**The need to adjust the 50/50 gender balance rule to changing population shares of women and men:**

**Natural and Induced Deviations in Sex Ratios and Implications for Gender Equality Policies**

**Authors:** Henrik S., Thomas S., Vegard S. (author ordering tbd)

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**Keywords:** Sex ratio at birth (SRB), gender parity, political representation, demographic equity, sex-selective practices

**Abstract Word Count:**

Add (From HS): “Implications for gender equality statistics: I am currently missing the implication for gender equality statistics. Most often the number of men and number of women in tertiary education are reported indicating a female surplus. Accounting for population structure, the gender inequalities are reinforced. On the other side, the male advantage in terms of company board memberships attenuates when accounting for populations structure.”

* WE SHOULD INCLUDE SRs by three (?) age groups (“student”, “worker”, “leader”) for major countries where they deviate (or will deviate) from the 50/50% distribution the most in 2025, 2050? Possibly also by tertiary and minimal education? Should we include SRs of women in men in reproductive ages here?

**The rationale behind gender quotas**

A gender quota is a mandated policy requiring minimum representation of one gender—historically women—in leadership, politics, or hiring to counter systemic discrimination in male-dominated sectors like corporate boards and STEM, aiming not for strict 50-50 parity but to dismantle barriers and promote diverse decision-making (Dahlerup, 2013). Originating from feminist advocacy in the 1970s, they address historical exclusion, with quotas boosting women's parliamentary seats in Sweden (46%), leading to gender-sensitive policies (Goryunova & Madsen, 2024). Quotas could reduce biases and wage gaps but risk tokenism if poorly enforced. Where men are underrepresented—e.g., nursing (12% male globally, WHO, 2022) or primary teaching (17% in OECD, 2023)—reverse incentives in Australia and the UK have modestly raised participation (ref). strict quotas may seem insensitive to or unadjusted to changes in SRs – which are often believed to be 50% female and 50% male among adults.

…Why we care - address historical inequalities and injusticies– women were not allowed to have vote (1913-1970s Europe). Create female role models. Increasingly: Create male role models.

..Female leadership in business and politics may potentially give a more women-friendly society, e.g., female and child health, stronger welfare states, more redistribution.

..Many see that men should play a stronger role in childrens upbringing,

..could quotas bring more men in PHEN (Psychology, Health, Education, Nutrition), More women in STEM (Science, technology, engineering and mathematics)

..Make work more womanfriendly - for the three M’s that may affect female opportunities – women menstrual cycles, menopause, maternity. Lower female child penalty.

..Other areas where we have gender inequality – much greater male childlessness (a key life outcome, for some valued greater than children). No quotas for parenthood – but may be worht mentioning

..Female and male positions – how unequal are we? men may slightly earn more when focused on medians

..Swedish SR imbalance male tilted following immigration – example? (<https://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/befolkningspyramid-for-sverige/> )

..HS: “Implications of gender imbalances: We should separate the implications of imbalanced population structures and the implications of parity quotas in imbalanced population structures. I do not know any evidence on the latter.”

**Abstract**

Gender parity rules in political, corporate, and institutional settings assume a balanced demographic distribution of males and females which could justify a 50% representation of each gender in the population. However, populations are increasingly showing a male surplus due to the male skewed sex ratio at birth, declining mortality, and narrowing gender differences in mortality. This male surplus renders gender parity quotas unfair. Using global demographic data as of 2025—revealing a worldwide surplus of 43.8 million males (sex ratio: 101.07)—and assessing changes in sex ratios from Asia, Africa, Europe, and the Americas. This study demonstrates how SR deviations and developments in sex-specific migration and mortality alter the exposure population for representation. Examples of SRs. Equal opportunities should, we argue, follow SRs, not a predetermined 50/50 distribution.

Standard quotas represent a 50% of each gender as an aim with the aim to attain gender equity in governing bodies of public and private affairs. This can determine the denominator in equity formulas—e.g., equal share of leaders (aged 35–79) requires quotas proportional to cohort ratios, as unadjusted rules historically over-allocated capital/income/education to women (past female surpluses) but now favor men in male-dominant phases. In low-mortality countries, rigid quotas ignore this, perpetuating disenfranchisement (e.g., U.S. male incarceration amplifying female surpluses among voters; (Cottrell et al., 2019).

In many cases, the rules allow for deviations of 10 percentage-points, or a lower share of the underrepresented gender, such as 40% minimums in a governing board. Although one could argue that changes in sex ratios then would matter less as deviations would usually fit in under the wider band, these regulations could be of importance but should necessarily also adjust to changes SRs – this should thus adjust to ~38% in low-mortality contexts to reflect true per capita equity. We review mechanisms driving imbalances (e.g., sex-selective abortions in China and India), societal consequences (e.g., elevated crime and violence), and policy case studies (e.g., Norway's board quotas).

Findings underscore the need for adaptive, demography-informed policies to achieve substantive fairness, distinguishing equal opportunities from adjusted outcomes. Policy recommendations include ratio-based deviation allowances, life-phase targeting (e.g., leadership ages 35–79), and integrated measures addressing root causes like son preference. This analysis challenges the "rule-of-thumb" 50/50 paradigm, advocating for evidence-based recalibration to foster societal harmony, reduce violence, and promote global peace amid demographic shifts.

