GODFRED BONNAH NKANSAH

Young People's Demography in Democracy: The Effect of Youth Cohort Size on Youth Political Attitudes and Behaviors in Democratic Societies (1995-2020)

DOCTORAL SCHOOL OF INTERNATIONAL RELATIONS AND POLITICAL SCIENCE

CORVINUS UNIVERSITY OF BUDAPEST

Young People's Demography in Democracy: The Effect of Youth Cohort Size on Youth Political Attitudes and Behaviors in Democratic Societies (1995-2020)

Supervisors:

Attila Bartha, Ph.D.

Zsófia Papp, Ph.D.

DOCTORAL SCHOOL OF INTERNATIONAL RELATIONS AND POLITICAL SCIENCE

CORVINUS UNIVERSITY OF BUDAPEST

Young People's Demography in Democracy: The Effect of Youth Cohort Size on Youth Political Attitudes and Behaviors in Democratic Societies (1995-2020)

Doctoral Dissertation

Budapest, Hungary

2023

DECLARATION

This is a portfolio (article-based) dissertation prepared in accordance with requirements stipulated under § 31 of the Doctoral Regulation of Corvinus University Budapest, September 2021 (JISZ-SZ/8/2021). The following articles constitute this dissertation.

Publications:

Article 1: Nkansah, G. B. and Papp, Zs. (2022) 'Does cohort size matter? Assessing the effect of youth cohort size and peer influence on young people's electoral participation'. *Journal of Youth Studies*, pp.1–19. https://doi.org/10.1080/13676261.2022.2053666 (*online first*).

Article 2: Nkansah, G. B. (2022) 'Youth Cohort Size, Structural Socioeconomic Conditions, and Youth Protest Behavior in Democratic Societies (1995–2014)' *SAGE Open*, 12(2), pp. 1-16.

https://doi.org/10.1177/21582440221096146 *(online first)*

Article 3: Nkansah, G.B. and Bartha, A. (2022) 'Anti-democratic Youth? The influence of youth cohort size and quality of democracy on youth support for democracy'. *Contemporary Politics*, pp.1-23.

https://doi.org/10.1080/13569775.2023.2196877 *(online first).*

TABLE OF CONTENT

DEDICATION

This dissertation is dedicated to my family. My wife, Ezabella Bonnah-Nkansah and children, Israelle Bonnah-Nkansah and Eden Bonnah-Nkansah have paid enormous emotional, physical, financial and social price, living with a husband and a father they could only see for a few days in a year in person in Ghana. I owe them every ounce of gratitude for their patience and endurance.

ACKNOWLEDGMENTS

Navigating this PhD journey has been challenging, and in my case as a Christian, my faith in God has been my fulcrum. He has been an ever-present source of hope, comfort, motivation, and inspiration. My moments of prayer and meditation always returned dividends of a renewed sense of purpose, the feeling that it is possible, and the conviction that I can and will complete this journey successfully. I am grateful to Him for this grace.

Dr. Lawrence Tetteh single handedly made it possible for me to receive the endorsement and funding support I badly needed in Ghana, in support of my application for a PhD in Hungary. But for him, I would not be completing a PhD thesis today; I would still have been dreaming and wishing for my present status. It is with a deep sense of gratitude I write this acknowledgment in honour of him.

I was once told by a dear colleague who was completing his PhD program in the Netherlands, when I was preparing to come to Hungary to commence mine, to pursue a particular objective. Dr. Stephen Duku said: " Godfred, develop the best relationship you can with your supervisor, because your success depends a lot on him or her ". Well, I have had no reason to doubt Stephen's claim in my experience working with my two supervisors: Prof. Attila Bartha and Dr. Zsófia Papp.

At my first consultation meeting with Prof. Bartha, he recommended an expansion of my original focus on political participation to include political attitudes. His counsel turned out to be one of the most important I would receive as a student. At our second consultation meeting, He recommended I reach out to Dr. Papp, who had by then not been assigned to me as a co-supervisor, for possible collaboration on the first study in this portfolio dissertation. Again, his counsel proved immensely life-changing. Two articles Prof. Bartha recommended for my reading on young people's political attitudes and behaviors became the signposts which guided the framing of my theoretical arguments. The many teaching opportunities He gave me on the Master's in Public Policy and Management program cannot go unappreciated. I am immensely grateful to Prof. Bartha for his mentorship and tutelage. I am certain he is proud of the student I turned out to be.

