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Engelbrecht, Friederike

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Feeding Democracy –

An analysis of the influence of food insecurity on voter turnout

Friederike Engelbrecht

Supervisor: Dr. R. van der Haer

Second reader: Dr. M.R. di Giuseppe

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Abstract

Voting is the cornerstone of democratic participation, allowing citizens to choose their leadership and shape government policy. However, since the 1990s, voter turnout has been declining, leading to the question of why some people vote and others do not. While existing research has explored various factors influencing voter turnout, the impact of essential human needs. To address this gap, I investigate how food insecurity influences voter turnout, focusing on the mediating role of education. The theorised idea is that food insecurity creates economic stress and limits opportunities, which, in turn, negatively impacts education levels. Disparities in education can reduce political interest and knowledge, arguably leading to lower voter turnout. I employ theory-testing process tracing to identify evidence for the constructed causal mechanism. Comparative case studies of Mali and Ghana, states with similar food security levels but varying education levels and voter turnout, will be conducted to explain this complex relationship. The results show the impact of food insecurity on education and voter turnout, revealing variations in school enrolment despite similar economic hardships. The research highlights the complex relationship between food security, education, and electoral participation, emphasising the need for a broader approach to socioeconomic factors to explain electoral participation.

Introduction

Voting serves as the primary way citizens participate in democratic politics (Aldrich, 1993; Ahearn, Brand and Zhou, 2022). By electing representatives, every eligible person can shape policy outcomes (Fumagalli and Narciso, 2012). However, voter turnout, “a measure of civic participation” (MIT Election Lab, 2021, p. 1), has been decreasing worldwide (Kostelka and Blais, 2021). Reducing from almost 80% global electoral participation in the 1950s to less than 65% voter turnout in 2022 (International Institute for Democracy and Electoral Assistance [IDEA], 2023). This development is equally spread over continents, including Africa (Lyngé and Martínez i Coma, 2022). However, West African states show stark variations in voter turnout, some not aligned with the global trend (IDEA, 2023).

Multiple factors have been identified to explain voter turnout (Organisation for Economic Co-operation and Development (OECD), 2019). Those range from socioeconomic factors and demographics (Kulachai, Lerdtomornsakul and Homyamyen, 2023) to other forms of political engagement like donating to campaigns or attending protests (Pew Research Center, 2018). Academic research has argued that people weigh the costs and benefits of voting before deciding whether to participate (Aldrich, 1993; Blais, 2000; Geys, 2006). Other scholars argue that an individual’s social and economic status influences the likelihood of voting (Rolfe, 2012; Nagler and Leighley, 2014). Despite ample research into fundamental factors such as income (Polacko, 2020; Schafer et al., 2021), housing (McCartney, 2020; Slee and Desmond, 2021), demographics (Hoffman and Lazaridis, 2013), and political culture (Nagler and Leighley, 2014; Kulachai, Lerdtomornsakul and Homyamyen, 2023), the role of food insecurity has remained largely unexplored. That is surprising as food is a fundamental human need and a critical component of political stability and development (Leach et al., 2020; Walsh School of Foreign Service, 2021). Fundamental needs are understood as Maslow’s hierarchy of needs (Maslow, 1943). The approach suggests that individuals progress through a hierarchy of needs, with basic

needs taking precedence over higher-order needs (Maslow, 1943). Physiological needs like air, shelter and food must be met before other needs can be addressed (Maslow, 1943). This approach is applicable to understand the link between food insecurity and lower voter turnout.

“Food insecurity refers to the lack of secure access to sufficient amounts of safe and nutritious food for normal human growth and development and an active and healthy life” (Food and Agriculture Organization [FAO], 2022, p. 246; Food Security Information Network [FSIN] and Global Network Against Food Crises, 2023, p. 172). Academic research indicates that food insecurity leads to higher mortality (FAO, World Bank Group [WBG] and World Trade Organization [WTO], 2023), reduced employment opportunities (Drewnowski, 2022) and increased reliance on social welfare programmes (Devereux, 2016). As almost 30% of the global population (~2.4 billion people) experience inconsistent access to food (FAO et al., 2023), food security, or better, the lack of it, is considered a threat to humankind and an issue of modern governance (FAO et al., 2023). Therefore, the lack of research on the relationship between food insecurity and voter turnout is a significant research gap, especially considering its potential impact on political participation and stability. That leads to the research question: How does food insecurity influence voter turnout?

