

Lesedi

Carnets de terrain
Field notes



#28 September 2026



**Gender, economics and inclusion
in Southern Africa**

**Genre, économie et inclusion
en Afrique australe**

LESEDI: pronounced Leh-SEH-di | Meaning “light” in Sesotho, Setswana and Sepedi



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Barriers and Pathways to Gender-Inclusive Development in Southern Africa



Eliane Badaoui

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Southern Africa today presents a landscape of contrasts, where progressive institutional advancements coexist with deeply entrenched gender inequalities and women's vulnerabilities. Countries such as South Africa, Namibia, Botswana, and Zambia have made formal progress in gender equality, particularly through legislation, educational attainment, and political representation (Butale, 2022 ; Geisler, 2006). Regional and continental initiatives such as the Southern African Development Community (SADC) Protocol on Gender and Development and the African Union's (AU) Agenda 2063 have also established gender equality and women's empowerment as central pillars of sustainable development. However, these achievements have not yet translated into fully inclusive socio-economic development as daily realities of systemic violence and economic precarity persist (Ouedraogo and Stenzel, 2021; Paganini et al., 2025). Hence, the main challenge is not simply to adopt gender-sensitive policies, but to ensure their enforcement.

This issue of *Lesedi* is a collection of eight papers that provide new evidence and policy insights into the multifaceted challenges to gender-inclusive development in Southern Africa. Together, they offer a comprehensive analysis of the structural, historical, and socio-economic barriers that shape women's outcomes across the region.

The paradox of progress: Law, politics, and violence

One central theme across the issue is the “South African paradox”, which refers to the gap between advanced legal protections and high levels of female political representation versus alarmingly high rates of sexual violence.

The first article is a multidisciplinary roundtable synthesis of the persistence of Gender-Based Violence (GBV) in South Africa. Florent Dubois and Laurine Martinoty recall the discussions aimed at understanding why the country suffers from a pandemic of violence and high femicide rates despite having one of the world's most progressive legal frameworks. Intimate partner femicide is five times the global average (Abrahams et al., 2025). Violence persists due to childhood adversity, economic dependence, and social networks that normalize abuse. The roundtable participants identified several areas for action. Since exposure to childhood adversity is mentioned as the strongest predictor of becoming a victim or perpetrator in adulthood, effective prevention must shift from reactive measures to proactive interventions that address root causes throughout a person's life. Because financial dependence and social networks that normalize or privatize abuse further trap women in violent relationships, economic empowerment must be integrated into prevention responses. In addition, transformation requires engaging men as positive role models and challenging the informal social networks that normalize abuse.

The second article assesses the impact of female political representation at the municipal level on rape rates in South

Africa. It aims to further investigate the "South African paradox": the country has high levels of women in politics, ranking among the top globally (Deane, 2018 ; Goetz, 1998), but faces alarmingly high sexual crime rates. In their empirical analysis, Prudence Magejo, Eliane Badaoui, Miracle Benhura, Florent Dubois, and Laurine Martinoty found a "null effect": increased female representation in municipal councils does not significantly reduce reported rape. This outcome can be attributed to institutional constraints on female authority, patriarchal resistance, and the precedence of party loyalties over local demands. The South African case suggests that while numerical representation is a start, broader systemic reforms and legally guaranteed 50/50 quotas are needed to enhance qualitative changes in leadership.

Economic survival and the invisible burden of care

The collection moves beyond formal structures to explore, through two articles, the informal strategies women use to navigate labour market exclusion and the burden of unpaid care work. One evokes "hustling" as a survival strategy within the specific industrial zones of mining and illustrates how the care burden shapes women's livelihood strategies. The other article provides regional data confirming caregiving as a systemic barrier to formal employment across Southern Africa, even as women achieve historically high levels of education.

In particular, the third article introduces the concept of "hustling" among women in mining communities who engage in diverse informal activities to secure autonomy and survival. In her contribution, Beatrice Gibertini explores the livelihood strategies of Black women living near mines in South Africa who are structurally excluded from formal jobs (due to skill requirements, discrimination, or male-dominated workplace norms) but bear the brunt of the industry's social and environmental impacts (Breckenridge, 1998 ; McCulloch, 2003). Their labour is largely invisible. The results show that women living near extraction sites engage in multiple "hustles", ranging from selling small items and domestic services to artisanal mining, to ensure their survival. Mining-related environmental degradation, such as air and water pollution, increases women's unpaid care burden (e.g., caring for sick family members with respiratory or other chronic illnesses). This further limits their formal employment options. The study concludes that policies must go beyond "one-size-fits-all" employment initiatives to support women's empowerment.

Nikiema and Funjika propose a regional analysis, over nine Southern African countries, to assess the relationship between formal schooling and economic opportunities for women (Ngai and Dinkelman, 2022). This fourth article highlights the education-employment paradox. Despite having a relatively

well-educated female population compared with other African regions, Southern Africa continues to experience exceptionally high rates of female unemployment. Indeed, the empirical analysis indicates that half of the women in the sample are unemployed and confirms that schooling increases the probability that a woman stays out of low-productivity agricultural work and into formal-sector employment, which offers greater stability and social protection. A central finding is that education alone does not guarantee labour market inclusion. Structural and household determinants such as childcare responsibilities and household wealth show even stronger correlations with labour force participation than education does. The article concludes that while education remains an important pathway for moving women into the formal economy, policies must also address the broader context, particularly the unpaid care burden and structural inequalities that limit women's ability to benefit from their skills.

Informality beyond labour

In many parts of Southern Africa, economic agency is impeded not only by a lack of employment opportunities or the burden of care but also by the insecurity of resource rights. The fifth article moves the investigation to the agricultural sector. It reveals that land tenure insecurity in Malawi, governed by customary tenure systems and inheritance rather than formal transactions, is another structural barrier that discourages long-term investments in soil conservation (Place and Otsuka, 2001). This is a critical gender issue, since the lack of land tenure security disproportionately reduces the productivity and environmental resilience of women-managed plots. Why does soil conservation adoption remain low despite erosion threatening 40% of Malawi's agricultural land and its food security?

Lovo studies the link between secure land rights and farmers' investment in soil conservation practices. Her research key findings indicate that farmers on short-term rented plots and male farmers in matrilineal systems who lack ownership are significantly less likely to invest in conservation because they fear losing their investment when their access to the land ends. Plots managed by women are disproportionately impacted by tenure insecurity, reducing their agricultural output by 12%. These results align with regional trends. Evidence from Zambia, Mozambique, and Tanzania similarly shows that formalized and secure land tenure strengthens long-term conservation efforts and contributes significantly to agricultural resilience in response to environmental and economic shocks (Nkomoki et al., 2018 ; Hagos, 2012 ; Visser et al., 2024). For Malawi, the policy implication is to pursue land reforms to formalize customary tenure and legal frameworks for land leases. The study advocates reforming inheritance laws for gender equity and providing financial subsidies to help farmers overcome

liquidity constraints when investing in sustainable conservation practices.

The architecture of inclusion: Transport and financial systems

Beyond legal and political rights, informal daily survival, and resource access, gender-inclusive development is fundamentally shaped by the physical and financial architectures that connect individuals to opportunities. The next two articles present pathways towards inclusive transport infrastructure and the promotion of financial capability to ease anxiety. They explicitly recognize gender as a critical structural dimension, highlighting how systemic transport and financial constraints disproportionately affect women.

On the one hand, Polo-Martín, Castillo and Ducruet analyze the long-term relationship between multimodal transport connectivity (ports and railways) and urban growth in South Africa from 1890 to 2020. The authors analyze how historical patterns of infrastructure, particularly those established during the apartheid era, continue to shape contemporary regional inequalities. Black women in particular were subject to the most severe restrictions on mobility and access to urban opportunities due to systemic spatial racial and gender-based segregation (Muhwezi and Turyasingura, 2025 ; Savage, 1986). These historical legacies persist today, as South African women continue to face disproportionate mobility barriers, restricting their access to educational institutions, formal employment opportunities, and essential services. This challenge is exacerbated by the disproportionate unpaid care work that complicates travel patterns and forces women into more constrained routines than men. This reality underscores that infrastructure is not gender neutral. Future policies should integrate gender-responsive frameworks to dismantle long-standing inequalities and unlock the region's full economic potential.

On the other hand, De Villiers-Strijdom investigates factors that mitigate feelings of worry and stress about financial insecurity among South African banking clients. She highlights that 63% of South Africans experience profound financial anxiety, which can lead to poor decision-making and mental health issues. Importantly, women are particularly vulnerable due to historical exclusion from the formal financial system and gender-based income disparities (Lind et al., 2020 ; Ryu and Fan, 2023). The results show that digital savvy and financial capability are the primary drivers of lower anxiety. Because women historically face higher financial stress and exclusion from formal systems. They are frequently trapped in abusive relationships by economic dependence. Recommendations include prioritizing financial education for women who were historically excluded from the formal financial system. Without

such gender-responsive policies, the potential of legal and educational reforms may remain unfulfilled and the exit from violent domestic cycles unreached.

Overall, these two contributions conclude that mobility is a pathway to opportunity, and that financial autonomy is a form of protection. Together, they help explain why advances in education and women's political representation alone may not be sufficient to improve women's lives if persistent physical and financial barriers continue to restrict access to opportunities. Fighting mobility constraints and financial anxiety is crucial to women's economic empowerment, which in turn is a prerequisite for leaving violent relationships. Moreover, by addressing the gender-blind design of transport and financial systems, such policies can also enhance the effectiveness of women's political representation.

Social systems as universal inclusive development tools

The final article in this issue shifts the analysis to the household level in Rwanda and Ethiopia. It examines how social policies targeting specific individuals (such as childcare provision and public works) affect reallocation of time and labour among all family members (Andersson et al., 2011). Moraga Fernández examines the unintended spillover effects of social policies within families, where decisions about labour, care, and domestic tasks are fundamentally interconnected. In Rwanda, the study treats the expansion of Early Childhood Development (ECD) and nursery schools as a labour market policy rather than just an educational intervention. It finds that in a context where female labour participation is already high, access to childcare does not increase the quantity of work but significantly improves its quality, allowing mothers to shift from precarious self-employment to more stable salaried employment. In Ethiopia, the research analyzes the Productive Safety Net Programme (PSNP). While the programme successfully reduces child labour for boys through an income effect, the results for girls are more complex. In particular, while water infrastructure projects can reduce girls' domestic chore burden in the short term, other labour-intensive projects can trigger a substitution effect, as girls are forced to replace their parents in household tasks. Ultimately, the paper argues that policy design must adopt a household perspective to avoid reinforcing harmful gender norms.

Although these case studies fall outside the primary geographic focus of this issue, they serve as a critical benchmark for Southern Africa. They demonstrate that the care burden and its impact on maternal employment are universal structural challenges across the continent. The Rwandan evidence reveals that expanding childcare is not merely an educational

intervention but a labour market policy that enables mothers to transition from precarious self-employment toward more stable salaried work. Meanwhile, the study of Ethiopia's PSNP, the second largest in Africa after South Africa's Expanded Public Works Programme, provides insights into how adult labour requirements can create a substitution effect, potentially increasing domestic responsibilities for children. By highlighting these unintended spillovers, the research underscores the need to adopt a household perspective to ensure that social protection schemes across Southern Africa effectively promote gender equality without unintentionally redistributing unpaid burdens onto women and girls.

Conclusion

This collection of eight papers reveals that achieving gender-inclusive development in Southern Africa requires more than just changing laws or improving individual skills. It requires a deliberate redesign of the transport, financial, and social systems.

Evidence from South Africa in particular shows that the progressive legal framework and high levels of female political representation have failed to curb the "pandemic" of GBV. It suggests that numerical representation cannot curb sexual crimes without deeper structural reforms and the deconstruction of patriarchal norms (Anderson et al., 2025 ; Iyer et al., 2012). A central thread running through this issue is that the absence of financial independence acts as a primary catalyst for gendered vulnerability, trapping women across Southern Africa in abusive environments and marginalizing them within local economies. While education is a key driver of formal employment, it no longer guarantees labour market entry. Despite high levels of schooling, a large share of women in Southern Africa remains unemployed. This exclusion forces many, particularly in mining communities, into "hustling" to navigate structural marginalization. This economic precarity is compounded by transport networks designed under legacy spatial segregation and pervasive financial anxiety that disproportionately impact women. Yet, actionable solutions exist to break these cycles. This could involve boosting agricultural productivity through secure land tenure for women, as in Malawi (Goldstein and Udry, 2008 ; Slavchevska et al., 2020), or easing caregiving burdens through expanded childcare services in Rwanda (Halim et al., 2022).

Ultimately, these studies point to the clear limitations of single-variable interventions. To achieve real changes, it is necessary to implement multidimensional policies that simultaneously address underlying socio-cultural factors, early childhood adversity, transport networks, financial capability, and resource rights.

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Beyond the Law: A Multi-Disciplinary Synthesis for Addressing Gender-Based Violence in South Africa. Insights from a Roundtable Discussion.



Florent Dubois and Laurine Martinoty

Florent Dubois is a postdoctoral researcher in Economics in the Department of Economics and Statistics "Cognetti de Martiis" of the University of Turin and associate researcher at the University Paris-Nanterre, EconomiX. He is mostly researching discriminatory and conflicting behaviours in social interactions and ways to promote inclusion and diversity. His work focuses on residential segregation and gender-based violence in the contexts of South Africa and Europe.



Laurine Martinoty is an Assistant Professor in Economics at Université Paris 1 Panthéon-Sorbonne since September 2016. She is a member of the research group on Globalization, labour markets and public policies within the Centre d'Economie de la Sorbonne. She has been focusing on household responses to labor-demand shocks in both developing and developed economies. She currently works on family formation, domestic violence and labour market opportunities, with an emphasis on the role of economic shocks, culture and gender attitudes. She is also a consultant for the World Bank on labour force participation issues revolving around gender, informality and migration in South Asia.

