Gender Quotas and the Path to Power

Evidence from Italy

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Abstract

Gender quotas have been adopted around the world in an effort to expand the political representation of women. Though a large amount of research has focused on the design, implementation, and descriptive outcomes of quotas, too little is known about whether they also increase the number of women in political leadership positions, and if so, via which mechanisms and under which conditions. I exploit a quasi-natural experiment on the regional level in Italy, where constitutional reforms and court decisions in 2001 and 2003 opened the door for regions to individually adopt electoral gender quotas. Utilizing a new and unique data set, I employ a difference-in-differences design to investigate whether gender quotas increase women's political leadership, or whether women continue to be heavily underrepresented in political leadership positions on the regional level in Italy. This paper has important implications for the study of gender quotas, in particular their broader ramifications beyond descriptive representation in legislatures and the question of whether they can help bring women into positions of political power.

Keywords: Gender quotas, female leadership, Italy, regional politics

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Introduction

The implementation of gender quotas over the past 25 years has been one of the most important developments in transforming the diversity of the political landscape. Over 130 countries now have some form of gender quota (Franceschet, Krook, and Piscopo, 2012; O'Brien and Rickne, 2016) and the topic of gender diversity in politics has increasingly come into focus around the world. The rapid spread of quotas has instigated scholarly interest, particularly in their design and adoption (Franceschet, Krook, and Piscopo, 2012), the descriptive outcomes of such measures (Wängnerud, 2009), and their implications for substantive representation (Anzia and Berry, 2011; Wängnerud, 2009).

As countries continue to implement gender quotas, it is important to consider the full range of their potential effects. Research has yet to fully investigate the "secondary effects" of quotas; namely, the ramifications of bringing women into legislatures via gender quotas. This can include effects on substantive representation and the policy-making process, the types of women elected to public office, and the behavior of female legislators, both individually and as a group. Gender quotas are, after all, "...a simple answer to a very complex problem" (Franceschet, Krook, and Piscopo, 2012) and their longer-term effects are only now becoming apparent. It is important to look beyond the standard definition of descriptive representation, which is the most apparent and clearly identifiable metric of success for quotas, to examine potential subsidiary effects of gender quotas.

One of these "secondary effects" purported to stem from the implementation of gender quotas is a rise in the number of women holding political leadership positions. Scholars have increasingly examined the existence of an executive glass ceiling for women in politics (Davis, 1997; Reynolds, 1999), the conditions under which women are able to attain leadership positions in the executive branch (Escobar-Lemmon and Taylor-Robinson, 2016; Goddard, 2019; Krook and O'Brien, 2012; Reynolds, 1999), and the changing nature of the leadership positions that women hold (Barnes and O'Brien, 2018; Krook and O'Brien, 2012). Studying the presence of women in political leader-

ship positions is key, since female political leaders can be both of symbolic and substantive importance in advancing the interests of women (Krook and O'Brien, 2012).

Despite this scholarly focus on women at the elite levels of political leadership, one key question has not been completely explored in the research: do political gender quotas also increase the number of women in leadership positions? It stands to reason that, as the number of women in a legislature increases over time, so do their chances of attaining leadership positions in both the legislative and executive branches. Research has suggested that gender quotas can help women gain access to leadership positions (Dahlerup, 2006; Kittilson, 2006; O'Brien and Rickne, 2016), however it has not fully analyzed the range of situations and explanations for why legislative quotas should specifically have an impact on leadership positions and under which conditions this should occur. On the other hand, some scholars have found evidence of a "backlash" against women in the wake of quota adoption that might prevent them from advancing their careers to the leadership level (Barnes, 2016). The few studies that have explicitly examined the connection between quotas and women in leadership have found effects on the Swedish municipal level (O'Brien and Rickne, 2016) and on legislative leadership positions in Mexico, although not on executive leadership positions (Kerevel, 2019). We know very little, however, about the robustness of this connection between quotas and leadership positions, whether it holds across time and countries, and when and under which conditions women are or are not able to parlay gains in the legislature via quotas into advances in holding leadership positions.

This study aims to examine these questions in the context of the Italian subnational level. The influence of quotas on women's attainment of political leadership positions is difficult to causally ascertain, given that the majority of gender quotas were implemented at the same time on various governmental levels within the same country and that cross-country comparisons of the causal effects of gender quotas are complicated due to varying national cultures, contexts, and political systems. I therefore exploit a quasi-natural experiment on the regional level in Italy to examine the effects of gender quotas on the number of women in political leadership positions. A constitutional change in 2001 opened the door to measures (i.e., quotas) that would improve gender diversity in politics. This was followed by laws in 2004 and 2012 that gave further remit to implement some form of quotas, until a 2016 law outlined specific quota measures the regions should adopt (although three regions, Piedmont, Liguria, and Calabria, still have yet to implement any form of gender quota) (Openpolis, 2018). Since Italy's regions adopted gender quotas at different times, I can leverage this temporal and geographic distribution within one country in a causal research design to determine whether the quotas had an effect on women in political leadership positions.