I consider Dr. Zsófia Papp as a specialist at creating order out of intellectual chaos. When I first met her, I was still unsure what exactly I wanted to do. My ideas were still rough and dispersed. After a one-hour consultation with her, however, I walked out of her office

convinced about three things. First, I was convinced about what I wanted to research and the relevance of my work. Second, I knew an article-based dissertation would be a perfect approach to my dissertation. Third I knew the empirical strategy to execute for each of the papers. Dr. Papp clarified all these for me in our first meeting and committed herself to helping me execute the plan in the ensuing months and years. Working with her as my supervisor and co-author changed my perspective on research. I think she harvested the researcher in me: I cannot think of how I executed my research plan successfully without tracing a substantial part of my progress to her. Working with her has been one of the best decisions in my life. I am immensely grateful.

Dr. Rudolf Metz was my mentor and co-supervisor for the first year of my study. He was the first to encourage me to forgo the idea of primary data collection due to cost and time constraints, and rather focus on using secondary data for my research. He specifically mentioned the World Values Survey as particularly suited for the kind of comparative political science research I was interested in. When the COVID-19 pandemic struck, I better appreciated the impact of that counsel for my work. My research was unaffected by the pandemic control measures such as the border closures because of my use of secondary data. His advice proved strategic and immensely useful . I am grateful to him for everything he did for me.

My special thanks to Prof. Zoltán Balázs and Prof. Réka Várnagy for their support. The many recommendations they wrote for me in support of my applications for scholarships to attend conferences and method training schools have been central to my progress. Also, their periodic words of encouragement and positive feedback on my development were a psychological booster.

I wish to also mention the support of Prof. György Hajnal and Dr. Tamás Gábor Molnár during this journey. Serving as a co-instructor with them for the academic writing and research design course for the Master's in Public Policy and Management program improved my understanding of research and the writing process and aided my development in many ways.

My colleague and friend, Gabriel Asante, has been a source of inspiration and a comrade. We have reviewed, criticized, and commented on each other's work, and acted as uncompromising inspectors of each other's progress. I wish to acknowledge his impact on my work.

Back home in Ghana, my family has been my backbone. Every day, my wife and children would get in touch for precious family moments. Thank you, Ezabella, Israelle and Eden. My

younger sister, Amanda, who is herself a PhD student, came across as a buddy who shared a common understanding of the challenges and pains of the journey. She has been a great friend.

My father, Isaiah Adansi Bonnah, and my other siblings - Collins, Felicity, Gloria, and Justice- have been a great source of emotional support to me all these years. Dad would call and check up every now and then to make sure I am doing well. He has been eager to call his son a doctor, and I am certain he will be proud when he eventually hears I have been awarded the degree.

A protégé of mine in Ghana, who has over the course of these four years, morphed into a true friend and a cheerleader is Alberta Baffour -Awuah. I single her out as the most important relationship, outside my nuclear family (wife and children), who has literally walked these years with me to the end. I am grateful for her regular checkups on phone and words of encouragement.

I wish to also thank my protégés who have become good friends on this journey: Gifty Animwaa Frempong and Kevin Nii Atteh Cleland. They have been a great company and a source of encouragement to me.

I am also grateful to Eva-Maria McCormack, Stefan Lueke, Soeren-Elias Griewel, Dr. Jenny Bischofberger, and the entire team at Talking Hope- Berlin for the support and encouragement.

Finally, I owe a lot to my church community, Phanerosis Prayer Network International (PHANET). My special thanks to Pastor Eric Obeng-Kwakye, the Executive Director, and the entire pastorate for their support. I thank all members of PHANET. Words and space will fail me if I attempt to list the names of all who have supported me on this journey.

I thank everyone who has contributed to my progress on this PhD journey.

