)$ write, "women may experience a greater sense of confidence in predominantly female settings with their stereotypically feminine norms of interaction, and more discomfort in predominantly settings with their more masculine norms of interaction." But what creates a "predominantly female setting"? Is it one where there are a greater percentage of women present than men? Or is it part of an institutionalized understanding of a group's function? This is what we previously suggested was the gendered nature of the decision-making bodies, or boards. To attempt to tease this out, we also created a dummy variable for percent male on the board where $1=$ more than 50 percent of the group is male, and $0=$ less than 50 percent of the group is male. We found no difference by gender for fairness and satisfaction when grouping for percent male or any difference within gender by percent male. In other words, it is not just the percent females present but the institutionalized understanding of the group and what it does that matters.

Perhaps distinct from business or other organizational settings, political decision-making groups have institutionalized norms that strongly influence the behaviors of those who serve and, perhaps more importantly, influence who is likely to want to step forward to serve in the first place (see also Croson and Gneezy 2009). Put another way, you can’t just "add women and stir" to political decision-making bodies and achieve cooperative and effective processes and
outcomes. ${ }^{8}$ This may make implementation of gender balance laws more challenging, but also suggests why they may be particularly necessary.

In Figure 4 we present the mean response for perceptions of fairness of male group members (upper portion) and female group members (lower portion) on skewed-male, balanced, and skewed-female boards. Looking at the upper portion of Figure 4 regarding perceptions of male group members, on skewed-male boards, male and female board members tend to perceive the fairness of their counterparts differently. On skewed-male boards, female board members perceive male board members as fairer than as judged by male board members $(t=-1.91, p<$ .10). This echoes the results from Figures 2 and 3 in which women serving on a skewed-male board tend have more positive perceptions of the group and perhaps reflect an intuitive understanding of the gendered norms of interaction in male-dominant groups and also are a likely reflection of their personality. There are also important within gender differences. Female respondents on skewed-male boards view male group members as fairer than female respondents on balanced boards $(\mathrm{t}=-2.14, \mathrm{p}<.05)$. Again, this may be explained by the type of person attracted to serve on the male traditional, economic boards in the first place. We also find a significant difference between male respondents on balanced boards and male respondents on skewed-female boards, with male respondents viewing other male group members as fairer on skewed-female boards compared to male group members on balanced boards ( $\mathrm{t}=1.96, \mathrm{p}<.10$ ). This mimics the perceptions of women on skewed-male boards in that the minority gender has distinctively different perceptions than those in balanced groups.

$$
\text { [Insert Figure } 4 \text { about here] }
$$

[^3]In the lower portion of Figure 4 we show mean responses regarding perceptions of fairness of female group members. As with the upper portion of Figure 4, the only across gender difference is on skewed-male boards where women on skewed-male boards view other women as fairer than do men on such boards $(\mathrm{t}=-2.37 ; \mathrm{p}<.05)$. Again, most of the variation takes place within gender among the three types of boards. Women on skewed-male boards tend to have more positive perceptions of their counterparts than women on balanced and skewed-female boards. There is a significant difference between female respondents on skewed-male boards and female respondents on balanced boards $(\mathrm{t}=-2.75 ; \mathrm{p}<.01)$ and between female respondents on skewed-male boards and female respondents on skewed-female boards $(\mathrm{t}=-2.04 ; \mathrm{p}<.05)$.

To recap, women on skewed-male boards not only have more positive perceptions of the group but they also tend to view other male and female boards members as fairer than do women on balanced and skewed-female boards. There is a clear and statistical divide between male and female board members on skewed-male boards---women on such boards view other board members more positively than men, which could potentially hinder the possibility of a cooperative decision making environment. Among members of balanced and skewed-female groups, although their ratings of fairness and satisfaction are not as positive as women on skewed-male boards, they are not negative. It may be the lack of variation in attitudes between male and female board members that creates a more cooperative environment.

As a final measure of group perceptions, we asked survey respondents how they would rate their overall experience with the group (how satisfied they were). On skewed-male boards, there is more than a full point difference in mean satisfaction between male and female board members, with the former being less satisfied than the latter. On a seven point scale with 1 being "very satisfied" and 7 being "very unsatisfied," the mean response from male respondents on skewed-male boards was 2.61 . This is significantly higher than the mean response of 1.35 for female respondents on such boards $(\mathrm{t}=-3.86 ; \mathrm{p}<.01)$. On balanced and skewed-female boards, there was no difference in satisfaction between male and female respondents. But again, there are
within gender differences across boards. Female respondents on skewed-male boards are significantly more satisfied with their experience compared to female respondents on balanced boards where the mean response was $2.47(\mathrm{t}=-3.43 ; \mathrm{p}<.01)$. The mean response of 2.10 for women on skewed-female boards was also significantly higher than the mean response of women on skewed-male boards ( $\mathrm{t}=-2.30 ; \mathrm{p}<.05$ ).