With this study I intend to explore whether a quota has ramifications beyond descriptive representation, namely on women's attainment of political leadership positions. If a quota does have positive subsidiary effects, that will provide an argument for the continuation and expansion of gender quotas. On the other hand, if gender quotas have no appreciable effect on women in leadership positions, this raises the question of whether more targeted measures are necessary to break down the barriers specifically preventing women from attaining leadership positions.

Previous Research on Gender Quotas and Leadership

The term "gender quotas" is a general description of a complex policy intervention with the aim of increasing the number of women present in an organization. Quotas are most visibly present in politics and in private companies, where gender equality measures adopted by countries around the world mandate the inclusion of women in high-profile positions, from legislatures to corporate boards (Krook and O'Brien, 2010). The number of countries with some form of a gender quota has exploded over the past 25 years, and over 130 countries now have a gender quota (Hughes, Paxton, and Krook, 2017). This development has sparked a wave of academic interest in gender quotas, particularly in their design, implementation, and descriptive outcomes. I am interested in the effect of gender quotas on women's political leadership, specifically in executive-level leadership, which will be the focus of this section.

Women in Cabinets

Women make up a minority share of cabinet ministers across the world, with only 21% representation in national cabinets in 2019, but this is an improvement compared to 11% in 2003 and 16% in 2016 (Paxton, Hughes, and Barnes, 2020). These numbers mask significant regional variation; although European countries generally lead the way in terms of female cabinet representation, there are also great disparities between individual countries.

The increase in women's political representation and general focus on the topic of gender equality has, over time, led to an understanding in many countries that a cabinet without female representation is politically untenable. Escobar-Lemmon and Taylor-Robinson (2016) and Annesley, Beckwith, and Franceschet (2019) find that this idea of the "women's seat" has widely appeared in both presidential and parliamentary systems. Annesley, Beckwith, and Franceschet (2019) additionally identify a concept they call the "concrete floor," in which countries that reach a certain threshold of women (30%, for example) rarely have fewer women in future cabinets, even when a different political party takes over the government.

Another common finding in the literature on women in cabinets is that they often receive the lower-prestige, "feminine" portfolios (Barnes and O'Brien, 2018; Escobar-Lemmon and Taylor-Robinson, 2016; Krook and O'Brien, 2012). Barnes and O'Brien (2018) find that more women tend to be appointed to the position of defense minister when the remit of the position becomes less masculine and shifts more towards activities such as peacekeeping. Although women have made progress in attaining typically masculine, "high-prestige" posts such as defense, finance, and foreign affairs, particularly in Western European countries, there is still some ways to go until such appointments become commonplace (Paxton, Hughes, and Barnes, 2020).

Gender Quotas and Political Leadership

One of the purported "secondary effects" of gender quotas is that they may help more women access political leadership positions by altering the supply and demand dynamics surrounding the leadership selection process (Dahlerup, 2006; Kittilson, 2006; O'Brien and Rickne, 2016). Previous studies have found that an increased number of women in a legislature positively correlates with more women in cabinet posts (Barnes and O'Brien, 2018; Davis, 1997; Escobar-Lemmon and Taylor-Robinson, 2005; Escobar-Lemmon and Taylor-Robinson, 2009; Escobar-Lemmon and Taylor-Robinson, 2016; Goddard, 2019), the executive (Jalalzai, 2004; Jalalzai and Krook, 2010; Jalalzai, 2016), and party leadership positions (Kittilson, 2006). This "acceleration effect" of quotas potentially bringing more women into leadership positions could change the supply and demand for leaders. On the supply side, a quota brings an influx of women into a legislature who also will eventually aim for leadership posts. This increasing number of women could create pressure to also see similar representation in leadership positions. On the demand side, quotas may alter the demand calculations of the political elites who make decisions on leadership positions if they feel the need to reflect the diversity achieved through the quota in other areas as well. On the other hand, studies have found that quotas sometimes instigate a backlash effect that makes it less likely that women gain leadership positions after a quota (Barnes, 2016).

Two studies have specifically looked at the influence of quotas on the number of women in leadership, one on the party level in Sweden (O'Brien and Rickne, 2016) and the other on the executive and legislative level in Mexico (Kerevel, 2019). O'Brien and Rickne (2016) found that while quotas helped women attain leadership positions in Swedish municipalities, particularly those with a lower level of women prior to the imposition of the quota, the quota did not have an effect on the ability of women in leadership posts to retain their position when going up for reelection. Kerevel (2019) came to the conclusion that quotas are of some help to women in obtaining legislative leadership positions, however for executive positions the glass ceiling is still firmly in place. The two studies explicitly examining this question, then, have found that quotas can in some situations provide a limited "acceleration effect" for women in political leadership positions.