**JEL Classifications:** J16, D63, O15

**1. Introduction**

Men outnumber women in the world since the 1960s (UNPD - United Nations Population Division, 2024) – but women constitute a growing population share and parity will be reached at the end of the 21st century. More men are born, and the greater pre-working age mortality that lead to unity early in life has in most countries decreased. Regional SRs can be affected by the often male-dominant migration. In some (emigration-driven) countries, women already constitute the majority as a consequence of high male immigration or/and mortality. Regardless, demographic trends led in the majority of countries to a male skewed student and working age populations (aged 15-24 and 25-69) (Spoorenberg, 2016). The population structure has implications for what can be considered fair in the allocation of seats, positions, statuses and places. For instance, parity rules for student enrollment and labour outcomes, which presuppose a balanced sex distribution in the population, may lead to inequalities in opportunities between sexes.

Sex ratios at birth (SRBs)—the number of male births to female births—consistently exhibit a natural male excess of 102–107 boys per 100 girls, and have never approached 100. Moreover, in settings with a strong gender preference for children, the male skewed SRB has been amplified by induced imbalances: sex-selective abortions. Greater male death rates acted historically as a counterforce, because the male surplus has been offset by excess male fetal, child and adolescent mortality (UNPD - United Nations Population Division, 2024). Men are increasingly likely to reach adult ages today, which has implications for adult sex ratios. Global demographics as of 2025 show 50.27% males (4.14 billion) versus 49.73% females (4.09 billion), yielding a sex ratio of 101.07 and a surplus of 43.8 million men. REFER TO 2050 SRs here?

Shifts in population structures impact political goals for equal representation and fairness as well as their monitoring. In a male-surplus population, a parity quota overrepresents females relative to their demographic share, undermining per capita equity (i.e., equal probability of selection for any individual). In a simplified scenario, assume a cohort that consists of 1000 men (50%) and 1000 women (50%), and 500 university places are allocated among them following parity-rule, then a man and a random woman have a 25% equal chance of becoming a student. However, assume the same parity rule is applied to a cohort that is constituted of 1500 men (60%) and 1000 women (40%), this will lead to the same opportunities for women as before, but the chance for a man to obtain a university place declines to 16.6%. The same effect could also be the other way around and to the disadvantage of women, but female skewed populations are less frequently observed at the country level, but might be relevant at the subnational level in capital regions (Gulczynski, 2023). Similar gender inequalities of opportunity may arise in other settings, for instance in the recruitment for company board memberships et cetera. The argument outlined here is that gender quotes should reflect the population structure to increase gender equality of opportunities, which is probably fairer than gender parity in outcomes. Furthermore, this argument stretches also to the measurement of gender inequalities in access and resource allocation, which should not compare absolute counts, but relative probabilities.

This study synthesizes demographic evidence, empirical studies, and policy analyses to argue that unadjusted parity rules can produce gender inequities. While gender quotas have been successful in removing barriers for women to enter male dominated spheres, increased diversity of groups, and raised awareness of gender-based discrimination in certain areas of society against women, the level of the quotas should reflect the baseline population structure, that is the relative size of men to women. Moreover, measures of gender inequality may also account for population structures. For instance the share of male member of parliaments, may attenuate or grow depending on the country, when accounting for population sex ratios.

Progress in women's education and political representation (e.g., via quotas) has been notable, yet lags in labor participation, domestic violence abatement, and sex selection persist, underscoring the complexity of equity (Inglehart & Norris, 2003). Hence, Paula England (2010) has coined the term “stalled gender revolution”, as gender equality did not progress in all domains of society equally. Regardless, women have made up the major share tertiary educated, which is also known as the reversal of the gender inequality in education (Nitsche et al., 2018; Van Bavel et al., 2018).

**2. Demographic Foundations: SRB Deviations from 50%**

**2.1 Natural and Historical SRB Patterns**

SRBs were never "equal"; the human norm is 102–107 males per 100 females,- while causes are not settled possibly reflecting evolutionary pressures for male-dispersal strategies (e.g., higher conception rates for males but greater fragility; ref, ref, ref United Nations, 2025). Historically, post-age-1 ratios often favored females due to excess male infant mortality, achieving parity before adult ages. Today, two transitions dominate: (i) persistent male-skewed SRBs, and (ii) diminishing mortality which reduces the counterbalancing effect of mortality on SRB, yielding male surpluses in the adult population.

