The Link between Women's Descriptive Representation in Subnational Legislatures and Women-Friendly Bill Sponsorship
– An Empirical Evidence from South Korea

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| Abstract |

Do female legislators represent women's interests? Even though the existing literature has tried to answer this question and provided empirical evidence, there are only a few studies examining the influence of gender on legislative behaviors concerning women-friendly bills at the subnational level especially in the Asian context. To fill this academic void, this article based on the information about proposed bills in 17 subnational legislatures from 2012 to 2022 in South Korea tests whether the gender of individual legislators affects their sponsorship behaviors about women-friendly bills. Analyzing 208 proposed women-friendly bills, this article using logistic regression models demonstrates that female legislators are more likely to sponsor women-friendly bills compared to their male counterparts even in subnational legislative branches. More interestingly, this article finds that the influence of gender on sponsorship is conditioned by legislators' party affiliation. This article

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contributes to the existing literature on gender and politics by demonstrating that the link between women's descriptive and substantive representation exists not merely at the national level but also at the subnational level.

Key words : Women's Descriptive Representation, Women-Friendly Policy, Subnational Legislatures, Bill Sponsorship, South Korea

1. Introduction

Do female legislators represent women's interests? This research question is a typical question of literature on the link between women's descriptive and substantive representation (Celis, 2007; Celis et al., 2008; Reingold & Harrell, 2010; Swers, 1998; Wängnerud, 2009; Woo, 2021b). The entrance of women into politics and the growing percentage of female legislators along with the spread of gender quotas have received academic attention and a number of studies have focused on the differences that female legislators can make in diverse areas including policy adoptions and outcomes (Clayton, 2021; Kweon & Ryan, 2021; Woo, 2021a). However, even though previous literature has provided meaningful differences that female legislators can entail, there has been a relatively less number of studies examining the influence of women's descriptive representation in subnational legislatures. Given that the necessity and importance of unveiling the impacts of women's descriptive representation have continuously been emphasized by scholars until recently, such an academic void is not expected.

The situation is worse in the Asian context. Even though some previous

studies have examined the influence of subnational legislatures' gender compositions in some geopolitical regions including Russia (Clay, 2017), Latin American countries (Franceschet, Krook, & Piscopo, 2012; Schwindt-Bayer, 2018), and Rwanda (Ryan & Woods, 2019), studies on the influence of gender in the Asian context, especially the East Asian context, have not been thoroughly developed. One of the most critical hurdles which can be hardly jumped is the limitation of subnational data about legislatures. Specifically, it is extremely difficult to collect data about proposed bills and even about lists of legislators over decades. The deficiency of suitable data to analyze the association between women's descriptive and substantive representation discourages us from empirically examining such a relationship.

Aiming to fill this academic lacuna, this article based on the data collection about the information on the proposed bills in 17 subnational legislatures in South Korea from 2012 to 2022 conducts an empirical analysis to examine the influence of legislators' gender on the sponsorship on women-friendly bills. By conducting logistic regression models, this article finds that female legislators even in the subnational legislatures are more likely to sponsor women-friendly bills than their male counterparts are. More interestingly, this article demonstrates that there is a conditional relationship between gender and the party affiliation of legislators.

The rest of this article proceeds in the following order. In the next section, a literature review on the link between women's descriptive and substantive representation at both national and subnational levels will be introduced. Then, I theorize the impacts of gender on sponsorship

concerning women-friendly bills, and the heterogeneous impacts of gender according to legislators' party affiliation will be presented. Then, in the Empirical Analysis section, variables and data, modeling strategy, and empirical results will be provided. Finally, I conclude with a discussion of the contributions and limitations of this article.

2. Literature Review

As mentioned earlier, the influence of women's descriptive representation in the political sphere has received great attention from scholars over decades with the growing entrance of women into politics. Some studies have examined the role of women's descriptive representation in executive branches (Atkeson & Carrillo, 2007; Park & Liang, 2021), while others have unveiled the consequences of the growing proportion of women in legislative branches (Barnes & Burchard, 2013; Kweon & Ryan, 2021; Piscopo, 2011).

Especially related to the differences between female and male legislators, the previous studies have been categorized into three representative themes: attitudes (Flammang, 1997; Frankovic, 1982; Thomas, 1991; Thomas & Wilcox, 2014), priorities (Reingold, 2003; Swers, 1998; Wängnerud, 2000), and policy promotion or outcomes (Berkman & O'Connor, 1993; Bratton & Ray, 2002; Thomas, 1991; Woo, 2021b). In terms of attitudes and priorities, an academic consensus that female legislators tend to and that female legislators are more likely to prioritize women's issues[1] compared to male legislators do has been achieved.

