

# Gender Quotas, Public Goods Provision, and Public Opinion: Does the Type of Quota Matter?

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## Abstract

Over 100 countries have implemented gender quotas in their political systems. This paper compares the effects of mandatory versus voluntary political gender quotas within the same country, utilizing a difference-in-differences strategy. I find the mandatory gender quota increases the provision of schools, health clinics, and paved roads, and causes perceived corruption of politicians to decrease. In contrast, the voluntary quota has no significant overall impact on public goods provision and leads to a loss of trust in the legislature.

**Keywords:** female politicians, gender quotas, public goods, mandated quota, voluntary quota, governance, Namibia

**JEL Classification:** P11, J16, O12, K38

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# 1 Introduction

Women are politically underrepresented worldwide, comprising only 27.2% of seats in legislative bodies in 2025. To address the gendered representation imbalance, over 100 countries worldwide have incorporated a gender quota into their political system (Clots-Figueras and Iyer 2023; International IDEA 2022). Several studies find that electing women to political office changes policy priorities. Increasing women's political representation has improved economic growth (Baskaran et al. 2024) and investments in children (Baskaran and Hessami 2019; Clots-Figueras 2012; Miller 2008) while decreasing corruption (Dollar et al. 2001; Swamy et al. 2001). However, there are mixed results on how electing women through gender quotas affects public good provision (see Clayton (2021) and Hessami and da Fonseca (2020)). One reason for these mixed results could be that countries implement different types of quotas. In 2025, 93 countries had a mandatory quota in their political system, and 69 countries contained at least one political party with a voluntary quota. In this paper, I compare the public goods provision effects of mandatory and voluntary quotas within the same country, Namibia.

This paper compares the effects of two types of quotas, keeping the country constant. First, I exploit the 1998 mandatory quota as a natural experiment to estimate the effect on public goods provision. In 1998, Namibia increased its mandated gender quota, requiring each party to include a minimum number of women on its candidate list. To examine the quota, I digitize each election from 1992 through 2020 for information on the vote counts, seat allocations, and elected candidates for each Local Authority in Namibia. This quota increases the proportion of women on local councils by 8.9 percentage points. To examine the causal effect of the quota, I create a measure to identify the constituencies in which the mandatory quota will be binding. A mandatory quota for a candidate list can change the number of women nominated and women's position on the list. Thus, I identify which constituencies did not meet the 1998 quota during the 1992 election as these constituencies would need to nominate more women in the 1998 election. I further select the constituencies where women were placed towards the bottom of the party list. Comparing constituencies that met these two criteria to those that did not pre- and post-quota allows me to estimate the effect of the quota on public goods provision.

Using this difference-in-differences identification strategy, I find the mandated quota increases the provision of public goods by 0.78 standard deviations. For public goods provision information, I rely on nine geocoded rounds of the Afrobarometer Surveys from Namibia. Afrobarometer provides indicator variables for whether a variety of public goods are present or within walking distance in a specific area. I aggregate this data to the Local Authority constituency area and merge it with the Local Authority election

data. The mandatory quota causes provision of schools to increase by 29 percentage points, health clinic provision to increase by 32 points, and roads to increase by 22 points. Following the mandated quota, both men and women believe politicians are less corrupt. Perceived corruption decreases by 7.8 percentage points for male respondents and 21.3 points for women, showing improvements in public opinion and the potential long-run sustainability of the quota as a policy.

I then examine the implementation of a voluntary gender quota and estimate its impact on public goods. In 2013, the South West Africa People's Organization (SWAPO) announced a gender quota for its party list for the 2014 National Assembly election. This quota increases the proportion of women in the National Assembly by 15.8 percentage points. The quotas could change both the number of women nominated to a party's list and their position on the list. If the number of women nominated increases but all of the women are placed at the bottom of the list, it is unlikely a woman would be elected despite the quota. In order to estimate the effect of the voluntary quota, I construct a measure to determine where the voluntary quota will be binding. This measure is constructed based on gender norms surrounding women politicians. The gender norms are computed using a question from the Afrobarometer survey which asks whether men and women should have the same chance to be elected to public office.

Comparing constituencies with progressive versus traditional gender norms before and after the quota with a difference-in-differences empirical strategy, I find the voluntary quota has no effect on the overall provision of public goods. The voluntary quota only increases the provision of schools by 7.6 percentage points. No other public good is affected by the voluntary quota. The voluntary quota leads citizens to lose trust in the legislature. Men's trust in the legislature decreases by 9.5 percentage points. The quota also leads men to believe elected officials are less responsive to their concerns. The voluntary quota causes political backlash despite policy not changing, suggesting the voluntary gender quota may not be a sustainable policy in the long run.

In addition to the mandatory and voluntary difference in the quotas, there are other confounding factors that I rule out as explanations for the different effects of the quotas. First is the different timing of the quotas. Three issues that arise from different timing of the quotas are the saturation of public goods, levels of democracy, and changing citizen preferences. Namibia did not have saturation in public goods by 2014. While there were more of each public good, saturation could explain the voluntary quota having a smaller effect on public goods than the mandatory quota but not a null effect. Namibia had the same level of democracy from the 1990s through 2014 so politicians had the same incentives to continue to provide public goods to their constituents. Citizen's preferences additionally did not change between the two quotas.

Overall, the differential timing does not explain the differing effects of the quotas. In addition to timing, the quotas occurred at different levels of government. Women in larger legislatures could have less of a voice. I rule out the diffusion of women's voices as a driving factor. Two other explanations for the different effects could be the quotas formalizing the status quo and different fractions of women elected following the quotas. I rule out these as explanations for the differing effects of the quotas. Thus, the quotas likely resulted in different types of women being elected. Under the voluntary quota, elected women's preferences are in line with the preferences of the party. Since SWAPO has had a majority in the National Assembly since Namibia's independence, the quota would not have changed the legislative agenda of the National Assembly. On the other hand, the mandatory quota requires all political parties to nominate women, so the average preference would be more in line with the preferences of the citizenry.

This paper contributes to the literature on gender quotas and public goods by showing the type of quota implemented matters for public policy outcomes. This paper shows that the type of quota can determine if policy priorities change; mandated quotas increase public goods provision while voluntary quotas do not. Research on the effect of quotas on public goods has found mixed results. Many studies find that, despite the type of quota implemented, legislative agendas shift towards women's rights, healthcare, and poverty alleviation and away from military spending (Barnes 2012; Catalano Weeks 2019; Clayton and Zetterberg 2018; Clayton 2021). Some research shows public goods provision changes when women are elected; provision of education, electrical infrastructure, and water infrastructure increase following the implementation of gender quotas (Chattopadhyay and Duflo 2004; Chaturvedi et al. 2024; Duflo and Topalova 2004; Tusalem 2022). Other studies have found that women do not increase the provision of schools, roads, and sanitation when elected (Ban and Rao 2008; Bardhan et al. 2010; Deininger et al. 2015; Gajwani and Zhang 2015; Rajaraman and Gupta 2012). This literature has not examined whether the mixed results of the impacts of quotas are a result of the type of quota used to elect women.

This study builds on the literature on the perception of politicians and institutions. I find that mandatory and voluntary quotas have opposite effects on political attitudes towards governance: mandatory quotas improve perceptions of politicians and institutions, while voluntary quotas worsen them. Democracies that provide more public goods and are functioning breed democratic support (Acemoglu et al. 2025; Santos Vargas et al. 2026). Gender quotas, however, can change the perception of female politicians and institutions, but the results remain mixed. Mandatory quotas have increased the quality and diversity of all politicians, not just women (Baltrunaite et al. 2014; Barnes and Holman 2020; Besley et al. 2017). Stereotypes and statistical discrimination towards female leaders decreases following exposure to female leaders resulting from mandatory quotas (Beaman et al. 2009; De Paola et al. 2010), and women

subsequently run for higher office (O’Connell 2020). On the other hand, studies have shown that mandatory quotas do not reduce gender bias (Clayton 2018), decrease political engagement (Clayton 2015), and reduce the perceived influence of local politicians (Clayton 2014). Alternatively, voluntary quotas have been shown to raise the perceived quality of female candidates by their constituents, and attitudes towards female politicians slightly improve as a result of the quota (O’Brien and Rickne 2016; Tan 2015). This literature has not examined whether the type of quota implemented differentially alters citizens’ perceptions of politicians and legislative institutions.

## **2 Namibian History and Political Institutions**

### **2.1 Gender Equality in Namibia**

Prior to the German colonization of Namibia in 1884, women held positions of power and status in some societies, and had property rights as well as the right to divorce (Becker 2019). When Germany took control of Namibia, Germans would only do business with and talk to men which led to male relatives taking power from their female relatives over time (Becker 2019; LeBeau and Iipinge 2004). Christian missionaries pushed traditional models of gender on Namibia limiting women’s roles outside of the house (Becker 2019). Gender inequality continued under South African rule, beginning in 1915, through apartheid which further disempowered and discriminated against women.

Women were involved in the early resistance against colonial rule as soldiers and medics. In the 1960s, South Africa arrested resistance leaders and political activists, resulting in leaders going into exile in neighboring countries. While in exile, women were trained for SWAPO’s People’s Liberation Army of Namibia and later saw combat. Women’s involvement in the resistance movement led SWAPO to establish SWAPO’s Women’s Council and committing the party to combat sexism.

Upon independence in 1990, Namibia’s constitution prohibited discrimination based on sex and provided equal rights in marriage and divorce. In 1992, Namibia signed the United Nation’s Convention on the Elimination of All Forms of Discrimination Against Women. Namibia has passed many pieces of legislation aimed at eliminating gender inequality and discrimination.<sup>2</sup> The Ministry of Women Affairs and Child Welfare was established in 1997. The National Gender Programme of Action was passed in 1998 to increase women’s political representation in government. In 1999, Parliament adopted the National Gender Policy

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<sup>2</sup> Colonial institutions can have long-run effects on economic and human development (Acemoglu et al. 2001; Dell 2010; Nunn 2008), but recent studies have found post-independence policies can counteract the negative effects of colonial institutions (Iyer and Weir 2025).

addressing women's specific needs and increasing access to resources to solve these needs. Since 1990, Namibia encouraged and promoted gender equity through legal means including criminalizing domestic violence and rape (LeBeau and Ipinge 2004). In 2024, Namibia elected its first female president, Netumbo Nandi-Ndaitwah.

## **2.2 Electoral System and Governance**

Namibia has a bicameral legislature comprising the National Council and National Assembly. The National Assembly is elected through a closed party list proportional representation system. Parties submit a list of candidates to the Election Commission prior to the election. Voters vote for parties who get seats in proportion to their vote share, i.e. if there are 10 seats in a legislature and party X gets 40% of the vote, party X receives 4 seats which are filled by the top 4 candidates on their list. National Assembly elections occur approximately every 5 years. There are 96 elected positions in the National Assembly. Despite Namibia being a multiparty system, SWAPO has maintained a majority in the National Assembly since independence, and the president has always been a member of SWAPO. Members of the National Council are indirectly elected through the regional councils. Regional councils are tasked with promoting growth and development plans within each region, and gender quotas have not been implemented for the regional councils. There are 57 local authorities across Namibia. Local authority councils have between seven and 15 members. Each elected member serves for a five- or six-year term.

Each level of government is tasked with providing specific public goods; however, the local authorities work with the regional councils and national government to provide resources necessary or insufficient in communities. The responsibilities of the national government include police and fire protection; social welfare programs; education; healthcare; transportation; and trade. Regional councils focus on education and town planning. In conjunction with the national government, regional councils plan and maintain roadways. Local authorities' duties lie in housing, utilities (water and sanitation), parks, local roads, museums, and town planning (which includes planning and budgeting for public goods under the jurisdiction of other levels of government including schools and health centers). Through partnership with all levels of governance, electricity is maintained and provided. While public goods responsibility is divided between the governments, all levels work together to meet the needs of their communities. The government prioritized providing public goods so all citizens could access them (Government of the Republic of Namibia 2000).

## 2.3 Gender Quotas for Political Office

The Local Authorities Act of 1992 introduced the first gender quota for local authorities. For local authorities with 10 or fewer seats, parties were required to nominate at least two women, and at least three women otherwise. There are many factors contributing to female political representation in the 1992 local authority elections, and very few party lists were revised to include women as some lists had been submitted prior to the law (Tjihero et al. 1998). For the 1998 election, the number of reserved candidate list positions for women was increased to three for local authorities with 10 or fewer seats and five for local authorities otherwise. I will be examining the 1998 reform in this paper. The fraction of women on party lists increased from 38 percent in 1992 to 47 percent in 1998 (Tjihero et al. 1998). In both elections, the number of women nominated exceeded the quota, on average. The proportion of women on local authority councils increased from 30 to 38 percentage points from the 1992 to 1998 election. In subsequent elections, the fraction of seats held by women remained fairly constant.

In 2013, SWAPO announced they would have a 50/50 gender quota for their party list for the National Assembly election in 2014. Since SWAPO has a majority in the National Assembly, the policy effectively impacted all of Namibia. The quota was implemented through a “zebra” system where male and female candidates are alternated on the list. The proportion of women in the National Assembly increased from 24.4 percent in 2009 to 42.3 percent following the 2014 election.

## 3 Conceptual Framework

*A priori*, the type of quota that will alter policy priorities depends on which quota elects more women and the types of women being elected under each quota.<sup>3</sup> Quotas may not even result in more women being elected. While a mandated quota requires every party to nominate a certain number of women on their lists, parties might place women at the bottom of lists or in elections they are likely to lose (Casas-Arce and Saiz 2015; Fujiwara et al. 2025; Lee and Zanella 2025). Under a voluntary quota, women elected have full support of party leadership making them more effective legislators. Alternatively, voluntary quotas may not be substantive if it formalizes the status quo, or parties do not follow the quota. Despite the type of quota implemented, the preferences of the politicians must matter if public policies change. If all politicians

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<sup>3</sup> There are six general types of gender quotas. There are legally mandated quotas and voluntary party quotas. Within each of these types there are quotas for aspirants, candidates, and elected officials. For aspirants, the legal quota is generally imposed on primary elections, and the quota is for the short list of potential candidates under the voluntary quota. Voluntary quotas can be for elected positions as well as is the case in Morocco where the political parties agreed to have seats reserved for women.

respond to the preferences of the median voter, then policy would not change when different politicians are elected.