Quotas in Italy

There is a strand of literature in both political science and economics that looks at the Italian case, primarily the effects of the short-lived implementation of a gender quota from 1993 to 1995. Several studies have looked at the effects of gender quotas in Italy on the individual qualifications of politicians, with Weeks and Baldez (2015) and Baltrunaite et al. (2014) finding that quotas have a positive effect on the quality of legislators. The random assignment of municipalities using gender quotas in their elections between 1993 and 1995 was used by De Paola, Scoppa, and Lombardo (2010) to find that electoral participation declined less in municipalities with a quota than those without, and by Braga and Scervini (2017) to find that municipalities that benefited from the gender quotas had more effective policies targeting women and families and more efficient municipal administrations. In their study of Italian regional elections, Bonomi, Brosio, and Di Tommaso (2013) discovered that the implementation of a quota led to a significant increase in the probability that voters express preferences for female candidates, however women are still at a disadvantage vis-a-vis men and voters in Italy have a male bias. Lastly, Pansardi and Vercesi (2017) confirmed the role of Italian political parties as crucial gatekeepers in their study of parliamentary committees, finding that women are more likely to be appointed to "feminine" and less-prestigious committees and that, while left-wing parties are more gender equal than their right-wing counterparts, this bias continues to persist for women in Italy's parliament.

Theoretical Framework

Do gender quotas help elevate women to political leadership positions? I posit that the answer is yes, and in the following section provide an outline of my broader theoretical framework.

Do we see an effect of gender quotas on women's political leadership?

Research has shown a correlation between increasing numbers of women in legislatures and the number of women holding cabinet posts (Barnes and O'Brien, 2018; Davis, 1997; Escobar-Lemmon and Taylor-Robinson, 2016; Goddard, 2019; Krook and O'Brien, 2012). As outlined in the previous section, increasing the number of women in the legislature can potentially change the supply and demand structure for political leaders. The supply of potential future leaders increases as more women enter the legislature and establish political careers, and the influx of women can change the demand calculations of party elites who decide on the allocation of leadership positions if they feel pressure to pay attention to gender diversity in executive-level appointments. One key aspect is the effectiveness of the gender quota: if a quota is not effective (whether intentionally by design or not), the women who would potentially fill future leadership posts will not be present in numbers to change supply and demand calculations. In such a case, mixed or no effect for increased numbers of women in leadership positions may result.

Why should we see and effect of gender quotas on women's political leadership?

I posit that both macro- and micro-level factors affect the appointment of women to executive-level leadership positions in the presence of a quota. Political and party elites are the individuals who generally make executive-level appointment decisions. On the macro level, they face both internal and external pressures in the presence of an effective gender quota. Internally, an effective quota ensures that more women sit in the legislature, thus creating internal pressure, particularly if the female parliamentarians have an organized women's caucus that can push for changes and concessions within individual parties. In this case, party elites should be responsive to the increase in women in the legislature and in their own parties as the result of the quota.

Elites also face external pressures as a result of a gender quota. For example, if they implemented a quota to respond to changing cultural or socioeconomic realities, they may feel the need to demonstrate gender equality not just in the legislature via the quota, but also in the highly visible executive-level leadership positions of the cabinet. This external pressure may be spurred by party competition, for example if another political party makes a pledge that they would fill executive leadership positions in accordance with gender parity, and may also be spurred by fears of losing female voters at the next election if the party is not seen as gender progressive or consistent in its values (if, for example, a quota was in place but a completely male cabinet resulted). In this case, party elites should be responsive to the effects of the existence of the quota, not just to the increase in female legislators.

Finally, micro-level factors also affect the appointment of women to cabinet positions, specifically the role of individual qualifications and experience in the allocation of such posts. Annesley, Beckwith, and Franceschet (2019) found that experience, along with representational criteria and political networks, was one of the three major aspects influencing cabinet appointments. Thus education, previous political and professional experience, and party ties are all areas that should be considered when examining women's ascension to cabinet level posts. The formal and informal rules of appointment in the respective political system are also key considerations.

When should we see an effect of gender quotas on women's political leadership?

As mentioned previously, I expect to see effects on women's political leadership in contexts with effective gender quotas, since this enhances the stakes for party elites concerning future executive-level appointments. I also expect to see an effect when a more left-leaning party is the formateur or when the party forming the government is facing political competition from other parties on the topic of gender quotas. Additionally, I can envision two different versions of time effects for the connection between gender quotas and women in executive leadership. If the effect is immediate, I expect that this speaks for the external macro-level pressures facing party elites, and the beneficiaries will primarily be women already in politics (who were first elected without the gender quota), given that they will have the requisite experience compared to new female parliamentarians. If the effects take longer to appear, this should speak for the internal macro-level effects of having more women in the legislature who develop their political careers and eventually are in a position to take on influential posts. I also expect to see women receive more prestigious/masculine portfolios as they gain additional political experience, particularly in comparison to their male colleagues.