As with Figures 2-4, we see considerably more variation across gender on skewed-male boards as compared to balanced and skewed-female boards. Moreover, there is a statistically significant difference among women by board type, with women on skewed-male boards being more satisfied than women on balanced and skewed-female boards. Advocacy groups often tout gender balance legislation as a way to not only enhance the descriptive representation of women on decision making bodies traditionally dominated by men, but also to improve the overall experience of women in such settings. On this latter point, we find little empirical support. Despite being in a numerical minority, women have quite positive perceptions of how the group makes decisions as well as of individual group members. Whether such satisfaction is the result of true agreement with the group, or the adoption of gendered norms of interaction, or the personality of those women who volunteer to serve on these boards remains in question.

## Discussion

Who serves? Where? And what difference does it make? Does gender or personality lead to more cooperation in decision-making? Based on analyses of data from our field study of the first state in the U.S. to pass a gender balance law at the local level, we are beginning to understand a more nuanced picture of the situation that gender balance laws aim to remedy. Those who sponsored the bill, including members of the Iowa Commission on the Status of Women, have argued that encouraging women to join local boards and commissions will open future leadership positions for women, that will then help community development. Despite the Commissions' survey of county boards prior to the introduction of the law, there was no survey of municipal boards until our study. What we found mirrored what the county boards reflected -
where women served were the early childhood-focused and cultural boards. Very few women served on economic and city development boards, which tend to be the springboard to city councils and county government. Those who gravitate to the various boards are different, according to our analyses, based on ideology, personality, as well as gender. Without a gender balance law, it is likely such gravitation would continue. Does that impact the quality of decision making? That is the overarching question guiding this research endeavor.

Does gender group composition impact decision-making on boards and commissions? To the extent that the variation in the quality of the group experience, as measured by perceptions of fairness and satisfaction with the groups' decisions, all but disappears for groups where there is gender balance, one might tentatively say "yes - gender group composition makes a difference." There are several nuances that need to be considered more carefully before we make any conclusions as to what our analyses may mean for gender balance laws and the study of gendered political behavior.

Since it is variation in women's attitudes that shift when comparing between skewedmale to balanced and skewed-female groups, one might be tempted to look to the critical mass literature as an explanation for the variation in women's behavior. Kanter (1977) argued that numerically few or token women in male groups may conform to dominant group norms, or take on overt gender-stereotypes (role entrapment). We may opine that the higher levels of satisfaction and perceptions of fairness reported by women on skewed-male boards are an indication that they are experiencing role entrapment by being more amiable and thus satisfying a gendered expectation (see also Karpowitz, Mendelberg, and Shaker 2012). Based on our examination of differences in personality traits and demographics, as well as what we know about the context of membership on various boards, we do not believe critical mass is an appropriate literature to draw upon for an understanding of what we have observed.

The personality literature suggests that women are significantly more likely to self-report as agreeable and as conscientious than are men. Mondak also found that women reported higher
levels of extraversion than men (2010, 80-83). On skewed-male boards, we find that this is the case for female board members. Recall also that we found that women who serve on skewedmale boards are more likely to be conservative and tend to be higher in conscientiousness than women on balanced and skewed-male boards and this is consistent with the literature that suggests conscientiousness predicts conservative self-identification (e.g. Alford and Hibbing 2007; Carney et al. 2008; Mondak and Halperin 2008; Mondak and Hibbing 2011) and conscientiousness is correlated with identification with the Republican Party (e.g. Gerber et al. 2011; Mondak 2010). This is true of the board members on the skewed-male, or economic boards, thus the few women on these boards are similar to the men they serve with in their ideology. As we suggested earlier, however, the literature on personality and political behavior has yet to fully consider how ideology, as a function of personality (Jost, Federico and Napier 2009), may predict political behaviors differently for men than for women.

Conscientiousness has also been linked to successful job performance across a number of different fields (e.g. Barrick and Mount 1991; Dudley et al. 2006), and the members of the Planning and Zoning or Zoning Boards of Adjustment are typically those in their communities who have positions related to building or economic development and have been successful. This would apply to both men and women. High levels of conscientiousness are also associated with a strong psychological sense of community (Lounbury, Loveland, and Gibson 2003). Serving on a board is a volunteer, unpaid position. A person must apply and is appointed by the mayor or city council based on their credentials. Individuals typically choose to serve due to personal interest or out of a duty to serve their community (though some do so to gain political experience in preparation for higher political office). This brief examination of the context seems to flesh out why we might find more conservative, conscientious men and women on economic boards. Why there are so many more men is another issue. Let us first consider personality and gender on the other board types and we will then return to the issue of skewed boards.