Moreover, even though there have been conflicting findings related to the significant impacts of gender on political outcomes (Wängnerud, 2009), recent studies have provided empirical support for the crucial role of gender and the gendered composition of legislative branches in determining policy promotion concerning women's issues including violence against women (Kweon & Ryan, 2021; Tam, 2017; Woo, 2021a). While Kweon and Ryan (2021) examining the Korean National Assembly demonstrated that female legislators tend to promote women's substantive representation, Tam (2017) showed that female legislators even in non-democratic countries are more likely to focus on women's issues than their male counterparts are.

In addition to the independent impacts of the presence of women's descriptive representation in subnational legislatures, the conditional relationship between gender and partisanship of individual legislators has been examined. There have been a number of studies unveiling heterogeneities among female legislators according to their partisanships rather than assuming female legislators are homogeneous (Cooperman, 2014; Kreitzer, 2015; Osborn, 2012; Reingold et al., 2021; Swers, 2002). As an example, Reingold et al. (2021) demonstrate that conservative Republican women tend to lead anti-abortion policy and their leadership is conditioned by policy contexts. To be specific, they argue that such leadership is most likely to emerge under the conditions of competitive partisan environments and when women-centered issue frames are used.

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1) The definition and operationalization of women's issues vary substantially among scholars (see Volden, Wiseman, and Wittmer (2018) for more information). In this article, following Longwe (1998) and Cowell-Meyers and Langbein (2013), I define women's issues as all issues affect disproportionately women more than men.

Also, some literature highlighted the influence of intersectionality concerning class and race (Barnes, 2016).

Furthermore, some studies have recently shed light on the role of female legislators in leading male legislators to focus on women's issues. For instance, Nugent (2019) relying on the case of the United Kingdom Parliament and qualitative analysis unveiled that the existence of female legislators unmeasurably impacts the legislative behaviors' of male legislators. In addition, Woo (2022) analyzing legislative behaviors in the Korean National Assembly found that male legislators with previous experience of sponsoring violence against women bills with female legislators are more likely to sponsor such bills.

Although the above-mentioned studies have broadened our understanding of a series of the impacts of gender, the consequences of female legislators can bring to subnational legislative branches have been relatively less empirically and thoroughly examined especially in the Asian context. Thus, this article analyzing legislators' sponsorship on women-friendly bills in the Korean National Assembly aims to fill this academic lacuna.

3. Theories and Hypotheses

In this section, theories and hypotheses about the influence of gender on sponsoring women-friendly bills and the conditional relationship between gender and party affiliation of individual legislators will be

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introduced. How can the gender of individual legislators affect their legislative behaviors concerning women's issues? As most of the previous studies concerning the link between women's descriptive and substantive representation did, this article based on the long-lasting Politics of Presence theory (Phillips, 1995) theorizes the association of gender of individual legislators and the probability of sponsoring women-friendly bills.

The theoretical link between women's descriptive representation and substantive representation is rooted in the Politics of Presence theory developed by Phillips (1995). The main thrust of the Politics of Presence theory is that women are not merely "standing for" women but also "acting for" women. Based on the assumption that women have a shared identity as women, she argues that women tend to act for women's interests (Phillips, 1995; Sapiro, 1981). The crucial work from Mansbridge (1999) also argued that female legislators based on their shared experience as women would like to promote women's interests by focusing on women's issues.

It should be noted that the Politics of Presence theory and the argument from Mansbridge (1999) do not guarantee that all women work for women in the real world. The relationship between women's descriptive representation and substantive representation is supported not by sex, but by gender which emphasizes socially constructed identity according to sex (Celis & Childs, 2008). As mentioned earlier, the conducive influence of women's descriptive representation on achieving substantive representation has been echoed by previous studies. Mansbridge (2005, 622) emphasized the concrete relationship by mentioning that "Descriptive representation by

gender improves substantive representation for women in every polity for which we have a measure".

In addition to the Politics of Presence theory, the Critical Mass theory mainly developed by Kanter (1977) also maintained that the improvement of women's descriptive representation is not a sufficient condition but a necessary condition for women's descriptive representation to be promoted (see Celis et al. (2008) for a thorough review of Kanter's Critical Mass theory). Thus, based on the above-mentioned theories, I expect that female legislators are more likely to sponsor women-friendly bills compared to their male counterparts even in subnational legislative branches.

Hypothesis 1: Female legislators are more likely to sponsor women-friendly bills than male legislators are, while all other things being equal (Ceteris Paribus)

Rather than focusing on examining the independent influence of gender on the sponsorship of women-friendly bills, this article based on the existing literature reviewed in the previous section also tests whether the influence is conditioned by individual legislators' party affiliations or not even in subnational legislative branches. In the South Korean context, political parties and party systems have been developed differently from those in other advanced democratic countries. Even after its democratization in 1987, a comparable and stable party system did not emerge in South Korea for decades (J. Kim, 2020).