Global trends as of 2025: More males in most countries, counteracted by Africa's more balanced SRBs (~102; United Nations, 2025). Ratios in 2024 vary by life phase: higher in youth (106.6 for 15–19), narrowing in working ages (102.5 for 15–64), and reversing later in life (80 for 65+ due to female longevity; (UNPD - United Nations Population Division, 2024)). Migration—a key non-balanced driver—often amplifies male biases in destinations – raising SRs in destination countries and decreasing SRs in sending countries.

| **Age Group** | **Global SRs/Overall Ratio (Males per 100 Females)** | **Historical Shift (Past vs. Now)** |
| --- | --- | --- |
| 0–14 | 106.0 | More balanced post-1; now skewed lifelong |
| 15–64 | 102.5 | Female tilt post-mortality; now male surplus |
| 65+ | 80.0 | Persistent female majority |

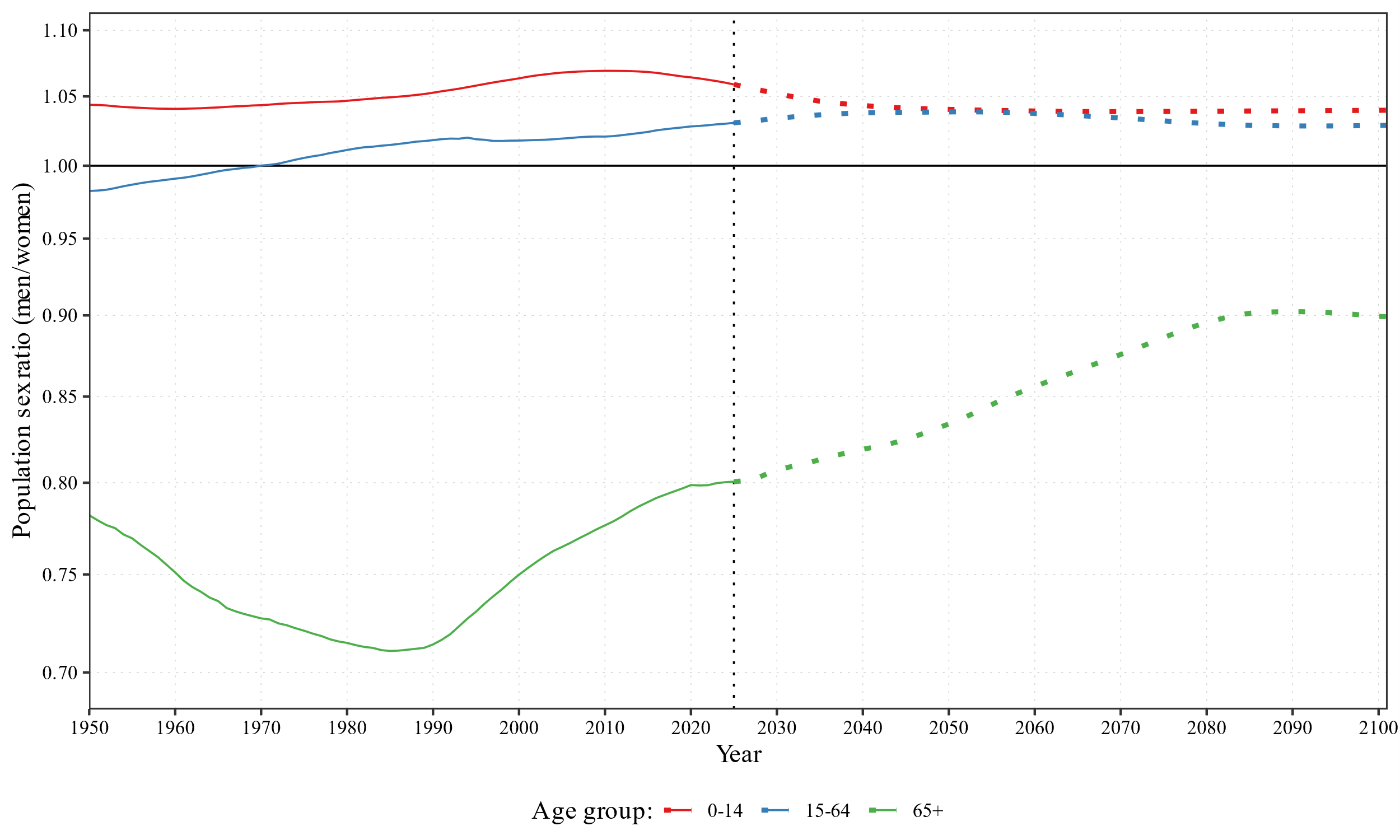
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Figure 1: World population sex ratio in three age groups over time. Medium variant. Source: UN Population Divsion, World Population Prospets 2024.

**2.2 Induced Imbalances and Mechanisms**

**Female Infanticide and Sex Selection:** SRBs remain elevated in Asia: peaked 1987 in Korea; still at very high levels in Vietnam; high in India/Pakistan/China (Guilmoto, 2024). Son preference intensifies with landholdings (inheritance pressures) and emerging middle-class status, where education enables technology access (Arokiasamy & Goli, 2012; Kaur et al., 2016). This non-linear interplay—empowerment reinforcing patriarchy—creates "missing girls" cohorts (Guilmoto, 2009)

**Male Mortality** Generally higher for males, but context-specific; toxic masculinity drives risks in war ("men at risk should go first" rules, male conscription, higher male mortality during conflicts). Moreover, men have greater risk of early deaths from violence, cardiovascular illnesses, suicide, traffic and drug/alcohol related causes (ref).