Where should we see an effect of gender quotas on women's political leadership?

I expect to see geographical and, at the sub-national level, regional variation in the effect of gender quotas on women's political leadership. In the Italian case, I assume that more women will be represented in the northern regions vs. the southern regions, and also more in regional governments led by left-wing parties than rightwing parties. Although the literature on the effects of quotas on sub-national levels is mixed (Paxton, Hughes, and Barnes, 2020), I expect to see effects at the regional level in Italy due to the nature of the quotas that were implemented/are currently in place.

Who should benefit from the effect of gender quotas on women's political leadership?

The answer to this question depends on the political context, formal and informal selection criteria, and who is considered "qualified" for cabinet-level posts. In situations where an increase of women in the cabinet is visible directly after the implementation of a quota, I assume that women previously elected (not via the quota) will benefit in this case because they will have the requisite political experience to take over such a role, whereas freshly elected female legislators will first need to prove themselves before being considered for such posts in the future. I also expect that women may have to be more or less qualified depending on the position and whether it is considered high/low prestige or masculine/feminine.

Specific Theoretical Expectations for the Effect of Quotas on the Regional Level in Italy

For the analysis in this paper, specifically on whether quotas have an effect on the number of women in leadership positions at the regional level in Italy, I formulate the following hypotheses:

HYPOTHESIS 1: Gender quotas lead to an increase in women appointed to cabinet-level leadership positions in Italian regional governments.

HYPOTHESIS 2: The positive effect of quotas on women in cabinet-level leadership positions in Italian regional governments are especially marked over time, as the quotas are in place longer and the quota measures are sometimes enhanced.

The Italian Case

The Italian case is particularly well-suited to analyzing the causal effects of gender quotas on women in leadership positions since quotas were not implemented across all political levels at the same time. Italy also implemented legislated quotas, which apply to all parties in the political system once they are brought into force. Studying legislated quotas helps reduce the endogeneity problems inherent in voluntary quota systems, since the quotas apply to all parties. Only one Italian party, the PD, has implemented a voluntary party quota in addition to the legislated quota.

Background

Italy had a short-lived experiment with gender quotas in the 1990s. Quotas were used for the national Chamber of Deputies in the 1994 election, as well as for the 1995 regional elections, municipal elections between 1993 and 1995, and the 1999 European Parliament elections (Openpolis, 2018; Palici di Suni, 2012). The quotas were declared unconstitutional and repealed, but started to return following the constitutional amendments and court decisions at the beginning of the 2000s. They are now in force for the local level (since 2012), the regional level (years of implementation vary), the national level (since 2017¹), and the European level (since 2004).

Italy's gender quota in the 1990s were made possible by the political upheaval at the time in Italy. Now referred to as *Tangentopoli*, the period from 1992 to 1994 brought down Italy's government, destroyed the existing party system, and landed many highlevel politicians in prison for corruption and mafia involvement. Starting in 1992, the

¹There is once again debate on repealing the national quota for the next election

Mani Pulite ("Clean Hands") trials exposed the web of collusion between politics, business, and organized crime. The ensuing political turmoil was so enormous that Italian politics was essentially reinvented in 1994 with new parties and electoral laws. The social impact of *Tangentopoli* helped spur a push for a fairer and more equitable political system that also included more women. Thus gender quotas were implemented for the first time in Italy, but they were shortlived and declared unconstitutional in 1995.

Gender quotas didn't reappear in Italy until the early 2000s, when a court decision and constitutional amendment opened the door for Italy's regions to implement rules to "promote" the participation of more women in politics. Four regions brought in list quotas for the 2005 regional elections, but the issue grabbed attention when Campania implemented the first double preference law in 2009 (first used in the 2010 election). Campania was sued by the federal government but won in court, which paved the way for further regions to implement similar rules. In 2012, the federal government issued a non-binding "recommendation" that the regions bring in some sort of gender quota and provided three acceptable forms (list quotas, double preference, and alternating lists). A national law was eventually passed in 2016 mandating that the regions implement at least one of the quotas, but three regions still have no quota (in some cases, a regional quota law was narrowly defeated by the regional parliament or there was political conflict over the form and details of a quota). Other regions are debating increasing their quota rules or adding additional forms of gender quotas.

Although there was clearly policy diffusion between the regions as they implemented various quotas and copied one another, there is no discernible north/south divide in terms of implementing quotas (the impact of the quotas, on the other hand, varies both within and between regions). Two of the three regions without any form of quota are in northern Italy (Piedmont and Liguria), while one is in southern Italy (Calabria).

Quota Types and Implementation

On the regional level three different types of measures are in effect (Table 1). These are list quotas (the loosest form, specifies that a certain percentage of the list must be made up of women but often does not include specific placement rules), double preference (voters can express two candidate preferences instead of just one if the two candidates are of different genders), and alternating lists (specifies that electoral lists must alternate men and women). The Italian regions use a mixture of these three different measures: some use only one, such as the list quota, while others use them in combination (Table 2).