Under the situation of strong regional connections, the South Korean party system has been structured by political dynasties and elite networks

(H. Lee & Singer, 2020). Despite a high number of political parties, there are actually two political parties: "Right Political Party (conservative)" and "Left Political Party (liberal)" with different names or labels. The high number of historically existing political parties is rooted in the attempts of parties to distance themselves from the demeaning legacies of individual presidents (Lim & Alsford, 2021). In addition, South Korea's heavy reliance on personalistic party cues, centralization of power, and strong political attention in the public also contribute to the immense party relabeling (M.-s. Kim, 2015).

Even though several smaller third political parties have existed and emerged in two recent decades, the two dominant wings can be categorized as "Right (conservative)" and "Left (liberal)". The two parties' relationship with the former authoritarian regime acts as the most salient programmatic cleavage within these camps (Kang, 2008). Like left-leaning political parties in young presidential democracies, the center-left political parties that existed in South Korea are identified with political cleavages over class conflicts and minority protection including the protection of women's rights and integrity (Shim, 2019). Thus, as is common in other countries (Reynolds, 2013), I expect that female legislators with liberal party affiliation are more likely to sponsor bills concerning violence against women.

Hypothesis 2: The influence of gender is heterogenous according to legislators' party affiliation, while all other things being equal (Ceteris Paribus)

4. Empirical Analysis

1) Variables and Data

(1) Dependent Variable

To see whether the gender of legislators influences the probability of sponsoring women-friendly bills or not, I employ *Sponsor Bill* as a dependent variable. To build this variable, I collect information about each bill proposed in 17 subnational legislatures from 2012 to 2022 based on each subnational legislature's official website. Even though each website provides different information about proposed bills, they commonly have information about titles and summaries of each bill. After collecting basic information about bills' titles and summaries, I using keywords classify each bill into a women-friendly bill and a non-women-friendly bill. As a result, 208 bills are classified as women-friendly bills.

〈Table 1〉 Samples of Women-Friendly Bills

Area	Congress	Bill No.	Title of Bill
Chungcheongnam-do	11	710	Ordinance of Prevention of Violence Against Women
Seoul	10	1819	Partial Amendment of Ordinance of Prevention of Violence Against Women and Protection and Support of Victims
Jeollabuk-do	10	1112	Ordinance on the Operation of Local Solidarity for Child and Women Safety
Gyeonggi-do	10	2261	Ordinance for the Establishment and Operation of the Human Resources Development Center for Women
Gangwon-do	10	100692	Ordinance to Foster and Support Female Scientists and Engineers

Area	Congress	Bill No.	Title of Bill
Chungcheongbuk-do	9	634	Partial Amendment of Ordinance to Support for Fostering Female Farmers and Fishers
Gyeongsangnam-do	9	702	Partial Amendment of Ordinance on Women's Development
Gyeongsangbuk-do	9	467	Ordinance to Support for Women's Enterprises
Busan	7	632	Ordinance on Promotion of Economic Activities of Women

Table 1 presents the sample lists of bills classified as women-friendly bills in the dataset used in the empirical analysis of this manuscript. As presented, women-friendly bills include bills concerning violence against women, career-interrupted woman, and the female workforce.
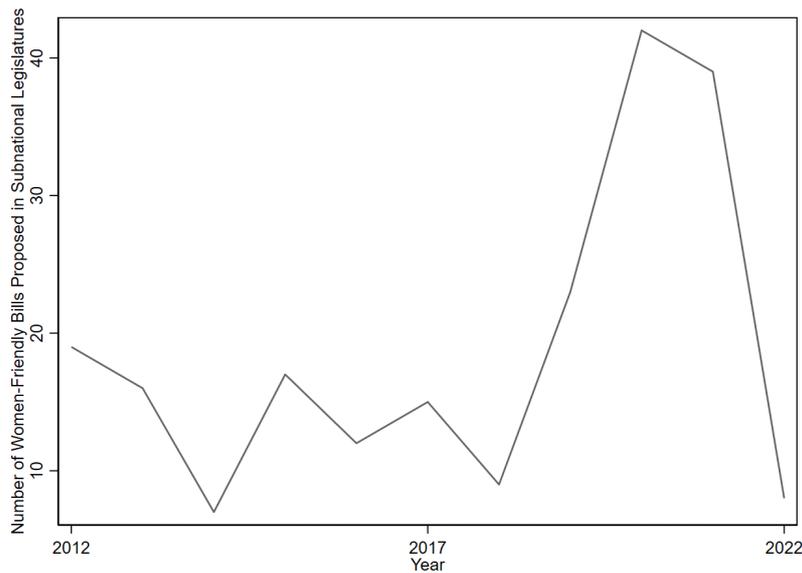
〈Figure 1〉 Number of Women-Friendly Bills Proposed in Subnational Legislatures

Figure 1 presents the number of women-friendly bills proposed in subnational legislatures over the years. I assign 1 if legislators sponsor the women-friendly bills. Otherwise, 0 is assigned. There are some fluctuations over time. For instance, the number of women-friendly bills decreased to 9 in 2018 and it increased to 42 in 2020 when feminist movements were widespread throughout SNSs such as the #MeToo movements on Twitter and Facebook. Even not presented trends of the number of women-friendly bills are similar across 17 subnational legislatures.