September in South Africa usually follows the conclusion of Women's Month (which is August), a period dedicated to paying tribute to the thousands of women who, in 1956, marched to the Union Buildings in Pretoria in defiance of the extension of Pass Laws that required nonwhite women in South Africa to also carry documents authorizing their presence in restricted areas. However, Women's Month is more than a preservation of collective memory; it also serves as a moment to evaluate how far the nation has come in transforming society and addressing the unequal power relations between men and women. Central to these unequal relations is the increase in Gender-Based Violence (GBV), a crisis so profound that President Cyril Ramaphosa has labeled it a "pandemic", warranting its own dedicated National Strategic Plan on GBV¹. As this commemorative month had drawn to a close, we thought it was an appropriate time to reflect on why, despite South Africa having one of the world's most progressive legal frameworks, violence continues to afflict so many women in the country. To address these questions, experts and stakeholders from

government departments, various academic institutions and non-profit organizations gathered in September 2022 at the University of the Witwatersrand for a multi-disciplinary roundtable. This article synthesizes our discussions on the challenges that contribute to the persistence of this crisis and possible avenues for moving forward².

The everyday experiences of abuse contribute to South Africa's very high rates of femicide.

The statistics presented during the discussion reveal that 21% of women and girls aged 15 to 49 who have been in a partnership experienced physical violence at some point in their lives, and 8 % in the past 12 months (Intervention "Statistics and data on GBV", Neo Ngenavho, Statistics South Africa). South Africa remains one of the countries with the highest recorded rate of intimate partner femicide globally (5.5/100,000 female

1 See: <https://gbvf.org.za/publications/nsp-2020-2030/>

2 References to interventions from this event will be indicated in the text, in brackets, by the title of the intervention, the name of the speaker, and their affiliation(s).



Figure 1: Participants of the Roundtable on Gender-Based Violence in South Africa (c) University of Witwatersrand

population in 2020/2021), almost five times the global average (Abrahams et al., 2025). Yet, focusing only on the most shocking cases of physical violence and femicide can overlook the 'ordinary' forms of abuse that lead to extreme violence. Indeed, gender-based violence is also a broad spectrum that includes psychological abuse, socio-economic deprivation, verbal harassment, and stalking. Of particular importance, psychological violence is frequently misunderstood; it involves acts that induce fear or emotional distress, such as public humiliation or the destruction of personal property. These behaviours are often not recognized as "crimes" by either the victims or the perpetrators, yet they constitute the foundation of a culture of abuse. The prevalence of emotional violence in South Africa is also stark, with data from the 2016 South African Demographic and Health Survey (SADHS¹) indicating that one in five partnered women (17%) has experienced emotional violence by a partner at some point in her life (9% in the past 12 months). This violence is notably influenced by socio-economic factors, as prevalence rates are higher among women with lower educational attainment and those in the lowest wealth quintiles. The impact of external crises was also demonstrated during the first week of the 2020 COVID-19 lockdown, when police received 2,320 GBV complaints, representing a 37% increase over the 2019 weekly average.

Exposure to childhood adversity is a key factor that predicts both being a victim and a perpetrator of abuse in adult relationships.

A central insight from the roundtable involves the role of adverse childhood experiences (Intervention "Adverse Childhood Experiences and IPV in Adulthood. Findings from the Bt30 Cohort, Juliana Kagura, Wits School of Public Health, with Sara Naicker). Drawing on the Birth to Thirty (Bt30) study, which has followed children born in Soweto-Johannesburg since 1990,

researchers have found that a child who witnesses or experiences domestic violence is significantly more likely to become, in adulthood, either a victim or a perpetrator of intimate partner violence. The study tracked a wide array of adverse childhood experiences, including direct physical, emotional, and sexual abuse, as well as household dysfunctions like exposure to Intimate Partner Violence (IPV) between parents, substance abuse, and chronic unemployment. Through Latent Class Analysis, the researchers identified that 36.5% of the cohort experienced "High Adversity", characterized by a cumulative and high-intensity range of these traumas. By age 28, approximately 1 in 2 participants had experienced some form of overall IPV, with data revealing that 56.8% had experienced victimization while 49.9% admitted to perpetration. The highest odds for adult IPV were found among those who suffered direct emotional and physical abuse as children, suggesting that violence in the home is the strongest predictor of future relationship violence.

Economic empowerment matters.

Many women remain in violent relationships because they lack the financial autonomy necessary to sustain themselves (and often their children) if they were to leave their partner (Intervention "Help seeking after GBV", Shahana Rasool, University of Johannesburg, Department of Social Work). These situations may be the result of controlling partners who forbid them to work or sabotage their careers. Such behaviours can be motivated by gender norms. But, above and beyond, the South African economy is characterized by a high degree of gendered occupational segregation. Women tend to have fewer opportunities, and these opportunities pay lower wages and imply harsher conditions (Gradín, 2021). The Affirmative Action acts were designed to correct any kind of inequality and can be used to act on gender occupational segregation. Again, despite

1 See: <https://dhsprogram.com/methodology/survey/survey-display-390.cfm>

particularly progressive legislation, systemic inequalities persist and reinforce perpetrators against victims. These elements support the idea that economic protection and empowerment complement should be integrated into emergency and prevention responses to domestic violence (Intervention “Interventions for GBV”, Nwabisa Shai (South African Medical Research Council).

Families and informal social networks frequently normalize abuse, treating it as a private issue.

The roundtable also highlighted on how the persistence of violence is also a social problem fueled by silence and shame (Intervention “Help seeking after GBV”, Shahana Rasool, University of Johannesburg, Department of Social Work). Research into the role of informal networks posits that those who bear witness to violence are caught in a fundamental conflict; because a perpetrator only asks the bystander to do nothing, it is morally impossible to remain neutral. Unfortunately, a primary finding is the systematic privatization of abuse, where bystanders justify their silence by claiming they do not want to “mess” in what they perceive as a private business between a husband and wife. This inaction essentially supports the perpetrator, allowing violence to continue with the community’s approval. Many female interviewees in anti-violence shelters reported that when they disclosed abuse to older generations, their experiences were dismissed as a standard part of life, with some mothers even laughing and noting that their son-in-law was merely hitting his wife “just like your father hit me”. Survivors of violence often mentioned that family members, especially in-laws, act as gatekeepers who support patriarchal control. Some even monitor phone calls or justify the violence by saying “a married man can do whatever he feels like”.

South Africa's legal framework offers a comprehensive definition of abuse that recognizes psychological and economic control alongside physical violence, and recent legislative advancements prioritize survivor safety.

South Africa is by far not a lawless nation; the 1998 Domestic Violence Act and 2011 Protection from Harassment Act are strong in theory. The Domestic Violence Act focuses on complainants in domestic relationships, defining abuse broadly to include physical, sexual, economic, emotional, verbal, and psychological harm, as well as behaviors like intimidation, harassment, and property damage. The Protection from Harassment

Act extends protection to anyone facing harassment, including stalking, sexual harassment, or fear-inducing communication, crucial in today’s digital age. Recognizing that the period immediately following a report is often the most dangerous, recent advancements in the law have significantly empowered law enforcement with several amendments to the 1998 bill in 2021². Police officers may now arrest a respondent at the scene of an incident without a warrant if they reasonably suspect that an offense containing an element of domestic violence has been committed. Furthermore, the legal framework has introduced stricter bail conditions; applications are no longer routine matters but are treated as formal bail hearings where the accused must demonstrate why their release is in the interest of justice. The role of the victim has also been elevated, as the complainant must now file a statement clarifying whether they oppose the bail release, ensuring their voice is part of the formal record. These measures reflect a judicial philosophy that prioritizes the survivor's right to safety over the immediate liberty of the accused in high-risk cases.



Figure 2: A panel of the Round on Gender-Based Violence in South Africa (c) University of Witwatersrand

2 See: <https://www.justice.gov.za/legislation/acts/1998-116.pdf> and <https://www.justice.gov.za/legislation/acts/2021-014.pdf>

In practice, many victims struggle to obtain a protection order due to systemic underfunding and resource gaps.

While the legal architecture is robust, navigating the system is often difficult for victims. In theory, both protection orders are easily obtained and implemented in five steps, i.e., approaching the nearest court or filing an electronic request, requesting an interim protection order with a date of hearing, serving the interim order with the assistance of the police, with immediate effect, until the hearing where the judge decides if the interim order is made final. Despite this structure, the application of these laws is fraught with obstacles. The failure of the system is often a matter of critical underfunding, with police forces lacking the vehicles to serve protection orders and forensic science laboratories suffering from a massive DNA backlog that jeopardizes judicial procedures³.

True transformation requires moving beyond legislation toward integrated interventions.

The rise of movements like #TheTotalShutdown in 2018, where women across South African cities protested against femicide and high levels of violence, demonstrates a widespread societal demand for change. The state's response is currently guided by the National Strategic Plan (NSP) on GBV (2020–2030), which is organized around six key pillars, including accountability, prevention, justice, care, economic power, and research (Intervention “Overview of GBV in South Africa”, Buti Kulwane & Pulane Mthembu, National Department of Social Development, Social Work Policy Managers). However, translating activism into tangible outcomes remains a challenge. The roundtable concluded that while legal reforms and institutional improvements are essential, they are insufficient on their own. Real progress requires translating best practices into action at the community level, ensuring that interventions are accessible, practical, and responsive to local needs.

Addressing the critical gaps in data. A major obstacle identified by the roundtable is the lack of comprehensive and reliable data on gender-based violence, which leaves researchers unable to determine whether the increase in GBV reported cases reflects a genuine rise in incidence or simply higher reporting rates. Existing sources, such as police reports and hospital records, are fragmented, and no updated Demographic and Health Survey is anticipated in the short term. This gap contrasts sharply with the frequent media coverage of GBV, leaving policymakers without the evidence needed to design targeted, effective interventions. The roundtable participants unanimously called for urgent improvements in data collection, coordination, and

knowledge sharing to inform responsive and evidence-based strategies.

Prevention policies must span the life course. Participants emphasized that effective GBV prevention requires shifting from reactive, isolated measures toward comprehensive interventions that address root causes throughout a person's life. Violence is often a learned behaviour, stemming from adverse childhood experiences (Intervention “Adverse Childhood Experiences and IPV in Adulthood. Findings from the Bt30 Cohort”, Juliana Kagura, Wits School of Public Health, with Sara Naicker), making early interventions crucial. Programmes targeting early childhood, such as Safe and Sound (a brief counseling and safety planning into antenatal care to protect women during pregnancy when women are at particular risk of IPV (Pallitto et al., 2016)), or Isibindi (a programme aimed at protecting and empowering youth within the households) integrate counseling, parenting support, and home-based care to protect children and strengthen family bonds. During adolescence, School-Based Prevention can reshape gender attitudes before they solidify. This includes “whole-school” approaches like Let's Talk and specialized sexual assault resistance programmes like Ntombi Vimbela!, which combine self-defense training with education on consent. At the university level, interventions must specifically target men's understandings of consent, as many campus-based cases arise from a failure to respect a woman's decision when she says “no” (Intervention “Help seeking after GBV”, Shahana Rasool, University of Johannesburg, Department of Social Work). To reach adults, another avenue is “using culture to change culture” through mass media campaigns like the Soul City Drama Series, which reach millions to replace harmful norms with human rights values (Intervention “What intervention strategies for South Africa?”, Phinah Kodisang, Soul city, CEO). These initiatives aim to prevent the intergenerational transmission of violence, reducing the likelihood that children exposed to abuse become victims or perpetrators in adulthood.

Engaging communities and institutions together, while respecting the need to attend to the specific and the local. Community involvement is critical for combating GBV, as informal networks often serve as the first line of support for survivors. Interventions should engage feminist men activists, and even rehabilitated perpetrators, to foster a collective commitment to change, while respecting the specificities of spaces and places (Intervention “Gender relations, violence and their geographies”, Lisa Vetten, Southern Centre for Inequality Studies, University of Johannesburg). A critical historical shift highlighted by the Department of Social Development is the inclusion of men in interventions: historically, the responsibility for eradicating violence was placed on women, while men were left out of the equation; in response, the DSD has been institutionalizing the Takuwani Riime (“Let Us Stand Up Together!”) approach,

³ See: <https://www.parliament.gov.za/press-releases/media-statement-dna-backlog-exceeding-140-000-cases-threatens-criminal-justice-and-requires-urgent-audit-auditor-general>

which engages men as positive role models to deconstruct myths about masculinity and sexual entitlement (Intervention “Overview of GBV in South Africa”, Buti Kulwane & Pulane Mthembu, National Department of Social Development, Social Work Policy Managers). Strengthening formal institutions, such as Thuthuzela Care Centres, is equally vital. These “one-stop shops” provide survivors with medical care, psychological counseling, and legal assistance, helping to prevent secondary victimization and ensuring proper collection of forensic evidence. By combining institutional support with active community engagement, South Africa can create an integrated network of protection and prevention that addresses both immediate needs and long-term cultural change.

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Women in Politics and Sexual Crimes in South Africa

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Sexual violence remains a pervasive issue affecting women globally and impeding progress towards achieving women's empowerment goals. Far from being an exception, South Africa exemplifies this challenge as a compelling case. In this study, we use municipal-level data to examine the impact of female political representation on sexual violence in South Africa, with a special focus on rape rates.

The South African paradox

South Africa has achieved some of the highest levels of female political representation in the world, yet it continues to suffer from extremely prevalent sexual violence. Through affirmative action and party quotas, such as the 50% quota for women in the ruling African National Congress party (Gouws, 2011), the country consistently ranks among the top countries for women in politics, surpassing many developed economies (Goetz, 1998). As of 2024, women in South Africa occupy 38% of local government seats and 43% in the national parliament. This places South Africa among the strongest performers in Africa on female political representation, behind Rwanda, the continental and global leader, where women held 61% of parliamentary seats in 2021 and 63.8% in 2024 (Tolmay et al., 2024 ; Afrobarometer, 2021; IPU, 2026). South Africa's female political representation in the national parliament is significantly higher compared with 32.5% on average across OECD countries and 32.6% across European Union member states as per 2022 statistics (World Development Indicators, 2024). In addition, the country has a progressive constitution widely recognized for its stance on human rights and gender equality (Deane, 2018). However, South Africa faces alarmingly high rates of sexual crimes, particularly rape. In 2023, the country registered 87.6 incidents of sexual crimes per 100,000 people, which is alarmingly high relative to other African countries such as Nigeria, Kenya, Cameroon, and Egypt, where incidents range between 0.1 and 10.9 per 100,000 (UNODC, 2023 ; SAPS, 2023).