In this study, I argue that food insecurity creates economic stress and limits opportunities, which, in turn, negatively impacts education (Belachew et al., 2011; Rother et al., 2022). Disparities in education can reduce political interest and knowledge, arguably leading to lower voter turnout (Campbell, 2006; Larcinese, 2007). Connecting those factors through the introduction of a causal mechanism, different theoretical frameworks will be used to explain the relationship. I will use theory-testing process-tracing to explore this theoretical mechanism to analyse two case studies. Mali and Ghana were chosen because the two West African states offer the same levels of food insecurity but differ in their education and voter

turnout (Economist Impact, 2022; IDEA, 2023). Those factors will be compared to process-trace the steps linking the posed causal mechanism.

This thesis is structured as follows. The following section first presents an overview of academic literature that is considered relevant regarding voter turnout. After that, the theoretical framework and causal mechanism will be introduced. Following this, the link connecting food security and voter turnout will be presented, the chosen method will be used, and the case selection will be discussed. In conclusion, results will be summarised to offer a closing overview and outlook.

Literature review

Academic literature on voter turnout is vast and growing (e.g., Geys, 2006; Fumagalli and Narciso, 2012; Burden and Wichowsky, 2014; Nagler and Leighley, 2014). However, two central theoretical ideas affecting electoral participation are considered particularly relevant for this thesis: the rationality of voters and the influence of socioeconomic factors (Blais, 2000; Aldrich, 1993; Rosenstone, 1982; Verba and Nie, 1972).

First, according to many scholars (Blais, 2000; Aldrich, 1993; Geys, 2006), voters are rational. An individual might weigh the time and effort of electoral participation (Blais, 2000; Aldrich, 1993; Geys, 2006) against the perceived benefits, such as influencing policy or representation (Sigelman and Berry, 1982). Individuals are more likely to vote if the perceived benefits outweigh the effort and expenditure (Sigelman and Berry, 1982). Second, essential for this thesis is that many scholars have studied the effect of economic conditions on electoral participation (e.g., Mueller, 1970; Kramer, 1971; Schäfer and Schwander, 2019; Carreras and Castañeda-Angarita, 2019). Their research suggests that economic conditions impact electoral participation by affecting voter turnout, particularly among lower socioeconomic groups

(Carreras and Castañeda-Angarita, 2019). However, research on the effects of socioeconomic status is inconclusive (Frank and Martínez i Coma, 2021).

While Rosenstone (1982) argued that economic crises may discourage people from voting, as they may focus on their immediate needs rather than politics, Killian, Schoen, and Dusso (2007) argue that voter turnout can increase when people worry about their economic situation. Individuals may prioritise their financial well-being and seek to influence policies that have the potential to alleviate their economic burdens. Discontent with (perceived) government economic performance can further fuel this engagement, encouraging individuals to seek change through the electoral process. Additionally, a hardened economic situation can heighten a sense of urgency and foster the desire for new leadership, contributing to increased voter participation (Watterson, 2012). This was supported by the finding that reduced economic performance can mobilise voter turnout when individuals believe their vote can shape a more favourable (financial) future (Burden and Wichowsky, 2014). I argue both theoretical frameworks are not mutually exclusive. The idea that economic conditions impact electoral participation (Kramer, 1971; Carreras and Castañeda-Angarita, 2019; Schäfer and Schwander, 2019) can be combined with the rationality of voting for perceived benefits (Sigelman and Berry, 1982; Burden and Wichowsky, 2014).

Several factors explaining voter turnout have been discussed based on these theoretical frameworks. Political and demographic factors range from age, education, income, and ethnicity to gender (Snyder, 2011; Frank and Martínez i Coma, 2021; Kulachai, Lerdtomornsakul and Homyamyen, 2023). Academic literature is concordant in highlighting the importance of economic conditions on voter turnout (Park, 2021). Focus has been placed on the relationship between unemployment, the decline in financial well-being and voter turnout (Rosenstone, 1982; Park, 2021). While valuable, they fail to acknowledge the importance of basic human needs that are affected first and foremost, for instance, food, thus

resulting in the problem of food insecurity. This oversight creates a gap in understanding the fundamental factors that drive electoral participation.

Although causes for voter turnout are mentioned, surprisingly enough, there is limited research assessing the effects of fundamental needs on electoral participation. An important exception is formed by the study of Olabiyi (2020). They are among the few who examined the relationship between food insecurity and voter turnout. While the authors rightly acknowledge the limitations of cross-sectional data in establishing a causal relationship between voter turnout and household food insecurity, the study's findings provide valuable insights into the potential association between these variables. Although their research design does control for educational attainment (among other factors), they did not examine the explanatory role education can play in the relationship between food insecurity and voter turnout. Therefore, the paper is restricted by limited consideration of mediating factors.