(2) Independent Variables

As Independent Variables, this article employs *Gender* and *Party Affiliation* of individual legislators. *Gender* is assigned to 1 if legislators are female and 0 is assigned for male legislators. Next, *Party Affiliation* is a categorical variable indicating whether each legislator is involved in Right Political Party (People's Party, People Power Party, Our Republican Party, Bareunmirae Party, Bareun Party, Saenuri Party, Liberty Korea Party, and Grand National Party), Left Political Party (Deobooleoh Democratic Party, Democratic Party, Party for Democracy and Peace, and The New Politics Alliance for Democracy), Third Political Party (Labor Party, Minsaeng Party, Popular Party, Justice Party, and Unified Progressive Party), and Independent.

(3) Control Variables

To prevent the omitted variable bias (OVB) from introducing bias in the coefficient and standard error estimates, this article includes a series of control variables: *Number of Proposed Women-Friendly Bills (KNA), Percentage of Female Legislators (KNA), Total Number of Legislators*

(Subnational), Number of Cosponsors (Subnational), and Spear and Deputy Speaker.

The first two control variables related to the Korean National Assembly are included to parcel out the potential issue spillover influence from the national legislature to the subnational legislature. This decision is based on the rationale that the issue salience at the national level legislative branches might affect that of subnational legislatures. Some previous works have demonstrated that public policies at the national level tend to be diffused to the subnational level (Ito, 2001; Starke, 2013). In addition, the potential impacts of the total number of legislators in each subnational legislative branch and the number of cosponsors of each bill are controlled. Lastly, based on the previous literature on leadership positions (Barnes, 2016; Kweon & Ryan, 2021; Shim, 2019), I using a binary control variable, *Spear and Deputy Speaker*, control the potential influence of leadership positions on the probability of sponsoring women-friendly bills.

〈Table 2〉 Descriptive Statistics

Variable	Mean	Std. dev.	Min	Max
Dependent Variable				
Sponsor Bill	0.597	0.491	0	1
Independent Variables				
Gender	0.175	0.380	0	1
Party Affiliation				
Right Political Party	0.235	0.424	0	1
Left Political Party	0.688	0.463	0	1
Third Political Parties	0.014	0.118	0	1
Independent	0.063	0.243	0	1

Variable	Mean	Std. dev.	Min	Max
Control Variables				
Number of Proposed Women-Friendly Bills (KNA)	280.436	88.882	165	643
Percentage of Female Legislators (KNA)	17.541	1.235	14.7	19.0
Total Number of Legislators (Subnational)	82.648	40.352	16	146
Number of Cosponsors (Subnational)	50.510	32.740	2	112
Speaker and Deputy Speaker	0.064	0.245	0	1
Number of Observations: 11,924				

The number of observations is 11,932 which is determined by the number of women-friendly bills multiplied by the number of legislators in each subnational congress term. Thus, the unit of analysis is "each women-friendly bill-each legislator". This structure of the unit of analysis enables me to examine the probability of sponsoring women-friendly bills while controlling the individual features of legislators. To assess whether there is a multicollinearity problem among the explanatory variables including both independent and control variables, I conduct the Variance Inflation Factor (VIF) tests. The mean and individual VIF scores do not exceed 4, meaning that there is no problematic correlation among the explanatory variables (Hair, 2009).

In addition to the control variables described above, I include fixed effects for years and each subnational congress term. The inclusion of those fixed effects enables me to control unobserved and unmeasured factors changing over time and congress. For instance, the fixed effects for years allow me to capture the issue salience of gender equality, feminist movements, and gender conflicts over the years, and those for subnational congress terms make it possible to parcel out the legislative effectiveness across congress terms.