Type of Quota	Description
List percentage quota	On candidate lists, the number of candidates (in percent) of a specific gender cannot be less than a given quota
Double preference	Voters can express a double preference as long as the second preference is a different gender from the first preference
Alternating lists	Electoral lists must be completed by alternating men and women on the list

Table 1: Types of Diversity Measures Used in Italian Regions

Italian regions use an open-list proportional representation system, which has important consequences for gender quotas. Given the open list system, the list quotas are generally considered to be the most ineffective of the three quota types since the political parties in most regions tend to bury the required women at the bottom of the list. The double preference and alternating list options have proven more successful, although in comparison to a closed list proportional representation system the quotas are certainly less effective, since the voters still ultimately choose who is elected to the regional parliaments.

Region	Year Passed	Year Implemented	Double Preference	Alternating Lists	List Quotas
Abruzzo	2013, 2018	2014, 2019	Yes (2018)		60% (2013)
Basilicata	2018	2019	Yes (2018)		60% (2018)
Calabria	None	None	None	None	None
Campania	2009	2010	Yes (2009)		2/3 max/gender (2009)
Emilia-Romagna	2014	2014	Yes (2014)		50% +1 (2014)
Lazio	2005, 2017	2005, 2018	Yes (2017)		50% (2017) 2/3 provincial lists and 50% regional lists (2005)
Liguria	None	None	None	None	None
Lombardy	2012, 2017	2013, 2018	Yes (2017)	Yes (2012)	60% max/gender (2017)
Marche	2004, 2019	2005, 2020	Yes (2019)		2/3 max/gender (2004) 60% max/gender (2019)
Molise	2017	2018	Yes (2017)		60% max/gender (2017)
Piedmont	None	None	None	None	None
Puglia	2005, 2015	2005, 2015			2/3 max/gender (2005) 60% max/gender (2015)
Tuscany	2004, 2014	2005, 2015	Yes (2014)	Yes (2014)	2/3 max/gender (2004-2014)
Umbria	2010, 2015	2010, 2015	Yes (2015)		2/3 max/gender (2010) 60% max/gender (2015)
Veneto	2012, 2018	2015, 2020	Yes (2018)	Yes (2012)	50% +1 (2012)

Table 2: Diversity Measures Implemented in Italian Regions

Regional Electoral Laws

Since 2000, the president of each region has been directly elected by the voters (previously the president was voted on by the regional parliament). The president chooses the members of the *giunta regionale*, or regional cabinet. As outlined in the Data section below, the regions vary slightly on who is eligible to be included in the regional cabinet. In some regions, only sitting parliamentarians can be chosen, while in others a mix of parliamentarians and external "non-elected" individuals can be chosen

for the regional cabinet. Some regions also stipulate that regional cabinet members must give up their seat in parliament if they were elected, while others allow them to serve in both the cabinet and the parliament simultaneously. The size of both the regional cabinet and the parliament is regulated by the relevant electoral law in each region.

The electoral rules in the regions also vary slightly, but not fundamentally. In 1995 a new electoral law, the *Tatarellum*, was implemented on the national as well as the regional level. The *Tatarellum* was altered in 1999 to allow for the direct election of the regional president, and from 1999 onwards the regions also had more freedom to make small changes to their electoral systems. The main changes that most regions have made are to change the thresholds for inclusion the parliament and eliminate the "blocked list," which was a feature of the *Tatarellum* that allowed the presidential candidate to form a list of his own candidates for parliament who were automatically elected to the parliament in case the candidate won.

National laws were also brought in starting in 2011 to cap the size of the regional parliaments and regional cabinets, which led to many regions implementing new versions of the electoral law to reduce the number of seats in the parliament (the positions on the regional cabinet were usually reduced by a commensurate amount in proportion to the parliament). Often several aspects were changed at the same time in one law: reducing the size of the parliament and cabinet, eliminating the "blocked list" or making other small changes to the electoral system, and implementing gender quotas. Gender quotas are regulated only via the electoral laws of each region in Italy, so in order for a gender quota to come into place the electoral law of a region has to be changed.

The timing of elections also varies between the regions. Elections in all regions were held every five years on the same day nationwide through the 2000 elections. In 2001, the first region broke with this pattern when Molise held a snap election due to vote irregularities in the 2000 election. After that, several other regions experienced political scandals that triggered no-confidence votes in the parliaments and the res-

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ignation or removal of the president, leading to many snap elections over the years. These developments ensured that the previously coordinated regional elections are now staggered across years, although they remain closely clustered (Table 3).