The lack of research on the relationship between food insecurity and voter turnout is an oversight. To close this gap further, I will address the role of education as a mediating factor in the relationship between food insecurity and voter turnout.

Theory

To explain the relationship between food insecurity and voter turnout, a causal mechanism is theorised. Every step will be described and connected to the following step. Food insecurity as a basic human need is the starting point to build this relationship.

Food insecurity has the potential to cause economic stress and reduce economic opportunities (Rother et al., 2022). That compels families to prioritise essential nutrition (FAO et al., 2023), leaving them with the dilemma of choosing between groceries and other essential needs like housing, utilities, or healthcare (OECD, 2023b). As food is likely to be one of the last areas in life to spare expenses and neglect, the lack of it is a clear sign of financial trouble

(Tarasuk, 2017). To alleviate financial difficulties, individuals might borrow money (FSIN and Global Network Against Food Crises, 2021). However, due to the recurrent and ongoing nature of food intake, borrowing money can begin a vicious cycle (Kinde and Mengistie, 2016). The reason is that previous support needs to be refunded, and new food needs to be paid for (Concern Worldwide, 2022). Therefore, borrowing money for food might work on rare occasions and “during periods of food insecurity” (Shariff and Khor, 2008, p. 30) but not generally for food-insecure households. As borrowing money is impracticable, some scholars argue that individuals can adjust their diets in response to economic circumstances (Mello et al., 2010; Morales and Berkowitz, 2016). The idea of this substitution process is that food intake is influenced by and can be adapted to changing conditions (Mello et al., 2010; Morales and Berkowitz, 2016). I argue food intake is generally indispensable. If needed, food intake can be adjusted and limited but not ignored (United Nations Human Rights Office [UNHR], 2010). It is coverage of a basic human need that cannot be eliminated (UNHR, 2010). Therefore, with scarce financial resources, food-insecure households must save money at the cost of other expenses to ensure survival (Gustafson, 2013; Rozynek, Schwerdtfeger and Lanzendorf, 2022).

One way to save money is by limiting children's education within a household (OECD, 2009; Brown, Haer and Østby, 2023). Education might be reduced for at least two reasons, which are not mutually exclusive: the cost of education and the need to work to earn money (Hillman and Jenkner, 2004). First, education cost responsibility predominately lies with households – whether they can afford it or not (Education Finance Watch, 2022). Particularly in the case of low-income countries (World Bank, 2023a), “children from the poorest households benefit the least from national public education funding” (United Nations International Children’s Emergency Fund [UNICEF], 2023b, p. 1). Those countries dedicate a disproportionately large share of their educational resources to the most educated 10% of their student population (UNICEF, 2015), which leaves families with an immense financial

responsibility (Education Finance Watch, 2022). In low- and lower-middle-income countries, households bear nearly 40% of education expenditures (Education Finance Watch, 2022). That means households may not be able to afford educational expenses anymore (Hillman and Jenkner, 2004; Belachew et al., 2011; García and Saavedra, 2017; Sherman, 2020). Even in cases where there are no tuition fees, expenses such as uniforms, transportation, and textbooks must be paid (UNESCO 2022). To save money in the face of food insecurity, educational spending might be reallocated, and children pulled out of school (UNICEF, 2020). The second reason education might be reduced can be based on children's participation in employment to address the immediate needs their families face in economic hardship (Branson, Hofmeyr, and Lam, 2013). Children are compelled to contribute to work as families seek additional sources of income to meet essential needs (Branson, Hofmeyr, and Lam, 2013). Adding them to the household workforce means they spend the time they would be in school earning money (Grimm, 2008). Additionally, individuals intensify existing work commitments, potentially taking on multiple jobs to secure supplementary income (Drew, 2022). The idea is simple: when food or other expenses are not affordable, individuals must work more to earn more money, leading to reduced attendance or school dropout (Grimm, 2008).

Dropping out and less school attendance can have serious long-term consequences (Cattan et al., 2022). Among others, limited education affects the process of political socialisation (Andolina et al., 2003). To gain knowledge, individuals must be exposed to information which is most likely accessible in school (Lassen, 2005). For instance, education can teach about the political system, election protocols, and citizens' rights and responsibilities (Campbell, 2006). Furthermore, education promotes knowledge and the ability to find information and form opinions (OECD, 2018). Education can foster critical thinking skills (Larcinese, 2007) and enable individuals to evaluate information and make informed decisions (Campbell, 2006; Kulachai, Lerdtomornsakul and Homyamyen, 2023). If those are limited,

individuals find it more difficult to understand complex realities within the political system (Fazekas and Burns, 2012). That includes election protocols or rights and chances of participating in the system themselves (Verba, Schlozman and Brady, 2002; Deželan, 2023). Overall, higher levels of education are associated with greater political interest and knowledge (Le and Nguyen, 2021; Galston, 2001).