2) Modeling Strategies and Empirical Results

To examine the influence of gender and the conditional relationship between gender and party affiliation and considering the binary nature of the dependent variable, I employ logistic regression models. The rationale is that the use of ordinary square regression models with a binary dependent variable leads to non-sensical predictions and introduces biases in estimates (Wooldridge, 2010). The basic methodological expression of logistic regression models estimated in this article is below where β_0 is constant and n is the number of control variables.

$$\log\left(\frac{(Probability\ of\ Sponsoring\ Bills)}{(1 - Probability\ of\ Sponsoring\ Bills)}\right)$$
$$= \beta_0 + \beta_1 Gender + \cdots + \beta_n Speake\ and\ Deputy\ Speaker$$

⟨Table 3⟩ Results from Logistic Regression Models

	Model 1	Model 2	Model 3
Independent Variables			
Gender	1.101*** (0.162)	1.121*** (0.189)	1.151*** (0.207)
Party Affiliation			
Right Political Party (Baseline)	0 (.)	0 (.)	0 (.)
Left Political Party	0.880*** (0.119)	0.500*** (0.133)	0.575** (0.185)
Third Political Party	0.184 (0.519)	0.064 (0.612)	0.169 (0.752)
Independent	-0.051 (0.179)	-0.013 (0.184)	-0.040 (0.231)

	Model 1	Model 2	Model 3
Control Variables			
Number of Proposed Women-Friendly Bills (KNA)		0.000 (0.000)	0.000 (0.000)
Percentage of Female Legislators (KNA)		-0.071 (0.050)	-0.003 (0.006)
Total Number of Legislators (Subnational)		-0.031*** (0.003)	-0.059 (0.154)
Number of Cosponsors (Subnational)		0.052*** (0.004)	0.072 (0.154)
Speaker and Deputy Speaker		-0.298 (0.189)	-0.526* (0.237)
Year Fixed Effects	No	No	Yes
Subnational Congress Term Fixed Effects	No	No	Yes
Constant	-0.384*** (0.095)	1.045 (0.868)	-0.509 (4.414)
Number of Observations	11924	11924	11924
Pseudo R2	0.055	0.237	0.242
AIC	15665.146	13194.913	12431.523
BIC	15702.226	13268.776	12896.861

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Robust standard errors clustered to individual legislators in parentheses.

Table 3 presents empirical results from the three logistic regression models. The Pseudo R2, Akaike Information Criteria, and Bayesian Information Criteria are also provided for the model comparison. In Model 1 which is based on the key independent variables, *Gender* and *Left Political Party* are statistically significant at the level of $p<0.001$. The empirical results are consistently robust in Model 2 with control variables

and in Model 3 with the two fixed effects. According to the measures of the model comparison, Model 3 has the best model-fit among the three models.

Based on the empirical results from Model 3, the coefficient of *Gender* is 1.151. It means that female legislators have a 1.151 higher log-odds of sponsoring women-friendly bills than their male counterparts have. It supports the hypothesis that female legislators are more likely to support women-friendly bills and provides empirical evidence for the link between women's descriptive and substantive representation in subnational legislative branches.

Furthermore, in terms of the party affiliation of legislators, the coefficient of *Left Political Party* is 0.575 and it is statistically significant at the level of $p<0.01$, indicating that legislators involved in the left political party have 0.575 higher log-odds of sponsoring women-friendly bills compared to legislators in the right political party. On the contrary, the probabilities of sponsoring such bills of legislators from the third political party and independent legislators are not statistically different from each other.