The number of women elected hinges on the number of women each quota requires to be nominated and how well those women perform in the election. If every party in Namibia nominates only the required number of women and each female candidate wins, then 41% of seats on the local authorities would be held by women. Under the same assumptions, the voluntary quota would result in  $0.75(0.5) = 37.5\%$  of the seats in the National Assembly being held by women, since SWAPO's vote share was approximately 75% in the elections prior to 2014. Both of these results are conditional on the probability of winning an election not changing following the announcement of the quotas and women having the same policy preferences. Since approximately the same fraction of the National Assembly and Local Authority seats would be held by women, similar policy outcomes should be seen.

The quotas could also result in different types of women being elected under the two types of quotas. These different types of women could hold different policy preferences which, in turn, would result in different policies being implemented. Women elected under the voluntary quota could have policy preferences more in line with the party; whereas women elected under the mandated quota may be more likely to exhibit preferences in line with the median voter in her constituency. The differing policy preferences would result in different policies being implemented under the two types of gender quotas. If women provide more public goods overall, this could additionally be a result of women being less corrupt (Brollo and Troiano 2016; Garcia and Antoniassi 2024; Swamy et al. 2001) or being more effective politicians (Anzia and Berry 2011; Besley et al. 2017). The number of women elected, policy preferences, level of corruption, and effectiveness will jointly determine which policies are implemented

## 4 Data

### *Public Goods Provision:*

I utilize nine rounds of Geocoded Afrobarometer Survey data from 1999 through 2021<sup>4</sup>. In each round, interviewers and supervisors indicate which public goods are available. The public goods surveyed in each round includes the electricity grid, piped water system, sewage system, paved roads, post office, schools, police station, and health clinics. Public goods are assigned at the primary sampling area which are the areas randomly selected to conduct the survey; thus I aggregate the data to this level. Public good provision is increasing or relatively constant from 1999 through 2021 across Namibia.

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<sup>4</sup> Afrobarometer data is available in 1999, 2003, 2006, 2008, 2012, 2014, 2017, 2019, and 2021.

Some rounds of the Afrobarometer survey include town or village as a geographic area. Most towns only have one sampling area; however larger towns such as Windhoek and Walvis Bay have more than one due to the population size. I use the sampling unit as the aggregated level as some survey rounds do not include village as a geographic level. The sampling area is essentially the village but includes multiple observations for larger cities. Therefore, I will refer to the sampling unit as town or village. Afrobarometer's within weights are used in the analysis to adjust the probability an area was selected to be included in the survey. When aggregating to the village-level, I compute within weights using the sum of the individual within weights in each village. The weights in each survey round are normalized so each survey is weighted equally.

#### *Local Data on Election Candidates and Winners:*

The results of Local Authority elections are published in the Government Gazette of Namibia. For each Local Authority, the Government Gazette reports the total number of votes cast in the election, the number of votes recorded for each party, and the number of rejected ballots (Appendix Figure A.2). Based on the number of votes cast for each party, the Electoral Commission of Namibia determines the number of seats for each party on the Local Authority based on each party's list, all of which is listed in the election results. The names of the duly elected members of the Local Authorities are listed last.

I digitized the data from the Government Gazette for every Local Authority. Local Authority elections were held every five to six years from 1992 to 2020. To determine the number of women serving on each Local Authority, I ran the names of every elected official through two sets of gender AI (Namsor and Gender API)<sup>5</sup>, which predicts the sex of each individual accounting for their country of origin. Individuals were classified as male or female if both programs predicted the same sex of the individual. Of the 2,457 elected officials, the AI programs predicted the same sex for 2,260 individuals. I manually checked the sex commonly associated with the names of the remaining 197 individuals. Using this data, I determine how many women were elected to each Local Authority Council (Figure 1 Panel A). Additionally, I digitized the 1992 candidate lists by party for each local authority (Appendix Figure A.3). The data contains women's position on the list for the 1992 election (Hubbard 1993). This data and the election data are used to determine local authorities affected by the mandatory quota.

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<sup>5</sup> Namsor and Gender API misclassify gender less than 2% of the time (Santamaría and Mihaljević 2018). Conditional on these sources being independent, utilizing both will result in at most 0.4% of individuals being misclassified.

I map Local Authorities to electoral constituencies using documentation from the Electoral Commission of Namibia. This mapping is necessary because the geocoded Afrobarometer data does not include Local Authority as a geographic area, as Local Authorities do not cover all of Namibia. For the majority of constituencies, there is a one-to-one mapping to Local Authorities. For larger cities such as Windhoek and Walvis Bay, there are multiple constituencies within the jurisdiction of the Local Authority. For the constituencies with more than one Local Authority, I average the data from the Local Authorities for that constituency. There are 41 total electoral constituencies in this sample. After merging the election data with the Afrobarometer data, the final sample is 38 electoral constituencies. Each constituency contains on average 2.16 villages.

## 5 Legally Mandated Gender Quota for Elected Office

### 5.1 Empirical Strategy

To estimate the effect of the mandated quota on public goods provision, I use a difference-in-differences identification strategy:

$$PublicGood_{vcrt} = \beta_0 + \beta_1 AffectedMandatory_c \times PostMandatory_t + \delta_{rt} + \delta_c + X'_{vcrt}\Gamma + \varepsilon_{vcrt} \quad (1)$$

The outcome variable  $PublicGood_{vcrt}$  is an indicator equal to one if village  $v$  in electoral constituency  $c$  in region  $r$  has access to the public good in year  $t$ .<sup>6</sup> Region-year and electoral constituency fixed effects are denoted  $\delta_{rt}$  and  $\delta_c$ , respectively. Region-time fixed effects to account for regional council investment in public goods as well as any constituency-invariant time effects.<sup>7</sup> Controls are denoted  $X'_{vcrt}$  and include the number of parties contesting each local authority election. The variable  $AffectedMandatory_c$  is an indicator equal to one if both of the following criteria are met: satisfied the 1998 quota in 1992 and the average list position of the women in 1992 was lower than the median position across Namibia.

$PostMandatory_t$  is an indicator equal to one if the year is after 1999. Standard errors are clustered at the 2001 electoral constituency level to allow for correlated outcomes within constituencies over time.

Afrobarometer surveys from 1999, 2003, and 2006 are used in this specification. The same number of years post-quota are used in the mandatory and voluntary quota analyses to ensure the analyses are

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<sup>6</sup> The regression equation represents the reduced form analysis. I do not use  $AffectedMandatory_c \times PostMandatory_t$  to instrument for the number of women elected, because the instrument would not satisfy the exclusion restriction. In addition to electing more women, gender quotas increase the quality of male politicians, which affects the public goods provision but not directly through electing more women (Besley et al. 2017).

<sup>7</sup> Gentzkow et al. (2011) and Hoynes and Schanzenbach (2012) also use a geographic-year fixed effects to account for region specific time effects as well as geography-invariant time effects.

comparable. Constituencies are balanced on public goods and poverty measures at baseline (Table 1). Therefore the difference-in-differences estimate is picking up the effect of the quota rather than prior differential trends.

There are three ways the quota could change the number of women elected. First, the number of women nominated to candidate lists. The quota could change women's positions on the list. Lastly, the quota could shift votes towards parties that place women towards the top or bottom of their lists. SWAPO's vote share is 53.7% in the 1992 and 55.2% 1998 elections, which are not statistically different. Thus, votes did not shift significantly towards or away from specific parties. The quota may additionally have changed the number of women nominated to the lists and their positions on the list. To capture these changes, I define local authorities to be "affected" by the mandated quota if the average list position of women in the local authority is below the median across Namibia and if the local authority had not satisfied the 1998 quota in the 1992 election. The variable *AffectedMandatory<sub>c</sub>* is an indicator defined using this definition (Appendix Figure A.5). Not satisfying the 1998 quota in 1992 shows which constituencies are the ones that are required to add additional women to their party list. Parties could place these women at the bottom of the list. Solely examining placement on the party list demonstrates which constituencies would be more likely to elect a woman, but these places may not have to add another women to their party lists. Combining these criteria is the ideal specification because it compares constituencies most likely to elect an additional woman to those that may not.<sup>8</sup>

### 5.1.1 Limitations

There are some limitations of this study due to data. The first round of the Afrobarometer survey was conducted in 1999, while the mandated quota was implemented for the 1998 election. Thus, there is no data from before the quota. I use the 1999 data as the data "prior" to the election, because I examine long-run development variables that do not change quickly over time. It is unlikely within a year from the election that there would be a major increase in public good provision due to politicians needing to discuss funding with others, write and pass legislation, and complete construction of the public good. If this were to occur within a year, I would be estimating a lower bound on the true effect of the mandated quota.<sup>9</sup> To address this empirically, I examine the differences in public goods between constituencies affected and unaffected by the mandated quota (Table 1).

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<sup>8</sup> Using only one of the criteria to define "affected", the mandated quota did not increase women's representation (Appendix Table A.2).

<sup>9</sup> The Local Authority election of 1998 occurred on February 16, 1998, with the results posted on March 5, 1998. When the politicians took office, it not clear. At the earliest, they would have taken office in March, but it could

Table 1 Panel A shows there are some political differences between the affected and unaffected constituencies. There are 1.33 more political parties competing in elections in affected constituencies on average (Table 1 Panel A). However, SWAPO's vote share is not statistically different between constituencies. Although there are some political differences between constituencies, there are not economic differences (Table 1 Panels B and C). The provision of public goods is statistically equivalent across affected and unaffected constituencies. 46% of affected constituencies had a health clinic and 38% had police stations, compared to 51% and 38% in unaffected constituencies, respectively (Table 1 Panel B). Measures of poverty are also statistically equivalent across constituencies. 52% of households in affected and 50% of households in unaffected constituencies had citizens with food insecurity who had to go without food within the last year. Overall, there are no statistically significant differences in public good provision nor measures of poverty in 1999. Thus, it is reasonable to use the 1999 data as "pre" data for the analysis. This table is discussed in more depth in Appendix Section A.2.

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have been a few months later. The Afrobarometer Survey of 1999 occurred in September. Thus, the maximum time between the election and survey would have been 18 months.

**Table 1: Electoral Constituency Characteristics in Mandatory Quota Pre-Period**

|                                                                  | (1)<br>Affected | (2)<br>Unaffected | (3)<br>Difference<br>(p-value) |
|------------------------------------------------------------------|-----------------|-------------------|--------------------------------|
| Panel A: Political Competitiveness (1992 Local Election)         |                 |                   |                                |
| Number of Parties Competing                                      | 4.00            | 2.67              | 1.33**<br>(0.0114)             |
| SWAPO Vote Share                                                 | 0.543           | 0.587             | -0.044<br>(0.4107)             |
| Panel B: Public Goods (1999 Afrobarometer)                       |                 |                   |                                |
| Schools                                                          | 0.605           | 0.728             | -0.123<br>(0.1979)             |
| Health Clinics                                                   | 0.462           | 0.512             | -0.050<br>(0.6192)             |
| Paved Roads                                                      | 0.314           | 0.376             | -0.062<br>(0.5072)             |
| Piped Water                                                      | 0.618           | 0.728             | -0.110<br>(0.3263)             |
| Sewage                                                           | 0.540           | 0.591             | -0.051<br>(0.6618)             |
| Post Offices                                                     | 0.364           | 0.335             | 0.029<br>(0.7678)              |
| Police Stations                                                  | 0.376           | 0.376             | 0.000<br>(0.9974)              |
| Panel C: Poverty - Fraction of households who had to go without: |                 |                   |                                |
| Food                                                             | 0.516           | 0.502             | 0.014<br>(0.8832)              |
| Clean Water                                                      | 0.307           | 0.403             | -0.096<br>(0.3600)             |
| Shelter                                                          | 0.149           | 0.116             | 0.033<br>(0.6193)              |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The sample in column 1 consists of electoral constituencies classified as affected by the mandatory quota, and column 2 are constituencies unaffected by the mandatory quota. Constituencies are “affected” by the mandatory quota if both of the conditions hold: satisfied the 1998 quota in 1992 and the average list position of the women in 1992 was lower than the median position across Namibia. Column 3 displays the difference between the means in columns 1 and 2 and the p-value from a two sample t-test. Panel A uses 1992 Local Authority Election Data. Panel B uses the 1999 Afrobarometer data. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance. Panel C variables are indicators whether an individual and their family had to go without food, clean water, or shelter often or sometimes within the last 12 months. Shelter insecurity is not asked in every constituency. Thus it is not included as a control in the regression analysis as the sample size is cut in half when included.

## 5.2 Did the mandatory quota increase women's political representation?

Table 2 shows the effect of the mandated quota on women's political representation. I use equation 1 to estimate this effect. The mandated quota increased the number of women on local authority councils by 0.7 (Table 2 Column 1). The fraction of seats held by women increased by 8.9 percentage points following the mandatory quota (Table 2 Column 2).<sup>10</sup> Thus, the mandated quota did increase women's political representation.

**Table 2: Effect of Quotas on Women's Political Representation**

|                          | Mandated Quota                |                                 |
|--------------------------|-------------------------------|---------------------------------|
|                          | (1)<br>Number of Women        | (2)<br>Percent of Women         |
| Affected x Post          | 0.696*<br>(0.351)<br>[0.0822] | 0.0892*<br>(0.0451)<br>[0.0882] |
| Control Mean             | 3.05                          | 0.347                           |
| Number of Observations   | 173                           | 173                             |
| Number of Constituencies | 38                            | 38                              |

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. All regressions include constituency and time fixed effects. The dependent variable in column 1 is the number of women elected to the local authority. The dependent variable in column 2 is the fraction of seats on the local authority held by women.

The standard errors in Table 2 are large due to variation being absorbed by the large number of fixed effects. Regressing the number of elected women on  $PostMandatory_t$ ,  $AffectedMandatory_c$ , and  $AffectedMandatory_c \times PostMandatory_t$  and controlling for the number of parties competing in the election yields an estimate of 1.13 additional women elected as a result of the mandatory quota (p-value = 0.025). However, this is not the preferred specification because it is not the same specification utilized for

<sup>10</sup> This analysis cannot be done for the voluntary quota. SWAPO assigns each politician to a constituency; however this is not publicly available information, nor is it clear whether other political parties follow this practice.

the effect of the quotas on public goods where it is necessary to control for unobservable time and constituency characteristics.