As “political knowledge has a sizeable influence on the probability of voting” (Larcinese, 2007, p. 387), reduced political knowledge influences voter turnout (Lassen, 2005; Larcinese, 2007) (see *Figure 1*). In other words, a lack of knowledge is the biggest obstacle to electoral participation (Jackson, 1995; Malafaia, Neves and Menezes, 2021). That hurdle can be as simple or as complicated as knowing the date and time of an election (Electoral Knowledge Network, 2023). In some states, individuals must register as voters before elections (ODIHR, 2012; UNDP, 2015). To do that, you must have political knowledge, information, and awareness of how to do so (Heringa and Nguyen, 2020). Furthermore, a lack of information can negatively influence more structural problems, such as taking time off from work or organising a commute to polling stations (Heringa and Nguyen, 2020). Therefore, reduced political knowledge can minimise voter turnout (Stockemer and Rocher, 2016).

In conclusion, it is hypothesised that food insecurity leads to economic stress, which can constrain educational opportunities, resulting in less political knowledge, thus resulting in decreased voter turnout (see *Figure 1*). Building on the described causal mechanism, the following expectation is made: Lower levels of food security are associated with reduced voter turnout.

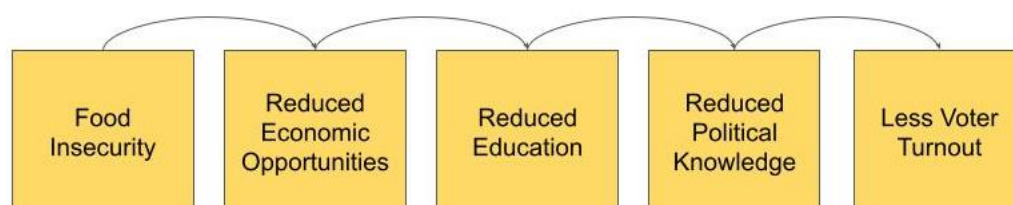


Figure 1. The causal mechanism linking food insecurity and voter turnout

Research design

I aim to explain the relationship between food insecurity and voter turnout. The goal is to find evidence for the constructed causal mechanism, building on the found correlation and inferring if (parts) of the mechanism are present or absent (Beach and Pedersen, 2016). I will use theory-testing process tracing (Beach and Pedersen, 2016). This method allows a deeper understanding of a phenomenon (Collier, 2011) as every step of the link is focused on and analysed. Theory-testing involves deriving a theoretical framework from existing knowledge and then examining empirical evidence to determine whether the proposed causal mechanism is present (Beach and Pedersen, 2011).

Observables

Every step of the causal mechanism must be matched with observables to determine if the theorised framework applies to the chosen case studies. Observables are the tangible clues used to piece together the evidence that supports or refutes a causal mechanism (Friedrichs, 2016; SDCOE Science Resource Centre, 2023). They serve as the "breadcrumbs" that help unfold the posed relationship's steps.

First, observables that prove the relationship between food insecurity and economic hardship must be found. Resources such as reports and analyses must present information regarding starvation, malnutrition, or undernourishment in the population as signs of food insecurity. Furthermore, (international) reports and scales from government and non-government organisations will be consulted to measure food security. In those reports, (high) levels of food insecurity and, as a result, worsened economic hardship need to be visible by evaluating household food availability, affordability, and utilisation patterns. Moreover, reports on families prioritising essential nutrition over other critical expenses will be consulted. Reports on how families skip meals entirely or how not everyone in the household gets enough to eat

due to financial problems serve as links. Reports and interviews can show undernourished, stunted, or obese children. In interviews, parents can share why their children are in this condition, connecting food insecurity to economic hardship.

Second, economic hardship leads to reduced education. There are two parts in my theory that explain the link between economic hardship and reduced education. I will first discuss the observables for a lack of education costs. I need to see information on high education costs, such as tuition fees, transportation, and textbooks, and their effect on households and education decisions. Surveys and interviews with those individuals should provide information regarding the problems of covering fundamental needs, leading to prioritised decision-making. The second approach explains that children drop out of school to be part of the workforce. The observables for this step are the following. Reports on the reasons for school absences and dropouts should provide information regarding economic hardship and reduced educational outcomes. Moreover, the reports need to mention the reasoning behind these changes. Sources giving insight into why children are included in the household workforce will explain the reasons and connect them to economic hardship.