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

CI	Confidence Interval
CVM	Civic Voluntarism Model
DV	Dependent Variable
EIU	Economist Intelligence Unit
FE	Fixed Effects
GDP	Gross Domestic Product
ICC	Intra Class Correlation
ICTs	Information Communication Technologies
QoD	Quality of Democracy
SES	Socio Economic Status
UN	United Nations
V-DEM	Variety of Democracy
WVS	World Values Survey
YCS	Youth Cohort Size

ABSTRACT

Despite a few pockets of evidence to the contrary, the traditional literature on youth political attitudes and political participation generally asserts that young people in Western democracies are shunning institutionalized politics such as voting, for non-institutionalized politics such as protests. Young people are also argued to be the least adherent to attitudes that support democracy as a political system. Extant research has looked to socioeconomic resources, incentives, and value/cultural changes for explanations to the observed trends. The explanatory potential of demography, however, remains unexplored. This dissertation accordingly examines whether *the share of young people within the adult population* of democratic countries explains their political attitudes and participation. It investigates the effects of young people's cohort size on their individual propensities to (1) vote in national elections, (2) participate in peaceful demonstrations (3) support democracy as a political system, across both established and new democracies.

The study uses single level and multilevel logistic regression modeling techniques within large -N research designs, on individual level data from World Values Survey Waves 3-7 (1995-2020), and country level data from the United Nations Population Division, World Bank, the Polity IV democracy Index, and the Economist Intelligence Unit, in three research studies that comprise this portfolio dissertation. The study shows that young people's cohort size predicts key youth political attitudes and participation in both institutionalized and non-institutionalized activities. Young people's cohort size was found to exert significant direct effects on their propensities to vote in national elections, participate in peaceful demonstrations, and support democracy as a political system. On the one hand, the larger the cohort size of the youth, the less likely that compared to their peers in democratic societies with smaller youth cohort sizes:

I. They will vote in national elections.
II. Those with higher education will participate in protests when faced with high rates of unemployment.

The mechanism by which young people's cohort size affects their political participation behaviors is argued in this dissertation to manifest through a reduction in the social and economic fortunes of young people growing as part of a large youth population, due to a disequilibrium between their large numbers and the often-limited employment opportunities in the labor market. I argue that this imbalance between their demography and available economic

opportunities tends to delay their transition into adulthood, marked by social and economic milestones such as completion of education, gainful employment, marriage, ability to afford your own accommodation, and also provide financial assistance to their significant others. The quest to improve their socioeconomic situations consequently *deflects their attention from the more political demands of life*, towards a focus on meaningfully integrating into economic life, in order to achieve these social markers of adulthood at that stage of their lives.

And while, on the other hand, it is tempting to believe that such declining commitments to political participation by young people could actually be symptomatic of a more serious disillusion with democracy itself as a political system, the findings of this study are rather reassuring in this regard. The study shows that large youth cohort size associates positively with young people's propensity to support democracy as a political system. Importantly, this positive effect is conditional upon the quality of democracy of the countries in which they live, such that the more established a democratic society, the stronger the propensity that members of a youth bulge will show approval for democracy as a political system.

I argue, therefore, that contemporary young people in democratic societies are rather shrewd. They behave like critical citizens/dissatisfied democrats: they believe in and remain committed to the core ideals of democracy as a political system and support it. Their declining commitment to key political activities such as voting and participation in demonstrations, particularly for the unemployed among them, in the face of their burgeoning numbers, may thus be related more to efforts at navigating around the existential challenges associated with being a part of a youth bulge, which causes them to, sometimes, prioritize socioeconomic goals over politics. To an extent, the feeling of a lack of political efficacy may also account especially for their voter apathy.

The present findings are novel and hold important implications for both theory and empirical research.

Key words: Youth, Youth Bulge, Youth Cohort Size, Support for Democracy, Political Participation, Life Cycle.