**Migration and Conflict:** Male-dominant flows alter host ratios; e.g., Khmer Rouge genocide (50–70% male working-age deaths – check!) created female surpluses. High male mortality spurred women's advancement via widow autonomy and norm shifts (Gaikwad et al., 2023).

Early-life mortality equity has eroded – as most males live to adult ages, with initial sex differences in SRs dominating. Hence

..

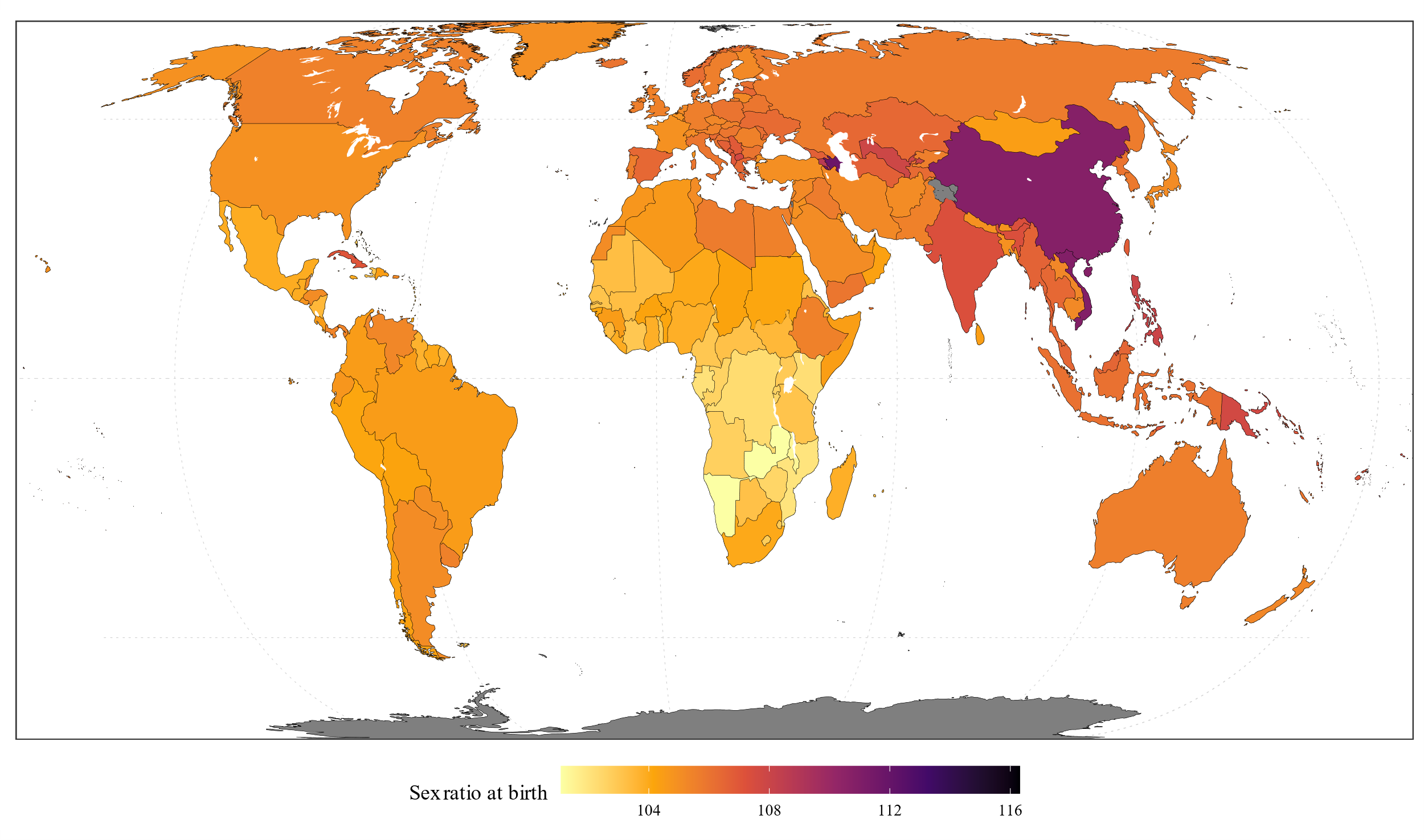


Figure 2: Sex ratio at birth around the world in 2023. Source: UN Population Division, World Population Prospects.

Men alive but isolated from society

**Men less focused on last decade in the EU** EU men's education/health gaps addressed only 2006–2015 (Gulczynski, 2024).

**Incarceration. Global jail population mainly male** of men skews U.S. ratios: 76 nonincarcerated Black men per 100 women in Cook County, IL,

**Loss of male voting rights**. Disenfranchment of 3.9 million African American men (13.2% rate; (Branum et al., 2009; Cottrell et al., 2019)¨

Male childlessness, male loneliness much greater than among women.