Recall that openness to experience predicts liberal self-identification and identification with the Democratic Party (e.g. Alford and Hibbing 2007; Carney et al. 2008; Gerber et al. 2010; Mondak and Halperin 2008; Mondak 2010; Mondak and Hibbing 2011). Our model illustrates that for conservative men on skewed-male boards, as openness decreases, membership on skewed-male boards becomes more likely compared to other board types. Men who are higher in openness to experience are less likely to serve on this type of board while men who are more conscientious tend to be more likely to serve on such a board. The nature of what the various boards do explains this to a certain extent. Economic boards tend to interpret a city code and their decisions are fairly procedural. They tend to seek facts, input from the city's legal counsel or the city building inspector, and make their decisions accordingly. Such a position requires conscientiousness, but not necessarily openness.

The balanced boards, on the other hand, do not function in such a way. Their decisions are not structured according to a city plan or building codes. Parks and Recreation boards as well as Historic Preservation boards have very specific goals, but their decisions are less black and white and require different skills than those on the economic boards. Openness to citizen input, identifying creative solutions to unforeseen problems, grant writing, working with state or federal agencies, and the ability to leverage community support may be useful skills for those who serve on such boards. According to our model, membership on balanced boards appears to be a function of personal interests or external factors we did not measure in our survey instrument. Comparing the big five, however, members of balanced boards are higher on openness than members of skewed-male or skewed-female boards. Pooling male and female board members and comparing by board type, members of balanced boards score significantly higher on openness than members of skewed-male boards $(\mathrm{t}=2.97, \mathrm{p}<.01)$. In short, they need to be more open to be successful in their position.

Turning to skewed-female boards, those who serve on Library Boards tend to be higher in religiosity (church attendance) and higher in emotional stability - in addition to being more
likely to be female. Gerber et al. (2011) find that higher levels of emotional stability are associated with more participation in politics, but Mondak et al. (2010) report findings of roughly equal magnitude in the opposite direction. This is where the literature on personality and gender provides little traction to make sense of our findings. The demographics suggest the members of Library Boards are slightly older than other board members, and this may have some connection with religiosity and emotional stability, but our model does not bear that out. In terms of understanding the context of serving on Library Boards, it is important to note that they do not have the same institutionalized character as the economic boards. In some cities the Library Board of Trustees was a very prestigious body and membership on the board was coveted. In other cities there were significant challenges getting people to serve. In some cities it was clearly a "woman's board," but in others that was not the stereotype at all. Although library boards were more likely to be gendered female in character, it may not be as difficult to recruit men to serve as it will be for some communities to recruit women to economic boards.

The challenge for municipalities in implementing the gender balance law in Iowa will be to overcome the gendered nature of Planning and Zoning Boards, Zoning Boards of Adjustment, and Library Boards. Mansbridge (1980) notes that women's lesser economic power can translate into their lesser political power - in other words, where women are engaged, it is in positions with significantly less power than men. In her study, for example, there were women who had served on the school board, or as secretary of the town, but never as mayor or selectmen (94). If both men and women benefit from distinct gender roles, they are likely to continue to be reinforced. In communities where libraries are synonymous with education or child development, and thus considered "women's work," it will be difficult to recruit men. Where libraries are viewed as the cultural center of the community, or repositories for historical documents and artifacts, in addition to technology centers for learning at all stages of life, there will be fewer issues recruiting men to balance the boards.

There does not seem to be variation in how Planning and Zoning and Boards of Adjustment are viewed. Where women serve in greater numbers are in communities where more women have entered the male-dominated professions that board members are drawn from. These tend to be the larger cities and smaller towns with entrenched gendered divisions of labor will continue to be challenged by the gender balance requirement. Further, there will likely be biases in recruiting and appointments (conscious or unconscious) that inhibits the implementation of gender balance. The following was reported in a local newspaper in 2012: "On the Allamakee County Zoning Board when Kirby Cahoon was up for reappointment, Colleen Gragg removed herself from consideration because she did not want to be appointed based only on the gender balance requirements. Later the Board met with the County Attorney when faced with reappointing Doug Mullen, whom they considered better qualified than applicant Marlene Imhoff-Duffy" (Beach 2012). Such are challenges of overcoming a decision-making body that is gendered male.

The women we observed in our study had been appointed to their positions prior to the law being implemented. Now, however, the women who may want to serve on economic boards may have to face a situation where they are not the preferred candidate and even if appointed, may be treated as though they were appointed due to the law and not their merits. What this situation may do to the dynamics of decision making on such boards is an interesting question. Our working hypothesis is that groups will achieve the kind of collective intelligence gender balance makes possible if groups operate within gender-neutral institutions.