1.0 INTRODUCTION

1.1 Relevance and ambition of research

An unequivocal concern of the contemporary world remains the fact that the population age-structure of nearly all societies is changing. Western societies have, on the one hand, repeatedly been reported by both academic and non-academic sources as ageing societies, while most developing societies in the Global South and East continue, on the other hand, to grapple with rather young populations (United Nations, Department of Economic and Social Affairs, Population Division, 2013; Goldstone, Marshall and Root, 2014; United Nations, Department of Economic and Social Affairs, 2018; Korotayev *et al.*, 2022). And while many studies have examined the social, economic, and cultural implications of the changing age structure of societies, the political implications of these demographic dynamics are yet to receive adequate attention in mainstream political science research. As yet, nearly all the studies conducted on the political implications of the changing demographics of societies have been focused on the impact of such changes on political stability. The youth-sub population in particular has garnered the most interest in such research, having gained notoriety as the protagonists of most acts of political instability (Huntington, 1996; Goldstone, 2002; Urdal, 2006). Their burgeoning cohort size has been found to be a major catalyst and a reliable predictor of the likelihood of acts of political instability, and a major threat to democratic consolidation in countries with such demographic profiles (Cincotta and Doces, 2011; Weber, 2013; Goldstone, Marshall and Root, 2014).

The youth political attitude and participation literature on the other hand, shows enduring debates about young people's commitment to democracy as a political system, and their political behaviors in both institutionalized and non-institutionalized politics. While a strand of the argumentation sees young people as apathetic, disinterested and disengaged from democratic politics (Kimberlee, 2002; Foa and Mounk, 2016; Mounk, 2018), the counter view sees them as actively engaged in democratic politics through unconventional forms of political repertoires and expressions (Norris, 2003; Dalton, 2009; Pontes, Henn and Griffiths, 2019). Is there reason, however, to believe that the demographic changes currently being witnessed in both the established and developing democratic worlds could have significant implications for the political attitudes and behaviors of young people within such democracies? A careful review of the literature reveals that the nexus between young people's demographic size and

their individual political attitudes and behaviors has as yet not been theorized and tested empirically.

Also importantly, the present debate on young people's political attitudes and participation behaviors have been typically limited in scope to the West and Australia; societies traditionally known for small youth populations, and have unsurprisingly not considered the explanatory potential of young people's demographic size in understanding the observed patterns of attitudes and behaviors. Even where empirical studies have attempted to examine the relationship between youth political attitudes and behaviors, and young people's demographic size within the wider literature, such as studies which examine their cohort size as a predictor of collective political activity, empirical investigations have focused on contextual level outcome variables such as the onset of violent and non-violent protests in a country (Ang, Dinar and Lucas, 2014; Costello, Jenkins and Aly, 2015; Romanov and Korotayev, 2019).

Attention to the above lacuna in research from a wider geographical perspective, however, is crucial for two important reasons. Firstly, a study exploring such a nexus holds the potential of improving our understanding of the implications of the ongoing demographic changes in both established Western and developing societies for the health and stability of democracy as a political system. Secondly, given the unique place of young people as the future torchbearers of the democratic tradition, gaining insights into the impact of their cohort size on their commitment to democracy as a political system, and associated political participation behaviors, can have important implications for youth policies and interventions aimed at improving socioeconomic and political outcomes among young people.

In this dissertation, I examine this important theoretical and empirical orifice of inquiry which has frequently been overlooked within mainstream political science. I draw on the well-known association between young people's cohort size (herein after referred to as youth cohort size), and the propensity of political instability, to investigate the relationship between youth cohort size (YCS) (defined in this study as the proportion of young people aged 15-29 years within the adult population of a country [15 years and above]), and youth political attitudes and political participation behaviors across both established and new democracies. This ambition of the study was inspired by an intuitive concern, and cues from some strands of the political demography literature which seemed to suggest that young people's demographic size and the well-known social and economic influences they are exposed to at such early stage of life, could potentially hold some answers to their observed political attitudes and participation

trends. The findings of this dissertation accordingly contribute seminal insights on the relationship between cohort size and cohort political attitudes and political participation, and associated implications for theory, empirical research, and policy.

Below, I briefly review existing literature on youth political attitudes and participation behaviors and highlight the key gaps in the scholarship this dissertation seeks to contribute to addressing by its findings.