### *5.3 Did the mandatory quota alter public good provision?*

The mandated quota increases the provision of public goods by 0.78 standard deviations. Table 3 shows the effect of the mandated gender quota on public goods provision estimated using a linear probability model (equation 1). The effects seen in Table 3 are large because the mandatory quota moves constituencies along the extensive margin from not having a public good to having the public good. As only 14 out of 38 constituencies are affected by the mandatory quota, I multiply the coefficients in Table 3 by  $\frac{14}{38}$  to estimate the effect of the quota across all of Namibia. Thus, the quota increases school provision by 29 percentage points. This is a 48 percent increase in schools. There is additionally a 31.8 percentage point increase in health clinics. The provision of paved roads increases by 22.3 percentage points. The quota increases the provision of electricity by 23 percentage points. The provision of post offices and police stations increase by 21.3 and 33.4 percentage points, respectively. Additionally, the quota has no effect on the provision of piped water but did increase the provision of sewage systems by 21.9 percentage points. The results are robust to alternative specifications such as baseline poverty time trends (Table 3 Columns 3) and then dropping the capital, Windhoek (Table 3 Column 4), and robust to using alternative definitions of “affected” and aggregating the data to the constituency level (Appendix Table A.3).

In India, there was not an increase in the number of education centers following the quota (Chattopadhyay and Duflo 2004). There is a larger increase in schools in Namibia than in India as a result of the gender quota. The 22.3 percentage point increase in road provision in Namibia is smaller than the 19 percentage point effect in India (Chattopadhyay and Duflo 2004). The number of drinking water facilities increases after the quota in India (Chattopadhyay and Duflo 2004), but there is a statistically insignificant effect on piped water provision in Namibia. The effects seen in Namibia are roughly the same size as those seen in India when the provision of public goods increases in both countries.

**Table 3: Effect of the Mandatory Gender Quota on Public Good Provision**

|                          | (1)<br>Mandated Quota<br>Full Sample | (2)<br>Mandated Quota<br>Poverty Measures Available | (3)<br>Controlling For Baseline<br>Poverty Time Trends | (4)<br>Dropping<br>Windhoek     |
|--------------------------|--------------------------------------|-----------------------------------------------------|--------------------------------------------------------|---------------------------------|
| Public Goods Index       | 2.103***<br>(0.399)<br>[0.176]       | 2.121***<br>(0.418)<br>[0.179]                      | 2.686***<br>(0.574)<br>[0.262]                         | 2.560***<br>(0.414)<br>[0.223]  |
| Schools                  | 0.786***<br>(0.075)<br>[0.154]       | 0.782***<br>(0.071)<br>[0.152]                      | 0.782***<br>(0.107)<br>[0.0973]                        | 0.797***<br>(0.126)<br>[0.195]  |
| Health Clinics           | 0.864***<br>(0.043)<br>[0.0646]      | 0.858***<br>(0.049)<br>[0.0708]                     | 0.760***<br>(0.215)<br>[0.161]                         | 0.756***<br>(0.210)<br>[0.290]  |
| Paved Roads              | 0.604***<br>(0.069)<br>[0.159]       | 0.605***<br>(0.071)<br>[0.161]                      | 0.748***<br>(0.150)<br>[0.145]                         | 0.706***<br>(0.184)<br>[0.218]  |
| Electricity              | 0.624***<br>(0.177)<br>[0.176]       | 0.643***<br>(0.196)<br>[0.179]                      | 0.981**<br>(0.418)<br>[0.407]                          | 0.938***<br>(0.125)<br>[0.112]  |
| Piped Water              | 0.094<br>(0.314)<br>[0.844]          | 0.112<br>(0.331)<br>[0.834]                         | 0.432**<br>(0.176)<br>[0.258]                          | 0.367***<br>(0.108)<br>[0.129]  |
| Sewage                   | 0.594**<br>(0.266)<br>[0.175]        | 0.617**<br>(0.289)<br>[0.178]                       | 0.978***<br>(0.230)<br>[0.175]                         | 0.933***<br>(0.153)<br>[0.0712] |
| Post Offices             | 0.579***<br>(0.097)<br>[0.176]       | 0.576***<br>(0.093)<br>[0.176]                      | 0.739***<br>(0.149)<br>[0.226]                         | 0.691***<br>(0.159)<br>[0.301]  |
| Police Stations          | 0.906***<br>(0.040)<br>[0.0596]      | 0.903***<br>(0.042)<br>[0.0637]                     | 1.031***<br>(0.272)<br>[0.237]                         | 0.961***<br>(0.346)<br>[0.370]  |
| Number of Observations   | 166                                  | 162                                                 | 162                                                    | 110                             |
| Number of Constituencies | 38                                   | 36                                                  | 36                                                     | 28                              |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. Each cell represents the coefficient from separate regressions of the dependent variable on the impact of the mandated quota. Every regression includes year and electoral constituency fixed effects, region-time fixed effects, and controls for the number of parties contesting each election. Afrobarometer from 1999, 2003, and 2006 are used. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance. The public service index combines the all of the indicator variables into a normalized index. Column 2 restricts the sample to those with data on the baseline poverty measures (measured by food and water). Column 3 includes baseline poverty time trends. Column 4 drops Windhoek from the sample and includes baseline poverty time trends.

Changes in public policy resulting from women being elected is generally attributed to men and women having differing policy preferences (Besley and Coate 1997; Chattopadhyay and Duflo 2004; Clayton 2021; Clayton and Zetterberg 2018; Osborne and Slivinski 1996). Alternatively, policy shifts can result from higher quality politicians being elected following a quota (Baltrunaite et al. 2014; Besley et al. 2017). In Namibia, men and women do not differ on policy preferences (Appendix Table A.4). 50% of women and 51% of men thought the government should focus on education in 1999 (Appendix Table A.4 Columns 1 and 2). Similarly, 31% of women and 36% of men want the government to pass health policy legislation (Appendix Table A.4 Columns 1 and 2). The changes in public goods cannot be attributed to men and women having different policy preferences. Thus, the changes in public policy would result from higher quality politicians being elected after the quota.<sup>11</sup> This could be “mediocre” men being replaced by more qualified women (Besley et al. 2017) or women being more competent than men (Cella and Manzonni 2023).

## 6 Voluntary Party Gender Quota for Elected Office

### 6.1 Empirical Strategy

To estimate the impact of the voluntary quota on public good provision, I employ another difference-in-differences identification strategy:

$$PublicGood_{vcr,t} = \gamma_0 + \gamma_1 AffectedVoluntary_c \times PostVoluntary_t + \delta_{rt} + \delta_c + \nu_{vcr,t} \quad (2)$$

Similar to equation (1), the outcome variable  $PublicGood_{vcr,t}$  is an indicator equal to one if village  $v$  in electoral constituency  $c$  in region  $r$  has access to the public good in year  $t$ . Constituency fixed effects are denoted as  $\delta_c$ . Region-time fixed effects are utilized to account for regional council investment in public goods and constituency invariant time effects. Using an Afrobarometer survey question, I construct  $AffectedVoluntary_c$  which is defined by gender norms surrounding women holding political office and is assigned at the electoral constituency level. Gender norms are computed from the following Afrobarometer question as the fraction of the constituency that agrees with Statement 1: “Statement 1: Men make better political leaders than women and should be elected rather than women. Statement 2: Women should have the same chance of being elected to political office as men. Do you agree or agree very strongly?” If an electoral constituency has traditional gender norms (median or less), then  $AffectedVoluntary_c$  equals 1 due to these constituencies being more impacted by the gender quota. Of

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<sup>11</sup> Due to data limitations for local politicians prior to the 1998 Local Authority Elections, I am unable to directly test whether politicians have more education and prior legislative experience as a proxy for being “higher quality”

the 38 constituencies in the analysis, and 19 of them have  $AffectedVoluntary_c$  equal to one (Appendix Figure A.6). Constituencies with traditional gender norms ( $AffectedVoluntary_c = 1$ ) elected 4.2 women to the local authorities whereas constituencies with more progressive norms ( $AffectedVoluntary_c = 0$ ) elected 5.1 women to the local authorities.<sup>12</sup>  $PostVoluntary_t$  is an indicator equal to one if the year is after 2014. Standard errors are clustered at the 2001 electoral constituency level. Public goods variables do not show signs of differential trends prior to the implementation of the voluntary quota (Appendix Figure A.6).

## 6.2 Did the voluntary quota alter public goods provision?

The voluntary gender quota had an insignificant impact on the provision of public goods. Table 4 shows the impact of the voluntary gender quota on public goods provision. To get the effect of the quota across Namibia, I multiply the estimates in Table 4 by 50% as half of the constituencies were affected by the voluntary quota. The quota caused a 7.6 percentage point increase in the provision of schools. Each of the estimates for the other public goods are close to zero and statistically insignificant. The voluntary quota did not change public policy much nor affect the provision of most public goods. The public goods effect of the voluntary quota is smaller than the impact of the mandatory gender quota.

The difference between the effects of the mandatory and voluntary quotas could result from changing preferences of the voters. If voters care less about crime prior to the voluntary quota than before the mandatory quota, this would explain why the mandated quota but not the voluntary resulted in more police stations being built. However, this is not the case. Citizens care more about roads, electricity, and crime while placing less emphasis on education and health (Appendix Table A.4 Columns 7 and 8). Therefore if preferences explained the changes in public goods provision, the voluntary quota should increase police station, roads, and electrical grid provision more than the mandatory quota. This is not the case. Therefore, the quotas resulted in different types of women being elected following the quotas.<sup>13</sup>

The analysis is robust to including baseline poverty time trends (Table 4 Columns 3) and then dropping the capital, Windhoek (Table 4 Column 4). The results are robust to alternative definitions of the affected group including utilizing alternative cutoffs (25<sup>th</sup> and 75<sup>th</sup> percentiles), using different gender norms questions from Afrobarometer, and using SWAPO vote shares from the 2010 local authority election, and robust to aggregating the data to the constituency level (Appendix Table A.5).

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<sup>12</sup> The difference in the number of women elected to local authorities for traditional versus progressive gender norm constituencies has a p-value of 0.0024.

<sup>13</sup> Additional, alternative explanations (i.e. differential timing and national versus local) for the differences in public goods provision from the mandatory and voluntary gender quotas are explored in Appendix Section A.5

**Table 4: Effect of the Voluntary Gender Quota on Public Good Provision**

|                          | (1)<br>Voluntary Quota<br>Full Sample | (2)<br>Voluntary Quota<br>Poverty Measures Available | (3)<br>Controlling For Baseline<br>Poverty Time Trends | (4)<br>Dropping<br>Windhoek   |
|--------------------------|---------------------------------------|------------------------------------------------------|--------------------------------------------------------|-------------------------------|
| Public Goods Index       | 0.170<br>(0.140)<br>[0.251]           | 0.207<br>(0.139)<br>[0.176]                          | 0.200<br>(0.157)<br>[0.245]                            | -0.043<br>(0.309)<br>[0.902]  |
| Schools                  | 0.152**<br>(0.075)<br>[0.104]         | 0.149*<br>(0.075)<br>[0.107]                         | 0.152*<br>(0.078)<br>[0.107]                           | 0.141<br>(0.164)<br>[0.427]   |
| Health Clinics           | 0.136<br>(0.093)<br>[0.170]           | 0.159*<br>(0.093)<br>[0.116]                         | 0.159*<br>(0.094)<br>[0.127]                           | 0.059<br>(0.172)<br>[0.740]   |
| Paved Roads              | -0.023<br>(0.085)<br>[0.796]          | -0.007<br>(0.087)<br>[0.937]                         | -0.006<br>(0.092)<br>[0.947]                           | 0.118<br>(0.203)<br>[0.619]   |
| Electricity              | -0.010<br>(0.038)<br>[0.829]          | 0.003<br>(0.038)<br>[0.954]                          | 0.005<br>(0.057)<br>[0.938]                            | -0.093<br>(0.105)<br>[0.558]  |
| Piped Water              | -0.010<br>(0.062)<br>[0.874]          | -0.005<br>(0.064)<br>[0.936]                         | 0.006<br>(0.066)<br>[0.927]                            | 0.103<br>(0.103)<br>[0.257]   |
| Sewage                   | -0.036<br>(0.058)<br>[0.557]          | -0.033<br>(0.060)<br>[0.602]                         | -0.016<br>(0.064)<br>[0.800]                           | 0.043<br>(0.140)<br>[0.747]   |
| Post Offices             | 0.093<br>(0.106)<br>[0.430]           | 0.110<br>(0.108)<br>[0.359]                          | 0.081<br>(0.119)<br>[0.559]                            | -0.184<br>(0.167)<br>[0.388]  |
| Police Stations          | 0.105<br>(0.154)<br>[0.529]           | 0.120<br>(0.157)<br>[0.485]                          | 0.102<br>(0.157)<br>[0.585]                            | -0.292*<br>(0.155)<br>[0.155] |
| Number of Observations   | 427                                   | 419                                                  | 419                                                    | 263                           |
| Number of Constituencies | 38                                    | 35                                                   | 35                                                     | 27                            |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. Each cell represents the coefficient from separate regressions of the dependent variable on the impact of the voluntary quota. Every regression includes year and electoral constituency fixed effects as well as region-time fixed effects. Afrobarometer from 2008, 2012, 2014, 2017 2019, and 2021 are used. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance. The public service index combines the all of the indicator variables into a normalized index. Column 2 restricts the sample to those with data on the baseline poverty measures (measured by food and water). Column 3 includes baseline poverty time trends. Column 4 drops Windhoek from the sample and includes baseline poverty time trends.

## 7 Do the Quotas change Citizens' Views on Governance?

In order for policy within a democracy to remain viable in the long run, citizens need to be indifferent towards it or in support. If the policy is unpopular, protests and dissent can force politicians to repeal it. To test whether the quotas have support, I analyze the impact of each quota on views of governance as proxies for support of the quotas. Examining trust in the legislative body, perceptions of politicians' willingness to listen to constituents, and perceived corruption will provide evidence of whether either quota is sustainable in the long run.<sup>14</sup> Any change in perceptions following the quotas could result from either changes in public goods or the quota itself. If the change is only resulting from changes in public goods provision, then men and women's perceptions should not differ. If men and women revise their perceptions differently, this suggests the quotas themselves are driving changes in trust, perceived responsiveness, and perceived corruption.