**2.3 Why SRs Matter: Implications for Equity, Representation, and Long-Term Policy**

SRs are not merely descriptive statistics; they form the bedrock of population pyramids, determining the size and composition of future cohorts eligible for political, economic, and social participation. A natural SRB of 105–107 ensures a built-in male surplus at birth, which—absent interventions and without offsetting mortality—translates to higher numbers of men in working-age groups (0–69 years), the primary "exposure population" for representation (e.g., voters, leaders, innovators;). A surplus of men matters profoundly for equity considerations because representation policies like 50/50 quotas assume a neutral starting point, ignoring how SR deviations skew per capita probabilities: in a 106 SR cohort, each woman has a 5.67% higher relative chance than a male, distorting fairness for individuals rather than aggregates.

Intergenerationally, skewed SRs compound: "missing girls" from sex selection in Asia reduce female labor pools, exacerbating old-age care burdens and marriage market imbalances, which in turn fuel social instability and policy demands (e.g., adjusted inheritance laws; (Den Boer & Hudson, 2017; Hudson & Den Boer, 2004).

Moreover, SRs link to broader societal harmony: male surpluses have been found to be associated with a greater risk of violence and conflict in some settings (Hudson et al., 2023). Policy-wise, recognizing SR mattering demands dynamic adjustments—e.g., deviation allowances (10% from exposure SR)—to ensure equal opportunities across life phases (e.g., innovation peaks 35–64).

Adjusting quotas for SRs could face resistance as "reverse discrimination," yet failing to do so entrenches biases in representation, potentially worsening gender-based violence and economic disparities. Further, in multicultural societies, SRs intersect with ethnicity and class,), requiring nuanced, approaches to equity.

**3. Societal Consequences of SR- Imbalances**

Male-skewed population structure have long-term side effects:

**Violence and Crime:** Elevated prostitution, STIs, violence against women, and crime (Amaral & Bhalotra, 2017; Angrist, 2002; Ebenstein & Sharygin, 2009; Edlund et al., 2013; Samuelson, 1985). Male surpluses exacerbate "bare branches" phenomena, where unpaired men contribute to societal unrest, as evidenced in China's crime spikes (Edlund et al., 2013).

**Markets and Stability:** Strains marriage/labor/old-age care; ~25% U.S. Black women husbandless (Branum et al., 2009). Unbalanced population structures have been shown to increase childlessness among men(Schubert & Dudel, 2025). In labor markets, female surpluses from male removal (e.g., incarceration) shift economic roles, but often without adequate support, leading to persistent poverty cycles.

**Health/Political Feedback:** In India, 10% more female representatives cut neonatal mortality 2.1% but reduce girl births while aiding survival (Bhalotra & Clots-Figueras, 2014; Zimmermann, 2023). Inheritance reforms curb son preference; caste intersects (Bhalotra et al., 2020; Islam et al., 2021). This feedback loop highlights how political representation can inadvertently reinforce SR skewness if not demographically adjusted.

**Global Peace:** Imbalances fuel conflict; balance promotes stability: Male surpluses depress wages in male-dominated sectors (Easterlin, 2009; Macunovich, 1998), while female surpluses strain care economies, amplifying inequality in ageing societies.

Rules focusing on capital/income/education historically favored compensatory female shares; now, male surpluses tilt toward men in leadership (35–79) and innovation (35–64), necessitating policy reevaluation to avoid entrenching power imbalances.

**4. Parity Policies**

The 50/50 rule—a convenient heuristic—was never demographically equitable, ignoring SR baselines and conflates equal opportunities (access) with outcomes (proportional shares), disadvantaging majorities in skewed populations.

**4.1 Typology and Examples**

| **Type** | **Description** | **SR Critique** |
| --- | --- | --- |
| Parity (50/50) | Zipper lists; e.g., Mexico (50% seats; Organisation for Economic Co-operation and Development, 2025), UAE/Andorra/Nicaragua (~50%; World Economic Forum, 2024; Inter-Parliamentary Union & UN Women, 2025). | Overrepresents females in male-surplus contexts, potentially reducing male political voice in surplus regions. |
| Fixed (20–40%) | Bounds for underrepresented; e.g., Norway/France/Italy boards – 40% goal (Bertrand et al., 2014; Eurofound, 2011; Storvik, 2011) (  EU Directive (33–40%;(European & Council of the European, 2022). | Deviation allowances (e.g., 10%) unadjusted for SR >100, leading to underrepresentation in high-mortality contexts. |
| Soft Targets | Comply-or-explain (International Institute for Democracy and Electoral Assistance, n.d.). | Weak enforcement ignores ratios, allowing persistent imbalances without accountability. |
| Education/Labor | Supernumerary seats (India); scholarships (World, 2019). | Targets segregation but assumes 50/50 pool, failing to address SRB-driven shortages in fields like STEM or nursing. |

Limits: Electoral systems, scope exclusions, constitutional hurdles (International Institute for Democracy and Electoral Assistance, n.d.; Inter-Parliamentary Union & UN Women, 2025). Extending the critique, comparative analysis shows parity laws in Latin America boost women's seats but overlook SR variances, potentially exacerbating regional inequalities (e.g., male migration in Peru skewing local ratios).