A combination of gender, personality traits, and ideology predicts who will step forward and serve on these various boards and commissions. That individuals self-select into positions that fit their personality, interests, and skills should not surprise us. What this does, however, is reinforce the gendered character of some types of boards and their institutionalized norms, which likely impact behavior. An anecdotal interaction with a City Manager one of us had following a board of adjustment meeting provides an illustration. He said, "These people are serious. They
are business people." This City Manager implied a level of legitimacy to the board and the people serving on it and by extension, their decisions. By contrast, he mentioned the "cultural boards" consisting of "flamboyant personalities." He implied illegitimacy to such boards and the people serving on them and by extension, their decisions. The nature of what the specific boards do is not likely going to change, but the way what they do is perceived and valued certainly can. Although the law is written to suggest gender neutrality, and that the law "cuts both ways," the real issue is the lack of women on economic boards.

It may be the case that women are not as interested in serving on Boards of Adjustment or Planning and Zoning Commissions (although that does not explain how many communities have managed to balance those boards ahead of the law's implementation). However, even so, if those economic boards are the groups synonymous with power in their communities, women despite their greater presence elsewhere - are going to remain at a disadvantage. The problem arises when women's distinct interests cannot be properly represented due to their lesser political power (Mansbridge 1980, 93). Even with balance on many boards and commissions, and women in leadership positions on some as well, there is more work to be done.

With this new Congress we will not just see newly elected Senator Elizabeth Warren serving on the Senate Banking Committee - breaking ground on a "male gendered" decisionmaking committee - we will also see a larger picture that suggests a de- or re-gendering of various committees and leadership positions in the Senate. Senator Stabenow will chair Agriculture; Senator Milkalski will chair Appropriations; Senator Boxer will chair EPW; Senator Feinstein will chair Intelligence; Senator Murray will chair Budget; Senator Landrieu will chair Small Business; and Senator Cantwell will chair Indian Affairs. Will they impact decisionmaking? Most certainly, but at some point we must adjust our empirical investigations and theory-building to take into account the gender dynamics that includes men, gendered contexts, and gendered institutions that are varied and vary in response to women's presence.

## Works Cited

Alford, John R., and John R. Hibbing. 2007. "Personal, Interpersonal, and Political Temperaments." Annals of the American Academy of Political and Social Science 614 (1): 196212.

Ambrus, Attila, Ben Greiner, and Parag Pathak. 2009. "Group versus individual decisionmaking: Is there a shift?" Working paper.

Atkeson, Lonna Rae, and Nancy Carrillo. 2007. "More is Better: The Influence of Collective Female Descriptive Representation on External Efficacy." Politics \& Gender, 3(01): 79-101.

Beach, Bob. 2012. "Supervisors discuss gender balance issues in regard to Planning and Zoning Commission." The Waukon Standard. September 26, 2012. http://www.waukonstandard.com

Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova. 2012. "Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India." Science (3 February 2012): 582-586. DOI:10.1126/science. 121238.

Burns, Nancy, Kay Lehman Schlozman, and Sidney Verba. 2001. The Private Roots of Public Action: Gender, Equality and Political Participation. Cambridge, MA: Harvard University Press.

Campbell, David E., and Christina Wolbrecht. 2006. "See Jane Run: Women Politicians as Role Models for Adolescents." The Journal of Politics, 68(2): 233-247.

Carney, Dana R. John T. Jost, Samuel D. Gosling, and Jeff Potter. 2008. "The Secret Lives of Liberals and Conservatives: Personality Profiles, Interaction Styles, and the Things They Leave Behind." Political Psychology 29 (6): 807-840.

Childs, Sarah, and Mona Lena Krook. 2008. "Critical Mass Theory and Women's Political Representation." Political Studies, 56: 725-736.

Childs, Sarah, and Mona Lena Krook. 2006. "Should Feminists Give Up on Critical Mass? A Contingent Yes." Politics \& Gender, 2(4): 522-30.

Croson, Rachel, and Uri Gneezy. 2009. "Gender Differences in Preferences." Journal of Economic Literature 47(2): 448-74.

Del Giudice, Marco, Tom Booth, and Paul Irwing. 2012. "The Distance Between Mars and Venus: Measuring Global Sex Differences in Personality." PLoS ONE, Vol. 7, No, 1: doi:10,1371/journal.pone. 0029265

Eagly, Alice H. 1987. Sex Differences in Social Behavior: A Social-Role Interpretation. Hillsdale, NJ: Lawrence Earlbaum.

Franceschet, Susan, Mona Lena Krook, and Jennifer M. Piscopo, eds. 2012. The Impact of Gender Quotas. New York: Oxford University Press.