The mandated quota did not change citizens' trust in local authorities (Table 5 Column 1 Panel A). The voluntary quota, on the other hand, decreases trust in the National Assembly (Table 5 Column 2 Panel A). The voluntary quota decreases men's trust in the National Assembly by 9.5 percentage points (Table 5 Column 2 Panel A). This decrease is not seen in women's trust of the National Assembly. Thus, the voluntary quota may not be a sustainable policy due to the decreased trust citizens have in the legislative body following the quota.

Men perceive local authority politicians to be less responsive after the mandatory quota was implemented (Table 5 Column 1 Panel B). Similarly, women believe National Assembly politicians are less responsive (Table 5 Column 2 Panel B). Both quotas caused citizens to perceive politicians to be less responsive, regardless of legislative body and type of quota.

The mandatory quota decreases perceived corruption of local politicians. The quota decreases men's perceived corruption by 7.8 percentage points (Table 5 Column 1 Panel C). This is more pronounced for women's views on corruption which decreased by 21.3 percentage points (Table 5 Column 1 Panel C). The voluntary quota had no effect on the perceived corruption of members of the National Assembly (Table 5 Column 2 Panel C). The decrease in perceived corruption suggests a mandatory quota may be a sustainable long-run policy.

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<sup>14</sup> The outcome variables are from the Afrobarometer survey and dichotomized to be indicator variables. The results of Table 5 are robust to using the original variable's four point scale (Appendix Table A.7).

**Table 5: Effect of Mandatory and Voluntary Quotas  
on Views of Governance**

|                                                            | (1)<br>Mandated Quota           | (2)<br>Voluntary Quota           |
|------------------------------------------------------------|---------------------------------|----------------------------------|
| <b>Panel A: Trust in Local Authority/National Assembly</b> |                                 |                                  |
| Men                                                        | 0.042<br>(0.129)<br>[0.837]     | -0.189***<br>(0.051)<br>[0.0077] |
| Women                                                      | 0.124<br>(0.151)<br>[0.684]     | -0.063<br>(0.054)<br>[0.320]     |
| <b>Panel B: Politician Responsiveness</b>                  |                                 |                                  |
| Men                                                        | -0.120*<br>(0.067)<br>[0.313]   | -0.014<br>(0.041)<br>[0.756]     |
| Women                                                      | 0.347<br>(0.242)<br>[0.420]     | -0.101**<br>(0.042)<br>[0.0478]  |
| <b>Panel C: Corruption</b>                                 |                                 |                                  |
| Men                                                        | -0.213***<br>(0.055)<br>[0.179] | 0.027<br>(0.053)<br>[0.661]      |
| Women                                                      | -0.578***<br>(0.095)<br>[0.151] | 0.058<br>(0.038)<br>[0.173]      |

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors clustered at the electoral constituency level are reported in parentheses. Each cell in Column 1 represents the coefficient from separate regressions of the dependent variable on the impact of the mandated quota. All dependent variables are indicators. The dependent variable in Column 1 corresponds to the local authority in Panel A and politicians elected to the local authority in Panels B and C. Each cell in Column 2 represents the coefficient from separate regressions of the dependent variable on the impact of the voluntary quota. The dependent variable in Column 2 is the National Assembly in Panel A and National Assembly Politicians in Panels B and C. Responsiveness is measured by politicians' perceived willingness to listen to constituents. Every regression includes year and electoral constituency fixed effects and region-time fixed effects. Regressions in column 1 also control for the number of parties contesting each election. Column 1 uses Afrobarometer from 1999, 2003, and 2006. Column 2 uses Afrobarometer from 2008, 2012, 2014, 2017, 2019, and 2021.

## 8 Conclusion

This is the first paper to examine how different types of gender quotas for political office affect public good provision. By exploiting time and electoral constituency variation, I show the mandated gender quotas have a positive, significant impact on the provision of public goods while the voluntary gender quota has an insignificant effect, except for schools. The mandated quota increases public good provision by 0.78 standard deviations, while the voluntary quota has no overall effect but increased the provision of schools by 7.6 percentage points.

The quotas changed the perception of politicians and legislative institutions. The mandated quota caused people to believe politicians are less corrupt. On the other hand, citizens trust the legislature less, and men believe politicians are less responsive due to the voluntary quota. While there are positive impacts on the provision of public goods, constituents had negative perceptions of institutions and politicians resulting from the voluntary quota. This suggests a voluntary gender quota may not be a sustainable long-run public policy.

These results have implications for other countries with low levels of women's representation. Increasing representation is possible through quotas, but the type of quota differentially affects policy. Governments should be aware of the potential impacts of each type of quota and understand different quotas can have differential effects on policy and alter public perceptions of politicians and legislative institutions.

# References

- Afrobarometer Data, Namibia, Rounds 1 through 9, 1999 through 2021, available at <http://www.afrobarometer.org>
- Acemoglu, Daron, Nicolás Ajzenman, Cevat Giray Aksoy, Martin Fiszbein, and Carlos Molina. 2025. “(Successful) Democracies Breed Their Own Support.” *The Review of Economic Studies* 92 (2): 621–55. <https://doi.org/10.1093/restud/rdae051>.
- Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. “The Colonial Origins of Comparative Development: An Empirical Investigation.” *American Economic Review* 91 (5): 1369–401. <https://doi.org/10.1257/aer.91.5.1369>.
- Acemoglu, Daron, Suresh Naidu, Pascual Restrepo, and James A. Robinson. 2019. “Democracy Does Cause Growth.” *Journal of Political Economy* 127 (1): 47–100. <https://doi.org/10.1086/700936>.
- Anzia, Sarah F., and Christopher R. Berry. 2011. “The Jackie (and Jill) Robinson Effect: Why Do Congresswomen Outperform Congressmen?” *American Journal of Political Science* 55 (3): 478–93. <https://doi.org/10.1111/j.1540-5907.2011.00512.x>.
- Baltrunaite, Audinga, Piera Bello, Alessandra Casarico, and Paola Profeta. 2014. “Gender Quotas and the Quality of Politicians.” *Journal of Public Economics* 118 (October): 62–74. <https://doi.org/10.1016/j.jpubeco.2014.06.008>.
- Ban, Radu, and Vijayendra Rao. 2008. “Tokenism or Agency? The Impact of Women’s Reservations on Village Democracies in South India.” *Economic Development and Cultural Change* 56 (3): 501–30. <https://doi.org/10.1086/533551>.
- Bardhan, Pranab K., Dilip Mookherjee, and Monica Parra Torrado. 2010. “Impact of Political Reservations in West Bengal Local Governments on Anti-Poverty Targeting.” *Journal of Globalization and Development* 1 (1). <https://doi.org/10.2202/1948-1837.1025>.
- Barnes, Tiffany D. 2012. “Gender and Legislative Preferences: Evidence from the Argentine Provinces.” *Politics & Gender* 8 (4): 483–507. <https://doi.org/10.1017/S1743923X12000505>.
- Barnes, Tiffany D., and Mirya R. Holman. 2020. “Gender Quotas, Women’s Representation, and Legislative Diversity.” *The Journal of Politics* 82 (4): 1271–86. <https://doi.org/10.1086/708336>.
- Baskaran, Thushyanthan, Sonia Bhalotra, Brian Min, and Yogesh Uppal. 2024. “Women Legislators and Economic Performance.” *Journal of Economic Growth* 29 (2): 151–214. <https://doi.org/10.1007/s10887-023-09236-6>.
- Baskaran, Thushyanthan, and Zohal Hessami. 2019. “Competitively Elected Women as Policy Makers.” *CESifo Working Paper Series*, CESifo Working Paper Series, 8005. [https://ideas.repec.org/p/ces/ceswps/\\_8005.html](https://ideas.repec.org/p/ces/ceswps/_8005.html).
- Beaman, Lori, Raghavendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova. 2009. “Powerful Women: Does Exposure Reduce Bias?” *The Quarterly Journal of Economics* 124 (4): 1497–540. <https://doi.org/10.1162/qjec.2009.124.4.1497>.
- Becker, Heike. 2019. “Women in Namibia.” In *Oxford Research Encyclopedia of African History*. Oxford University Press.
- Besley, Timothy, and Stephen Coate. 1997. “An Economic Model of Representative Democracy.” *The Quarterly Journal of Economics* 112 (1): 85–114.
- Besley, Timothy, Olle Folke, Torsten Persson, and Johanna Rickne. 2017. “Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden.” *American Economic Review* 107 (8): 2204–42. <https://doi.org/10.1257/aer.20160080>.
- Brollo, Fernanda, and Ugo Troiano. 2016. “What Happens When a Woman Wins an Election? Evidence from Close Races in Brazil.” *Journal of Development Economics* 122 (September): 28–45. <https://doi.org/10.1016/j.jdeveco.2016.04.003>.
- Casas-Arce, Pablo, and Albert Saiz. 2015. “Women and Power: Unpopular, Unwilling, or Held Back?” *Journal of Political Economy* 123 (3): 641–69. <https://doi.org/10.1086/680686>.

- Catalano Weeks, Ana. 2019. "Quotas and Party Priorities: Direct and Indirect Effects of Quota Laws." *Political Research Quarterly* 72 (4): 849–62. <https://doi.org/10.1177/1065912918809493>.
- Cella, Michela, and Elena Manzoni. 2023. "Gender Bias and Women's Political Performance." *European Journal of Political Economy* 77 (March): 102314. <https://doi.org/10.1016/j.ejpoleco.2022.102314>.
- Chattopadhyay, Raghavendra, and Esther Duflo. 2004. "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India." *Econometrica* 72 (5): 1409–43.
- Chaturvedi, Sugat, Sabyasachi Das, and Kanika Mahajan. 2024. "When Do Gender Quotas Change Policy? Evidence from Household Toilet Provision in India." *Economic Development and Cultural Change*, ahead of print, January 5. <https://doi.org/10.1086/729342>.
- Clayton, Amanda. 2014. "Electoral Gender Quotas and Attitudes Toward Traditional Leaders: A Policy Experiment in Lesotho." *Journal of Policy Analysis and Management* 33 (4): 1007–26. <https://doi.org/10.1002/pam.21789>.
- Clayton, Amanda. 2015. "Women's Political Engagement Under Quota-Mandated Female Representation: Evidence From a Randomized Policy Experiment." *Comparative Political Studies* 48 (3): 333–69. <https://doi.org/10.1177/0010414014548104>.
- Clayton, Amanda. 2018. "Do Gender Quotas Really Reduce Bias? Evidence from a Policy Experiment in Southern Africa." *Journal of Experimental Political Science* 5 (3): 182–94. <https://doi.org/10.1017/XPS.2018.8>.
- Clayton, Amanda. 2021. "How Do Electoral Gender Quotas Affect Policy?" *Annual Review of Political Science* 24 (1): 235–52. <https://doi.org/10.1146/annurev-polisci-041719-102019>.
- Clayton, Amanda, and Pär Zetterberg. 2018. "Quota Shocks: Electoral Gender Quotas and Government Spending Priorities Worldwide." *The Journal of Politics* 80 (3): 916–32. <https://doi.org/10.1086/697251>.
- Clots-Figueras, Irma. 2012. "Are Female Leaders Good for Education? Evidence from India." *American Economic Journal: Applied Economics* 4 (1): 212–44. <https://doi.org/10.1257/app.4.1.212>.
- Clots-Figueras, Irma, and Lakshmi Iyer. 2023. "Gender and Natural Experiments in Developing Countries." In *Handbook of Experimental Development Economics*. Princeton University Press.
- Coppedge, Michael, John Gerring, Carl Henrik Knutsen, et al. 2025. "V-Dem Namibia 1990-2015 Dataset V15." Varieties of Democracy (V-Dem) Project. <https://doi.org/https://doi.org/10.23696/vdemds25>.
- De Paola, Maria, Vincenzo Scoppa, and Rosetta Lombardo. 2010. "Can Gender Quotas Break down Negative Stereotypes? Evidence from Changes in Electoral Rules." *Journal of Public Economics* 94 (5): 344–53. <https://doi.org/10.1016/j.jpubeco.2010.02.004>.
- Deininger, Klaus, Songqing Jin, Hari K. Nagarajan, and Fang Xia. 2015. "Does Female Reservation Affect Long-Term Political Outcomes? Evidence from Rural India." *The Journal of Development Studies* 51 (1): 32–49. <https://doi.org/10.1080/00220388.2014.947279>.
- Dell, Melissa. 2010. "The Persistent Effects of Peru's Mining 'Mita.'" *Econometrica* 78 (6): 1863–903.
- Dollar, David, Raymond Fisman, and Roberta Gatti. 2001. "Are Women Really the 'Fairer' Sex? Corruption and Women in Government." *Journal of Economic Behavior & Organization* 46 (4): 423–29. [https://doi.org/10.1016/S0167-2681\(01\)00169-X](https://doi.org/10.1016/S0167-2681(01)00169-X).
- Duflo, Esther, and Petia Topalova. 2004. "Unappreciated Service: Performance, Perceptions, and Women Leaders in India." *Framed Field Experiments*, 1–22.
- Fujiwara, Thomas, Hanno Hilbig, and Pia Raffler. 2025. *Biased Party Nominations as a Source of Women's Electoral Underperformance*. No. W34396. National Bureau of Economic Research. <https://doi.org/10.3386/w34396>.
- Gajwani, Kiran, and Xiaobo Zhang. 2015. "Gender and Public Goods Provision in Tamil Nadu's Village Governments." *World Bank Economic Review* 29 (2): 234–61. <https://doi.org/10.1093/wber/lhu001>.
- Garcia, Fernanda, and Yara Antoniassi. 2024. "Are Female Mayors Less Corrupt? Evidence from Brazil." In *Corruption and Anti-Corruption Upside Down: New Perspectives from the Global South*,