Related literature

Several studies examine the potential role of women as policymakers across various domains, encompassing investment in health and education, reforming inheritance rights, fighting corruption, engaging in military spending, and hiring temporary public employees (Bhalotra and Clots-Figueras, 2014 ; Brollo and Troiano, 2016 ; Clots-Figueras, 2011; 2012 ; Keneck-Massil et al., 2024). Violence in gender relations is another key domain, identified as a development and justice issue that overflows the private sphere. This reality rationalizes the major role of politicians in addressing it, with women being integral actors in these efforts. Nonetheless, evidence in

the literature regarding the influence of female political representation on sexual crimes is comparatively scarce. Previous studies conclude on the significant effect of female political empowerment on crimes against women, though with mixed results. For Brazil, Bochenkova et al. (2023) and Delaporte and Pino (2022) show that the presence of a female mayor reduces, on average, the female homicide and domestic violence rates by half. The results provide evidence that women in office play a significant role in shaping gender-specific policies. They tend to favour crime-deterrent policies, invest in anti-crime campaigns, and advocate for policies that promote a peaceful and equitable society by amplifying the voices of disadvantaged women while increasing the cost of crime for perpetrators. Evidence from India shows that an increase in female representation in local government induced greater reporting of sexual offenses rather than a greater incidence of such crimes (Iyer et al., 2012).

Researchers have identified a few mechanisms that would explain how female political representation can affect the prevalence of violence against women. Firstly, men and women may differ in their preferences over public policies, contradicting the median voter theorem, which predicts gender neutrality in public policy choices (Chattopadhyay and Duflo, 2004 ; Downs, 1957 ; Hessami and da Fonseca, 2020). Accordingly, female legislators favour women-friendly laws and are more active than their male counterparts in authoring legislative amendments on issues affecting women (Alesina and La Ferrara, 2005 ; Chattopadhyay and Duflo, 2004 ; Lippmann, 2019 ; Rustagi and Akter, 2022). Secondly, female political representation can have a positive effect on sexual violence by setting a role model for other women (Iyer et al., 2012). This mechanism is likely to encourage women, who feel more confident, to report violence, raising, in turn, the statistics on sexual violence and crimes. Thirdly, women could employ various strategies to exert their political power, thereby inducing the opposite effect on violence in gender relations. More specifically, women could either lead in a gender-specific or masculine way (Wang et al., 2024). In the first case, female politicians distinguish themselves from their male peers, allowing them to produce significant pro-women improvements. However, the choice of masculine behaviour enables female politicians to demonstrate their ability to compete with male peers within a male-dominated political life, lacking significant distinct outcomes in terms of fighting sexual crimes. Lastly, female political empowerment could lead to backlash (Rudman and Phelan, 2008). In response to perceived advancements made by women in politics, some men may respond with resistance by reinforcing traditional gender roles and exacerbating violence against women (Bhalotra et al., 2021). In addition, in line with the backlash hypothesis, the greater the political empowerment of women, the more female politicians face attacks than their male counterparts (Baumann et al., 2019 ; Daniele et al., 2023).

Overall, while female political leaders are expected to opt for pro-women policies and interventions that may reduce violence against women (for instance, through advocating for women-friendly policies, changing societal attitudes towards violence, and improving law enforcement responsiveness), their policy choices are often shaped by competing priorities, institutional constraints, and political incentives.

What do we do?

Our focus is on rape, which accounts for most sexual offenses in South Africa. The data we used in this research are centred on a comprehensive municipal-level analysis in South Africa, building on several datasets and empirical techniques to isolate the impact of female political representation on crime. The study relies on a cross-sectional dataset for the year 2016, compiled from three primary sources that provide election records, crime statistics, and municipal socio-demographic data.

The analysis uses a 5-year average of reported crimes (2016–2020) to match the full term of the councillors elected in 2016. Our outcome is the log of the number of reported rape cases per 100,000 people. Our main explanatory variable is the proportion of local government seats held by females in a given municipality. We add several control variables, such as population density, urbanization, education levels, marital status, and measures of traditional patriarchal cultural norms.

Our dataset shows that in 2016, women held an average of 40% of municipal council seats, ranging from 14% to 71% across municipalities. The average reported rape rate was 86 per 100,000 people, significantly higher than the global average of 21.

Figures 1 and 2 show maps illustrating the geographic distribution of political representation and sexual crime across the country's municipalities. Figure 1 displays the percentage of seats held by women in municipal councils. The legend indicates a range from 14.3% to 71.4%, where darker blue shading represents a higher concentration of female representatives. Figure 2 shows the incidence of reported rape cases per 100,000 people. The legend indicates a range from 25 to 219 cases, with darker blue shading representing higher rape rates. Female political representation is notably low in most parts of the Western Cape, Free State, and Gauteng provinces. The incidence of reported rape is relatively lower in Limpopo, KwaZulu-Natal, and Mpumalanga. A clear pattern is observed in Limpopo, which features a high share of female councillors alongside a low number of reported rapes. In provinces like the Free State and KwaZulu-Natal, the opposite relationship broadly applies (indicating higher crime rates in areas with lower female representation).

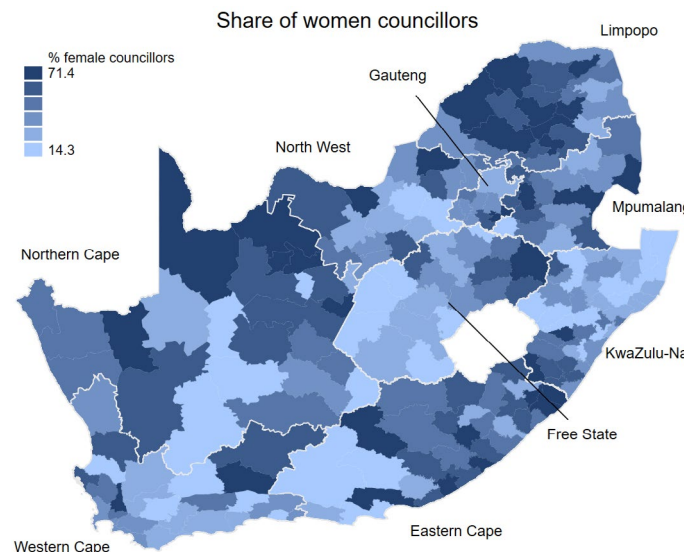


Figure 1: Spatial distribution of female councillors. Image by authors.

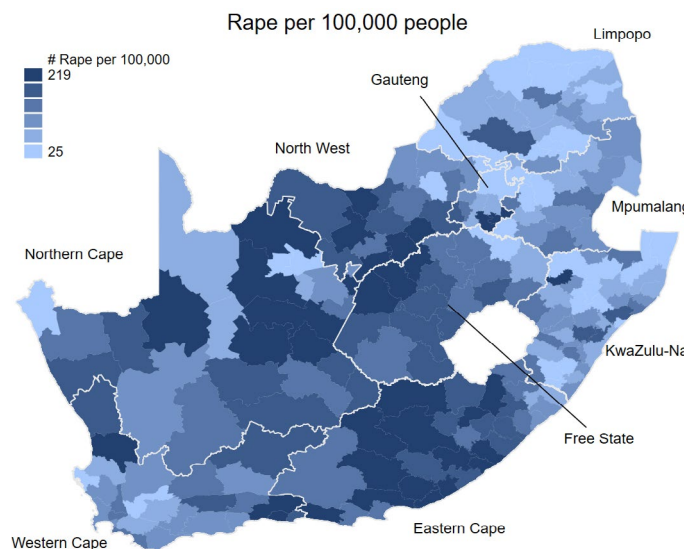


Figure 2: Spatial distribution of rapes. Image by authors.

The "Null Effect"

In the empirical strategy, we primarily rely on close elections using the share of seats won by women in closely contested mixed-gender races (with a margin of 5% or less). The rationale is that winning a very close race is quasi-random, allowing us to isolate the effect of the candidate's gender. Our assessment reveals that an increase in female political representation has no significant effect on reported rape. This "null effect" is consistent across various statistical models and applies to total reported crime. This finding is inconsistent with the goal of gender equity in political representation.

While the gender of political leaders appears to have little bearing on rape rates, several socio-demographic characteristics do. Municipalities with a more educated population, higher marriage rates, and greater population density tend to report lower levels of rape. In contrast, neither the density of police stations nor the degree of urbanization shows a significant relationship with rape rates.

Underlying factors at play

Several reasons could explain these findings. One possibility is that female politicians, despite being in office, lack the authority or resources to implement policies that effectively address the problem of sexual violence. Additionally, weak law enforcement, societal and cultural factors – such as deeply entrenched patriarchal norms and resistance to women in power – may counteract the potential benefits of increased female leadership. Another possibility is that many women in office are elected through party structures rather than direct public votes, making them more accountable to their political parties than to the communities they represent. As a result, some may align with male-dominated political norms rather than championing women's interests. Lastly, more female police officers can make victims feel safer, leading more people to report crimes. As a result, even if crime actually drops, the reported crime numbers can increase or remain the same.

Conclusion

The South African case highlights a crucial lesson: while female political representation is essential for gender equality, its impact on reducing sexual crimes remains limited without broader systemic reforms. Future efforts must extend beyond numerical representation to ensure that women in leadership can actively drive meaningful change in addressing gender-based violence. After peaking at a historic 41% in 2016, women's representation in South African local government dropped to 37% in 2021 (Maziwisa, 2022). This development connects to the persistent failure to reduce sexual violence because women are considered political commodities. When political parties negotiate coalitions, gender parity is easily sacrificed to secure power. However, when seats are legally guaranteed for women through a 50/50 quota, for instance, the qualitative nature of women's leadership changes profoundly.

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The livelihood strategies of Black women in mining communities



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Beatrice Gibertini recently obtained a joint PhD from the University of Paris 1 Panthéon-Sorbonne and VU Amsterdam. Her doctoral research examined the impacts of mineral extraction in developing countries, with a particular focus on gender dynamics. She has conducted research on artisanal mining formalization in Liberia and the gendered dimensions of mining in South Africa, and currently works as a consultant on gender, trade, and mineral supply chains. Her broader research interests include mining, energy transitions, and gender issues.

Introduction

The large-scale mining sector in South Africa is expected to expand in response to the rising global mineral demand for critical minerals, of which the country holds significant reserves. While this expansion is often framed as a pathway to job creation and poverty reduction, it is also likely to produce far-reaching consequences for black communities, especially working-class women residing near extraction sites and remaining structurally excluded from formal mining economies.

This study investigates the lived experiences of Black, working-class women in mining communities. It particularly focuses on how they navigate everyday challenges and opportunities. Central to the analysis is the concept of “hustling”, which captures the ensemble of activities through which women sustain themselves and their families. Hustling should not be understood solely as a set of economic practices, but also as an expression of resilience, autonomy, and adaptation within structurally constrained socio-economic environments.

This study draws on data collected during a three-month fieldwork period in six mining communities located in the municipalities of Mogalakwena, Emalahleni, Ekurhuleni, Merafong, Ga-Segonyana, and Matjhabeng as part of the ADAPTED joint doctoral programme. The data were analyzed using a thematic analysis approach. The findings reveal three key dimensions that define Black working-class women’s hustling in mining communities: survival, autonomy, and caregiving responsibilities. At the same time, the study highlights how mineral extraction shapes these dimensions. Women face compounded pressures, including persistent barriers to formal

employment within mining economies and the growing burden of unpaid care work.



Figure 1: Location of the mining communities mentioned in the article.
Image: B. Gibertini

Mining in South Africa: A Historical Overview

Historically, mining has played a central role in South Africa’s development. Since the discovery of rich mineral deposits in the 19th century, the sector has been a key driver of industrialization, contributing significantly to GDP and facilitating the emergence of towns and urban centers built around extraction (Fedderke and Pirouz, 2002 ; Marais et al., 2018 ; Cole and Broadhurst, 2020). At its peak, mining revenues accounted for approximately 20% of the national economy (Statistics South

Africa, 2015). While the sector's relative contribution has declined in recent years, it continues to play an essential role in resource-rich areas where mining remains a dominant source of business activity and employment (Cock, 2019).

Yet the wealth generated by large-scale mining has not been equally distributed. The industry's history is closely tied to structural inequalities based on race, class, and gender, and it has contributed to what some describe as a "multifaceted social, economic and environmental crisis" in mining regions (Hargreaves, 2016, p. 145). The early expansion of the sector relied on exploitative labour systems, such as oscillating migration, where Black men were recruited on short-term contracts, housed in hostels, and excluded from long-term benefits (Wilson, 2001; Van der Merwe et al., 2010). These practices laid the foundation for apartheid-era spatial segregation, contributing to the creation of under-resourced townships where many Black South Africans currently live (Smalberger, 1976 ; Mahajan, 2014).

Today, local communities, especially women, continue to bear the brunt of the industry's social and environmental impacts. Despite reforms such as the introduction of mandatory Social and Labour Plans (SLPs), companies often extract vast resources with limited local benefit (Cole and Broadhurst, 2020). As extractivism persists, so do the socio-economic inequalities it has entrenched.

Women and Mining in South Africa

Women's contributions to South Africa's mining sector have historically been overlooked (Botha and Cronjé, 2015). Although mining is typically portrayed as a male domain, available literature shows that women have long played active roles in and around mining areas. Historical accounts describe women working as saloon managers, beer brewers, cleaners, nurses, and sex workers (Moodie and Ndtashe, 1994 ; Breckenridge, 1998). In some cases, such as asbestos mining, women also participated directly in extraction activities and constituted a notable share of the workforce (McCulloch, 2003).

Despite this presence, women - particularly Black women - have faced systematic exclusion from the sector. The Mines and Works Act of 1956 formally prohibited women from working underground, while broader racial and gender segregation in the labour market confined Black women to poorly paid work in agriculture and domestic service (Cock, 1987 ; Alexander, 2007). During apartheid, pass laws further limited Black women's mobility, making it difficult for them to access employment in urban areas, including the mines (Savage, 1986). These intersecting forms of exclusion have contributed to Black women's marginalization in a sector that has long served as the backbone of South Africa's economy.