Third, to link educational dropout to reduced political knowledge, I must see reduced political activity in reports showing how individuals lack the information they need for electoral participation. For example, analyses regarding reduced political interests in youth and adults, limited understanding of election protocols and their rights in elections as citizens. Reports must provide information about an individual's educational experience and political interest.

Lastly, to link lack of knowledge to voter turnout, material analysing an individual's assessment of feeling informed about the political system is needed. To assess if reduced knowledge leads to reduced voter turnout, obstacles like "why", "how", "when", and "where" regarding electoral participation must be visible. I need to see if individuals know "why" they should vote, "how" to vote, "when" and "where" to turn out to vote. Reports and surveys

indicating a lack of knowledge on these core basics for electoral participation indicate the relationship between lack of knowledge and reduced voter turnout. Furthermore, with a lack of political knowledge, individuals are more perceptive to disinformation (Jenke, 2023; Moran, Tal and Hayat, 2023). Reports indicating high support for mis- and disinformation about an election can be used as an indicator.

Cases

I have chosen two cases, Mali and Ghana. According to the UN (2020) and World Bank (2022b), these two West African states show comparable levels of food insecurity. That allows a comparison of the impact of food security on their respective countries' development and governance. However, both states' education levels and voter turnout vary drastically (UNICEF, 2010, 2018; IDEA, 2023). Mali grapples with a literacy rate of 31%, lagging far behind Ghana's 80% (World Bank, 2023b). Voter turnout in Mali lies at an average of 36.76% (International Foundation for Electoral Systems (IFES), 2023) compared to Ghana's 72.32% (IFES, 2023). Both countries have implemented measures to boost electoral participation, especially voter turnout, including voter education campaigns (IFES, 2023). Overall, the comparison between Mali and Ghana offers the application of the theorised causal mechanism.

I have chosen a comparative case study design to examine the relationship between food insecurity and voter turnout through education. The aim is to analyse generalisations that apply to multiple cases (Knight, 2001) and to identify a differentiating factor which accounts for a different outcome (Tatham, 2016). The most similar system design (MSSD) will be used to examine the posed causal mechanism. For the chosen case studies, that means Mali and Ghana are most similar when looking at the levels of food insecurity. However, the mediating factor and outcome differ significantly (see *Table 1*).

	Food insecurity	Education	Voter turnout
Mali	similar	different	different
Ghana	similar	different	different

Table 1. Overview of similarities and differences case studies MSSD

The time frame for this analysis ranges from 2015 to 2022. With the onset of internal armed conflict in Mali in 2012 (RULAC, 2023b) and the launch of the MINUSMA mission in 2013 (United Nations [UN], 2013), the state has been experiencing severe turbulence. I am aware of the potential influence of armed conflict on the factors discussed. However, the chosen time frame – after the end of the armed conflict and under the established MINUSMA mission – is supposed to minimise that influence. To further limit external factors, 2015 offers a good starting point, as a ceasefire agreement was signed, suggesting a move towards stability and reducing conflict-related impacts (Department of Political and Peacebuilding Affairs [DPPA], 2021). Lastly, the start of the Sustainable Development Goals (SDGs) programme (n Nations, 2023) in both states should be mentioned. Their aim to eradicate hunger and promote education (UN, 2023) aligns with the issues analysed in this research. The year 2022 ends the time frame to ensure the most recent data is analysed. Annual reports have been published throughout 2023, offering an overview of the year before.

Data sources

For the observables, data from several sources will be used. National and international governmental and non-governmental organisations such as the WFP, FAO, the World Bank, the IMF, the Oxford Committee for Famine Relief (OXFAM), and the International Food Policy Research Institute (IFPRI) serve as examples. The Economist's Global Food Security Index

(GFSI) offers insight into levels of food insecurity. Reports on food insecurity that use tools like the Household Food Insecurity Access Scale (HFIAS) or the Food Insecurity Experience Scale (FIES) complement the analysis. Information on national employment, e.g., by the International Labour Organisation (ILO), can support levels of economic hardship. The Voter Turnout Database (2023) from the IDEA will be used for information on voter turnout. Several newspapers will provide a more diverse coverage from multiple perspectives and primary sources of information. Lastly, mentioning certain biases for the qualitative data collection is essential. That mainly includes sources from the discussed states, as national interests, political ideology, and cultural context can intensify bias. Therefore, neutral data sources will be included to recognise and balance potential bias as much as possible within the confines of this study.