**4.2 Empirical Evidence**

Quotas boost descriptive representation (e.g., Norway: 40% achieved; (Bertrand et al., 2014) but modestly impact substantive outcomes (pay/power; (Storvik, 2011). In politics, enforced parity works (Latin America/Europe); weak fails (International Institute for Democracy and Electoral Assistance, n.d.; Inter-Parliamentary Union & UN Women, 2025). Post-conflict advances via mortality (Gaikwad et al., 2023); crime reductions(Iyer et al., 2012). Yet, no adjustment for SRs perpetuates inequity (Iyer & Mani, 2019).

South Africa's post-1994 gains show structural progress sans attitudinal shifts (Hausmann et al., 2010; Inglehart & Norris, 2003). To extend, empirical gaps highlight unintended consequences: In India, female leaders improve health but reinforce son preference (Bhalotra & Clots-Figueras, 2014), suggesting quotas must integrate SR monitoring to avoid counterproductive effects.

Rwanda has a female skewed population as a consequence of the genocide at the Tutsi – hence there should be a higher number of women in parliament following male surplus.

**5. Policy Reforms: Toward Demographic-Adjusted Equity**

Equity demands unequal shares for equal per-individual odds. Recommendations:

1. **Ratio-Based Targets:** Adjust quotas to population of relevant age groups SR (e.g., 52% male if this equals the sex ratio), using real-time demographic data for precision.
2. **Life-Phase Focus:** Tailor for leaders (aged 25–69), students (18-25), incorporating age-specific SRs to address ageing surpluses.
3. **Complementary Measures:** Enforcement, pipelines, family policies (World Bank, 2019); UN principles (inclusive roles, equal pay, empowerment). Extend with gender-lens financing and anti-selection campaigns to tackle root causes.
4. **Evaluation:** Quasi-experiments tracking SR impacts, with international benchmarks for cross-country learning.

Distinguish descriptive (numbers) vs. substantive (power) equality; prioritize harmony via unity. Extended strategies include pilot programs in high-imbalance regions (e.g., Asia's male surpluses) to test adaptive quotas, mitigating risks like political backlash.

**What is meant by a “50% rule” / parity quota?**

A “50% rule” usually refers to legal or regulatory requirements that parties, candidate lists, or appointing bodies present equal numbers (or close to equal numbers) of men and women — i.e., gender parity. Parity can be implemented as a strict 50:50 requirement, “zipping” (alternation of sexes on party lists), or strong incentives/penalties to reach ~50% (for example, non-registration of non-compliant lists or financial sanctions). Parity differs from minimum (e.g., 30–40%) quota approaches in its aim to reach equality rather than only a floor.

2. Where parity / 50% rules have been implemented — representative examples

• France (political parity law, 2000): The Loi sur la parité requires equal numbers of men and women on municipal, regional and European lists; for legislative elections it uses financial penalties and incentives rather than automatic list rejection in some contexts. The law is a paradigmatic European “parity” statute. Wikipedia+1

• Spain (Equality Law and regional parity rules): Spain’s 2007 Equality Law and earlier regional laws introduced strong list rules, including “zipping” and in some regional statutes explicit 50% provisions; national law guarantees substantial minimum shares and list ordering rules. European Institute for Gender Equality+1

• Argentina (quota law, 1991 → later reforms): Argentina’s 1991 quota (initially a 30% candidate quota) catalysed Latin American quota diffusion; many countries later increased ambitions toward parity or improved list placement rules (“zipping”). Argentina is central to quota diffusion literature. Wikipedia+1

• Rwanda (constitutional / reserved seats → de facto parity/majority): Rwanda’s constitutional and statutory measures reserve seats and encourage women’s inclusion; the result is one of the world’s highest shares of women in parliament (often exceeding 50%). Rwanda demonstrates how reserved seats plus political context can produce female majorities. • Corporate board quotas (Norway, other countries): Norway legislated a 40% board quota (2003) for public companies and inspired similar measures elsewhere (some jurisdictions have since debated or moved toward higher targets). Corporate quotas are parity-adjacent interventions targeting economic/power nodes rather than electoral representation. 3. Fulfillment and measured outcomes

Empirical patterns show that where parity is mandatory and enforced (registration refusal, legal sanctions, or strict ‘zipping’), descriptive representation of women rises sharply for the targeted arena (candidate lists, legislative seats, corporate boards). For example, France saw a rapid rise in women on party lists immediately after the 2000 law, though effects on mayoralties were weaker; Norway’s board quota produced large increases in female board membership. Rwanda’s reserved-seat architecture correlates with female parliamentary majorities. However, outcomes vary significantly by instrument, enforcement strength and political context.

**Why parity/50% measures may “not work” (mechanisms) (add refs or drop section)**

1. Design loopholes and weak enforcement. If laws allow non-compliant lists to register (but impose only small fines), parties may prefer fines to genuine candidate renewal; weak sanctioning undermines impact. France’s system mixes mandatory and incentive approaches across election types, producing uneven compliance.

2. Placement/“stacking” and tokenism. Parties might comply on paper but place women in low-winnable positions (especially under single-member district rules or where list order matters), limiting seat gains or substantive influence. “Zipping” prevents this but is not universally applied.