The legacy of this exclusion remains evident today. Black women continue to experience higher levels of poverty and job insecurity than other groups, particularly in rural mining-affected communities (Phaswana, 2021). In addition to economic precarity, they carry a disproportionate burden of unpaid care work, which constrains their ability to enter or remain in the labour market and makes them especially vulnerable to external shocks such as the COVID-19 pandemic (Bak, 2008 ; Chitiga et al., 2022). Their socio-economic marginalization is also linked to elevated risks of crime and gender-based violence, which are among the most pressing concerns in these areas (Enaifoghe et al., 2021).

Post-apartheid policies such as the Mining Charter have sought to promote gender inclusion, for instance by introducing employment quotas (Kaggwa, 2020). However, progress has been uneven. Women's representation in the sector remains low (Minerals Council of South Africa, 2020), often attributed to the physically demanding nature of mining work, persistent health and safety issues, and a "masculine" workplace culture where sexual harassment is widespread (Botha, 2016 ; Benya, 2017). As a result, gendered inequalities continue to shape who benefits from South Africa's mineral wealth.

Hustlers

Six mining communities were visited as part of this study during the period of March – May 2023. Each of the communities is located near a large deposit of either gold, coal, manganese, or platinum. An average of 15 Black women were interviewed per community. Across these communities, hustling emerged as a common practice primarily associated with Black women. All participants reported engaging in at least one hustle, and most combined several. These activities ranged from distributing and selling small items—such as air fresheners, beauty products, and herbal teas—to providing services like cooking, cleaning, and running day cares. Applying for social grants, like unemployment benefits and child support, was also commonly considered a form of hustling given its central role in sustaining household livelihoods.

Hustling can therefore be understood as an ensemble of small-scale, informal income-generating activities, but not exclusively. Some forms of hustling are formal and can generate relatively stable incomes that allow women to live more comfortably compared to others in their communities. Forms of artisanal mining are also considered hustling, as they exist outside of the formal mining economy.



Figure 2: Group session with women from a mining community in the Northern Cape.
Image: B. Gibertini

Key Findings

Looking at hustling practices provides valuable insights into the lived experiences of Black women in mining communities, including their challenges and opportunities. Throughout the analysis, three dimensions of hustling emerged as particularly interesting: survival, autonomy, and caregiving responsibilities.

The first theme, survival, underscores the constrained livelihood options available to women in areas where mining dominates the local economy. While mining companies may be central to employment and business opportunities in these areas, Black women reported facing numerous barriers to participation in the sector. These included age limits, skill requirements, discrimination and corrupt practices such as demands for sex in exchange for a job. In this context, hustles are key for Black women's survival. They enable women to support themselves and their families. In some cases, they also enable them to find ways to benefit from the mining companies indirectly, as in the case of artisanal miners.

The second theme, autonomy, speaks to the ways in which women navigate precarious conditions while asserting control over their lives. In mining communities, local livelihoods and the environment are often significantly disrupted by extraction activities (Gonzalez et al., 2016 ; Pretty and Odeku, 2017). For

example, in one gold-mining community, residents reported that fumes from a nearby mineral processing plant were causing severe health problems, including respiratory issues. While these health impacts affected the community as a whole, women often bore a disproportionate share of the resulting burden because they were primarily responsible for caring for sick children and other family members. This reflects gendered expectations around caregiving, particularly in contexts where single motherhood is common, and women assume primary responsibility for household survival. In this context, hustling income plays a critical role, allowing women to respond to immediate needs, such as securing higher-quality healthcare for their children, and provides a measure of control over uncertain circumstances. Hustling, therefore, is not only a strategy for managing hardship but also an expression of self-reliance and agency.

The third theme, caregiving responsibilities, highlights the disproportionate reproductive burden shouldered by women in mining communities. As in previous studies (Eftimie et al., 2009), women in this research described how environmental degradation - such as polluted air and water - translates into increased demands for unpaid care work. Chronic illness, developmental delays, and general household precarity require constant attention often provided by women in the absence of adequate public services. In this context, women emphasize that the ability to organize their own working hours, operate from home, or combine multiple small activities allows them to reconcile income generation with caregiving obligations. Hustling thus becomes a strategy that links production and



Figure 3: Informal mining taking place next to large-scale mines.
Image: B. Gibertini

social reproduction: it sustains household economies while accommodating the expanded care demands produced by mining-related environmental and social change.

Conclusion

This study investigated the livelihood strategies of Black women in mining communities, focusing on their hustling practices as a lens through which to understand their everyday realities. By centering these practices, the analysis brings into view forms of labour that are often rendered invisible in mainstream accounts of mining economies. The findings reveal that these women occupy a structurally precarious position shaped by economic insecurity, limited opportunities, and deeply gendered responsibilities. The analysis also underscores the role of resource extraction in both generating and intensifying these vulnerabilities. Although gender-focused policies have been introduced in the mining sector, Black women continue to face systemic exclusion and receive minimal institutional support. This study concludes that interventions must go beyond one-size-fits-all employment initiatives to account for the specific challenges these women face and the complexity of the strategies they employ to survive and care for their families.

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From Schooling to Work: Education and Women's Labour Market Outcomes in Southern Africa



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This article focuses on female labour force participation in Southern Africa, with particular attention given to the role of education in shaping labour market outcomes. Historically, women in the region have faced structural barriers to labour market participation, including restrictive social norms, unequal access to opportunities, and persistent gender biases (Arbache et. al., 2010 ; Ngai and Dinkelman, 2022 ; Tekwa, 2026). These constraints have limited not only women's entry into paid work but also the types and quality of employment available to them. However, this landscape is gradually changing. As the contribution of women to economic growth and national development becomes more widely recognised, greater attention is being given to understanding the factors that influence both participation in the labour market and the quality of employment outcomes. It is widely acknowledged that the active engagement of women in the labour market is a fundamental driver for poverty alleviation and plays a pivotal role in fostering national economic growth (Cheema et al., 2021 ; Pimkina and de la Flor, 2020 ; Verick, 2014). In this context, education, conceived broadly as human capital development, has emerged as a key determinant of women's economic opportunities (Jaumotte, 2003 ; Heath and Jayachandran, 2016 ; Ince, 2010 ; Kumari, 2018). Schultz (2002) highlights the importance of public investment in female

education, as increased female schooling is believed to be associated with growth in per capita income due to increased income-earning opportunities for women. Kumari (2018) found that economic growth, coupled with increased female enrolment in secondary and tertiary education, significantly drives women's labour force participation.

In his foundational research, Becker (1962) argued that individuals acquire a specialized skill set through education and training, which enhances their productivity and earning potential in the labour market. According to the human capital theory, education significantly influences labour market participation, particularly for women, by increasing expected returns relative to their reservation wage (Becker, 1993). This process effectively reduces the opportunity costs associated with remaining out of the workforce (Becker, 1993 ; Mincer, 1974). Consequently, higher educational attainment leads to superior labour outcomes, as the rising potential for earnings increases the economic cost of non-participation. Human capital theory therefore underpins the link between educational attainment and women's participation in the workforce (Becker, 1957). It views an individual's "innate ability" as a stock that expands through schooling, workplace training, and experience. This article examines the relationship between formal education

and women's labour market outcomes in Southern Africa. It considers not only whether women participate in the labour force, but also the nature and quality of the jobs they hold. In addition, the analysis briefly explores age cohort differences to assess whether generational changes influence women's likelihood of working.

The central premise is that improvements in human capital alongside gradual shifts in social norms can expand economic opportunities for women. By situating education within the broader context of structural transformation and gender dynamics, the article aims to shed light on the extent to which advancements in schooling for women have translated into labour market inclusion.

Understanding Women's Work in Southern Africa: Data and Approach

We draw on the most recent Demographic and Health Surveys (DHS) available for Sub-Saharan Africa at the time of writing, with around 90 percent conducted after 2015 and the latest in 2024. The analysis covers nine Southern African countries, namely, Angola, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe and uses data from the women's questionnaire. The sample is restricted to women aged 15–64, consistent with the conventional working-age population, and we have a pooled sample of 105,694 women. All estimates account for the DHS survey design, and we apply normalized population weights to ensure representativeness across countries.

Contextually, the data points to relatively high female human capital levels alongside labour markets characterised by low female participation and moderate occupational

diversification. Only 13 percent of women have no formal education, while 44 percent have completed secondary education and 6 percent have even attained tertiary education. Despite these gains, labour market outcomes remain constrained: half of the women in the sample are unemployed (Figure 1). Among those employed, 34 percent work in agriculture (as self-employed) and 66 percent in non-agricultural activities, including sales, services, professional or managerial roles, and paid agricultural work. Employment is also split almost evenly between the formal and informal sectors (46 percent and 54 percent, respectively), with informal work including activities such as unskilled manual labour and domestic work. To examine the determinants of women's labour market outcomes, we estimate a linear probability model using the pooled dataset. Education, respondent and household characteristics, and other socio-economic factors are included as covariates. The analysis focuses on three binary outcomes: the probability of being employed, the probability of working in agriculture (as self-employed, typically reflecting lower productivity and income), and the probability of holding formal employment. The first outcome captures women's participation in the labour market, while the latter two provide an indication of the quality and nature of the work in which they are engaged. All specifications control for country fixed effects, and fractional logistic regressions are estimated as a robustness check.

The Role of Education in Female Labour Market Outcomes

How Education Shapes Women's Employment in Southern Africa

Preliminary results indicate that education plays an important role in shaping women's labour market outcomes in Southern Africa (Figure 2). Education is positively and statistically significantly associated with the probability of being employed, suggesting that improvements in educational attainment increase the likelihood of labour market participation, consistent with the view that human capital accumulation facilitates women's entry into employment. At the same time, education is strongly associated with the type and quality of employment women access. While higher levels of education increase the likelihood of overall employment, they are also linked to a lower probability of working in agriculture, a sector that is typically lower-paying and less skill-intensive. Each additional year of schooling reduces the likelihood of agricultural employment, holding other factors constant, suggesting that education enables women to transition out of agriculture into non-agricultural activities. In contrast, education is strongly and positively associated with formal sector employment. This indicates that education not only promotes employment overall but also facilitates

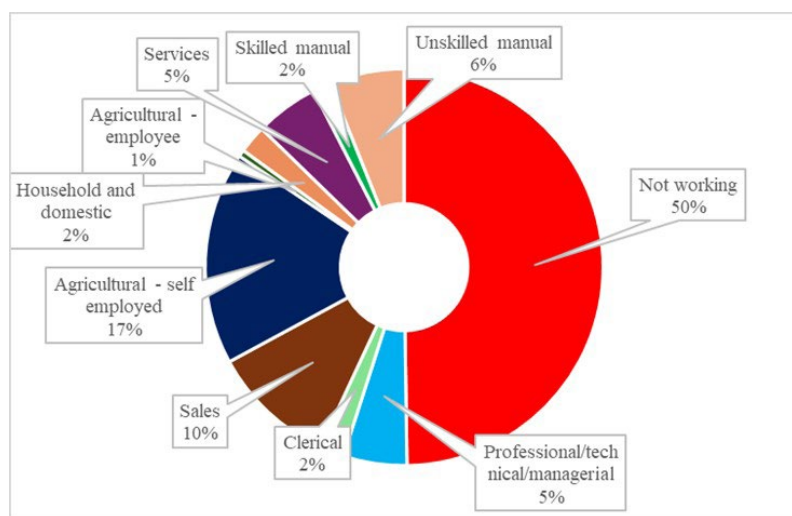


Figure 1: Occupational Distribution of Women in Southern Africa. Image: Nikiema and Funjika, 2026, based on DHS data.

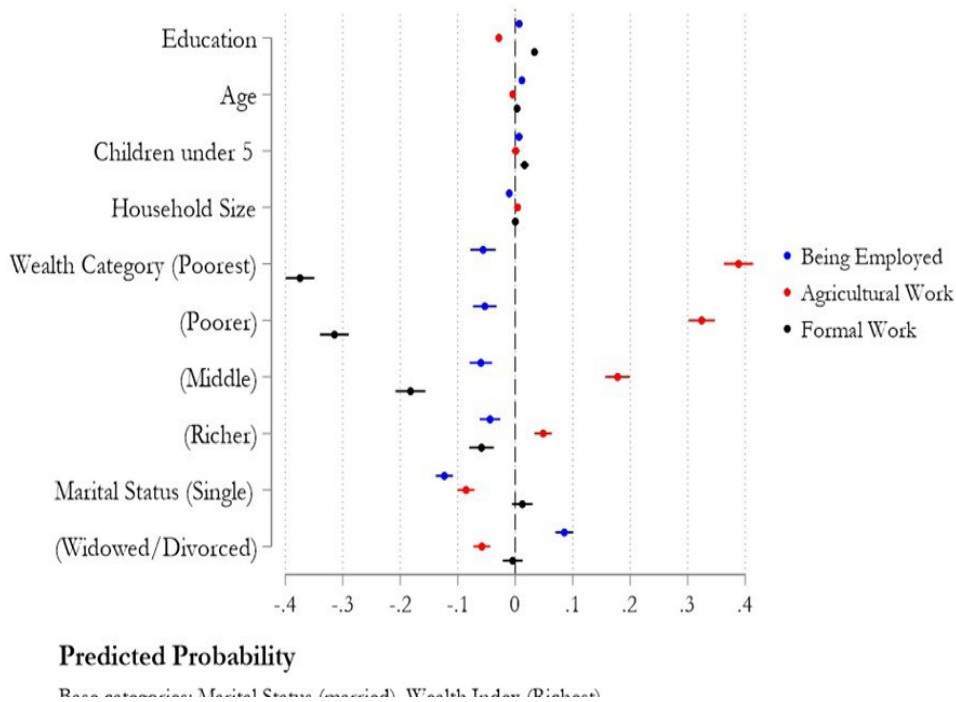


Figure 2: Predicted Probability of Female Labour Market Outcomes: Being Employed, Agricultural Work, and Formal Work. Image: Nikiema and Funjika, 2026, based on DHS data

access to higher-quality jobs that offer greater stability and social protection.