Analysis

Linking the elements of food insecurity and voter turnout, the following chapter will utilise that concept to apply it to the chosen case studies. First, the causal mechanism will be applied to the cases of Ghana and Mali separately. This approach offers a straightforward analysis of the posed relationship in each case. After analysing both case studies individually, a discussion connecting both will be used to point out similarities and differences.

Mali

In an overall ranking, considering all dimensions of food insecurity, the GFSI ranks Mali 85 out of 113 (Economist Impact, 2022), indicating the state in the lower third of the ranking. 72.0% of Mali's population (FAO et al., 2023) cannot afford a healthy diet, and 24% face severe food insecurity (Tucker, 2023). Approximately 1.84 million individuals grappling with severe food shortages require immediate nutritional support. That marks a 29% increase from the

previous year, a downward trend expected to persist (World Food Programme, 2023). The price of staple foods, especially millet and sorghum, experienced a significant increase, with prices rising by more than 100% compared to the same period in 2021 (World Food Programme, 2023). Food security is rapidly deteriorating, exacerbating the country's fragile economy (World Food Programme, 2023). From a policy perspective, the impact of food insecurity on the economic situation in Mali can be identified in the establishment of The Cost of Hunger in Africa Study (COHA). Although the economy has been relatively resilient (International Monetary Fund, 2023), economic prospects in 2022 have been undermined by regional food insecurity (World Bank, 2022a), negatively impacting economic growth and extending social tensions. Food purchases account for a disproportionately large 60% of household spending (Tucker, 2023), showing how food insecurity in Mali "increases the likelihood of economic hardship" (Tucker, 2023: 8). Economic struggle can further be identified in the 53% of households that reportedly worried about "not having enough to eat because of the lack of resources or money" (Roo, Wennink and Boef, 2020, p. 9). 69% experienced at least one day with no food accessible in the household (Roo, Wennink and Boef, 2020). Their work establishes a link between food insecurity and economic hardship, showing different levels of food insecurity - from worrying about not having enough food for the household to reducing food intake. As the theory discusses, it is also difficult for individuals to borrow money. In the case of Mali, due to corruption allegations, the government's financial help is limited, and donors are hesitant to provide aid. Moreover, only a small fraction of the population can access traditional or modern financial instruments, such as credit cards or online banking (Roo, Wennink and Boef, 2020). If individuals worry about insufficient food, as theorised for this paper, they will divert expenses towards covering this fundamental human need. In Mali, that includes educational expenses.

As posited, economic hardship is related to reduced education. Two explanations have been theorised to explain education dropout: the inability to cover education costs and the need for children to contribute to work. Both theoretical arguments can be supported. Malian households must cover most educational expenses, such as uniforms, transportation, and textbooks. Government financial support for education is dramatically underfunded, accounting for approximately 2% of the national budget (OCHA, 2022). In comparison, an OECD country spends an average of 5.1% on education (OECD, 2023c). This leaves families responsible for paying for education, leaving approximately 35% of school-age children in Mali out of school, totalling over 2.3 million individuals (UNICEF, 2022). These numbers continue Mali's "sharp drop in education levels" (People's Action for Learning Network, 2022). Within one year, the rate of school dropouts in the country has risen by 15% (OCHA, 2022). That increase in out-of-school children aligns with the established economic hardship. It was established the most significant share of educational expenses lies with households, leading to an immense financial burden. With the before-established food insecurity and economic hardship, this is the point where educational spending might be reallocated, and children pulled out of school. The second reason, insufficient household funds, thus increased school dropout, becomes apparent in the approximately 30% of children between 5 and 14 years who must participate in child labour (Bureau of International Labor Affairs, 2023). According to the ILO, these children labour for extended periods, often exceeding legal limits and with limited alternative income sources (ILO, 2023). The analysis of Malian child labour shows how the extent of working hours and the lack of alternative income sources leads to reduced school attendance or school dropout. It is stated that education often takes a back seat to children's involvement in labour practice (ILO, 2023). Therefore, the link can be made that time in school is drastically reduced when children are added to the household workforce.

After connecting economic hardship with reduced education, the latter must be linked with reduced political knowledge. Through interviews and research in the field, J. Black (2015) concluded that formal education in Mali enhances citizens' ability to engage with politics, fostering political literacy and participation (Bleck, 2015). They found more education leads to higher voter turnout rates (Bleck, 2015). It is concluded that limited access to information and weak education hinder the availability of civic and political knowledge (Gottlieb, 2014). Furthermore, the effect of children in school on their parent's political participation was researched. The connection between education and electoral participation was evident in parents who choose public schooling for their children, as it fosters a sense of civic duty and encourages parents to participate more actively in the political system (Bleck, 2015). Therefore, education in Malians influences individual learning and their surroundings.