- edited by Fernanda Odilla and Konstantinos Tsimonis. Springer International Publishing.  
[https://doi.org/10.1007/978-3-031-66032-0\\_6](https://doi.org/10.1007/978-3-031-66032-0_6).
- Gentzkow, Matthew, Jesse M. Shapiro, and Michael Sinkinson. 2011. "The Effect of Newspaper Entry and Exit on Electoral Politics." *American Economic Review* 101 (7): 2980–3018.  
<https://doi.org/10.1257/aer.101.7.2980>.
- Government of the Republic of Namibia. 1990. *The Reconstruction and Development of Namibia: General Policy Statement*. Government of the Republic of Namibia.
- Government of the Republic of Namibia. 2000. *First National Development Plan (NDP1) Volume 11*. National Planning Commission.
- Hessami, Zohal, and Mariana Lopes da Fonseca. 2020. "Female Political Representation and Substantive Effects on Policies: A Literature Review." *European Journal of Political Economy* 63 (June): 101896. <https://doi.org/10.1016/j.ejpolco.2020.101896>.
- Hoynes, Hilary Williamson, and Diane Whitmore Schanzenbach. 2012. "Work Incentives and the Food Stamp Program." *Journal of Public Economics* 96 (1): 151–62.  
<https://doi.org/10.1016/j.jpubeco.2011.08.006>.
- Hubbard, Dianne. 1993. *Affirmative Action for Women in Local Government in Namibia*. Legal Assistance Centre.
- International IDEA. 2022. "Gender Quotas Database." <https://www.idea.int/data-tools/data/gender-quotas-database/database>.
- Iyer, Lakshmi, and Coleson Weir. 2025. "The Colonial Legacy in India: How Persistent Are the Effects of Historical Institutions?" *Journal of Development Economics* 177 (October): 103576.  
<https://doi.org/10.1016/j.jdeveco.2025.103576>.
- LeBeau, Debie, and Eunice Iipinge. 2004. *Namibia's Progress Towards Gender Equality: Post-Beijing Policies and Programs*. Edited by Justine Hunter. Namibia Institute for Democracy.
- Lee, Jay Euijung, and Martina Zanella. 2025. "Learning about Women's Competence: The Dynamic Response of Political Parties to Gender Quotas in South Korea." *Working Paper*.
- Lizzeri, Alessandro, and Nicola Persico. 2001. "The Provision of Public Goods under Alternative Electoral Incentives." *American Economic Review* 91 (1): 225–39.  
<https://doi.org/10.1257/aer.91.1.225>.
- Mani, Anandi, and Sharun Mukand. 2007. "Democracy, Visibility and Public Good Provision." *Journal of Development Economics*, Papers from a Symposium: The Social Dimensions of Microeconomic Behaviour in Low-Income Communities, vol. 83 (2): 506–29.  
<https://doi.org/10.1016/j.jdeveco.2005.06.008>.
- Miller, Grant. 2008. "Women's Suffrage, Political Responsiveness, and Child Survival in American History\*." *The Quarterly Journal of Economics* 123 (3): 1287–327.  
<https://doi.org/10.1162/qjec.2008.123.3.1287>.
- Nourani, Vesall, Annemie Maertens, and Hope Michelson. 2021. "Public Good Provision and Democracy: Evidence from an Experiment with Farmer Groups in Malawi." *World Development* 145 (September): 105507. <https://doi.org/10.1016/j.worlddev.2021.105507>.
- Nunn, Nathan. 2008. "The Long-Term Effects of Africa's Slave Trades." *The Quarterly Journal of Economics* 123 (1): 139–76.
- O'Brien, Diana Z., and Johanna Rickne. 2016. "Gender Quotas and Women's Political Leadership." *American Political Science Review* 110 (1): 112–26.  
<https://doi.org/10.1017/S0003055415000611>.
- O'Connell, Stephen D. 2020. "Can Quotas Increase the Supply of Candidates for Higher-Level Positions? Evidence from Local Government in India." *The Review of Economics and Statistics* 102 (1): 65–78. [https://doi.org/10.1162/rest\\_a\\_00802](https://doi.org/10.1162/rest_a_00802).
- Olken, Benjamin A. 2010. "Direct Democracy and Local Public Goods: Evidence from a Field Experiment in Indonesia." *American Political Science Review* 104 (2): 243–67.  
<https://doi.org/10.1017/S0003055410000079>.

- Osborne, Martin J., and Al Slivinski. 1996. "A Model of Political Competition with Citizen-Candidates." *The Quarterly Journal of Economics* 111 (1): 65–96. <https://doi.org/10.2307/2946658>.
- Rajaraman, Indira, and Manish Gupta. 2012. "Public Expenditure Choices and Gender Quotas." *Indian Growth and Development Review* 5 (2): 108–30. <https://doi.org/10.1108/17538251211268053>.
- Santamaría, Lucía, and Helena Mihaljević. 2018. "Comparison and Benchmark of Name-to-Gender Inference Services." *PeerJ Computer Science* 4 (July): e156. <https://doi.org/10.7717/peerj-cs.156>.
- Santos Vargas, Andrés, Enrique Seira, and Alberto Simpser. 2026. "Satisfaction with Democracy Predicts Democratic Behaviors." *Proceedings of the National Academy of Sciences* 123 (14): e2517671123. <https://doi.org/10.1073/pnas.2517671123>.
- Swamy, Anand, Stephen Knack, Young Lee, and Omar Azfar. 2001. "Gender and Corruption." *Journal of Development Economics* 64 (1): 25–55. [https://doi.org/10.1016/S0304-3878\(00\)00123-1](https://doi.org/10.1016/S0304-3878(00)00123-1).
- Tan, Netina. 2015. "Party Quotas and Rising Women Politicians in Singapore." *Politics & Gender* 11 (1): 196–207. <https://doi.org/10.1017/S1743923X14000646>.
- Tjihero, Kapena L., Doufi Namalambo, and Dianne Hubbard. 1998. *Affirmative Action for Women in Local Government in Namibia: The 1998 Local Government Elections*. Legal Assistance Centre.
- Tusale, Rollin F. 2022. "Gendered Governance: Examining the Relationship between Women Legislators and Effective Public Goods Provision from a Global Sample." *Polity* 54 (2): 298–333. <https://doi.org/10.1086/718579>.

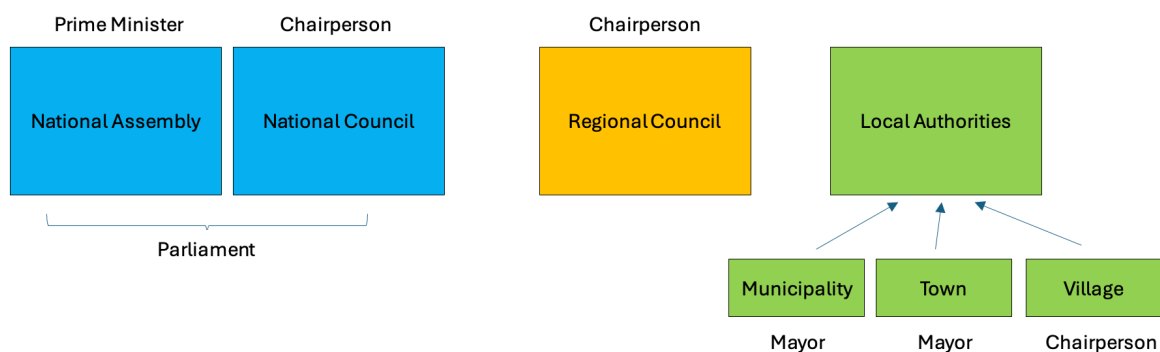
## Data Availability

Geocoded Afrobarometer Survey data from Namibia is utilized in this paper. Researchers can apply for the data at [afrobarometer.org](https://afrobarometer.org). Local Authority election data will be available in the online supplementary materials.

# Appendix

## A.1 Additional Tables and Figures

**Figure A.1: Legislative Structure of Namibia**



Note: A mandatory gender quota was implemented for the Local Authorities. SWAPO implemented a voluntary gender quota for the National Assembly.

**Figure A.2: Example of Local Authority Election Results in the Government Gazette**

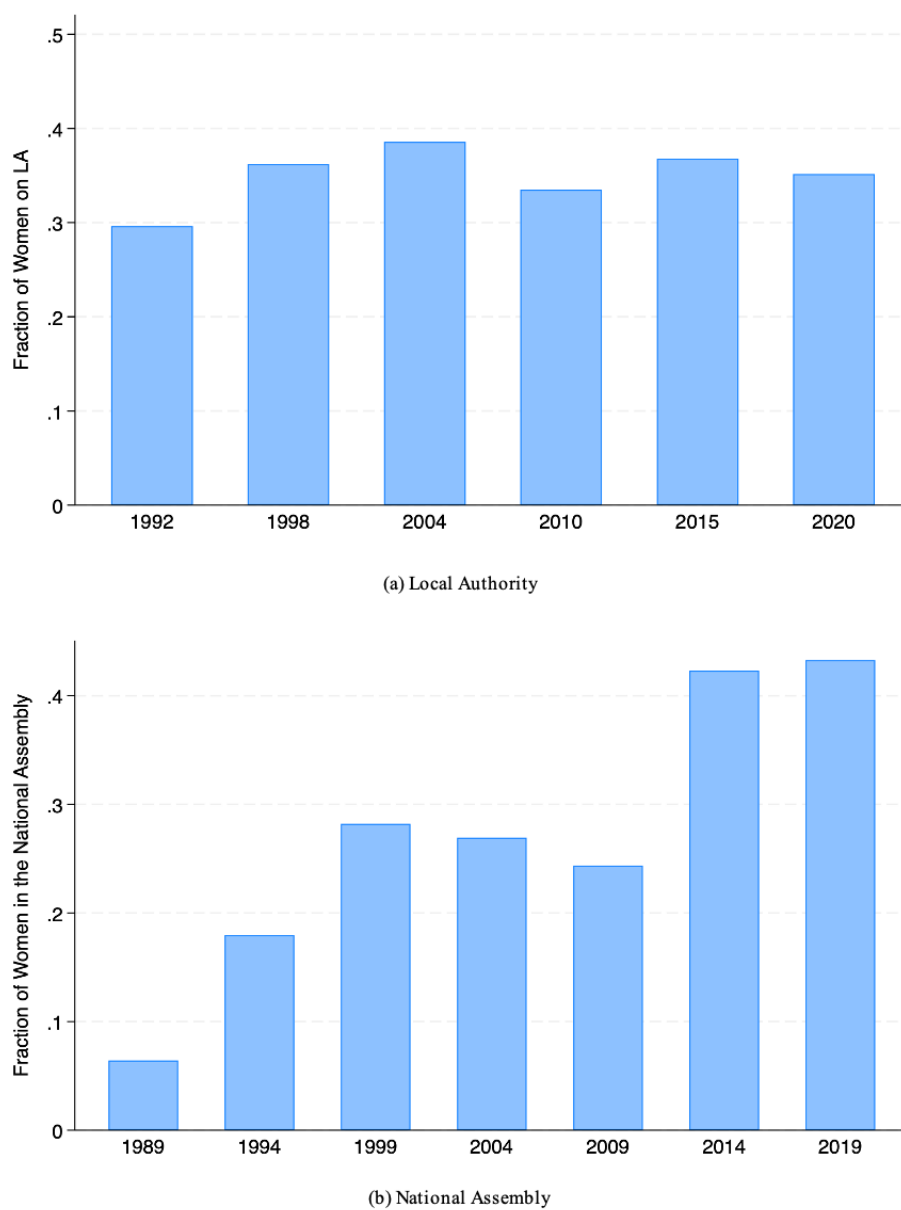
FIRST SCHEDULE

| Column 1             | Column 2                                       | Column 3 | Column 4         | Column 5                           | Column 6                   | Column 7                                                                                                        |
|----------------------|------------------------------------------------|----------|------------------|------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------|
| Local authority area | Total number of votes (rejected ballot papers) | Quota    | Political party  | Number of votes recorded for party | Number of seats determined | Candidates declared to be duly elected members                                                                  |
| Arandis              | 1246<br>(5)                                    | 177      | SWAPO-Party      | 1053                               | 6                          | Hoabeb, Harry<br>Andreas, Rosalia<br>Kluft, John<br>Unaeb, Engelhardt<br>Namupala, Justine<br>Shupamba, Leonard |
|                      |                                                |          | UDF of Namibia   | 122                                | 1                          | Dausab, Herman                                                                                                  |
|                      |                                                |          | DTA of Namibia   | 52                                 | 0                          |                                                                                                                 |
|                      |                                                |          | SWANU of Namibia | 14                                 | 0                          |                                                                                                                 |
| Aranos               | 1050<br>(24)                                   | 146,57   | DTA of Namibia   | 611                                | 4                          | Strauss, Frederick<br>Johannes<br>Jakobs, Christiaan<br>Du Plessis, Susara<br>Wilhelmina<br>Meyer, Rosalia      |
|                      |                                                |          | SWAPO-Party      | 415                                | 3                          | Hochobeb, Eduard<br>Kharuchab, Elias<br>Gaoseb, Helmuth                                                         |