Several other covariates are also significantly associated with these labour market outcomes. Age has a positive and statistically significant effect on overall employment and formal sector participation. It indicates that older women are more likely to be employed and slightly more likely to hold formal jobs, while younger women are more likely to work in agriculture. Household characteristics also matter. The presence of a young child (under five) is positively associated with both employment and formal sector participation, possibly reflecting greater income needs or the availability of maternity protections in formal employment. In contrast, larger household size reduces the probability of overall employment but marginally increases the likelihood of agricultural work, potentially reflecting greater household responsibilities or labour demands within rural production systems. Wealth differences are also pronounced across all outcomes. Relative to women in the richest quintile, those in poorer households are significantly less likely to be employed and less likely to work in the formal sector, but substantially more likely to work in agriculture, with the largest effects observed among the poorest households. This pattern underscores the close relationship between poverty and concentration in lower-paying agricultural activities. Marital status also plays a part: single women are significantly less likely to be employed than married women, while divorced, separated, or widowed women are more likely to be working, possibly reflecting economic necessity. Single women and those who are divorced are also less likely to be involved in

agricultural work, perhaps suggesting that this type of work may in part be closely related to household-based or family farming arrangements typically associated with marriage. Overall, these findings highlight the central role of education and socioeconomic status in shaping both women's participation in the labour market and the types of jobs they can access.

Southern Africa in Context: A Regional Comparison

To place the Southern African results in context, we briefly compare them with patterns observed in other Sub-Saharan African regions. A summary analysis of the sample shows that Southern Africa has a relatively more educated female population than other regions. However, it also records substantially higher unemployment, particularly when compared with West Africa. The occupational structure is somewhat more diversified than that of West Africa but remains more agri-

culture-intensive than East Africa overall. At the same time, the share of women employed in the formal sector is moderate relative to the broader regional distribution.

The regression results further highlight important regional differences. In Southern Africa, education is positively and significantly associated with the probability of employment, suggesting that higher educational attainment increases the likelihood that women participate in the labour market. This contrasts with Central Africa, where education does not appear to have a statistically significant effect on employment, and with East Africa, where the relationship is negative, indicating that higher education does not necessarily translate into greater participation. Instead, the Southern African pattern is more closely aligned with West Africa, although the magnitude of the education effect is somewhat larger in Southern Africa.

Education is also strongly associated with sectoral sorting. As in the other regional groupings, education in Southern Africa significantly reduces the likelihood of women working in agriculture. However, the magnitude of this effect is larger, suggesting a stronger transition away from agricultural employment as education increases. Finally, education has a positive and sizable effect on the likelihood of formal sector employment in Southern Africa. The magnitude of this effect is slightly less than that observed in East Africa but much stronger than in Central and especially West Africa, reinforcing the role of education in facilitating access to higher-quality employment.

Do the Outcomes Differ Across Generations?

A cohort-based analysis highlights notable differences across age groups. Descriptive statistics show that younger women are far more likely to have completed secondary education, while women aged 45 and above are more likely to have no formal schooling. This pattern reflects substantial improvements in access to education over time. Marital status also follows a clear life-cycle pattern: younger women are predominantly single, those in their prime working years are more likely to be married, and older women experience higher rates of widowhood or divorce. Household composition evolves similarly. The number of children in the household declines with age, reflecting the transition as children grow up and leave home. By contrast, wealth is distributed relatively evenly across age groups, suggesting that economic differences are driven more by structural factors than by generational divides.

The regression results reveal some cohort-specific patterns. Among younger women aged 15–24, higher levels of education are associated with a lower probability of employment, reflecting delayed labour market entry while schooling is completed (Figure 3). However, education improves employment prospects later in life. With regards to sectoral outcomes, education consistently reduces the probability of working in agriculture across all age groups. A similar pattern emerges when examining formal sector employment. Education strongly increases

and household composition shape labour market participation differently across the life cycle.

Concluding Remarks

The tentative findings of this article underscore the critical role of education in shaping women's labour market outcomes in Southern Africa. Improvements in human capital not only increase the likelihood of employment but also enable women to move out of lower-paying agricultural work and enter into higher-quality formal sector jobs. At the same time, labour market participation is shaped by household composition, childcare responsibilities, marital status and wealth, highlighting how structural and family factors interact with education across the life cycle. Regional and cohort comparisons reveal both progress and persistent inequalities: Southern Africa's women are relatively more educated than those in other Sub-Saharan regions, yet unemployment remains high, and structural barriers continue to shape opportunities across generations.

Overall, the findings reinforce the importance of education as a central driver of labour market inclusion and job quality for women. At the same time, family responsibilities, household composition, and broader structural inequalities often show even stronger correlations with female labour force

participation, highlighting the need to understand women's work within the broader social and economic context. By linking human capital development to labour market outcomes, this study provides a subtle understanding of how improvements in schooling translate into meaningful economic opportunities for women across Southern Africa. Looking ahead, the next step involves exploring causal effects using propensity score matching to compare women with different levels of education, treating schooling as the intervention. While this work is still in its early stages, it has the potential to provide more robust insights into the impact of education on women's employment and access to higher-quality jobs.

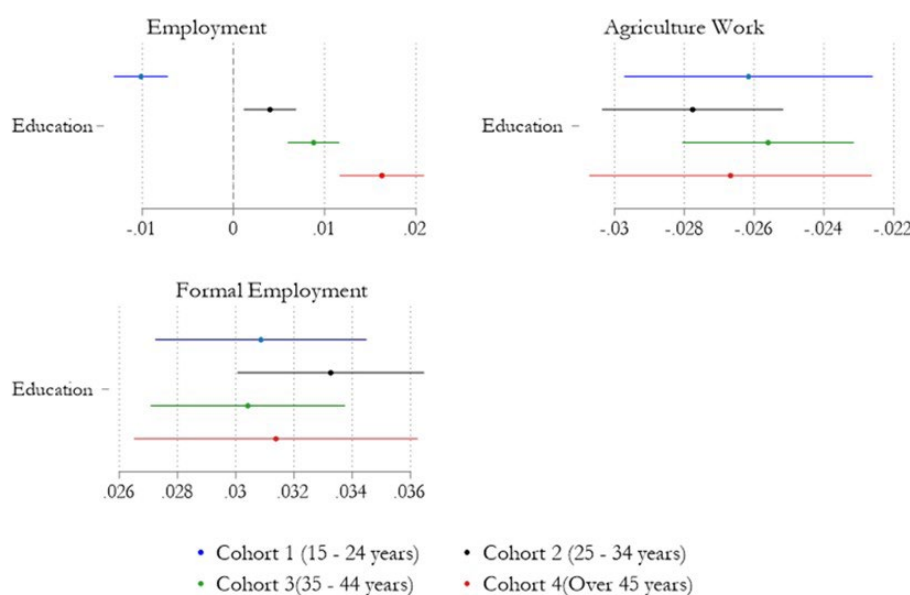


Figure 3: Predicted probabilities of Cohort based Labor Market Outcomes. Image: Nikiema and Funjika, 2026, based on DHS data.

the likelihood of formal employment across all age groups, with each additional year of schooling raising the probability of formal work by roughly three percentage points. Overall, our results highlight education as the most consistent driver of better-quality employment, while childcare responsibilities

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The Crucial Link Between Land Tenure Security and Soil Conservation in Malawi



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Malawi's agricultural sector faces a pressing environmental challenge: soil erosion. This problem, driven by population growth, deforestation, and unsustainable agricultural practices, threatens food security and economic stability. Despite decades of government initiatives promoting soil conservation, adoption rates remain low. Why? One often-overlooked factor is land tenure insecurity - a complex issue deeply intertwined with Malawi's social and traditional fabric.

In this article, I discuss how tenure insecurity can affect investment in soil conservation measures, drawing insights from my study on "Tenure Insecurity and Investment in Soil Conservation: Evidence from Malawi" (Lovo, 2016) and other recent studies

Soil Conservation: A Critical Need

It is estimated that soil erosion could lead to a 10 percent loss in crop production globally by 2050 (Boerger, 2021). Soil erosion affects over 40% of Malawi's agricultural land, making it one of the most severely affected countries in sub-Saharan Africa (Lovo, 2016). This environmental degradation exacerbates food insecurity and disrupts vital sectors such as hydro-electric power and drinking water supply (Deininger and Jin, 2006). Malawi's agricultural landscape is dominated by small-holder farmers who often engage in monoculture maize farming. While economically beneficial in the short term, these practices accelerate soil degradation. Recent research by Asfaw et al. (2020) highlights the economic and distributional effects of soil erosion in Malawi, showing that severe topsoil loss disproportionately affects the productivity and welfare of the most vulnerable households, exacerbating poverty and food insecurity.

Soil conservation techniques - such as terracing, agroforestry, and crop rotation are essential for mitigating erosion and ensuring long-term agricultural sustainability. Yet, many farmers hesitate to adopt these measures. This underscores the urgent need for targeted soil conservation policies that address the uneven impacts of erosion and climatic vulnerabilities.



Figure 1. Conservation agriculture in Chipeni village, Dowa District, Malawi. Photo: T. Samson/CIMMYT.

Understanding Land Tenure in Malawi

Land in Malawi is primarily governed by customary tenure systems, where traditional leaders allocate use rights. A large portion of the land is acquired through inheritance rather than formal transactions (Place and Otsuka, 2001). Although land can only be officially transferred through inheritance, an informal rental market has emerged and has been in continuous expansion in response to the increasing scarcity of land (Holden, Otsuka and Place, 2008). Yet, this informal rental market is dominated by short-term agreements, often lasting just one growing season (Deininger and Jin, 2006).

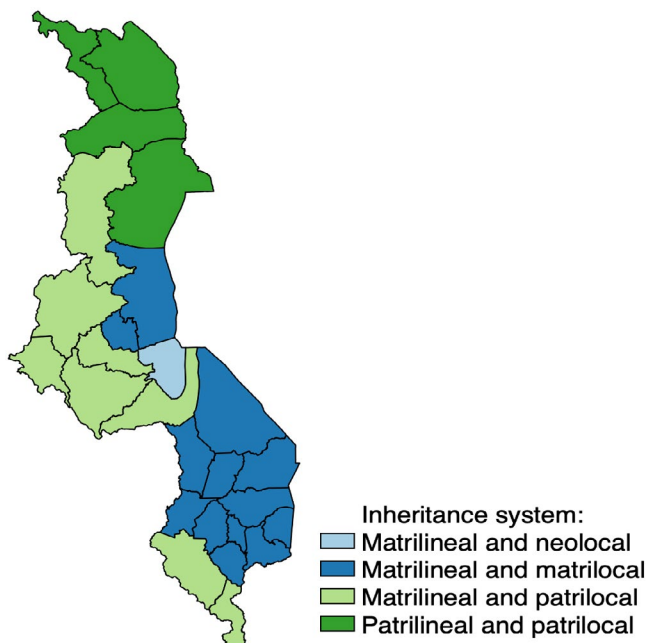


Figure 2: Predominant inheritance systems. Map: Author's elaboration using the Agricultural Integrated Household Living Standard (LSMS-ISA) of 2010

Customary inheritance systems also vary by region. In the south, matrilineal-matrilocal practices dominate, meaning land is passed through women, and husbands relocate to their wives' villages (Figure 2). In contrast, northern regions mostly follow patrilineal-patrilocal systems, where land ownership is male-dominated. These systems create vulnerabilities for non-local spouses, who risk losing land access upon divorce or the death of a partner.

The historical roots of this tenure system trace back to colonial times when white settlers were granted preferential access to land, and other inputs for cultivating tobacco, Malawi's main cash crop (Binswanger et al., 1995). Following independence in 1964, estate lands were transferred to Malawians

under significant public support, creating a dualistic agricultural system that reinforced inequality. By the late 1980s, as land scarcity intensified, estates carved from customary lands created governance challenges and underscored the need for comprehensive reforms. Recent research by Deininger, Xia and Holden (2017) highlights governance challenges in managing land leases and the inefficiencies within Malawi's dualistic tenure regime. The study found that tenure insecurity, driven by unresolved land disputes, affected 22% of farmers who fear losing their land. Notably, plots managed by women were disproportionately impacted, with tenure insecurity reducing their output by 12%. Addressing this fear through tenure regularization could significantly boost productivity, especially for female farmers, and provide economic benefits sufficient to justify the cost of implementation.

Key Findings

My study uses data from over 9,000 households across Malawi to explore the relationship between tenure insecurity and soil conservation. First, I find that farmers working on rented plots are less likely to invest in soil conservation. The temporary nature of these agreements discourages long-term commitments, as renters fear losing their investments if rental contracts are not renewed. Second, I find that male farmers in matrilineal-matrilocal systems, where they lack secure land ownership, are significantly less likely to adopt soil conservation. Conversely, male farmers in patrilineal systems exhibit higher investment rates due to greater tenure security. While tenure insecurity negatively impacts the use of erosion control, it has no effect on the adoption of hybrid seeds. These inputs produce short-term gains, making them less dependent on long-term land security. Similarly, tenure insecurity has only a minor effect on tree planting. This is because, while trees help prevent soil erosion by acting as windbreaks and stabilizing soil with their root systems, they also serve as a "security-enhancing" investment by marking plot boundaries and reinforcing land claims. Other studies point to similar concerns. Research by Asfaw and Maggio (2018) highlights the gender-differentiated effects of weather shocks on households in Malawi, showing that tenure security is particularly critical for female-managed households in patrilineal districts. Similarly, Ajefu and Abiona (2020) find that land tenure security plays a crucial role in mitigating the adverse effects of drought-induced food insecurity, demonstrating how secure land rights enable farmers to adopt resilience-building practices and better cope with climatic shocks. A study by Deininger, Xia, Kilic, and Moylan (2021) investigates the role of bequest and sale rights. It shows that bequest and sale rights significantly influence investment decisions. Female bequest and, in non-matrilineal inheritance regimes, sale rights increase investment in soil fertility.

Broader implications for Southern Africa

Scholarly works highlight similar concerns in the Southern Africa region. For example, research on Zambia conducted by Nkomoki, Bavorová, and Banout (2018) demonstrates how secure land tenure positively impacts the adoption of sustainable agricultural practices. The study finds that farmers with formalized land tenure were more likely to invest in long-term conservation measures such as agroforestry and soil erosion control. Hagos (2012) shows that in Mozambique, only less than 2 percent of the parcels in the studied area had formal titles and that there was great demand for rights documentation among farmers. In addition, farmers who feared losing their land were notably less likely to undertake long-term land-related investment in the form of soil conservation structures and parcel boundary demarcations. Evidence from Tanzania reinforces these findings: a study of rural households in western Tanzania finds that tenure insecurity reduces investment in adaptive agricultural technologies, while demand for land certification is high, and investment increases significantly once tenure risk is removed. These findings underscore how tenure security shapes farmers' willingness to adopt climate-resilient and soil-conserving practices across diverse institutional contexts.