Gerber, Alan S., Gregory A. Huber, David Doherty, and Conor M. Dowling. 2012. "Personality and the Strength and Direction of Partisan Identification." Political Behavior. Forthcoming.

Gerber, Alan S., Gregory A. Huber, David Doherty, Conor M. Dowling, Connor Raso, and Shang E. Ha. 2011. "Personality Traits and Participation in Political Processes." The Journal of Politics 74 (3 July): 692-706.

International Institute for Democracy and Electoral Assistance (IDEA). Data on quota laws. www.quotaproject.org

Kanter, R. M. 1977. Men and Women of the Corporation. New York: Basic Books.
Krook, Mona Lena. 2006. "Reforming Representation: The Diffusion of Candidate Gender Quotas Worldwide." Politics \& Gender, 2(3): 303-27.

MacKuen, Michael, Jennifer Wolak, Luke Keele, and George E. Marcus. 2010. "Civic Engagements: Resolute Partisanship or Reflective Deliberation?" American Journal of Political Science 54 (2): 440-458.

Mansbridge, Jane J. 1980. Beyond Adversary Democracy. Chicago: Chicago University Press.
Marcus, George E., and Michael B. Mackuen. 1993. "Anxiety, Enthusiasm, and the Vote: The Emotional Underpinnings of Learning and Involvement During Presidential Campaigns." The American Political Science Review 87 (3): 672-685.

Mondak, Jeffery J. 2010. Personality and the Foundations of Political Behavior. New York: Cambridge University Press.

Mondak, Jeffery J., and Karen D. Halperin. 2008. "A Framework for the Study of Personality and Political Behavior." British Journal of Political Science 38 (2): 335-62.

Mondak, Jeffery J., and Matthew V. Hibbing. 2011. "Personality and Public Opinion." In New Directions in Public Opinion, ed. Adam J. Berinsky, New York: Routledge.

Mondak Jeffery J., Matthew V. Hibbing, Damarys Canache, Mitchell A, Seligson, and Mary R. Anderson. 2010. "Personality and Civic Engagement: An Integrative Framework for the Study of Trait Effects of Political Behavior." American Political Science Review 104 (1): 85-110.

Jost, John T., Christopher M. Federico, and Jamie L. Napier. 2009. "Political Ideology: Its Structure, Functions, and Elective Affinities." Annual Review of Psychology 60: 307-337.

Karpowitz, C. F., T. Mendelberg, and L. Shaker. 2012. "Gender Inequality in Deliberative Participation." American Political Science Review 106(3): 533-47.

Krook, M. L. 2009. Quotas for Women in Politics. New York: Oxford University Press.
Mansbridge, J. J. 1999. "Should Blacks Represent Blacks and Women Represent Women? A Contingent "Yes"." The Journal of Politics, 61: 628-657.

Schoen, Harald and Siegfried Schumann. 2007. "Personality Traits, Partisan Attitudes, and Voting Behavior: Evidence from Germany." Political Psychology 28 (4): 471-498.

Simon Rosenthal, Cindy. 2002. Women Transforming Congress. Norman, OK: University of

## Oklahoma Press.

Simon Rosenthal, Cindy. 2001. "Gender Styles in State Legislative Committees: Raising Their Voices in Resolving Conflict." Women and Politics, 21(2): 21-45.

Swers, Michelle L. 2002. The Difference Women Make: The Policy Impact of Women in Congress. Chicago, IL: The University of Chicago Press.

Volden, Craig, Alan E. Wiseman, and Dana E. Wittmer. 2010."The Legislative Effectiveness of Women in Congress." Working Paper.

Williams Woolley, A., C. F. Chabris, A. Pentland, N. Hashmi, and T. W. Malone. 2010.
"Evidence for a collective intelligence factor in the performance of human groups." Science 330: 686-688.

Table 1: Board/Commissions by gender

|  | Type of Board/Commission | Number of meetings | Average \% Female |
| :---: | :---: | :---: | :---: |
| Skewed-male | Zoning Board of Adjustment | 7 | 25.26 |
|  | Planning and Zoning | 12 | 28.97 |
|  | Male / Female chairs | 16 / 3 |  |
| Balanced | Parks and Recreation | 12 | 49.01 |
|  | Historic Preservation | 5 | 50.87 |
|  | Male / Female chairs | 12/5 |  |
| Skewed-female | Library Board | 14 | 65.24 |
|  | Male / Female chairs | 3/11 |  |