Figure A.3: Example of Data on Women's Position on Candidate Lists

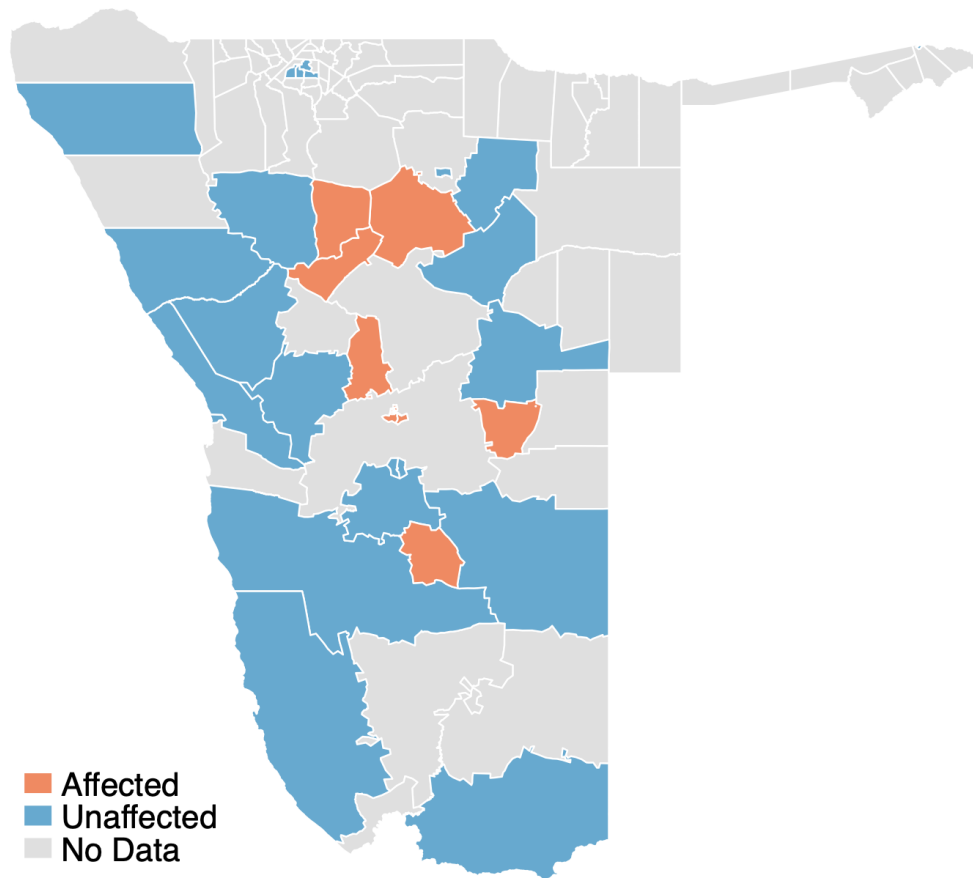
| PLACE      | PARTY | NO OF WOMEN | POSITION ON PARTY LISTS |   |   |   |   |   |   |    |
|------------|-------|-------------|-------------------------|---|---|---|---|---|---|----|
|            |       |             | 1                       | 2 | 3 | 4 | 5 | 6 | 7 | 7+ |
| ARANDIS    | DTA   | 3           |                         | 1 |   |   | 1 |   | 1 |    |
|            | SWANU | 4           |                         |   |   | 1 | 1 | 1 | 1 |    |
|            | SWAPO | 2           |                         | 1 |   |   | 1 |   |   |    |
|            | UDF   | 3           |                         |   |   | 1 |   | 1 | 1 |    |
| ARANOS     | DTA   | 4           |                         |   | 1 | 1 |   | 1 | 1 |    |
|            | SWAPO | 2           |                         |   |   |   |   | 1 | 1 |    |
| ARIAMSVLEI | DTA   | 3           |                         | 1 |   |   | 1 |   | 1 |    |
|            | SWAPO | 3           |                         |   |   | 1 | 1 | 1 |   |    |
| AROAB      | DTA   | 2           | 1                       | 1 |   |   |   |   |   |    |
|            | SWANU | 3           |                         |   | 1 | 1 |   | 1 |   |    |
|            | SWAPO | 3           | 1                       |   | 1 | 1 |   |   |   |    |

**Appendix Figure A.4: Fraction of Legislative Seats Held by Women**



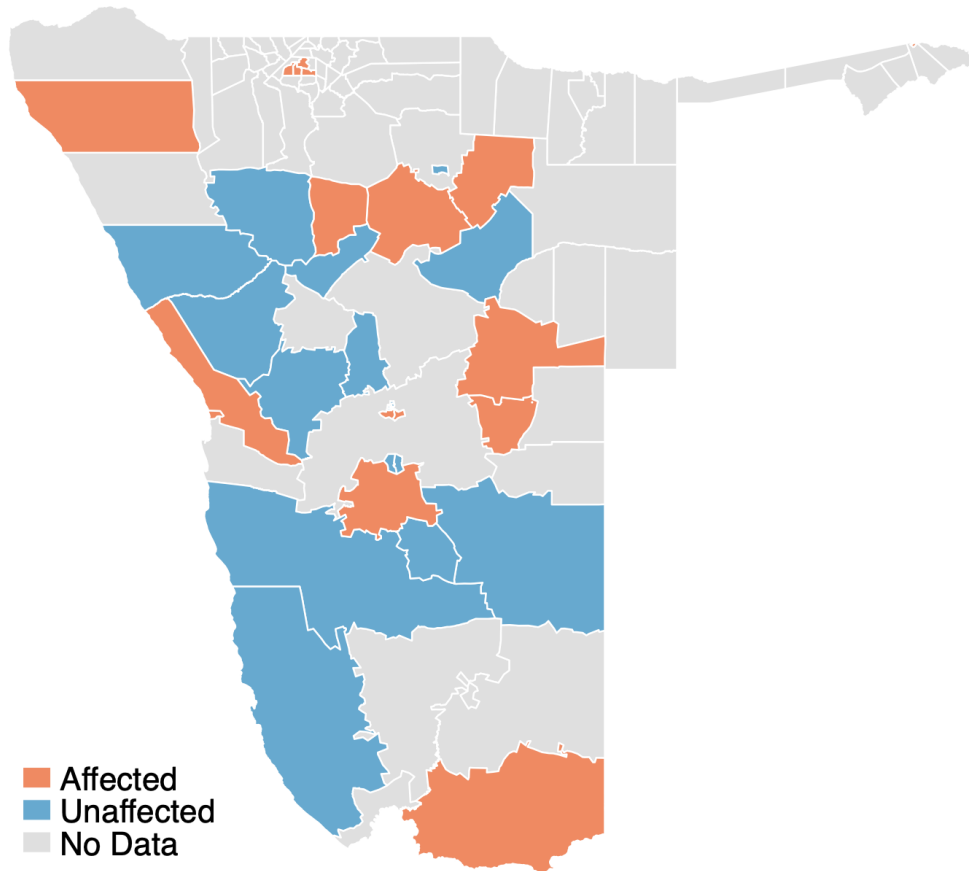
Note: Panel A uses Local Authority Election Data. The mandated quota was implemented for the 1998 Local Authority election. Panel B uses National Assembly Election Data. SWAPO introduced the voluntary quota for the 2014 election.

**Figure A.5: Electoral Constituencies Impacted by the Mandated Quota**



Note: Orange constituencies are classified as affected by the mandatory quota, and blue constituencies are classified as unaffected. The 1992 Local Authority election data is used for this figure.

**Figure A.6: Electoral Constituencies Impacted by the Voluntary Quota**



Note: Orange constituencies are classified as affected by the voluntary quota, and blue constituencies are classified as unaffected. The 2012 and 2014 rounds of the Afrobarometer are used in this figure.

**Table A.1: Number of Constituencies Affected by Each Quota**

|                |            | Voluntary Quota |          |
|----------------|------------|-----------------|----------|
|                |            | Unaffected      | Affected |
| Mandated Quota | Unaffected | 12              | 12       |
|                | Affected   | 7               | 7        |

Note: Each cell is the number of electoral constituencies. 1992 Local Authority Election data is used to classify which constituencies are affected by the mandatory quota. The 2012 and 2014 rounds of the Afrobarometer survey are used to determine which constituencies are affected by the voluntary quota.

## A.2 Identification Assumptions – Mandatory Quota

A concern in examining how policy changed following the implementation of the mandatory quotas arises if electoral constituencies affected and unaffected by the quota are systematically different prior to the quotas. If the constituencies are different, the difference-in-differences estimate would be biased. Table 1 Panel A examines political competitiveness across electoral constituencies in the 1992 local authority elections. Panel A shows there are statistical differences in the number of political parties that compete in the local authority elections. Affected constituencies have four parties on average and unaffected constituencies have 2.7 parties on average. This difference is partially driven by Windhoek where six parties compete in the local authority elections. When Windhoek is dropped, there is a smaller, but still statistically significant difference in the number of parties competing in the elections. The number of parties contesting an election is included in the controls in Equation 1 and the inclusion of electoral constituency fixed effects accounts for any baseline political differences between constituencies. Additionally since part of the difference in the number of political parties is driven by Windhoek, I drop Windhoek from the analysis as a robustness check (Table 3 Column 4). Panel A shows the SWAPO vote share in the 1992 election is very similar across electoral constituencies. SWAPO received 57.3% of the vote in affected constituencies compared to 56.5% of the vote in unaffected constituencies. The number of candidates on each party list is the same across constituencies because parties are required to nominate the same number of people as there are seats on the local authorities. The last lines in Panel A show that there is a statistically significant difference in the average position on the candidate list for women. This variable is used to construct the *AffectedMandatory<sub>c</sub>* variable described in Section 5.

Table 1 Panel B displays the fraction of villages or towns with access to each public good. There are no statistically significant differences in the public good provision between electoral constituencies affected and unaffected by the mandated quota when using the first round of the Afrobarometer data.<sup>15</sup> Panel C examines differences in measures of poverty. The measures include food insecurity, water insecurity, and housing insecurity. There are no statistical differences between affected and unaffected constituencies on the poverty dimension. Appendix Table A.2 shows balance for constituencies prior to the quotas. Thus, the difference-in-difference estimate will not be biased due to differential pre-trends.

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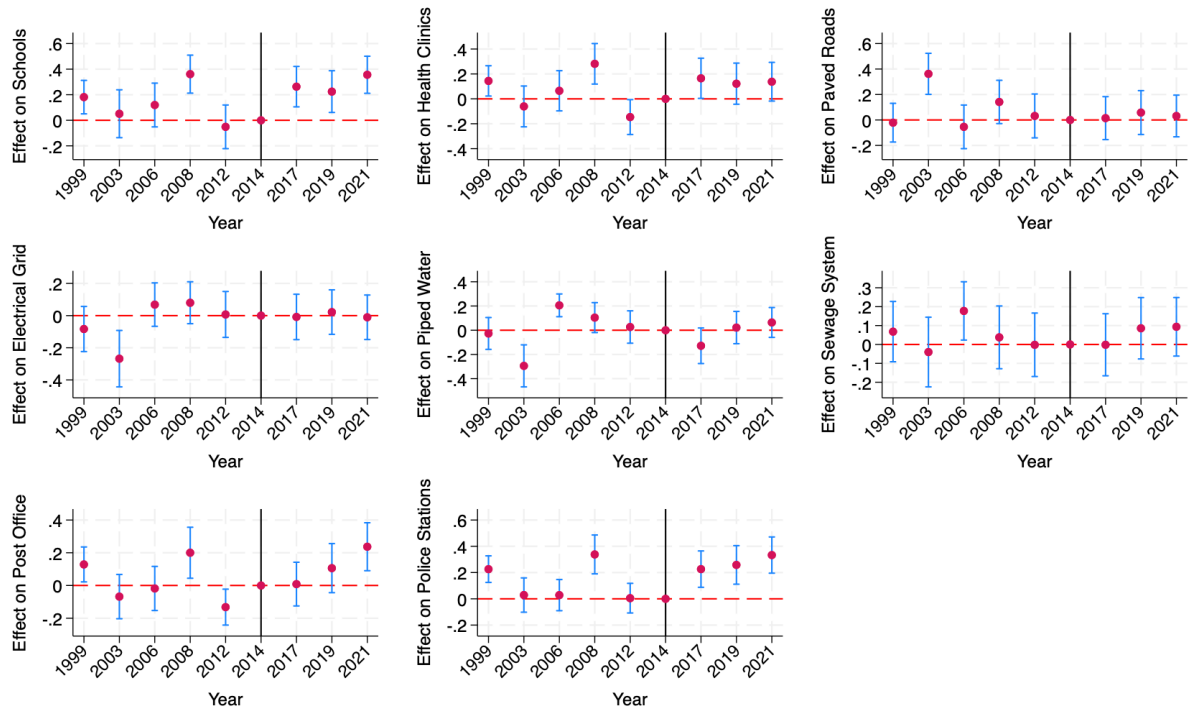
<sup>15</sup> Due to data limitations, testing the parallel trends assumption through an event study for the 1998 quota is not possible.

Due to not having more than one year of data prior to the 1998 mandated quota, I cannot empirically test whether the parallel trends assumption holds. However, Namibia gained independence in 1990 after being under apartheid and colonial rule since 1884. The post-independence government of Namibia focused on reconstruction and development of Namibia as a whole due to the majority of the population being systemically and legally discriminated against while under South African rule. The Reconstruction and Development of Namibia's General Policy Statement explains that the government will pass legislation aimed at “ensuring that every citizen has a right to fair and reasonable access to public facilities and services” (Government of the Republic of Namibia 1990). Due to the government's policies to provide more public goods to all Namibians, the parallel trends assumption should hold prior to the implementation of the mandated gender quota in 1998. Additionally, Table 1 shows that there are not statistical differences in public good provision between electoral constituencies affected and unaffected by the mandated quota, which furthers the argument that the parallel trends assumption holds prior to the 1998 quota.

### **A.3 Identification Assumptions – Voluntary Quota**

To determine if the parallel trends assumption holds for the voluntary quota, I estimate equation 2 with an event study. The results are shown in Appendix Figure A.6. The vertical line in Appendix Figure A.6 is at 2015 which is when the first politicians took office following the voluntary quota implemented by SWAPO. Each point in the figure represents the impact of the voluntary quota in that year relative to 2014. For most public good provision, the impact is around zero prior to the implementation of the quota. Some are noisy and alternate above and below zero but are still statistically insignificant. Overall, Appendix Figure A.6 does not present evidence of pre-trends. Thus, there is not evidence of the parallel trends assumption being violated for the voluntary gender quota.

**Figure A.6: Event Study Plots for Voluntary Gender Quota**



Note: The bars represents the 95% confidence interval for each point. The vertical line is at 2014 which is when SWAPO implemented the voluntary quota. The horizontal line is at 0. Afrobarometer surveys from 1999 through 2021 are used.

## A.4 Additional Tables

**Table A.2: Effect of Quotas on Women's Political Representation - Alternative Definitions of Affected**

|                          | Mandated Quota                                     |                                                               |
|--------------------------|----------------------------------------------------|---------------------------------------------------------------|
|                          | (1)<br>Met 1998<br>Quota<br>Requirement<br>In 1992 | (2)<br>Below Average<br>Position of<br>Women on Party<br>List |
| Number of Women Elected  | -0.139<br>(0.485)<br>[0.782]                       | 0.647<br>(0.385)<br>[0.107]                                   |
| Percent of Women         | -0.0223<br>(0.0600)<br>[0.718]                     | 0.0887*<br>(0.0468)<br>[0.0724]                               |
| Number of Observations   | 173                                                | 173                                                           |
| Number of Constituencies | 38                                                 | 38                                                            |

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. All regressions include constituency and time fixed effects. The dependent variable is listed on the left hand side. Column 1 uses the number of women nominated in the 1992 election to define which constituencies are affected by the mandatory quota. Column 2 uses women's average position on the party list in the 1992 election to define which constituencies are affected by the mandatory quota.