Turning to the series of control variables, only the political leadership measured by *Speaker* and *Deputy Speaker* is statistically significant in Model 3 with the coefficient of -0.526, meaning that legislators in leadership positions tend to sponsor less women-friendly bills compared to legislators not in such positions. This result is consistent with the argument that the legislative behaviors of legislators in the positions might differ from those of other legislators (Barnes, 2016; Kweon & Ryan, 2021; Shim, 2019).
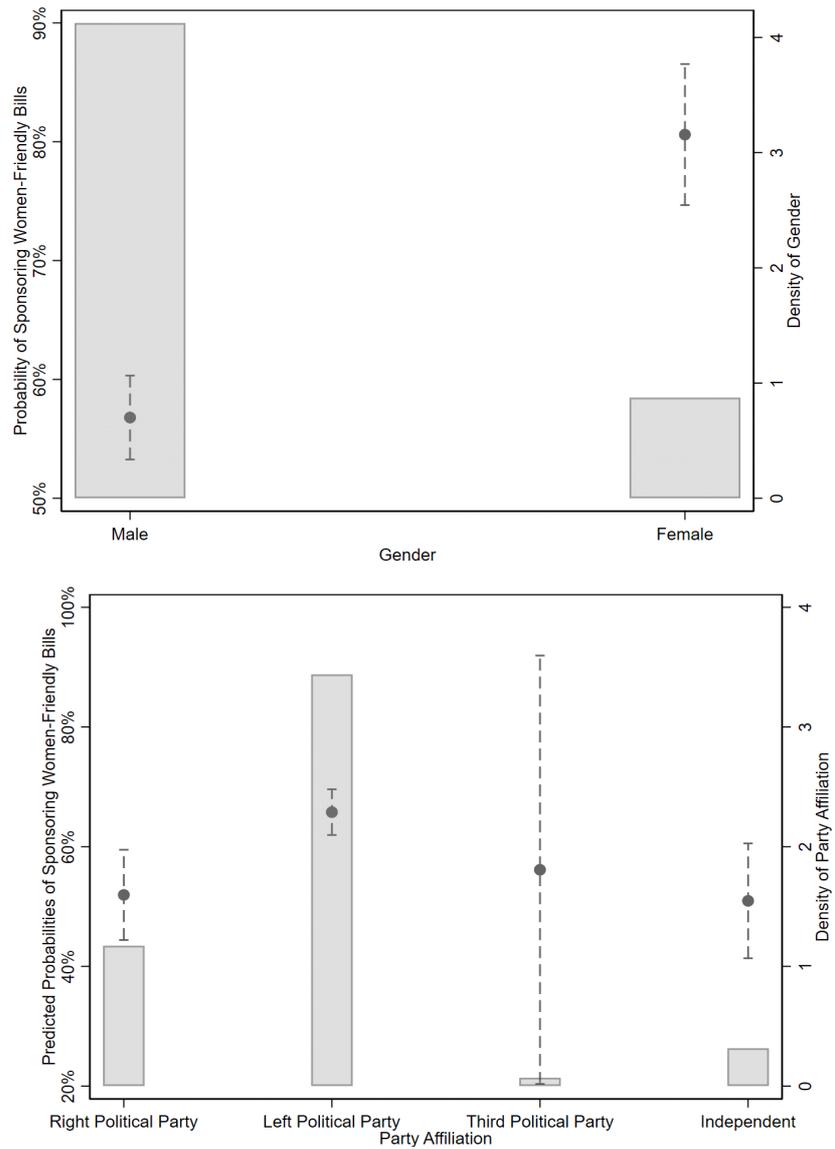
〈Figure 2〉 Predicted Probabilities According to Independent Variables

Note: Predicted Probabilities are estimated while all other values are fixed at their typical values. The 95%
confidence intervals are provided.

Figure 2 shows the predicted probabilities according to two independent variables, *Gender* and *Party Affiliation*. As presented, the two variables are not only statistically significant but also substantially meaningful. First, while all other variables are set to their typical values, the predicted probabilities of sponsoring women-friendly bills of male legislators and female legislators are 56.798% and 80.604% respectively. Given that the total number of women-friendly bills proposed in subnational legislatures from 2012 to 2022 is 208, such an increase is substantial.

In addition, *Party Affiliation* provides us an insight about how the party affiliation of legislators affects their sponsorship behaviors concerning women-friendly bills. The corresponding predicted probabilities of legislators from *Right Political Party* and *Left Political Party* are 51.948% and 65.770%. This empirical finding in the Korean context makes sense given that the right political party in South Korea nowadays focuses on the male vote bank while the left political party relatively tries to appeal to the female vote bank(Chung, 2022). Even though the difference that *Party Affiliation* makes is less than the increase that *Gender* brings on, about a 14% increase is not negligible. Moreover, even though not statistically different, the point estimates of *Third Political Party* and *Independent* are less than that of *Left Political Party*. Thus, to sum up the results from Table 3 and Figure 2, the null hypotheses of *Gender* and *Party Affiliation* are rejected. The empirical results are consistently robust in the models with the random effects of individual legislators and each women-friendly bill (see Table A.1 in Appendix).

⟨Table 4⟩ Results from Logistic Regression Models with the Interaction Term

Variables	Coefficient	Robust Std. Err.	z	P>z	95% Confidence Intervals	
Independent Variables						
Gender	1.490	0.316	4.720	0.000	0.871	2.109
Party Affiliation						
Right Political Party (Baseline)	.	.	.	.	.	.
Left Political Party	0.659	0.197	3.340	0.001	0.273	1.046
Third Political Party	1.404	0.632	2.220	0.026	0.165	2.643
Independent	-0.332	0.284	-1.170	0.243	-0.890	0.225
Interaction Term Gender and Party Affiliation						
Female in Right Political Party (Baseline)	.	.	.	.	.	.
Female in Left Political Party	-0.570	0.414	-1.380	0.168	-1.382	0.241
Female in Third Political Party	-2.398	1.093	-2.190	0.028	-4.540	-0.255
Female Independent	1.153	0.715	1.610	0.107	-0.248	2.554
Control Variables						
Number of Proposed Women-Friendly Bills (KNA)	0.000	0.000	-0.350	0.728	0.000	0.000
Percentage of Female Legislators (KNA)	-0.002	0.005	-0.320	0.749	-0.011	0.008
Total Number of Legislators (Subnational)	-0.069	0.154	-0.450	0.653	-0.370	0.232
Number of Cosponsors (Subnational)	0.075	0.154	0.490	0.625	-0.226	0.376
Speaker and Deputy Speaker	-0.536	0.238	-2.260	0.024	-1.003	-0.070
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Subnational Congress Term Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.258	4.421	-0.060	0.953	-8.924	8.408
Number of Observations			11,924			
Pseudo R2			0.242			
AIC			12358.544			
BIC			12846.040			

Note: Robust standard errors clustered to individual legislators in parentheses.