Demographics by board type

|  |  | Age | Ideology ${ }^{\text {a }}$ | Religiosity ${ }^{\text {b }}$ | Race | Trusting ${ }^{\text {c }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Skewed-Male | Mean | 55.76 | 3.10** | 3.06** | 4.94 | 3.07** |
|  | N | 71 | 70 | 67 | 70 | 70 |
|  | Std. Deviation | 13.10 | 1.24 | 1.69 | 0.51 | 1.29 |
| Balanced | Mean | 53.57** | 2.56** | 2.66*** | 4.88 | 2.70* |
|  | N | 61 | 61 | 62 | 58 | 57 |
|  | Std. Deviation | 13.11 | 1.36 | 1.70 | 0.42 | 1.09 |
| Skewed-female | Mean | 58.54** | 2.57** | 3.62*** | 5.00 | 2.61** |
|  | N | 70 | 68 | 68 | 70 | 70 |
|  | Std. Deviation | 12.26 | 1.29 | 1.52 | 0.00 | 1.13 |
| Total | Mean | 56.06 | 2.75 | 3.13 | 4.94 | 2.8 |
|  | N | 202 | 199 | 197 | 198 | 197 |
|  | Std. Deviation | 12.92 | 1.31 | 1.67 | 0.38 | 1.19 |

*** $\mathrm{p}<.01 ; * * \mathrm{p}<.05 ; * \mathrm{p}<.10$
Note: Difference between balanced and skewed-female in age is significant ( $\mathrm{p}<.05$ ). On ideology, there is a significant difference between skewed-male and balanced ( $\mathrm{p}<.05$ ) and between skewed-male and skewed-female ( p $<.05$ ). On religiosity, there is a significant difference between balanced and skewed-female ( $\mathrm{p}<.01$ ) and between skewed-male and skewed-female ( $\mathrm{p}<.05$ ). On trusting, there is a significant difference between skewed-male and skewed-female $(\mathrm{p}<.05)$ and between skewed-male and balanced $(\mathrm{p}<.10)$.
${ }^{\text {a }}$ Ideology measured by response to the following question: "In terms of political views, do you consider yourself liberal, conservative, or somewhere in between?" Responses coded on 5-point scale where $1=$ Liberal;
$5=$ Conservative
${ }^{\mathrm{b}}$ Religiosity measured response to the following question: "Approximately how many times a month do you attend religious services? $(0,1,2,3$, or 4$)$ "
${ }^{c}$ Trusting measured by response to the following question: "Generally speaking, would you say that most people can be trusted, or would you say that you can't be too careful in dealing with people?" Responses coded on 7-point scale where $1=$ Most people can be trusted; $7=$ You can't be too careful in dealing with others