Year	Regional Elections	Number of Elections
2000	All 15 regions	15
2001	Molise	1
2002	-	0
2003	-	0
2004	-	0
2005	Abruzzo, Basilicata, Calabria, Campania, Emilia-Romagna,	14
	Lazio, Liguria, Lombardy, Marche, Piedmont,	
	Puglia, Tuscany, Umbria, Veneto	
2006	Molise	1
2007	-	0
2008	Abruzzo	1
2009	-	0
2010	Basilicata, Calabria, Campania, Emilia-Romagna, Lazio, Liguria,	13
	Lombardy, Marche, Piedmont, Puglia, Tuscany, Umbria, Veneto	
2011	Molise	1
2012	-	0
2013	Basilicata, Lombardy, Molise, Lazio	4
2014	Abruzzo, Calabria, Emilia-Romagna, Piedmont	4
2015	Campania, Liguria, Marche, Puglia, Tuscany, Umbria, Veneto	7
2016	-	0
2017	-	0
2018	Lazio, Lombardy, Molise	3
2019	Abruzzo, Basilicata, Piedmont, Umbria	4
2020	Emilia-Romagna, Calabria, Campania, Liguria	8
	Marche, Puglia, Tuscany, Veneto	

Table 3: Regional Elections in Italy, 2000-2020

Data

I collected data from a variety of sources for the empirical analysis. The primary source was the administrative records of regional and local politicians from the Italian Interior Ministry. This registry, also known by its Italian acronym AALR, provides data going back to the mid-1980s on all individuals elected to regional parliaments and municipal councils.² The data are collated and published on December 31st each year (for this iteration of the paper I use data up to the end of 2018, but I also have the

²Data going back to 1946 exist but has not been digitized

data for 2019 and 2020). The data include standard demographic details for each individual, such as name, gender, place and date of birth, education level (degree/title), previous profession, their elected role, and (in most cases) leadership roles such as the president of the parliament. General information about the regions and municipalities is also listed, such as identification codes and the sizes of the regional parliament and cabinet (or the local council and executive for municipalities). I hand-checked all of the AALR data against other national and regional sources in order to ensure its accuracy. I supplemented the AALR data with data from the Italian national statistics office (ISTAT), which includes population totals for regions and municipalities, geographical information, as well as employment statistics.

From these data I created a panel data set for the 15 regions from 2000 to 2018. As previously mentioned, my data begin in 2000 since all regions held an election in that year, and it was the first election without a gender quota following the 1995 regional elections (which were held with a quota for the first time). Extending the data to before 1995 would present problems given the political upheaval of the early 1990s and would not be comparable to the post-1994 political period in Italy. The first post-2000 gender quotas on the regional level were brought in for the 2005 elections, however these were all of the less-effective list percentage requirement variety. I also focus only on the 15 "ordinary statute" regions since the other five "special statute" regions (Aosta Valley, Friuli-Venezia Giulia, Trentino-South Tyrol, Sardinia, and Sicily) have a different constitutional status and administrative relationship with the federal government.

I gathered the quota data from a variety of official sources on the national and regional levels. All information was checked against the relevant official national and regional laws. For the purpose of the analysis in this draft, I split the regions into two groups: those included in "all quotas" (all regions that had a quota, even just a list percentage quota, implemented starting in 2005), and those included in "select quotas" (regions with a double preference or alternating lists quota, implemented starting in 2010). Basilicata was left out of both groups since its quota was only implemented in

the 2019 election and my data currently end in 2018, and the same is true of Abruzzo for the "selected quotas" group.

Included in "All Quotas"	Included in "Selected Quotas"		
Abruzzo	Campania		
Campania	Emilia-Romagna		
Emilia-Romagna	Lazio		
Lazio	Lombardy		
Lombardy	Molise		
Marche	Tuscany		
Molise	Umbria		
Puglia	Veneto		
Tuscany			
Umbria			
Veneto			

Table 4: Regions Included in Quota Treatment Groups

My dependent variable is the number and percentage of women in executive leadership positions, which in this case refers to the executive cabinet (*giunta regionale*). The regional cabinets include the president of the region and a mix of individuals who were either elected to the regional parliament or brought in "externally" (i.e., they do not have to be elected to the parliament but are usually still politically connected or have specific expertise in their portfolio area). Some regions, for example, only allow elected parliamentarians to be appointed to the cabinet but have different rules about whether they can retain their seat in the parliament or not, and others also allow external experts to be appointed to the cabinet. Four of the regions have "undersecretary to the president" positions, which are also appointed, however I will not include these positions in order to retain comparability between the regional cabinets.

Research Design

I use the following estimation estimation strategy for my difference-in-differences design:

$$y_{it} = \alpha + \beta_{it} quot a_{it} + \delta_i + \delta_t + \epsilon_{it} \tag{1}$$

The outcome variable of interest $y_i t$ is the share of women in cabinet in region i in year t. I am mainly interested in the estimated coefficient of the explanatory variable $quota_{it}$, which indicates whether a region i has implemented a quota for women in year t. Addressing potentially heterogeneous treatment effects, I estimate the effects of the quota individually for different quota types and years. By including region and time fixed-effects, I control for state-specific characteristics and common time trends. The standard errors are clustered at the regional level.