**Table A.3: Robustness Checks - Effect of the Mandatory Gender Quota on Public Good Provision**

|                          | (1)<br>Define Affected Using<br>Average List Position | (2)<br>Aggregating Data to<br>Constituency Level | (3)<br>No Weights               |
|--------------------------|-------------------------------------------------------|--------------------------------------------------|---------------------------------|
| Public Goods Index       | 0.640***<br>(0.226)<br>[0.0428]                       | 1.860*<br>(0.935)<br>[0.176]                     | 2.370***<br>(0.684)<br>[0.144]  |
| Schools                  | -0.085<br>(0.122)<br>[0.656]                          | 0.846***<br>(0.151)<br>[0.161]                   | 0.922***<br>(0.111)<br>[0.0811] |
| Health Clinics           | 0.153<br>(0.171)<br>[0.503]                           | 0.720***<br>(0.078)<br>[0.119]                   | 0.752***<br>(0.063)<br>[0.0675] |
| Paved Roads              | 0.439***<br>(0.065)<br>[0.0177]                       | 0.511**<br>(0.219)<br>[0.176]                    | 0.635***<br>(0.167)<br>[0.126]  |
| Electricity              | 0.137<br>(0.153)<br>[0.495]                           | 0.550<br>(0.344)<br>[0.175]                      | 0.728***<br>(0.255)<br>[0.152]  |
| Piped Water              | 0.326***<br>(0.069)<br>[0.0305]                       | 0.053<br>(0.560)<br>[0.890]                      | 0.365<br>(0.409)<br>[0.731]     |
| Sewage                   | 0.219<br>(0.352)<br>[0.727]                           | 0.522<br>(0.492)<br>[0.175]                      | 0.798**<br>(0.364)<br>[0.170]   |
| Post Offices             | 0.137<br>(0.130)<br>[0.368]                           | 0.501*<br>(0.269)<br>[0.176]                     | 0.648***<br>(0.196)<br>[0.152]  |
| Police Stations          | 0.211<br>(0.131)<br>[0.163]                           | 0.766***<br>(0.159)<br>[0.164]                   | 0.846***<br>(0.127)<br>[0.0862] |
| Number of Observations   | 166                                                   | 73                                               | 166                             |
| Number of Constituencies | 38                                                    | 38                                               | 38                              |

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. Each cell represents the coefficient from separate regressions of the dependent variable on the impact of the mandated quota. Every regression includes year and electoral constituency fixed effects, region-time fixed effects, and controls for the number of parties contesting each election. Afrobarometer from 1999, 2003, and 2006 are used. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance. The public service index combines all of the indicator variables into a normalized index. Column 1 only uses the average list position to define which constituencies are affected by the mandated quota. Columns 2 aggregates the data to the electoral constituency level. Column 3 does not weight the observations.

**Table A.4: Citizens' Policy Preferences**

|                        | 1999 Afrobarometer |       |                        | 2008 Afrobarometer |       |                        | Women                  | Men                    |
|------------------------|--------------------|-------|------------------------|--------------------|-------|------------------------|------------------------|------------------------|
|                        | (1)                | (2)   | (3)                    | (4)                | (5)   | (6)                    | (7)                    | (8)                    |
|                        | Women              | Men   | P-Value of T-Test      | Women              | Men   | P-Value of T-Test      | P-Value of T-Test      | P-Value of T-Test      |
|                        |                    |       | (1) = (2)<br>(1) > (2) |                    |       | (4) = (5)<br>(4) > (5) | (1) = (4)<br>(1) < (4) | (2) = (5)<br>(2) < (5) |
| Education              | 0.496              | 0.509 | 0.778<br>0.611         | 0.221              | 0.215 | 0.859<br>0.429         | 0.0000***<br>1.000     | 0.0000***<br>1.000     |
| Health                 | 0.331              | 0.360 | 0.503<br>0.748         | 0.273              | 0.261 | 0.739<br>0.369         | 0.1653<br>0.9174       | 0.0185**<br>0.9907     |
| Roads / Infrastructure | 0.000              | 0.000 | 1.000<br>1.000         | 0.037              | 0.046 | 0.625<br>0.687         | 0.0015***<br>0.0007*** | 0.0005***<br>0.0002*** |
| Electricity            | 0.000              | 0.000 | 1.000<br>1.000         | 0.082              | 0.100 | 0.493<br>0.754         | 0.0000***<br>0.0000*** | 0.0000***<br>0.0000*** |
| Water                  | 0.131              | 0.122 | 0.755<br>0.377         | 0.157              | 0.138 | 0.531<br>0.266         | 0.4085<br>0.2043       | 0.5951<br>0.2976       |
| Crime                  | 0.051              | 0.045 | 0.780<br>0.390         | 0.157              | 0.134 | 0.451<br>0.225         | 0.001***<br>0.0000***  | 0.0005***<br>0.0002*** |
| Unemployment           | 0.551              | 0.556 | 0.911<br>0.545         | 0.682              | 0.648 | 0.407<br>0.204         | 0.0026***<br>0.0013*** | 0.0409**<br>0.0205**   |
| Political Corruption   | 0.047              | 0.036 | 0.570<br>0.285         | 0.157              | 0.138 | 0.531<br>0.266         | 0.0000***<br>0.0000*** | 0.0000***<br>0.0000*** |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The top p-value is from testing the null hypothesis that the same proportion of men and women have that policy preference in columns 3, 6, and 9.. The bottom p-value is from testing the null hypothesis that a higher proportion of women have the policy preference in columns 3 and 6. In column 7, the top p-value is from the test of whether women in 1999 and 2008 constituencies have the same policy preference. The bottom p-value is from testing whether a larger proportion of women in 2008 have the policy preference than women in 1999. In column 8, the top p-value is from the test of whether men in 1999 and 2008 constituencies have the same policy preference. The bottom p-value is from testing whether a larger proportion of men in 2008 have the policy preference than men in 1999. The data is from Afrobarometer surveys 1999 and 2008. If an individual listed one of the policy areas as one of their top three issues the government should be addressing, the individual is classified as having that issue as a policy preference.

**Table A.5: Robustness Checks - Effect of the Voluntary Gender Quota on Public Good Provision**

|                          | (1)                                      | (2)                                      | (3)                                              | (4)                                    | (5)                                                   | (6)                           | (7)                                       | (8)                            |
|--------------------------|------------------------------------------|------------------------------------------|--------------------------------------------------|----------------------------------------|-------------------------------------------------------|-------------------------------|-------------------------------------------|--------------------------------|
|                          | Define Affected Using<br>25th Percentile | Define Affected Using<br>75th Percentile | Define Affected Using<br>Alternative Gender Norm | Define Affected Using<br>More than 40% | Whether SWAPO Vote Share in 2010 was<br>More than 50% | More than 60%                 | Aggregating Data to<br>Constituency Level | No Weights                     |
| Public Goods Index       | 0.278*<br>(0.140)<br>[0.0890]            | 0.027<br>(0.287)<br>[0.929]              | 0.140<br>(0.247)<br>[0.616]                      | 0.071<br>(0.306)<br>[0.849]            | 0.472<br>(0.384)<br>[0.415]                           | -0.384<br>(0.247)<br>[0.185]  | 0.190<br>(0.186)<br>[0.237]               | 0.247<br>(0.159)<br>[0.137]    |
| Schools                  | 0.213***<br>(0.078)<br>[0.0408]          | 0.028<br>(0.104)<br>[0.789]              | 0.191<br>(0.136)<br>[0.139]                      | 0.037<br>(0.094)<br>[0.646]            | 0.235<br>(0.162)<br>[0.306]                           | -0.094<br>(0.149)<br>[0.579]  | 0.152<br>(0.092)<br>[0.0992]              | 0.161**<br>(0.072)<br>[0.0671] |
| Health Clinics           | 0.155<br>(0.102)<br>[0.192]              | -0.161<br>(0.119)<br>[0.370]             | 0.057<br>(0.109)<br>[0.631]                      | 0.065<br>(0.233)<br>[0.867]            | 0.261<br>(0.235)<br>[0.511]                           | -0.100<br>(0.133)<br>[0.589]  | 0.137<br>(0.112)<br>[0.171]               | 0.137<br>(0.093)<br>[0.154]    |
| Paved Roads              | 0.030<br>(0.057)<br>[0.590]              | 0.191*<br>(0.111)<br>[0.0972]            | 0.060<br>(0.077)<br>[0.412]                      | 0.122<br>(0.120)<br>[0.326]            | 0.107<br>(0.093)<br>[0.255]                           | -0.118<br>(0.120)<br>[0.398]  | -0.011<br>(0.101)<br>[0.902]              | 0.039<br>(0.085)<br>[0.675]    |
| Electricity              | 0.059<br>(0.035)<br>[0.120]              | 0.028<br>(0.069)<br>[0.736]              | 0.187*<br>(0.105)<br>[0.0845]                    | -0.127<br>(0.152)<br>[0.724]           | 0.065<br>(0.180)<br>[0.774]                           | -0.149*<br>(0.086)<br>[0.151] | -0.003<br>(0.054)<br>[0.954]              | -0.005<br>(0.049)<br>[0.929]   |
| Piped Water              | 0.006<br>(0.083)<br>[0.948]              | 0.074<br>(0.109)<br>[0.512]              | 0.082<br>(0.062)<br>[0.193]                      | 0.083<br>(0.170)<br>[0.639]            | 0.285<br>(0.205)<br>[0.266]                           | -0.025<br>(0.086)<br>[0.793]  | 0.003<br>(0.085)<br>[0.964]               | 0.045<br>(0.080)<br>[0.579]    |
| Sewage                   | -0.014<br>(0.060)<br>[0.840]             | 0.058<br>(0.127)<br>[0.656]              | 0.187<br>(0.113)<br>[0.0965]                     | -0.093<br>(0.129)<br>[0.540]           | 0.016<br>(0.119)<br>[0.903]                           | -0.030<br>(0.143)<br>[0.846]  | -0.013<br>(0.080)<br>[0.846]              | 0.016<br>(0.075)<br>[0.832]    |
| Post Offices             | 0.099<br>(0.114)<br>[0.437]              | -0.042<br>(0.115)<br>[0.757]             | -0.143<br>(0.139)<br>[0.616]                     | 0.195<br>(0.123)<br>[0.410]            | 0.165*<br>(0.084)<br>[0.112]                          | -0.181<br>(0.130)<br>[0.274]  | 0.103<br>(0.121)<br>[0.342]               | 0.091<br>(0.092)<br>[0.358]    |
| Police Stations          | 0.118<br>(0.162)<br>[0.497]              | -0.111<br>(0.143)<br>[0.607]             | -0.284*<br>(0.155)<br>[0.245]                    | -0.114*<br>(0.058)<br>[0.219]          | 0.000<br>(0.098)<br>[1.000]                           | -0.224<br>(0.138)<br>[0.214]  | 0.094<br>(0.180)<br>[0.560]               | 0.109<br>(0.134)<br>[0.450]    |
| Number of Observations   | 427                                      | 427                                      | 427                                              | 426                                    | 426                                                   | 426                           | 201                                       | 427                            |
| Number of Constituencies | 38                                       | 38                                       | 38                                               | 37                                     | 37                                                    | 37                            | 38                                        | 38                             |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. Each cell represents the coefficient from separate regressions of the dependent variable on the impact of the voluntary quota. Every regression includes year and electoral constituency fixed effects as well as region-time fixed effects. Afrobarometer from 2008, 2012, 2014, 2017, 2019, and 2021 are used. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance. The public service index combines the all of the indicator variables. Column 1 uses the 25th percentile of gender norms to define the affected group. Column 2 uses the 75th percentile. Column 3 uses an alternative question in the Afrobarometer survey to define the affected group. This question asks whether individuals agree that men and women should have equal rights. Columns 4 through 6 use the SWAPO vote share in each constituency from the 2010 local authority election to define the affected group. Column 7 aggregates the data to the electoral constituency level. Column 8 does not weight the observations.

**Table A.6 Average Views on Governance**

|                                                     | (1)<br>Local<br>Authority | (2)<br>National Assembly |
|-----------------------------------------------------|---------------------------|--------------------------|
| Panel A: Trust in Local Authority/National Assembly |                           |                          |
| Men                                                 | 0.440                     | 0.550                    |
| Women                                               | 0.443                     | 0.608                    |
| Panel B: Politician Responsiveness                  |                           |                          |
| Men                                                 | 0.525                     | 0.171                    |
| Women                                               | 0.457                     | 0.151                    |
| Panel C: Corruption                                 |                           |                          |
| Men                                                 | 0.321                     | 0.320                    |
| Women                                               | 0.280                     | 0.269                    |

Note: Each cell in Column 1 represents the average view of governance of the Local Authority or Local Authority councilors. Entries in Column 2 represent the average view of governance of the National Assembly or National Assembly member. Column 1 uses Afrobarometer from 1999, 2003, and 2006. Column 2 uses Afrobarometer from 2008, 2012, 2014, 2017, 2019, and 2021. Responsiveness is measured by politicians' perceived willingness to listen to constituents.