3. Scope limitations. Many parity laws target electoral lists but not executive posts, committee chairs, or top corporate roles — so descriptive gains do not translate automatically into leadership power. French municipal examples show rises in council membership but fewer female mayors

4. Backlash and political resistance. Quotas can provoke backlash in elites or parts of the electorate, including reduced appointment of women to other positions, increases in sexist rhetoric, or political violence targeting women — processes that can blunt long-run substantive gains. Recent academic work documents such potential for negative reactions in some contexts.

5. Supply and pipeline issues. In environments where women face constrained opportunities (care burdens, fewer incumbency advantages, less access to party patronage), quotas accelerate entry but may not immediately fix career pipelines into senior leadership.

**Timing — when and how effects appear**

Descriptive effects can be rapid (electoral cycles or immediate board appointments). Substantive effects (policy priorities, distributional outcomes, cultural change) typically appear more slowly and are conditional on women holding leadership positions and having access to portfolios that influence budgets,

**Gender Parity Quotas: Implementation, Fulfillment, and Effects**

The institutionalization of gender quotas has become one of the most significant reforms in the global pursuit of gender equality in politics and corporate governance over the past three decades. Among these measures, parity or “50% rules” represent the most stringent form, seeking equal representation of women and men in decision-making positions. While such rules have achieved measurable success in increasing women’s descriptive representation, evidence shows that their substantive effects on power, economic inequality, and opportunities are highly uneven and context-dependent (ref).

**Implementation and Scope**

Parity quotas emerged primarily in Europe and Latin America in the late 1990s and early 2000s, extending later to Africa and parts of Asia. The French Loi sur la parité (Law No. 2000-493) established the first legal requirement of equal numbers of male and female candidates on electoral lists for many levels of election(Murray, 2010). Spain followed with the 2007 Equality Law, mandating that no sex constitute less than 40% or more than 60% of electoral lists and executive appointments, a measure reinforced by “zipped” candidate lists that alternate male and female names (Verge, 2010). In Latin America, Argentina’s 1991 quota law, originally set at 30%, triggered widespread diffusion of quota legislation across the region. By the mid-2010s, several states, including Bolivia, Costa Rica, and Mexico, had moved toward full parity rules in national legislation (Piscopo, 2015).

Outside the political sphere, parity logic has been extended to corporate governance. Norway’s 2003 reform mandated that 40% of corporate board members in public limited companies be women(Teigen, 2012). Although not strictly a 50% rule, the Norwegian quota became a global reference for gender-equal governance, influencing similar laws in France, Italy, Germany, and other European countries. Rwanda represents another paradigmatic case: the 2003 Constitution reserved 24 out of 80 parliamentary seats for women and encouraged additional female representation through party and district elections. As a result, women have consistently held over 55% of parliamentary seats since 2008, the highest proportion worldwide (Burnet, 2011).

**Fulfillment and Measured Outcomes**

Evidence shows that parity laws increase women’s descriptive representation where enforcement is strict and sanctions are meaningful. In France, women’s share of candidates for municipal, regional, and European elections increased sharply after the 2000 law, with women reaching 48% of municipal councilors and 50% of regional representatives within a decade (Murray, 2010). However, women remained underrepresented among mayors and party leaders, reflecting that parity rules in candidacies did not automatically translate into parity in executive positions.

Spain’s parity framework, by contrast, yielded more consistent results due to its combination of quota thresholds and placement mandates. Studies show that women’s representation in the national parliament rose from 28% in 2004 to 36% by 2008, and women’s presence in local politics increased in parallel (Verge, 2010) 2011). Similarly, in Latin America, countries that transitioned from quota to parity systems experienced accelerated growth in female legislative representation. Mexico’s 2014 constitutional reform institutionalized parity in candidacies and led to women occupying 48% of seats in the Chamber of Deputies by 2018 (ref).

Corporate quotas have generated analogous patterns of descriptive success. In Norway, women’s representation on boards increased from around 6% in 2002 to 40% by 2008, the precise legal target. However, studies indicate minimal spillover to executive management positions or private firms not covered by the law (Teigen, 2012). Similarly, France’s corporate board quota (2011) achieved near-complete compliance by 2020, but women’s representation among chief executive officers and executive committees remained below 10% (Bohnet, 2016).

**Why Parity Rules Often Fall Short**

Empirical literature identifies multiple mechanisms that explain the limited translation of parity laws into substantive gender equality. Weak enforcement mechanisms are central. In France, for example, parties faced financial penalties for noncompliance in legislative elections, but major parties often preferred to pay fines rather than replace incumbents, especially in winnable districts (Murray, 2010). Similarly, in Latin America, uneven application of electoral rules and weak oversight by electoral commissions undermined quota fulfillment in several countries (Schwindt‐Bayer, 2009).