Following the theorised argument, connecting a lack of education with reduced political knowledge leads to reduced voter turnout. During past Malian elections, it was established that a lack of understanding of political processes can lead to overall scepticism of the system (OCHA, 2016). That scepticism is fueled by missing information and knowledge, making it less likely for individuals to vote. Furthermore, as discussed in the theoretical framework, a lack of political knowledge can lead to missing information even before election day. In Mali, individuals must be registered on an electoral list (IFES, 2023). Those are updated each year's last quarter (University of Florida, 2023). Suppose an individual is not on the list and doesn't know when administrative duties are necessary; they cannot be put on the list and hence cannot participate (University of Florida, 2023). Besides registration, in past Malian elections, a "lack of accessibility to some polling stations affected voter turnout" (U.S. Department of State, 2022, p. 21). This matches the theorised idea that a lack of information can negatively influence more structural problems, such as commuting to polling stations. With these examples, the steps of the causal mechanism for the chosen case study of Mali can be established.

Ghana

In an overall ranking, considering all dimensions of food insecurity, the GFSI places Ghana at 83 out of 113 (Economist Impact, 2022), indicating the state in the lower third of the ranking. 39.4% of the population (FAO et al., 2023) is moderately or severely food insecure.

This can be identified in over 40% of workers who reported experiencing hunger within their household. More than half of them stated they had to skip meals or reduce their food variety for financial reasons (WIEGO, 2022). Individuals are forced to sell their physical assets to acquire the needed resources, negatively affecting Ghanaian households (Mitra et al., 2022). This drastic step can be characterised as economic hardship, making it necessary to save money at the cost of other expenses. Additionally, Ghanaians are discouraged from taking out bank loans due to interest rates exceeding 30% (Mulangu, 2017). As theorised, individuals might borrow money, but particularly with high-interest rates, the risk of a vicious cycle is unavoidable.

One way to lighten economic hardship is to reduce education costs. Two explanations have been theorised to explain education dropout: the inability to cover education costs and the need for children to contribute to work. Both theoretical arguments can be supported. As theorised, families in Ghana carry most of the financial load for educational expenses, rivalling the cost of food as the most significant proportion of income expenditure (Idrisu, Danquah and Quartey, 2017; African Development Bank, 2020). A report exploring education costs in Ghana estimates households experiencing economic hardship distribute around 42% of their income to education (Results for Development, 2015). Ghanaian parents stated in an interview that the cost of education, including additional expenses for uniforms, textbooks, exams, mandatory extra classes, and parent-teacher associations, is challenging (Results for Development, 2015; Dwamena, 2023). In one case, a mother reports how past financial difficulties have depleted her savings, forcing her to keep one daughter home. The second

reason, insufficient household funds, thus increased school dropout, becomes apparent as children from low-income households are often forced to leave school to work and support their families (UNICEF, 2019). This economic pressure compels children to abandon their education in favour of earning income, particularly during peak seasons like harvest time when agricultural labour is in high demand (Ananga, 2011). Supported by an interview, individuals indicated their school dropout was "motivated by economic survival needs" (Ananga, 2011, p. 378). Furthermore, school administrators identify financial constraints as the primary cause of dropout and absenteeism. In the case of absenteeism, the inability to afford food is often the most significant factor (Results for Development, 2015). That establishes the link between economic hardship and reduced education.

Reduced attendance and dropping out of school can have serious long-term consequences, including reduced political knowledge. Studies on Ghanaians support the theorised argument, demonstrating that education significantly impacts students' cognitive abilities (African Development Bank, 2020). Specifically, more education in Ghana leads to enhanced cognitive skills and knowledge acquisition (Duflo, Dupas and Kremer, 2021).

Lastly, the aim is to connect political knowledge with the probability of voting in Ghana. It has been theorised that children's education positively affects their parent's political knowledge. Insights from qualitative interviews with adults show how missing education affects knowledge about elections. A parent said, "I was saved by my son, who is more educated and knowledgeable about the [electoral] process" (Adams and Asante, 2019). Other interviewees stated they had missed elections because they did not understand the process (Adams and Asante, 2019), supporting the relationship between political knowledge and voter turnout. With these examples, the steps of the causal mechanism for the chosen case study of Ghana can be established.