Implications for Land Reform

Several studies have underscored the urgency of addressing tenure insecurity to enhance soil conservation efforts, a challenge that extends beyond Malawi to other Southern African nations with similar customary land tenure systems. Evidence from Ethiopia's land registration and certification programme shows that strengthening tenure security can generate persistent gains in agricultural productivity, while also enhancing climate change mitigation and adaptation through increased adoption of climate-smart agricultural practices (Rampa and Lovo, 2023). Using satellite-derived vegetation indices, the study finds that tenure reform improved land productivity and strengthened resilience during adverse climate conditions, consistent with increased uptake of soil and water conservation measures.

Malawi's recent land reform initiatives, particularly efforts to formalize customary tenure and promote long-term land rental agreements, present an opportunity to strengthen soil conservation measures. Formalizing the rental market by introducing clear legal frameworks for land leases would encourage longer-term agreements, allowing tenants to invest in soil conservation without fear of displacement. Additionally, reforming inheritance laws to promote gender equity—particularly in regions where women's land rights remain precarious—would empower more farmers, particularly female-headed households, to adopt sustainable agricultural practices. By addressing tenure insecurity through these reforms, Malawi can set a precedent for other nations in Southern Africa grappling with similar land governance challenges, fostering both environmental sustainability and agricultural resilience across the region.

Conclusion

Demand for land reform and land registration programs remains high, especially among women. A study in Mozambique found that nearly all women who were helped register their land took advantage of the opportunity (Boxho, 2023). However, land reforms alone may not necessarily lead to greater agricultural and conservation investments if farmers face liquidity constraints. The same study found that while land registration alone did not increase farmers' willingness to purchase agricultural inputs, even a small subsidy significantly boosted input demand. This highlights the need for a comprehensive approach to land reform, which not only enhances tenure security but also integrates financial support mechanisms to ensure that secure land rights lead to tangible agricultural and environmental benefits. To further incentivize conservation, land reform policies could incorporate targeted support measures such as subsidies for terracing, agroforestry, and other erosion-control techniques. These interventions would help ensure that both landowners and tenants recognize the long-term value of sustainable land management.

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A complex network of cities: transport infrastructure and urban development in South Africa (1890-2020)

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Introduction

In the academic literature on transport and urban networks, very few works provides an analysis combining intermodal connectivity and the socio-economic characteristics of nodes. In addition, the issue of reverse causality between transport and urban development is often ignored in such studies.

South Africa presents compelling evidence of the economic, urban, and social impact of transport infrastructure on the configuration of urban networks in the long run in Africa. This country has a specific path of development compared with the rest of the continent, related to the transport network grid. Notably, academic literature has observed the higher development degree of transport infrastructures and a major density of the urban patch. It is also important to note that gendered inequalities in mobility have historically intersected with transport and urban development in South Africa, even though this analysis does not explicitly incorporate them. Indeed, Muhwezi and Turyasingura (2025) show that gender disparities in mobility are reinforced by broader systems of exclusion, insecure access to resources, and climate-related vulnerabilities, which together intensify the constraints faced by women in Sub-Saharan African transport systems. Building on this understanding of structural vulnerability, Muhoza, Wikman and Diaz-Chavez (2021) demonstrate that such constraints are further reproduced within urban transport systems themselves, as inadequate infrastructure design, weak institutional arrangements, and the absence of gender-responsive policy frameworks continually shape unequal mobility outcomes. This perspective is echoed in the World Bank Gender Thematic Policy Note (2023), which emphasizes that affordability, availability, safety, and first- and last-mile connectivity remain decisive barriers that disproportionately limit women's access to employment, education, and essential services, further entrenching inequality. Complementing these institutional and infrastructural insights, evidence from *Women and Transportation in Africa* (2022) illustrates how these barriers manifest in everyday mobility practices: women systematically have lower access to motorised transport, rely more heavily on walking and public or informal modes, and face substantial constraints linked to caregiving responsibilities and safety concerns, producing distinct and unequal mobility patterns across the continent.

This article explores the causal relationship between transport infrastructure development and urban growth in South Africa (Polo-Martín et al., 2026). In addition, we analyse the evolution of the urban network in South Africa building on the degree of centrality. We distribute cities into four groups depending on the degree of connectivity (port, railway, intermodal and none). We demonstrate that the largest and fastest-growing cities correspond to key junction nodes between maritime and railway networks. The major seaports of South Africa such as Durban, Cape Town, Port Elizabeth or Saldanha

Bay, articulated regional and international trade but also structured the inland transport network. Our study also focuses on the spatial impact of the Apartheid regime. Comparing the demographic growth of South Africa with the rest of the continent, the country presents a higher performance after 1950. During the last stages of Apartheid, there was a reducing demographic gap between South Africa and the whole continent. Our investigation suggests that, if the transport infrastructure played a part, the major influence was the Apartheid economic and institutional model.

Multimodal infrastructure and urban spatial distribution

For the creation of graphs, we used, in first place, a cluster-based trend analysis to examine population growth patterns over time. Our dataset consisted of annual population growth rates categorized into four clusters identified by colours (blue, green, red and orange) and we compared to the rest of the African continent from the late nineteenth century up to present (Figure 1). We employed scatter plots to display individual data points and LOESS (Locally Estimated Scatterplot Smoothing) curves to highlight long-term trends within each cluster. Confidence intervals were visualized using shaded regions to capture variability. This methodology enables a comparative analysis of population growth dynamics across clusters, facilitating insights into historical and contemporary growth patterns. In addition, we employed a transportation infrastructure-based trend analysis to investigate population growth patterns over time. Our dataset categorized population growth by the presence of different infrastructure types: multimodal hubs (green), ports (blue), train stations (orange), and areas with no major infrastructure (red).

In the same way, we used scatter plots to represent individual data points and LOESS curves to capture long-term trends within each infrastructure category. Shaded regions around the trend lines indicate confidence intervals, highlighting variations in growth dynamics. By distinguishing categories with color coding, this approach provides insights into the relationship between transportation infrastructure and population growth trends over time.

We highlighted the Apartheid period in grey. The African demographic path is presented as a dash line to observe the relative position for the South African cities. The green cluster presents multimodal connections with a higher growth rate. In addition, cities connected only by sea or railway present stable growth. Finally, less connected cities grew under the African average, including urban agglomerations segregated, marginalized, and neglected by the Apartheid Government (i.e. homeland territories). The establishment of inland transport

Population Growth by Cluster

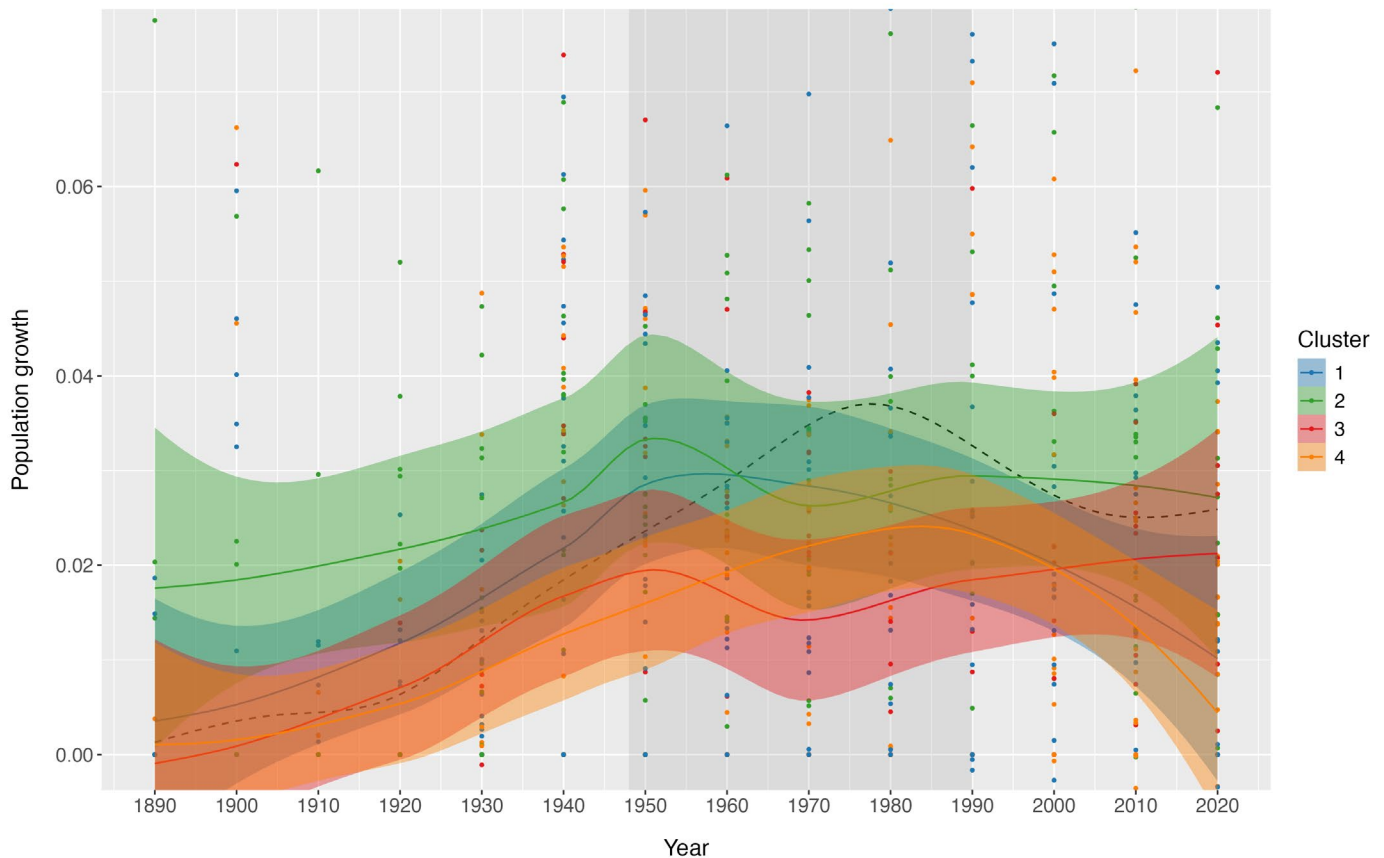


Figure 1: Urban growth by group of cities in South Africa and the African continent, 1890-2020.
Source: Author's elaboration.

infrastructures were planned for facilitating the evacuation of mining raw materials from the producer regions (i.e. Transvaal) to the exporting seaports. The Eastern part of the country presented an important urban growth, fostered by railway connectivity linked to the major commercial and political centers (Bloemfontein, Johannesburg and Pretoria).

Figure 2 presents a spatiotemporal analysis of population growth in South Africa, mapping urban expansion across four key periods (1890–1900, 1910–1930, 1950–1970, and 2010–2020). Using geospatial visualization techniques, each point represents a settlement, with circle size indicating betweenness centrality (a measure of network connectivity) and color denoting population growth rates. The data were processed using historical records, and growth trends were calculated for each location, highlighting key urban centers over time. The comparative layout allows for an analysis of shifting population dynamics, illustrating how transport connectivity and economic factors have influenced urban development. This methodology provides insights into the historical evolution of South

Africa's settlement patterns and the role of infrastructure in shaping The South African urban network experienced a rapid growth since the 1950s, chiefly related to multimodal (ports and railways) transport infrastructures development (Figure 2). It coincides with the establishment of Apartheid policies which decisively impacted already asymmetric spatial inequalities. In historical perspective, higher growth is observed on coastal regions (Cape Town, Port Elizabeth, East London, Durban and Richards Bay) as well as in the Free State province (Bloemfontein). Both groups of cities benefited from multimodal connectivity as observed for the rest of the continent.

The origins of transport expansion in Africa are found in the late nineteenth century. Public and private expenditures on transport infrastructures (seaports, railroads and roads) in colonial Africa were chiefly funding extraverted structures, connecting the main producer regions to the major seaports. The 1880s mining revolution in South Africa fostered the expansion of railways connected to Durban and Maputo (formerly Lourenço Marques in Mozambique). Hence, the expansion of