**Table A.7: Effect of Mandatory and Voluntary Quotas on Views of Governance (4 point scale)**

|                                                            | (1)            | (2)             |
|------------------------------------------------------------|----------------|-----------------|
|                                                            | Mandated Quota | Voluntary Quota |
| <b>Panel A: Trust in Local Authority/National Assembly</b> |                |                 |
| Men                                                        | -0.232         | -0.306**        |
|                                                            | (0.245)        | (0.150)         |
|                                                            | [0.569]        | [0.101]         |
| Women                                                      | 0.165          | -0.149          |
|                                                            | (0.338)        | (0.096)         |
|                                                            | [0.842]        | [0.184]         |
| <b>Panel B: Politician Responsiveness</b>                  |                |                 |
| Men                                                        | 0.058          | -0.032          |
|                                                            | (0.177)        | (0.070)         |
|                                                            | [0.838]        | [0.661]         |
| Women                                                      | 0.464          | -0.159          |
|                                                            | (0.540)        | (0.130)         |
|                                                            | [0.652]        | [0.264]         |
| <b>Panel C: Corruption</b>                                 |                |                 |
| Men                                                        | -0.988***      | 0.145           |
|                                                            | (0.277)        | (0.095)         |
|                                                            | [0.215]        | [0.206]         |
| Women                                                      | -1.144***      | 0.080           |
|                                                            | (0.253)        | (0.085)         |
|                                                            | [0.175]        | [0.404]         |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors clustered at the electoral constituency level are reported in parentheses. The outcome variables are a 4 point scale based on the Afrobarometer survey question. Each cell in Column 1 represents the coefficient from separate regressions of the dependent variable on the impact of the mandated quota. The dependent variable in Column 1 corresponds to the local authority in Panel A and politicians elected to the local authority in Panels B and C. Responsiveness is measured by politicians' perceived willingness to listen to constituents. Each cell in Column 2 represents the coefficient from separate regressions of the dependent variable on the impact of the voluntary quota. The dependent variable in Column 2 is the National Assembly in Panel A and National Assembly Politicians in Panels B and C. Every regression includes year and electoral constituency fixed effects and region-time fixed effects. Regressions in column 1 also control for the number of parties contesting each election. Column 1 uses Afrobarometer from 1999, 2003, and 2006. Column 2 uses Afrobarometer from 2008, 2012, 2014, 2017, 2019, and 2021.

## **A.5 Alternative Explanations**

The mandatory and voluntary gender quotas in Namibia have two additional differences that might be the reason for the difference in public goods provision. The first difference is the timing of the quotas. The voluntary quota was enacted almost 20 years after the mandatory quota. Additionally, the mandatory quota was implemented at the local level whereas the voluntary quota applied to the national legislature. These two differences could potentially explain the differences in public goods provision between the two quotas. I will discuss each of these differences below.

### **A.5.1 Differential Timing**

The mandatory gender quota was implemented for the 1998 local authority election, and the voluntary party quota was a SWAPO policy beginning for the 2015 National Assembly election. One key issue between these two quotas is the potential saturation of public goods. By 2014, Namibia may have reached saturation in public goods resulting in the null effect of the voluntary quota being mechanical due to already high levels of public goods provision. However, this is not the case. In 2014, there were still places in Namibia without access to each of the public goods. Piped water was available in 79% of towns, whereas police stations were only available in 12% of Namibia. Appendix Table A.8 shows that there were no significant differences in public goods provision between constituencies “affected” and “unaffected” by the voluntary quota, aside from piped water provision. There is not saturation in any of the public goods by 2014 (Appendix Table A.8) which would explain the null result in Table 3. While the higher provision of public goods may have caused the impact of the voluntary quota to be lower than the mandated quota, this would not explain the null result.

Differing levels of democracy in Namibia between 1995 and 2015 could explain the difference in public policy shifts resulting from each quota. Democracy not only promotes economic growth but also reinforces support for democracy (Acemoglu et al. 2019, 2025). Direct participation of citizens in democracies increases decisions made in line with citizen’s preferences and increases satisfaction with the democratic system (Nourani et al. 2021; Olken 2010). If the level of deliberative democracy decreased between the 1998 and 2015 elections, the change in the provision of public goods resulting from the voluntary gender quota would have been null or lower than that of the mandatory quota. Additionally, the visibility of public goods and political incentives change which and how many public goods are provided within democracies (Lizzeri and Persico 2001; Mani and Mukand 2007). Using data from the Varieties of Democracy, levels of democracy in Namibia have risen between 1990 and 2015 (Coppedge et al. 2025). Appendix Figure A.7 shows the level of democracy using two different democratic indices between 1990 and 2015. Electoral and liberal democracy is relatively constant between 1998 and 2014 and increases in

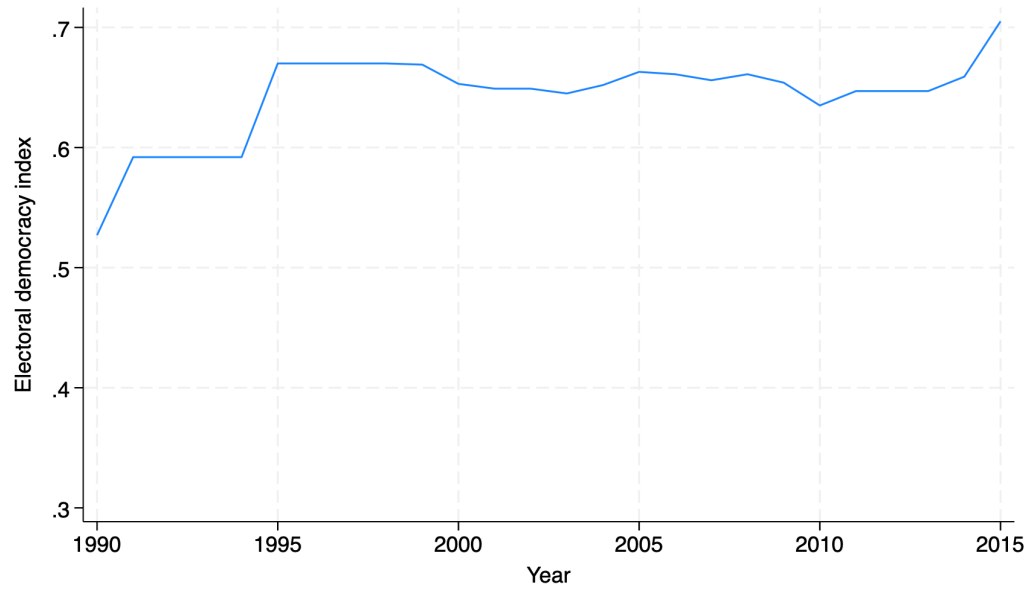
2015 (Appendix Figure A.7). Levels of democracy remain constant in the period between the two quotas. Therefore, differing levels of democracy cannot explain the difference in public goods provision resulting from the two quotas. Neither saturation of public goods nor democratic levels are explanations for differing results of the two quotas. Thus, the differential timing of the mandatory and voluntary gender quotas is not explaining the public goods results.

**Table A.8: Levels of Public Goods Provision in Voluntary Quota Pre-Period**

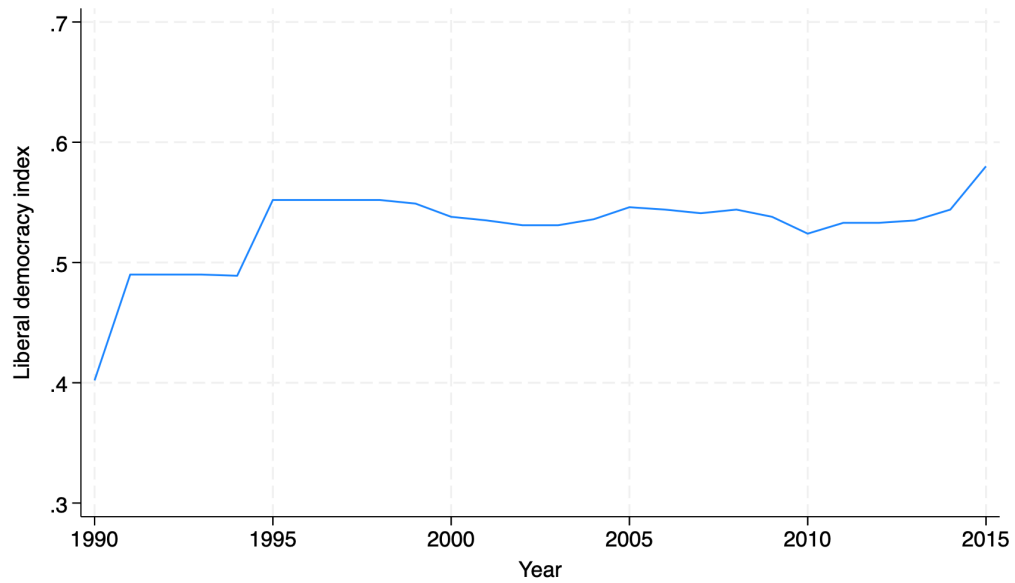
|                 | (1)<br>Affected | (2)<br>Unaffected | (3)<br>Difference<br>p-value |
|-----------------|-----------------|-------------------|------------------------------|
| Schools         | 0.500           | 0.408             | 0.2818                       |
| Health Clinics  | 0.265           | 0.211             | 0.4628                       |
| Paved Roads     | 0.515           | 0.423             | 0.2796                       |
| Piped Water     | 0.868           | 0.732             | 0.0473**                     |
| Sewage          | 0.603           | 0.577             | 0.7622                       |
| Post Offices    | 0.176           | 0.113             | 0.2874                       |
| Police Stations | 0.147           | 0.113             | 0.5495                       |

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The sample in column 1 consists of electoral constituencies classified as affected by the mandatory quota, and column 2 are constituencies unaffected by the mandatory quota. Column 3 displays the p-value of the difference between the means in columns 1 and 2. The 2012 and 2014 Afrobarometer surveys are used. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance.

**Figure A.7: Democracy Over Time in Namibia**



**Panel A: Electoral Democracy**



**Panel B: Liberal Democracy**

Notes: Varieties of Democracy (V-Dem) data from 1990 through 2015 is utilized.

### A.5.2 National versus Local Quota

Each quota was implemented at a different level of government. The mandatory quota was enacted for Local Authority councils while the voluntary quota was SWAPO's policy in the National Assembly. The levels of governance could explain the different results on public goods provision. Since women make up a smaller proportion of the National Assembly than Local Authority councils, women's voices may be diffused more in the National Assembly. Women not having as much sway in the National Assembly could explain why there was not much change in public goods provision resulting from the voluntary gender quota. To proxy for the diffusion of women's voices in governance, I divide Local Authorities into two categories and rerun the analysis of equation (1): Local Authorities with 10 or fewer seats (small) and Local Authorities with more than 10 seats (large). The large Local Authorities were required to have five women on each party list whereas the small councils only had to have three women on their lists. On average, 31.3% of seats on the large Local Authority councils were held by women compared to 37.9% of seats on the smaller councils. If women's voices are diffused, the large councils would see a smaller overall impact on public goods provision than the smaller councils.

Women's voices are not diffused in the large councils. For every additional woman elected to a large council, the provision of public goods increases by 0.06 standard deviations (Appendix Table A.9 Column 2) compared to 0.19 standard deviations for the small councils (Appendix Table A.9 Column 1). Large councils experience decreases in the provision of post offices and police stations, while small councils see increases resulting from the mandatory quota. The data is a repeated cross section, so the decrease in public goods means fewer post offices and police stations are being built in areas governed by the large councils. These areas were the ones experiencing higher levels of growth in the early 2000s. The increases may have been intended to keep pace with this growth, and the existing services such as police stations served a larger population. While the effects are different between large and small local authorities, the large councils did not see overall smaller effects than the small Local Authorities. For example, the large council effects on electricity, piped water, and sewage systems are larger than the effects for small councils. This suggests the potential diffusion of women's voices does not explain the difference in public good provision seen between the two quotas. Local Authorities may be more accountable which results in higher levels of public goods provision. To test this, I would analyze the effect of the quotas in towns located close to versus far from the location of the Local Authority council. Unfortunately due to data limitations, this is not possible to test.<sup>16</sup> Overall, the national versus local

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<sup>16</sup> GPS coordinates are only available in the 1999 Afrobarometer Survey data.

implementation does not explain the differences in the provision of public goods observed by the mandatory and voluntary gender quotas.

**Table A.9: Effect of the Mandatory Gender Quota  
in Large and Small Local Authorities**

|                          | (1)<br>Small Local<br>Authorities | (2)<br>Large Local<br>Authorities |
|--------------------------|-----------------------------------|-----------------------------------|
| Public Goods Index       | 2.121***<br>(0.447)<br>[0.179]    | 0.670***<br>(0.171)<br>[0.272]    |
| Schools                  | 0.782***<br>(0.076)<br>[0.153]    | -0.104<br>(0.224)<br>[0.638]      |
| Health Clinics           | 0.858***<br>(0.052)<br>[0.0690]   | -0.142<br>(0.353)<br>[0.703]      |
| Paved Roads              | 0.605***<br>(0.076)<br>[0.162]    | 0.046<br>(0.320)<br>[0.881]       |
| Electricity              | 0.643***<br>(0.211)<br>[0.180]    | 1.113***<br>(0.314)<br>[0.158]    |
| Piped Water              | 0.112<br>(0.356)<br>[0.833]       | 1.063***<br>(0.185)<br>[0.0731]   |
| Sewage                   | 0.617*<br>(0.311)<br>[0.179]      | 1.007***<br>(0.161)<br>[0.0750]   |
| Post Offices             | 0.576***<br>(0.100)<br>[0.177]    | -0.555***<br>(0.111)<br>[0.118]   |
| Police Stations          | 0.903***<br>(0.045)<br>[0.0635]   | -0.618***<br>(0.094)<br>[0.0693]  |
| Number of Observations   | 107                               | 59                                |
| Number of Constituencies | 29                                | 9                                 |

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Robust standard errors clustered at the electoral constituency level are reported in parentheses. The p-values associated with wild cluster bootstrapped standard errors are reported in brackets. Each cell represents the coefficient from separate regressions of the dependent variable on the impact of the mandated quota. Every regression includes year and electoral constituency fixed effects, region-time fixed effects, and controls for the number of parties contesting each election. Afrobarometer from 1999, 2003, and 2006 are used. For electricity, piped water, and sewage systems, the dependent variable is an indicator that equals one if the outcome is available to most homes in the village. For roads, the dependent variable is an indicator that equals one if there are paved roads in the village. For post offices, police stations, schools, and health clinics, the dependent variable is an indicator equal to one if the outcome is available in the town or within easy walking distance. The public service index combines the all of the indicator variables into a normalized index. Column 1 restricts the sample to Local Authorities with 10 seats or less. Column 2 restricts the sample to Local Authorities with more than 10 seats.