Discussion

Due to the chosen case studies and the MSSD, the analysis of the first step of the causal mechanism shows similar levels of food insecurity (Economist Impact, 2022; FAO et al., 2023). A lack of food security and the effect on economic hardship could be established in both cases. The struggle to meet basic food needs in Mali and Ghana seriously impacts children's education, as families are forced to choose between putting food on the table and keeping their children in school. Although economic hardship could be established in both cases, and households carry the main weight of education expenses in both states, school enrolment and dropout numbers vary significantly. While around 98% of Ghanaian children reportedly enrolled in primary school in 2021 (World Bank, 2024), only 73% of Malian children were simultaneously enrolled at the same level (World Bank, 2024b). Additionally, the gap is growing for secondary and tertiary levels of schooling, resulting in a significant difference in enrolment levels for both cases. That is surprising as the same starting point of food security, and resulting economic hardship does not result in the same levels of education, even though in both cases, the household has to pay the lion's share of education cost (Education Finance Watch, 2022). That leads to the assumption that food insecurity and education are intertwined, exacerbated by the effect of economic hardship. However, due to the varying outcomes of the mediating factor of education, it can be assumed that other socioeconomic factors play a part in this nuanced relationship. While multi-faceted reasons for voter turnout are no novelty in academic research (McCartney, 2020; Polacko, 2020; Kulachai, Lerdtomornsakul and Homyamyen, 2023), the stark variation in the mediating factor of education is surprising. As it was established that households bear the main financial burden for educational expenses in both cases, I did not expect such a varying outcome after economic hardship was established in both cases. I recognise potential limitations in the research design regarding the "economic hardship" concept. Should the relationship between food insecurity and education be explained through

economic hardship, a more nuanced conceptualisation and analysis seems worthwhile. Differentiations between periods of constant economic hardship in rural and urban areas might offer a better explanation.

The second part of the analysis aligns with the established relationship in both cases. Mali and Ghana show a link between education and political knowledge, thus affecting voter turnout. As designed through the chosen MSSD, voter turnout rates vary drastically in both cases. Missing information and reduced political knowledge could be identified in both cases.

Conclusion

I set out to answer the central research question: *How does food insecurity influence voter turnout?*, utilising the comparative case studies of Mali and Ghana. I have concluded a two-fold answer to the research question. First, the posed causal mechanism holds in the case of Mali, linking food insecurity to economic hardship (World Bank, 2022a; Tucker, 2023), which affects education (Belachew et al., 2011; Rother et al., 2022), resulting in reduced political knowledge and reduced voter turnout (Campbell, 2006; Larcinese, 2007). This leads me to conclude that food insecurity affects voter turnout. Second, the causal link could be established in parts for the chosen case of Ghana. While food insecurity and economic hardship could be linked, as well as reduced political knowledge with voter turnout, the explanatory role of education does not hold. With much higher education levels and voter turnout rates than in Mali, the mechanism only accounts for some of the results discussed. Unlike Mali, Ghanaian educational levels do not seem directly influenced by economic hardship, as proven by school enrolment rates (World Bank, 2024). This outcome highlights the complexity of factors influencing electoral participation, mainly the socioeconomic conditions that affect education.

Regarding further research, looking more closely at the relationship between food insecurity and education seems worthwhile. A broader analysis of socioeconomic and

demographic factors (Kulachai, Lerdtomornsakul and Homyamyen, 2023) that play a part in this nuanced relationship has the potential to offer a more extensive explanation (Frank and Martínez i Coma, 2021). That includes the role of gender equality in food security and education. During research for this thesis, several papers discussed the disadvantaged role of girls/women regarding food intake; for instance, they often get served last in a household (Fuhrman et al., 2020; FAO, 2023). Similar results have been published for educational decisions, withdrawing more girls from school than boys (Glick and Sahn, 2000; Goodburn, 2019). Using this knowledge for the posed causal mechanism would offer interesting insights into the effects of political knowledge and voter turnout of women. Last but not least, the role of (social) media in distributing political knowledge should not be underestimated. This paper does not focus on analysing the distribution of political knowledge and election information via those channels in addition to traditional education, which is considered worthwhile. Furthermore, no focus has been placed on the postal vote as the option is impossible in both case studies. However, if applied to other cases, that might differ.

The discussed research holds potential implications for policy measures to promote equitable access to voting in a world where both food security and voter turnout (and thus the democratic legitimacy of governments) are of immense importance. In both cases, intensified governmental funding for educational expenses has the potential to relieve families from the substantial financial responsibility education bears. Attention to these issues is indispensable so individuals and governments – and everything in between – can feed democracy.

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