Preliminary Results

Women's political representation in Italian regions has improved significantly in the past 20 years. Figure 1 shows the aggregate number of women in Italy's regional parliaments and regional cabinets from 2000 to 2018. The effect on the percentage of women in cabinets is particularly clear in years when several regions held elections (2005, 2010, and 2015) and dramatically climbs starting in 2010, when the first of the "more effective" quota measures came into effect.

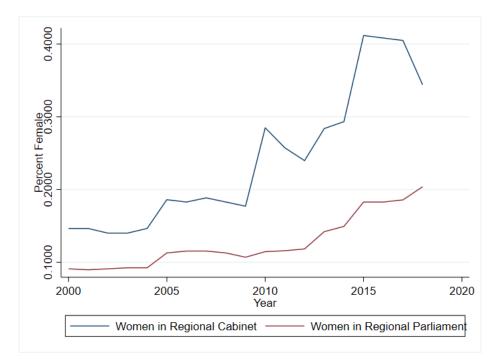


Figure 1: Women in Italian Regional Cabinets and Parliaments, 2000-2018 (Aggregate)

Figures 3 and 4 show the difference in female participation in the parliament

and cabinet between regions with and without quotas. Figure 2 looks at the "selected quotas" group, while figure 3 demonstrates the difference between all regions that had quotas and those that did not. Particularly interesting is the apparent spillover effect on cabinets in regions without a quota. It is, of course, possible that this effect was triggered by some factor other than the quotas, which I will have to examine in further analysis.

For the preliminary results presented here I estimated four staggered differencein-differences models. I first split the regions with quotas into two groups: all regions that implemented a quota (starting with the 2005 election) and the regions that implemented a double preference or alternating lists quota (starting with the 2010 election)(Table 4). Regions were coded as treated starting in the year they implemented a quota (the first election in which the quota came into effect). The counterpart to each group was the regions that had not implemented a quota (the all quotas group) and the regions that had not implemented a double preference or alternating lists quota (the selected quotas group).

I estimated two models for each group: one with the percentage of women in the regional cabinet and one with the number of women in the regional cabinet. Since some regional cabinets are quite small, even the presence of one additional woman can have a large impact on the percentage of women appointed to the cabinet.

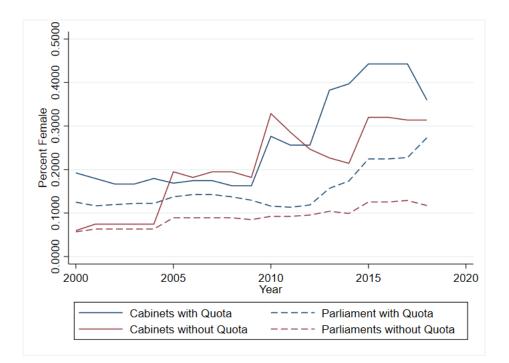


Figure 2: Women in Italian Regional Cabinets and Parliaments, Selected Quotas

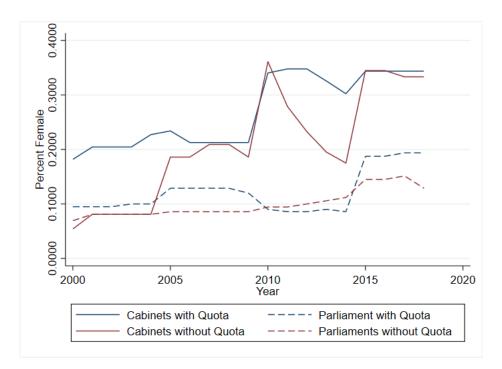


Figure 3: Women in Italian Regional Cabinets and Parliaments, All Quotas

The results of the difference-in-differences analyses are presented in Table 5. All models were estimated with fixed effects and clustered standard errors. The results show that quotas only had a significant effect on women in regional cabinets starting around 2013 and 2014, but the effect is most clear from 2015 onward (all 15 regions