Placement bias and list manipulation also contribute to limited outcomes. Parties may comply with numerical quotas while assigning women to low-ranking or unwinnable list positions, a phenomenon documented in both Argentina and Italy before “zipped” list rules were introduced (Hinojosa & Piscopo, 2013). In mixed electoral systems, quotas often apply only to proportional representation lists and not to single-member districts, leaving significant segments of the political structure untouched (Franceschet & Piscopo, 2014).

Even where parity rules achieve numerical equality, they may not shift the underlying distribution of power or access to decision-making resources. Comparative analyses show that women elected under quota systems are often excluded from key parliamentary committees or executive portfolios(Escobar-Lemmon & Taylor-Robinson, 2016). In corporate settings, quota women are often confined to non-executive or symbolic positions, with limited influence over firm strategy or resource allocation (Bohnet, 2016). These patterns suggest that descriptive parity does not automatically entail substantive parity in influence.

Backlash and sociopolitical resistance have also limited the long-term transformative effects of quotas. Research on backlash indicates that quota adoption can provoke male elite resistance, including attempts to weaken or delay implementation, and that women elected through quotas sometimes face public stigma questioning their legitimacy. In some regions, especially Latin America and sub-Saharan Africa, political violence against women has emerged as a reaction to the perceived threat posed by parity reforms (Piscopo, 2015).

**Broader Relations to Economic Inequality and Opportunity**

From an economic perspective, parity rules affect access to high-status and high-income positions but do not automatically reduce structural inequality in labor markets or resource distribution. Descriptive gains in politics or corporate boards rarely cascade to wage equality or occupational desegregation (Bohnet, 2016). In Norway, for instance, the corporate board quota did not alter gender pay gaps or women’s participation in top management (Teigen, 2012). Similarly, while countries with parity legislation exhibit higher female political representation, cross-national data show only weak correlations between women’s parliamentary share and reductions in overall gender wage gaps ( ref, OECD, 2023).

The relation between parity rules and broader gender inequality therefore remains contingent on institutional linkages between representation, policymaking power, and redistributive policy. Studies show that women legislators are more likely to introduce bills concerning childcare, health, and social protection but their effectiveness depends on party support, committee assignments, and fiscal authority. Without these, parity in seats may not translate into parity in economic outcomes or decision-making opportunities.

**Opposition and Enduring Tensions**

Opposition to parity measures has typically rested on arguments concerning merit, autonomy of parties, or the principle of universalism. Empirical research shows that opposition is strongest where traditional party hierarchies and incumbency advantages are entrenched, particularly in majoritarian electoral systems (Krook, 2010). In such contexts, parity laws challenge existing networks of power and patronage, prompting institutional resistance that manifests in selective enforcement or partial compliance.

Over time, however, public acceptance of quotas has grown in many societies following their implementation. In France and Spain, initial resistance from both male politicians and segments of the feminist movement gradually diminished as the presence of women in politics normalized (Verge, 2010). Nevertheless, even in established democracies, parity remains contested as an intervention that addresses symptoms of inequality—descriptive underrepresentation—rather than its structural causes.

**Conclusion**

SR deviations from 50%—natural (105–107) and induced—expose the fallacy of unadjusted parity rules, which undermine fairness in representation. Adaptive policies, informed by demographics, can rectify this, mitigating negative consequences like disenfranchisement while promoting equal chances.

The global experience of parity or “50% rule” gender quotas demonstrates clear and replicable increases in women’s descriptive representation when rules are mandatory, enforced, and combined with placement mandates.

Dilemmas arise in SR-adjusted policies: While promoting per capita fairness, they may be perceived as undermining affirmative action for marginalized groups, particularly women in patriarchal societies. Some would argue that having 50% women may be good even if if discriminates against men – if women make better choices(policies) – contested. REFS

SRs impose biological constraints that interact with social norms. Discussions must consider how globalization and migration further complicate this, with male-dominant flows creating urban surpluses that strain infrastructure and equity goals in receiving countries and greater female shares in sending countries. This also relates to local politics - urban centres are often female dominated due to internal migration in relation to education and tertiary sector employment (see (Gulczyński, 2023).

Limitations include data gaps in real-time SRs, which, though marginal numerically, raise inclusivity questions beyond binary ratios. Future research should model climate-induced migration's SR impacts and evaluate adaptive quotas' long-term efficacy through longitudinal studies. Moreover, the analysis is based on a simplified binary gender concept, but the concept of equality of representation may extend to other gender identities. Ultimately, unadjusted 50/50 rules risk exacerbating divisions; SR-informed reforms offer a path to resilient, equitable systems amid demographic transitions.

Avoiding bitterness and perceptions of women or men having fewer opportunities could decrease following a exposure population based gender target.

A 50% rule is easier to remember – and an ‘easy target’.

Longer female lives could justify more women in power?

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Extra text

Drawing on (Oakley, 1972) relativism of gender—"to be a man or a woman... is as much a function of dress, gesture, occupation, social network and personality, as it is of possessing a particular set of genitals"—we acknowledge gender expressions differ while grounding representation in biological sex ratios as the baseline for demographic justice

To extend this analysis, we delve deeper into the ethical and practical challenges of recalibrating quotas, considering cultural variations in gender roles and the potential backlash from adaptive policies.