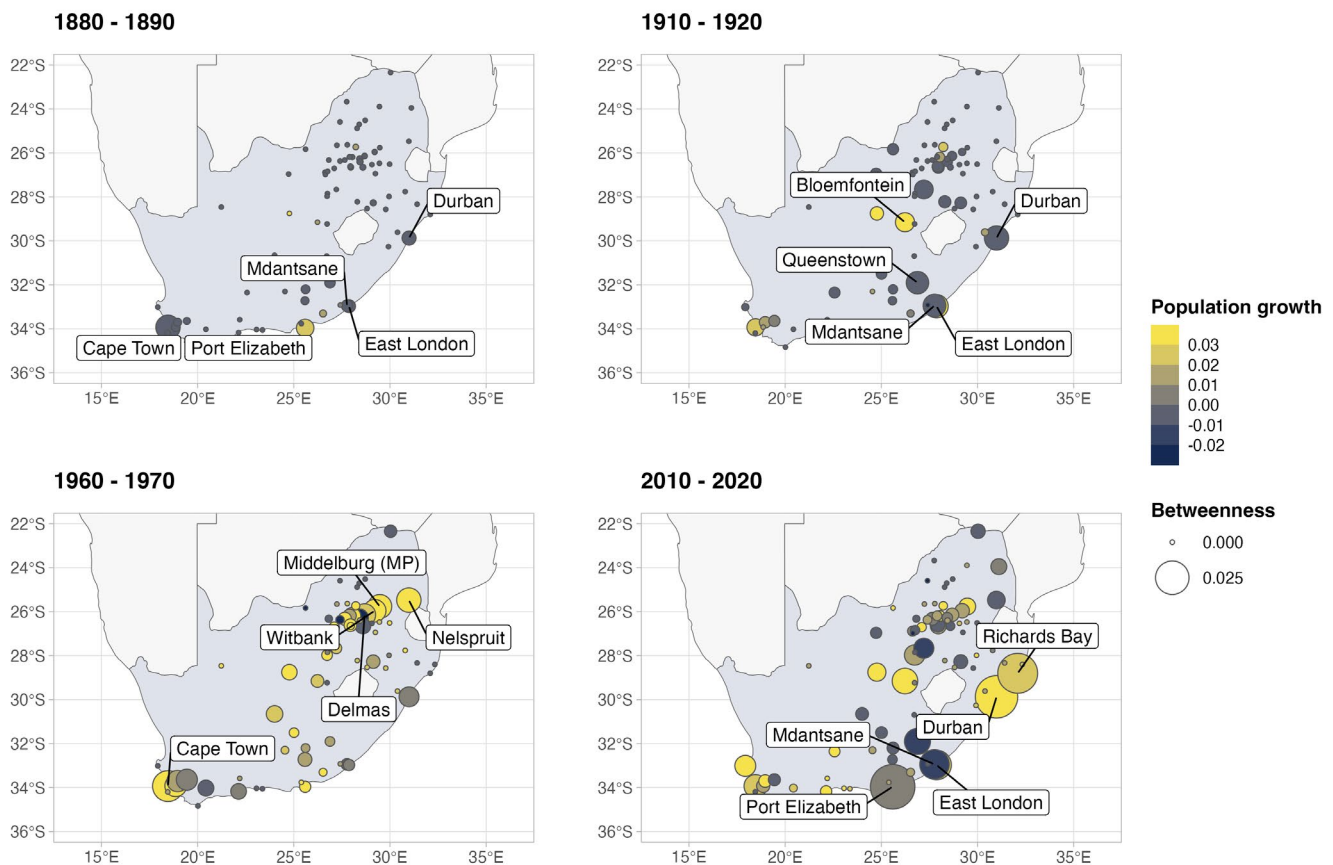


Figure 2: Urban growth and multimodal transport infrastructures in South Africa, 1890-2020.
Source: Author's elaboration.

complex urban grids benefited from inland transport expansion. In addition to that, Herranz and Fourie (2018) also proved these linkages, and showed the strong density of the South African railroad and urban network compared to the rest of the continent.

The wealthiest regions benefited from self-reinforcement effects presented as major investments in railways, roads, and other public services (i.e. school and health facilities). Hence, wealthiest regions concentrated investments, facilities, and political institutions established in major imperial cities. On the contrary, the poorest regions (isolated, poorly connected, low agricultural/mining development) did not receive enough investment from the colonial states. In the South African case, the Apartheid regime reinforced this colonial trajectory.

As explained, the faster growing agglomerations were tied to access to multimodal infrastructure (in green, Figure 3). The growth pattern strongly accelerated from the 1950s onwards but has moderated since the 1980s marked by international boycotts of the regime. The same goes for the port cities (in

blue). On the contrary, cities only connected by railways (in orange) or without any transport facilities (in red) presented an accelerated demographic decline related to migration movements from those regions to more dynamic urban clusters. The particularity of South Africa compared to the rest of the continent is that the “colonial pattern of infrastructure development” remained stable and even reinforced after the 1960s, fostering the gap between poor and wealthiest regions in the country.

The long-term impact of Apartheid over the South African urban grid

Comparing the betweenness degree of each transport infrastructure for South Africa, we observe that from the late nineteenth century up to the 1960s, the transport network and urban grids were more integrated than the whole African continent (Polo-Martín et. al, 2026). Before the Apartheid regime (1880-1948), the intermodal network (in green) comparatively

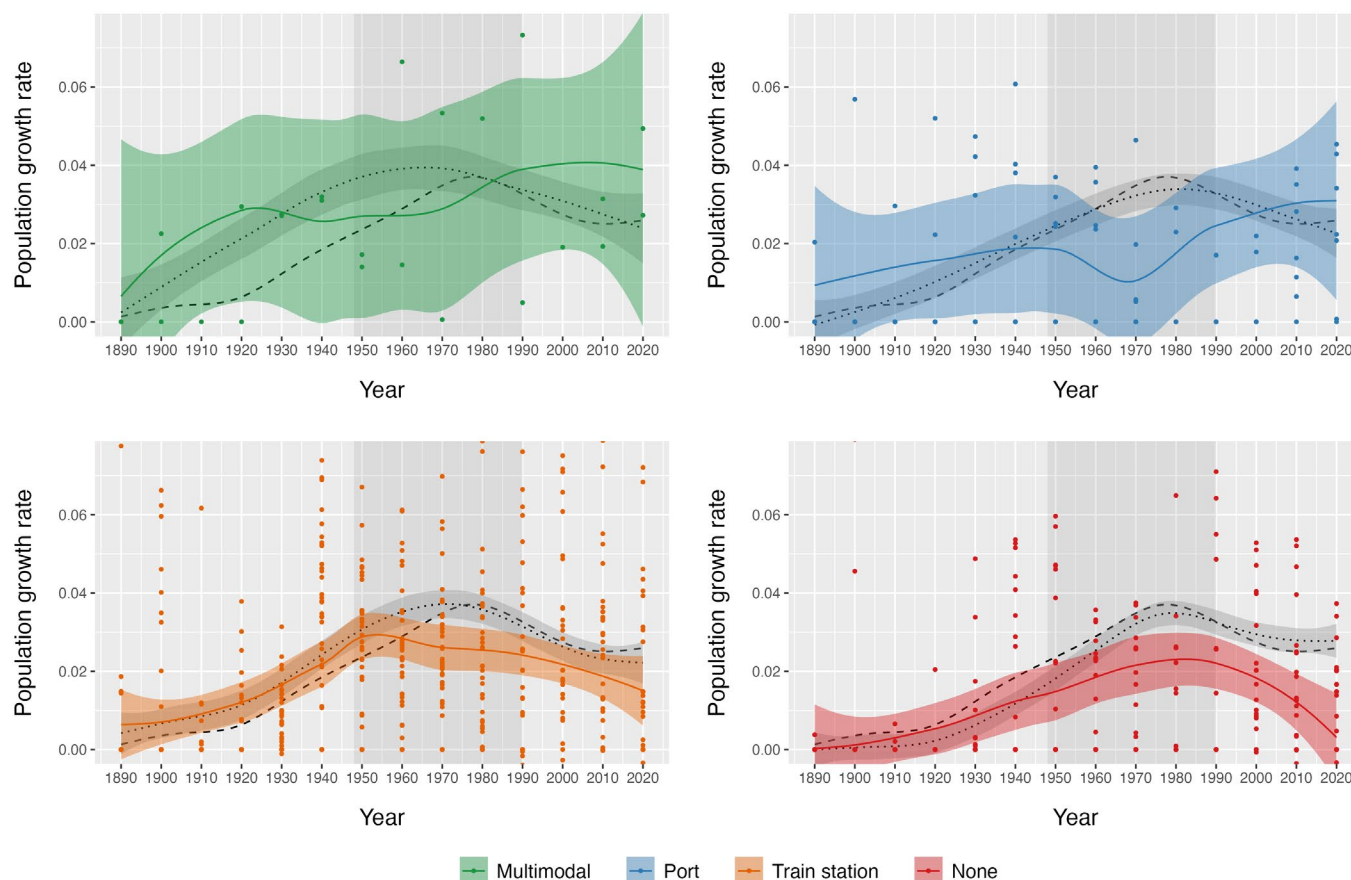


Figure 3: Population growth by type of infrastructure in South Africa, 1890-2020.
Source: Author's elaboration.

presents a better integrated urban network, not entirely dependent on port infrastructures. For the African continent, we noted a more dispersed urban grid and increased dependence on seaborne activity, where extroverted transport infrastructures were planned towards the great port-cities.

On the other hand, our investigation found evidence that during Apartheid (1948-early 1990s) the multimodal agglomerations retained their role but to a lesser extent than port-cities, also a world-scale phenomenon. The period shows a relative increase of multimodal connectivity and a progressive balance of urban grids, at least until the boycotts and State crisis in the 1980s.

After the end of the Apartheid regime, the shift to maritime economics and the increasing importance of South African seaports supposed that intermodal connectivity fell below the African average for the first time in history. South Africa's joining BRICS and the Belt and Road Initiative reinforced the role played by seaports as trade facilitators for incumbent commercial partners like China. Thus, further studies analyzing the long-term evolution of seaborne connectivity for South Africa may shed light on structural changes related to shifts in

international trade and their influence on the configuration of the urban population grid.

Final remarks

This article provides new empirical evidence on the relationship between transport connectivity and population growth in South Africa since the late 19th century. Our investigation finds that intermodal centrality positively impacted population growth in South Africa. We show that prolonged reinforcing effects also generated territorial asymmetries during the Apartheid regime. Meanwhile, the African continent evolved towards a more balanced urban structure from 1950 to the early 1980s in the context of political independence. Apartheid fostered regional inequalities, building on the "colonial pattern" of transport infrastructure development. Following the demise of Apartheid, coastal agglomerations gained increasing importance and became major drivers of urban growth in the country, in line with the broader rise of global port cities. Although this study does not formally incorporate a gender perspective, acknowledging gender disparities is essential for

fully understanding mobility patterns and spatial inequalities in South Africa. During the twentieth century, under the Apartheid regime, women, and particularly Black women, faced disproportionate barriers to mobility, employment access, and urban opportunities due to spatial segregation and limited transport options. Future research would therefore benefit from integrating gender-disaggregated data to better capture how transport connectivity affects different social groups and to identify policies that may reduce long-standing inequalities.

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Pathways towards easing financial anxiety



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Background

It has been reported that approximately 63% of South Africans experience financial anxiety, as almost half of employed individuals struggle to meet their basic monthly living expenses (Moneyweb, 2024). Financial anxiety refers to feelings of worry and stress about one's financial situation, including concerns about debt, insufficient savings, and financial insecurity. The prevalence of financial anxiety is expected to increase amidst geopolitical uncertainty, inflation, and the anticipated effects of climate change (Ahamed and Limbu, 2024). The adverse effects of financial anxiety on both mental health and overall wellbeing are especially concerning (APA, 2015 ; Eisenberg et al., 2007). From a financial decision-making perspective, the burden of financial stress has been demonstrated to have negative consequences, such as not saving sufficiently to sustain quality living in retirement (Xin et al., 2023). For example, in South Africa, even if people have access to the equivalent of government social security payments, the quantum of the payments is very small at the recipient level. In addition, there has been a move away from guaranteed pensions provided by defined benefit pension funds to non-guaranteed pensions provided by defined contribution pension funds. These two circumstances exacerbate many people's financial vulnerability upon retirement, particularly if they have not previously engaged in responsible financial planning.

Gender is an important dimension in understanding financial anxiety and financial decision-making more broadly. Research consistently shows that women tend to experience higher levels of financial anxiety than men, often compounded by gender-based income disparities, interrupted career paths, and historically unequal access to financial education and services (Lind et al., 2020 ; Ryu and Fan, 2023). In South Africa,

these inequalities are further amplified by cultural and structural factors that have historically limited women's financial independence and inclusion. Acknowledging the gender dimension is therefore essential to a comprehensive understanding of financial anxiety and the pathways toward alleviating it.

When large numbers of consumers, who are financially compromised, continue to make poor financial decisions, their cumulative actions can contribute to economic instability in a country and put strain on the fiscus. In addition, irresponsible financial decision-making has the undesirable side effect of financial exclusion, as is demonstrated by the 2 billion people worldwide who are unbanked (Demirgüç-Kunt et al., 2015). Many of these negative consequences could be prevented if consumers were encouraged and better equipped to make sound personal financial decisions.

Despite the extensive literature on financial literacy, there appears to be little empirical evidence to guide our understanding of the factors that alleviate financial anxiety (Archuleta et al., 2020). However, most scholars agree that financial capability, financial knowledge, and financial confidence serve as a buffer against financial anxiety (see, for example, Lind et al., 2020 ; Kim et al., 2022 ; Xiao and Kim, 2022 ; Xiao and Meng, 2024).

Attempting to avoid the potential negative consequences of inadequate financial decision-making, this study explored three distinct pathways of easing financial anxiety (grounded in financial literacy theory) by using self-administered survey data collected from South African banking clients. Using structural equation modelling (SEM), this study highlights the financial factors associated with financial anxiety through three distinct pathways.

Conclusion

The study identifies the factors drawn from financial literacy theory that are associated with financial anxiety and organised into three distinct pathways.

Digital savvy, financial capability, financial control and financial foresight are all important elements in alleviating financial anxiety. Equally important, the inability to handle stressful financial situations inevitably leads to financial discontent. Although cautious spending is a fundamental principle in maintaining financial stability, excessive caution could diminish consumers' capacity to deal with financially stressful events. Financial control (e.g. developing a budget and sticking to it) and foresight (not giving in to sudden impulses but rather considering the long-term consequences of decisions and courses of action) help build resilience in the face of unfavourable financial events. The earlier these financial literacy attitudes and behaviours are acquired, the better consumers' financial outcomes are likely to be.

On the one hand, an inability to exercise financial control over money, a lack of understanding of the perils of ill-conceived or irresponsible financial decisions, and an inability to confront and overcome financial stressors could propel people into a debt spiral from which they are often unable to escape. On the other hand, early exposure to (and practice in) sound financial behaviour, cautious spending (without overdoing it), proactive and long-term financial planning and effective strategies for dealing with financial stressors could clear the way for people to realise their financial goals (e.g. having emergency funds for job loss or long-term insurance cover for the death of a breadwinner) as they progress through life. If, along the way, consumers embrace digital advances and the efficiencies that such advances introduce to the financial ecosystem, the prospects of financial wellbeing are further enhanced.

This study identified factors associated with financial anxiety that could be of interest to those providing financial education, counselling and planning services, as well as advisers who are helping their clients make optimal financial decisions. Minority groups — and women in particular — deserve particular attention as they have historically been excluded from the formal financial system and may lack experience of access to digital technologies which are rapidly altering the financial landscape. Although this study does not formally incorporate a gender perspective, future research would benefit from integrating gender-disaggregated data to better capture how financial capability and digital engagement reduce long-standing inequalities.