To evaluate the conditional relationship between *Gender* and *Party Affiliation*, I estimate logistic regression models with the interaction term between *Gender* and *Party Affiliation*. Even estimated with the interaction term, *Gender* is statistically significant at the level of $p < 0.001$. Turning to the interaction term using *Female in Right Political Party* as a baseline, the empirical result shows that *Female in Third Political Party* is statistically significant at the level of $p < 0.05$, indicating that female legislators in the third political party have 2.398 less log-odds of sponsoring women-friendly bills than female legislators in the right political party have. To further examine the influence of *Gender* in each *Party Affiliation*, I estimate the marginal effects of *Gender* according to each party affiliation.
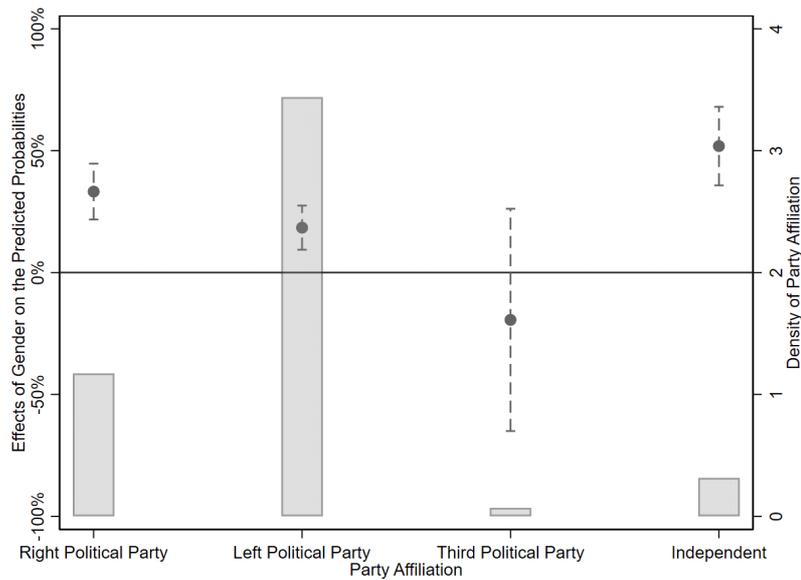
〈Figure 3〉 Marginal Effects of Gender Across Party Affiliations

Note: Predicted Probabilities are estimated while all other values are fixed at their typical values. The 95% confidence intervals are provided.

Figure 3 presents the marginal effects of *Gender* on the predicted probabilities of sponsoring women-friendly bills across different party affiliations. As presented, female legislators in *Right Political Party* have 33.217% higher predicted probability of sponsoring such bills compared to their male counterparts in the same political party. The marginal effects decrease to 18.421% and to -19.413% related to the *Left Political Party* and the *Third Political Party*. Lastly, female legislators not involved in any political party have 51.881% higher probability of sponsoring women-friendly bills than their male counterparts have.

Those results mean that female legislators concerning sponsorship on women-friendly bills at the subnational level in South Korea do not differ if they are involved in the left and right political parties. However, compared to female legislators in the right political party, the legislators in the third political party such as Justice Party are less likely to sponsor women-friendly bills. At the first glance, it does not consistent with the expectation that female legislators from the third political party pay more attention to women's issues. However, given that the third political party has focused on labor issues rather than women's issues over decades (Jeong & Lee, 2020; Y. Lee, 2018). At the same time, these empirical results also support the argument that female legislators are not homogenous but heterogeneous across political parties (Osborn, 2012; Reingold et al., 2021).

5. Conclusion and Discussion

This article to fill this research void examines the sponsorship behaviors of legislators at the subnational level. Collecting the data on the proposed bills in 17 subnational legislatures in South Korea, this article applying logistic regression models conducts an empirical analysis. The empirical results demonstrate that gender is a crucial factor in determining the sponsorship behaviors of legislators. In the subnational legislatures, female legislators are more likely to sponsor women-friendly bills compared to their male counterparts. More interestingly, this article shows that the influence of gender on such behaviors is not homogenous across party affiliations of legislators, which is consistent with the findings from previous studies at the national level (Osborn, 2012; Reingold et al., 2021).