	(1)	(2)	(3)	(4)
	% Women Cabinet	Number Women Cabinet	% Women Cabinet	Number Women Cabinet
	Selected Quotas	Selected Quotas	All Quotas	All Quotas
0.quotaselect	0 (.)	0 (.)	~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
1.quotaselect	0.0110 (0.0819)	0.476 (1.163)		
2000	0	0	0	0
	(.)	(.)	(.)	(.)
2001	-0.0111	-5.59e-15	-0.0111	-4.84e-15
	(0.0251)	(0.175)	(0.0251)	(0.175)
2002	-0.0167	-0.0667	-0.0167	-0.0667
	(0.0255)	(0.188)	(0.0255)	(0.188)
2003	-0.0167	-0.0667	-0.0167	-0.0667
	(0.0255)	(0.188)	(0.0255)	(0.188)
2004	-0.00833	-5.58e-15	-0.00833	-4.92e-15
	(0.0273)	(0.202)	(0.0273)	(0.202)
2005	0.0162 (0.0493)	0.600 (0.542)	0.0130 (0.0487)	0.431 (0.523)
2006	0.0189 (0.0439)	0.600 (0.493)	0.0156 (0.0435)	0.431 (0.488)
2007	0.0237 (0.0462)	0.667 (0.531)	0.0204 (0.0458)	0.498 (0.530)
2008	0.0195	0.600	0.0162	0.431
	(0.0470)	(0.552)	(0.0474)	(0.567)
2009	0.0147 (0.0447)	0.533 (0.514)	0.0114 (0.0451)	0.365 (0.528)
2010	0.121	1.435	0.117	1.214
	(0.0604)	(0.693)	(0.0585)	(0.644)
2011	0.110	1.368	0.105	1.147
	(0.0582)	(0.678)	(0.0566)	(0.624)
2012	0.0863	1.168 (0.673)	0.0821 (0.0513)	0.947 (0.607)
2013	0.118	1.337*	0.114*	1.105*
	(0.0562)	(0.561)	(0.0519)	(0.417)
2014	0.126*	1.305*	0.120*	1.021*
	(0.0545)	(0.498)	(0.0543)	(0.401)
2015	0.225** (0.0701)	1.543* (0.598)	0.221** (0.0724)	1.312* (0.564)
2016	0.219**	1.543*	0.215**	1.312*
	(0.0675)	(0.598)	(0.0702)	(0.564)
2017	0.216**	1.543*	0.212**	1.312*
	(0.0675)	(0.598)	(0.0700)	(0.564)
2018	0.171*	1.080	0.167*	0.870
	(0.0660)	(0.621)	(0.0708)	(0.629)
0.quotaall	· · · · /	× ,	0 (.)	0 (.)
1.quotaall			0.0123 (0.0612)	0.632 (0.847)
_cons	0.156***	1.533**	0.156***	1.533**
	(0.0363)	(0.380)	(0.0362)	(0.376)
N	285	285	285	285
adj. R ²	0.328	0.172	0.328	0.183

Table 5: Difference-in-Differences Estimates

Standard errors in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001

held elections in the 2013-2015 period). This is graphically depicted in Figures 4-7.

While these results are highly preliminary and I am working on expanding the analysis, they indicate that quotas could have at least a slightly positive effect on female presence in Italy's regional cabinets.

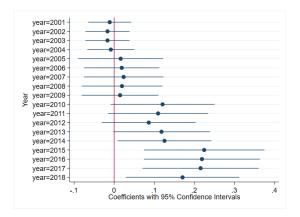


Figure 4: Percent Women in Cabinet, Selected Quotas

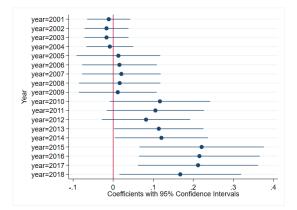


Figure 6: Percent Women in Cabinet, All Quotas

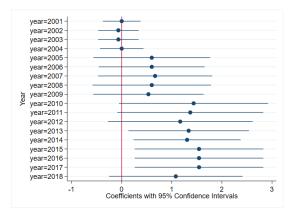


Figure 5: Number Women in Cabinet, Selected Quotas

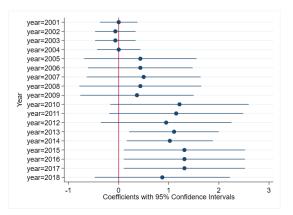


Figure 7: Number Women in Cabinet, All Quotas

Conclusion

Gender quotas have undoubtedly reshaped the political landscape over the past 25 years. Beyond their impact on descriptive representation, however, it is also important to look at their effect on other factors, such as individual- and group-level behavior, the types of women elected to public office, substantive representation and the policymaking process, and the number of women in leadership positions. The

last point, in particular, warrants further attention. The literature generally holds that quotas should lead to a subsequent increase in the number of women in leadership positions, however heterogeneity in the number of female leaders in countries with quotas demonstrates that this effect is not guaranteed. We do not yet know whether this supposed link holds across countries and time. My research thus focuses on the question of whether there is a link between quotas and women in leadership positions, and if so, under what conditions do we see an effect and what are the mechanisms at work?

In order to answer this question, I exploited a quasi-natural experiment on the regional level in Italy and utilized methods of causal inference with a difference-indifference design to examine whether, under which conditions, and via which mechanisms gender quotas lead to more women attaining political leadership positions. My preliminary results indicate that gender quotas in Italian regions have had at least a small effect on the number of women appointed to the regional cabinets, but these effects came two election cycles after the first quotas were introduced and are likely driven by the more effective quotas that primarily came into effect during the election cycle with the largest gains (2013-2015).

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