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Social Policy & Household Time Allocation: Evidence from Rwanda and Ethiopia



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Introduction

Women and children are often among the most vulnerable groups in labour markets across low-income countries. As decisions about who works, who provides care, and who performs household tasks are typically made within families - where resources and time are scarce, policies affecting time allocation within the household often have consequences for them. This is particularly true in contexts where women bear a disproportionate share of unpaid care responsibilities and where children may contribute to household production or domestic work.

Social policies can influence these dynamics in different ways. For instance, expanding access to childcare may ease the burden borne by mothers and improve their employment opportunities, while public works programmes (PW) can strengthen household livelihoods and affect children's involvement in work. In both cases, outcomes depend on how families reallocate time across household members.

Drawing on evidence from my doctoral thesis, *Labour Regulation and Economic Performance in Sub-Saharan Africa*, this article examines how two examples of social policy can reshape the allocation of labour and time within households and influence the opportunities available to women and girls.

Childcare Provision and Female Employment Opportunities¹

The caregiving burden is a critical constraint on female labour supply worldwide. In Rwanda, as in many other low-income countries, women continue to bear a disproportionate share of unpaid care and domestic work, limiting their ability to access and sustain remunerative employment. Until recently, scholars and policymakers questioned whether childcare constraints could significantly affect women's employment in contexts where female labour force participation is already high, and women heavily rely on kin support (Korotayev et al., 2016 ; Clark et al., 2019). However, a growing body of evidence suggests that women's employment choices are strongly shaped by the care burden they endure (Moussié and Alfes, 2018 ; Clark et al., 2019 ; Ajayi et al., 2022 ; J-PAL Policy Insight, 2023).

Accordingly, early childhood development (ECD) policies have emerged as a key strategy that, although unintendedly, can alleviate the caregiving burden and promote women's economic participation. By expanding access to affordable and reliable childcare, such policies can free mothers' time for waged work, influence the intensity and quality of their labour supply, and generate broader benefits for their well-being. Recent estimates suggest that investing in childcare and ECD services could increase global female employment by more than 10 pp, from 46.2% in 2019 to 56.5% in 2035, while narrowing the gender wage gap by as much as 12 pp in the same period (to 8% in 2035). Such investments also contribute to reducing the motherhood pay gap, i.e. wage differences between mothers and non-mothers (International Labour Organization, 2023).

Our work adds to the relatively scarce literature on the effects of ECD policies on maternal employment by using a

¹ Based on joint work with Dr. Cecilia Poggi

novel case study, Rwanda, where the rise in national interest in ECD has translated into a large increase in the number of nursery schools available, from 1,469 in 2011 to 2,808 in 2022 and net enrolment rates in pre-primary education have quadrupled over the same period. In contrast to most studies on Sub-Saharan Africa (Clark et al., 2019 ; Ajayi et al., 2022 ; Bjorvatn et al., 2025), it provides separate estimates for rural areas, where informality is large and mothers rely on kin support for caregiving responsibilities. In addition, it leverages geocoded information on nurseries to calculate pre-primary school availability using an innovative approach borrowed from the urban planning literature (Radke and Mu, 2000 ; Luo and Wang, 2003).

This study exploits waves 5 (2014-15) and 6 (2019-20) of the Demographic Health Survey (DHS) (National Institute of Statistics of Rwanda et al., 2015, 2021) and a census of the spatial distribution of all schools in Rwanda in 2022 (Muramira, 2022) to calculate nursery availability as the number of private facilities per thousand inhabitants in a 5 km buffer. Because both maternal employment and ECD attendance are closely linked to mothers' characteristics, the attendance of the youngest kid aged 3 to 6 is instrumented through DHS cluster nursery availability to assess the impact on maternal labour outcomes avoiding endogeneity issues.

The results suggest that nursery enrolment influences the quality rather than the quantity of maternal employment. Increased attendance does not raise overall labour force participation among mothers, largely because female participation is already high. Instead, it shifts women away from self-employment and towards salaried work (figure 1). Most importantly, evidence of a strong reduction in unpaid employment is found, which is robust across different specifications and subsamples. These findings suggest that childcare policies are not simply educational interventions. They also function as labour market policies by enabling women to move into more stable and remunerative forms of employment. In a context where women already work out of necessity, the key margin of adjustment is

not whether they work, but the conditions under which they do so.

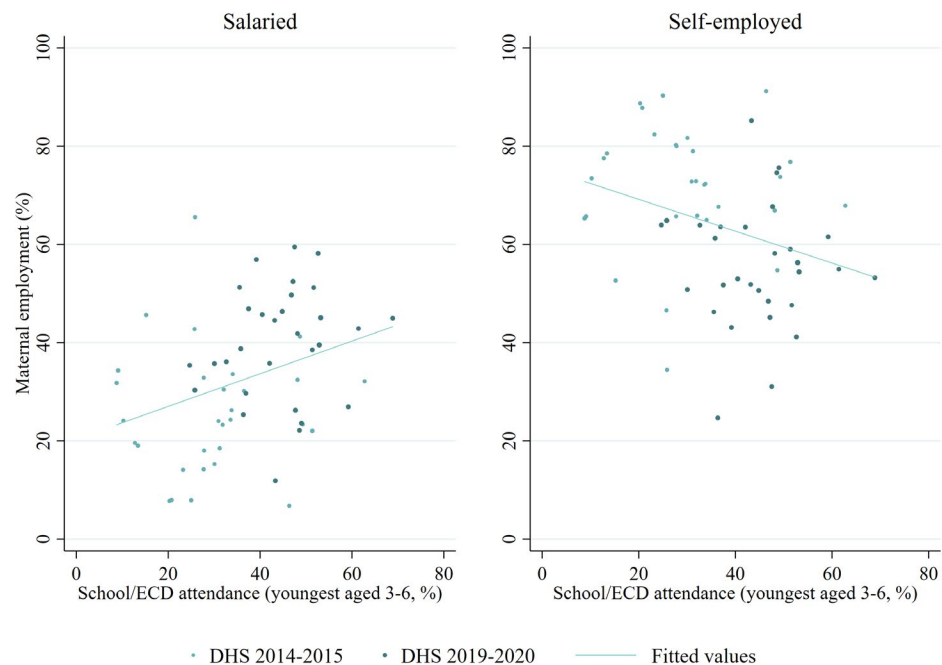


Figure 1: ECD Attendance and Maternal Employment at the District Level in Rwanda
Source: National Institute of Statistics of Rwanda et al. (2015, 2021), calculations by the authors. The size of each marker is weighted by the size of the cell it refers to (i.e. district/year).

Public Works Programmes and Child Labour

On the other hand, one underexplored aspect of this debate concerns child labour. By easing childcare constraints and enabling mothers to access more stable and better-paid employment, childcare provision may reduce children's exposure to work through at least two channels. First, children are less likely to accompany their mothers to workplaces, where they may become prematurely involved in economic activities. Second, improved employment opportunities and higher household income may reduce families' reliance on child labour as a coping strategy. Broadly, policies that promote decent work, like statutory or negotiated minimum wages or adequate social protection, can reduce families' economic vulnerability and poverty that underpin child labour (International Labour Organization, 2019).

In this regard, PW have become a prominent component of social protection across developing regions. South Africa's Expanded Public Works Programme, for example, explicitly

targets vulnerable groups with women accounting for the majority of programme beneficiaries (Kelobang et al., 2018). Although these programmes target working-age adults, they may also affect how time and responsibilities are distributed among other household members.

We provide evidence in this direction by assessing Ethiopia's Productive Safety Net Programme (PSNP), the second largest social protection scheme in Africa, right after South Africa's. By providing employment opportunities to poor households, PW generate income that can reduce the need for children to contribute economically. However, the relationship is not straightforward. One might think that, faced with a demand shock created by the labour requirements of PW, we should observe an income effect insofar as parents engage in paid employment, therefore mitigating reliance on child income. However, if more time is devoted to labouring in PW, less time is available for other activities (Andersson et al., 2011), which could potentially generate a substitution effect as children replace parents in some tasks, which are also gendered. Therefore, the overall effect depends on which one dominates over the other.

Existing evidence on the impact of Ethiopia's PW on child labour is mixed. While some studies find that participation reduces children's involvement in work through higher household income (Dinku, 2019), others suggest that the labour requirements increase children's responsibilities within the household (Belete, 2020 ; Tafere and Woldehanna, 2012). Understanding which effect dominates remains an open question.

This study contributes to the literature by examining both the likelihood that children work and the time they devote to labour and by exploring the effect of different types of PW projects in the short and the long run. Thus, it goes one step further than the common short-sighted approach of looking into one-off effects at the household level by providing impacts beyond recipients (figure 2). Additionally, it underscores significant differences

across socioeconomic status and, most importantly, gender, as boys bear most of the burden of child labour (figure 3), in contrast to girls, who likely shoulder the burden of domestic tasks and chores.

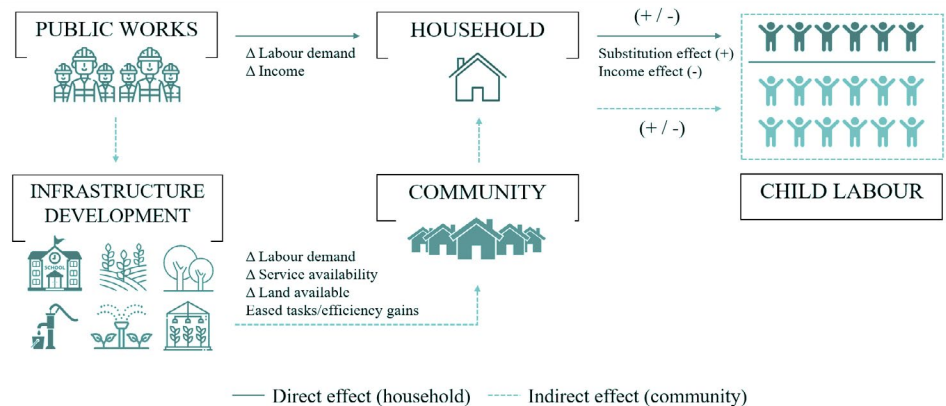


Figure 2: Child Labour and Public Works: Direct and Indirect Effects

Source: Developed by the author. Note: Household effects are those affecting children in participating households, whereas community effects are those affecting all children in the community where public works were developed.

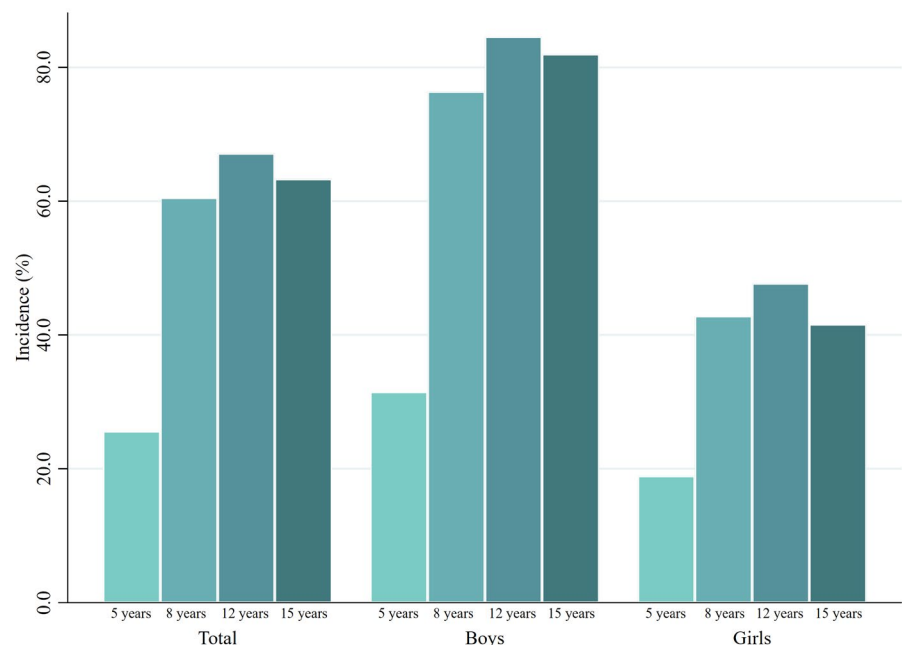


Figure 3: Child Labour by Age and Gender in Ethiopia

Source: University of Oxford (2019), calculations by the author.

To do so, this research employs data from rounds 2 to 5 of the Young Lives at Work Survey (2006-2016) and applies inverse probability weights to compare children in families benefiting from PW to similar children living in non-participating households. Because participating and non-participating households

may differ in some core aspects that determine being selected into the programme (e.g. food insecurity), this method ensures comparability by reweighing the initial sample and discarding incomparable units.

The results suggest that, overall, participation in PW is associated with a reduction in the likelihood of children working and the time they devote to labour, although these are mostly driven by children from poorer households and by boys. In contrast, in the case of girls, there is no evidence of a reduction (or an increase) in the time they devote to labour when the family enrolls in PW. However, in the case of water infrastructure, there is a negative short-term effect on the time they devote to household chores, potentially derived from efficiency gains in tasks like fetching water -typically gendered- which allows for longer study hours. These effects are reversed in the long term, and so are some improvements achieved through forestry activities, which also come with increased responsibilities at home. Some projects simply lead to a reallocation of time (e.g. those boosting land use and agricultural productivity), whereas some other activities deserve a closer look in the future as they may have negative consequences for girls. Overall, the benefits observed for girls are often attenuated over time or offset by a greater involvement in other household responsibilities.

Conclusion

The evidence from Rwanda and Ethiopia points to a common conclusion: social policies can affect not only the individuals they directly target, but also other household members. Because decisions about work, care, schooling, and household responsibilities are made within families, policies targeting one person often trigger adjustments in how time is allocated across the household. In Rwanda, expanding access to child-care and pre-primary education improves women's employment opportunities. In Ethiopia, PW target working-age adults, but they also affect children by altering how responsibilities are distributed within the household.

These findings highlight the importance of adopting a household perspective when designing social policies: while they can generate positive spillovers, they may also redistribute responsibilities in unintended ways. Importantly, these adjustments are often shaped by prevailing gender norms, with women and girls disproportionately bearing unpaid care and domestic work. Understanding how interventions affect the allocation of time within households is therefore essential for designing policies that not only improve economic outcomes, but also promote gender equality and expand opportunities for vulnerable family members.

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