This article contributes to the existing literature on gender and politics by demonstrating that the link between women's descriptive and substantive representation in terms of the adoption of concerning women-friendly bills exists not merely at the national level but also at the subnational level. The strong empirical evidence for this association based on the Politics of Presence theory and the Critical Mass theory also supports the findings of previous qualitative studies examining such a link (Clay, 2017; Franceschet et al., 2012; Ryan & Woods, 2019; Schwindt-Bayer, 2018). In addition, the findings from this article add depth to the literature on policy outcomes in subnational legislative branches by showing that gendered compositions should be considered in order to understand the variations in policies across subnational legislatures.

Despite the potential contributions of this article, it does not mean that there are no limitations. First, it should be noted that the statistical approach only tests the hypotheses not the theories themselves. Therefore, the mechanisms behind the link between women's descriptive and substantive representation in subnational legislatures should be further examined with qualitative approaches including interviews and case studies. In addition, even though previous literature has emphasized the role of female legislators in determining male legislators' behaviors (Nugent, 2019; Woo, 2022), this article does not deeply examine such a relationship. Thus, unveiling the impacts of interaction and communication with female legislators on male legislators' behaviors at the subnational level will be a natural extension of this study. Furthermore, the influence of gendered compositions of national-level and subnational-level legislative branches on each other's policy promotions and outcomes, and the impacts of the introduction of new bills on gender-related phenomena such as gender egalitarianism are also interesting topics to be examined further. Lastly, given that there is a possibility that the influence of legislators' gender might change over time, a time-series analysis on the role of gender in determining legislative behaviors will be feasible.

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| Appendix |

⟨Table A.1⟩ Results from Logistic Regression Models with Random Effects

	Model A.1	Model A.2
Independent Variables		
Gender	1.149*** (0.067)	6.805*** (0.324)
Party Affiliation		
Right Political Party (Baseline)	0 (.)	0 (.)
Left Political Party	0.559*** (0.063)	4.224*** (0.228)
Third Political Party	0.127 (0.208)	2.006*** (0.607)
Independent	-0.032 (0.106)	-0.301 (0.269)
Control Variables		
Number of Proposed Women-Friendly Bills (KNA)	0.000 (0.001)	0.000 (0.001)
Percentage of Female Legislators (KAN)	-0.088 (0.055)	0.003 (0.068)
Total Number of Legislators (Subnational)	-0.044*** (0.003)	-0.065*** (0.004)
Number of Cosponsors (Subnational)	0.070*** (0.004)	0.140*** (0.005)
Speaker and Deputy Speaker	-0.457*** (0.093)	-1.189*** (0.254)
Constant	1.525 (0.957)	-3.703** (1.179)
Random Effect of Bill IDs	0.466*** (0.068)	
Random Effect of Individual Legislators		118.497*** (8.700)
Number of Observations	11924	11924
AIC	12855.792	5403.74
BIC	12937.041	5484.99

Note: * p < 0.05, ** p < 0.01, *** p < 0.001. Robust standard errors clustered to individual legislators in parentheses. The Fixed Effects for each year and subnational congress term are excluded because of a successful convergence computation.

국문초록

여성의 기술적 대표성과 광역 의회에서의 친여성 정책에 대한 법안 발의 간의 연관성
– 대한민국으로부터의 실증적 증거

우병득
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    여성 의원이 여성의 이익을 대변하는가? 비록 기존의 선행연구들이 해당 질문에 대해 다양한 실증적 증거들을 제시하고 있으나, 의원의 성별이 친여성 정책에 대한 법안 발의에 미치는 영향력은 광역 의회 혹은 지방 의회의 수준에서 깊이 있게 검증되지 않았다. 본 논문은 선행연구들에 기여하고자 2012년부터 2022년까지 대한민국의 17개 광역 의회에서 발의된 법안에 관한 데이터를 활용하여 의원의 성별과 친여성 정책에 대한 법안 발의 행태와의 관계성을 검증한다. 총 208개의 친여성 정책에 대한 법안을 로지스틱 회귀분석을 통해 실증적으로 분석함으로써, 본 논문은 광역 의회 수준에서도 여성 의원이 남성 의원보다 친여성 정책에 대한 법안 발의에 적극적이라는 점을 발견하였다. 또한 본 논문에서는 성별과 법안 발의의 관계성이 의원들의 정당 소속에 따라 변화한다는 점을 발견하였다. 본 논문은 여성의 기술적 대표성과 실질적 대표성 간의 연관성이 국회의 수준에서뿐만 아니라 하위 수준의 의회에서도 존재한다는 실증적 증거를 제시함으로써 여성정치 문헌에 기여한다.

주제어: 여성의 기술적 대표성, 친여성 정책, 광역 의회, 법안 발의, 대한민국