Table 2: Linear analysis predicting membership on board type

|  | Skewed-male boards ${ }^{\text {a }}$ |  | Balanced boards ${ }^{\text {b }}$ |  | Skewed-female boards ${ }^{\text {c }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model A | Model B | Model A | Model B | Model A | Model B |
| Male ( $0=$ Female; $1=$ Male ) | 1.34 (0.30)*** | -1.85 (12.25) | -0.47 (0.32) | 5.21 (11.50) | -0.92 (0.33)*** | -15.72 (13.56) |
| Ideology ${ }^{\text {d }}$ | 0.23 (0.14) | -3.90 (2.98) | -0.04 (0.13) | 4.41 (2.66)* | -0.17 (0.13) | -2.92 (4.30) |
| Religiosity ${ }^{\text {e }}$ | -0.19 (0.11)* | -0.26 (0.12)** | -0.16 (0.12) | -0.19 (0.13) | 0.34 (0.10)*** | 0.44 (0.11)*** |
| Trusting ${ }^{\text {f }}$ | 0.22 (0.14) | 0.27 (0.17) | -0.04 (0.14) | -0.08 (0.13) | -0.21 (0.14) | -0.22 (0.13) |
| Extraversion | 0.06 (0.23) | -0.39 (2.15) | -0.02 (0.21) | -1.31 (1.66) | 0.02 (0.20) | 0.99 (2.57) |
| Agreeableness | 0.10 (0.18) | 3.42 (3.09) | 0.10 (0.20) | 0.18 (2.96) | -0.34 (0.26) | -2.64 (3.05) |
| Conscientiousness | 0.02 (0.33) | -7.50 (2.88)*** | -0.07 (0.25) | 3.81 (3.75) | 0.09 (0.34) | 3.25 (3.47) |
| Emotional stability | -0.29 (0.27) | -0.84 (2.46) | 0.02 (0.23) | -1.64 (2.09) | 0.28 (0.24) | 5.62 (2.50) ${ }^{* *}$ |
| Openness | -0.71 (0.33)** | 4.16 (2.52)* | 0.42 (0.31) | -0.47 (1.95) | 0.34 (0.31) | -1.00 (2.99) |
| Male x Ideology |  | 3.20 (4.02) |  | -0.79 (3.74) |  | 0.88 (5.36) |
| Male x Extraversion |  | 1.00 (1.61) |  | 0.75 (1.21) |  | -0.88 (1.51) |
| Male x Agreeableness |  | -2.48 (2.13) |  | 0.43 (1.95) |  | 0.95 (2.05) |
| Male x Conscientiousness |  | 4.86 (1.97)** |  | -1.86 (2.27) |  | -1.89 (1.96) |
| Male x Emotional stability |  | -0.76 (1.66) |  | 1.46 (1.30) |  | -3.25 (1.40)** |
| Male x Openness |  | -4.19 (1.88)** |  | 1.00 (1.21) |  | 0.45 (1.90) |
| Ideology x Extraversion |  | -0.44 (0.46) |  | 0.05 (0.37) |  | 0.15 (0.35) |
| Ideology x Agreeableness |  | 0.50 (0.52) |  | 0.00 (0.45) |  | -0.13 (.064) |
| Ideology x Conscientiousness |  | -0.39 (0.51) |  | -0.44 (0.46) |  | 0.32 (0.38) |
| Ideology x Emotional stability |  | 0.52 (0.39) |  | -0.39 (0.31) |  | 0.36 (0.35) |
| Ideology x Openness |  | 1.13 (0.56)** |  | -0.39 (0.32) |  | 0.05 (0.43) |
| Male x Ideology x Extraversion |  | 0.25 (0.50) |  | -0.00 (0.43) |  | -0.04 (0.50) |
| Male x Ideology x Agreeableness |  | -0.76 (0.71) |  | -0.24 (0.68) |  | 0.65 (0.86) |
| Male x Ideology x Conscientiousness |  | 1.00 (0.65) |  | -0.28 (0.79) |  | -0.42 (0.60) |
| Male x Ideology x Emotional stability |  | -0.13 (0.52) |  | 0.31 (0.42) |  | -0.85 (0.48)* |
| Male x Ideology x Openness |  | -1.35 (0.59)** |  | 0.41 (0.44) |  | 0.25 (0.55) |
| Constant | 0.67 (2.20) | 10.09 (10.25) | -1.68 (2.18) | -15.17(8.95) | -1.25 (2.31) | 11.10 (10.87) |
| N | 178 | 178 | 178 | 178 | 178 | 178 |
| $\chi 2$ | 38.71*** | $89.35^{* * *}$ | 10.44 | 36.04* | 18.72** | 110.17*** |

*** $\mathrm{p}<.01 ;{ }^{* *} \mathrm{p}<.05 ; * \mathrm{p}<.10$
${ }^{\text {a }}$ Skewed-male boards=Planning and Zoning boards and Zoning Boards of Adjustment
${ }^{\mathrm{b}}$ Balanced boards=Parks and Recreation Boards, and Historic Preservation Boards
${ }^{\text {c }}$ Skewed-female boards=Library Boards
${ }^{\mathrm{d}}$ Ideology is coded ( $1=$ liberal; $2=$ moderate leaning liberal; $3=$ moderate; $4=$ moderate leaning conservative; $5=$ conservative).
${ }^{e}$ Religiosity is coded ("Approximately how many times a month do you attend religious services? $0=0,1=1,2=2,3=3$, or 4 or more $=4$ ")
${ }^{\mathrm{f}}$ Trusting is coded ("Generally speaking, would you say that most people can be trusted, or would you say that you can't be too careful in dealing with people?" $1=$ Most people can be trusted; $7=$ You can't be too careful in dealing with others)

Note: Results are based on logistic regression. Coefficients are reported, with robust cluster standard errors (at the board level) in parentheses.

Figure 1: Big 5 Personality scores by subject gender and board type (mean response)


Skewed-male boards: $\mathrm{N}=48$ males/19 females (extraversion, agreeableness, conscientiousness, and emotional stability; $\mathrm{N}=47$ males/19 females (openness) Balanced boards: $\mathrm{N}=24$ males/34 females
Skewed-female boards: $\mathrm{N}=22$ males $/ 44$ females
*Refers significant difference between male and female board members $(t=-2.72 ; p<.01)$

Figure 2: Perception of fairness by subject gender and board/commission type (mean response)

*** $\mathrm{p}<.01 ; * * \mathrm{p}<.05$

Skewed-male (N=20 Female; N=51 Male)
Balanced ( $\mathrm{N}=36$ Female; $\mathrm{N}=26$ Male)
Skewed-female ( $\mathrm{N}=49$ Female; $\mathrm{N}=22$ Male)

Across gender differences:
Significant difference between male and female respondents on skewed-male boards $(t=-2.54)$.
Within gender differences:
Significant difference between female respondents on skewed-male boards and female respondents on balanced boards $(t=-2.97)$
Significant difference between female respondents on skewed male boards and female respondents on skewedfemale boards $(\mathrm{t}=-2.23)$

Note: Fairness coded: $1=$ very fair, $7=$ very unfair

Figure 3: Satisfaction with group decisions by subject gender and board/commission type (mean response)

*** $\mathrm{p}<.01 ; * * \mathrm{p}<.05$
Skewed-male ( $\mathrm{N}=20$ Female; $\mathrm{N}=51$ Male)
Balanced ( $\mathrm{N}=36$ Female; $\mathrm{N}=26$ Male)
Skewed-female (N=49 Female; N=22 Male)
Across gender differences:
Significant difference between male and female respondents on skewed-male boards $(\mathrm{t}=-2.61)$
Within gender differences:
Significant difference between female respondents on skewed-male boards and female respondents on balanced boards ( $\mathrm{t}=-3.75$ )
Significant difference between female respondents on skewed-male boards and female respondents on skewedfemale boards $(\mathrm{t}=-2.87)$

Note: Satisfaction coded: 1=very satisfied, 7=very unsatisfied

Figure 4: Perception of fairness of male group members by subject gender on (mean response)


Skewed-male (N=20 Female; N=51 Male); Balanced (N=31 Female; N=26 Male); Skewed-female (N=42 Female; N=22 Male)
Across gender differences:
Significant difference between male and female respondents on skewed-male boards $(\mathrm{t}=-1.91)$
Within gender differences:
Significant difference between female respondents on skewed-male boards and female respondents on balanced boards $(t=-2.14)$ Significant difference between male respondents on balanced boards and male respondents on skewed-female boards $(t=1.96)$

Perception of fairness of female group members by subject gender on (mean response)


Skewed-male (N=19 Female; N=44 Male); Balanced (N=33 Female; N=26 Male); Skewed-female (N=48 Female; N=22 Male) Across gender differences:
Significant difference between male and female respondents on skewed-male boards $(\mathrm{t}=-2.37)$
Within gender differences:
Significant difference between female respondents on skewed-male boards and female respondents on balanced boards $(t=-2.75)$ Significant difference between female respondents on skewed-male boards and female respondents on skewed-female boards $(t=-$ 2.04)

Note: Fairness coded: $1=$ very fair, $7=$ very unfair


[^0]:    ${ }^{1}$ Mondak $(2010,6)$ defines personality as "biologically influenced and enduring psychological structure that shapes behavior."
    ${ }^{2}$ Del Diudice, Booth and Irwing (2011) argue that the notion there are only minor differences between the personality profiles of men and women is based on inadequate methodology. They add to the lively controversy in the literature by illustrating a global effect size $D=2.71$, corresponding to an overlap of only $10 \%$ between male and female distributions when estimating sex difference on individual personality dimensions.
    ${ }^{3}$ The Big Five are: extraversion, agreeableness, conscientiousness, openness, and emotional stability (or sometimes called its reciprocal, neuroticism).

[^1]:    ${ }^{4}$ We were unable to visit all 20 cities because, in some cities, boards and commissions did not meet regularly or simply did not exist. We were forced to make additional adjustments due to cancellations and cities adjusting their meeting schedules and travel logistics due to weather, road conditions, etc.
    ${ }^{5}$ In 2 cities, we visited one board or commission; in 2 cities we visited two boards and commissions; in 13 cities we visited three boards and commissions; in 1 city we visited five boards and commissions. As indicated in the previous footnote, the variation in number of boards visited in each city was a function of changing meeting schedules and travel logistics.
    ${ }^{6} \mathrm{~A}$ copy of the survey is available from the authors upon request. The response rate for the survey exceeded 65 percent. Women and individuals on balanced and skewed-female boards exhibited a higher response rate ( $>70$ percent) than males or individuals serving on skewed-male boards. Full details on the response rate are available upon request. A "thank you" letter was sent approximately 3-5 days after each observed meeting to thank each board or commission for their participation and as a gentle reminder to complete the surveys.

[^2]:    ${ }^{7}$ Where the Levene test for homogeneity of variance was significant, we report the $t$-value generated in SPSS for "equal variances not assumed." The p-values for reporting significant differences in such cases were replicated using the Brown-Forsythe statistic.

[^3]:    ${ }^{8}$ Although not shown, we also conducted a linear analysis for the two dependent variables (fairness and satisfaction) shown in Figures 2 and 3. Instead of board type we used percent female board members in attendance at the meeting. This was done to test whether it is the institutionalized understanding of the type of board (i.e., those economic boards traditionally dominated by men, or library boards traditionally dominated by women), or the actual number of men and women in attendance at any one particular meeting that determines perceptions of fairness and satisfaction. Including controls for age, ideology, religiosity, and "trusting," none of the variables were significant predictors of fairness or satisfaction.