1.2 Literature Review

An important subfield of political science with an enduring interest in both the theoretical and empirical literature is *political participation*. Democratic theory contends that citizen participation in politics is the bedrock of the democratic system of governance. Teorell (2006) for instance, identifies participatory democracy as one of the three models of democracy within normative democratic theory; the others being what he calls responsive democracy and deliberative democracy. Verba, Schlozman and Brady (1995, p.1) opine that "citizen participation is at the heart of democracy" and that "democracy is unthinkable without the ability of citizens to participate freely in the governing process". Similar convictions are echoed by Paul Whiteley who also believes that political participation is "at the heart of democratic government and civil society, and without it there can be no effective democracy" (Whiteley, 2012, p. 34), and Bernard Williams, who argues that any conception of modern political legitimacy, "requires an account of democracy and political participation" (Williams, 2005, p. 15). Democracy as a political system is, in essence, construed to lose its savor, ethos, meaning and distinctiveness without political participation.

Closely connected to the central place of political participation within democratic practice is the debate on the kind of attitudes citizens of democratic societies must possess in order to protect the democratic culture. The landmark study of Gabriel Almond and Sidney Verba in five democratic societies nearly sixty years ago, for instance, prescribed commitment and open support for democracy and its institutions by the citizenry, as the normative civic culture required for the preservation of democracy (Almond and Verba, 2015 [1963]). Accordingly, supposed compromises on these virtues in most Western democracies in recent decades are argued to reflect a weakening of the democratic political and civic culture, and a potential crisis for democracy and democratic consolidation (Putnam, 2000; Foa and Mounk, 2016).

Contrariwise, the counter literature on the attitudes of citizens of democratic societies of the West recognize the dwindling open support for democratic institutions, and low patronage of the erstwhile vibrant civic culture, as a development which show growing public expectations of democracy, not necessarily a rejection of the regime (Norris, 1999, 2011; Dalton, 2009). Importantly, the significance of the ongoing debate relates to the conventional belief that attitude determines participation, such that, the more supportive people are of the democratic political system, the more engaged they would be (Verba and Nie, 1972; Verba, Schlozman and Brady, 1995).

As with the above normative debates, the empirical verdicts on citizens' attitudes and political participation have been similarly inconclusive. In terms of political attitudes, while the dominant position within the empirical literature shows a growing disaffection and weakening trust of the citizenry towards democratic institutions (Putnam, 2000; Dahlberg, Linde and Holmberg, 2015), an important strand of the literature also shows that this may not be the case in all advanced democratic societies, and more particularly in places such as Scandinavia (Holmberg, Lindberg and Svensson, 2017). The case of political participation is no different. Despite the repeated reports of growing decline in citizen engagement in institutionalized politics, such as electoral participation and political party memberships (Kimberlee, 2002; O'Toole *et al.*, 2003; Furlong and Cartmel, 2007; Henn and Foard, 2014; Foa and Mounk, 2016; Parvin, 2018; Foster and Taylor, 2019; Green and Gerber, 2019), and a not so impressive involvement in non-institutionalized politics, such as protests and boycotts (Foa and Mounk, 2016; Parvin, 2018; Pontes, Henn and Griffiths, 2019), recent reports show gradual improvements in citizens' participation in activities such as voting (Harrison, 2018; Sloam and Henn, 2019; Kamatayeva, 2021).

At the center of these empirical investigations has been the *political attitudes* and *participation of young people*. It is fair to say that the dispositions and engagement patterns of the younger generations of advanced democracies have been among the most fiercely contested debates within the political science sub-discipline. Importantly, the conventional evaluation of young people's attitudes towards democratic politics and participation in institutionalized politics has indicted young people of apathy and antidemocratic tendencies (O'Toole *et al.*, 2003; Mycock and Tonge, 2012; Henn and Foard, 2014; Foa and Mounk, 2016; Mounk, 2018; Parvin, 2018), even leading to their infamous depiction as the "harbingers of an incipient crisis of democracy" (Farthing, 2010, p. 181). Summarizing this conventional verdict, Ellen Quintelier, noted some sixteen years ago that:

"Such a conclusion is not unfounded: in almost every election young people are the least likely to vote, and these participation rates are continuously declining; the youth membership of political parties is dropping; young people are less concerned with politics, less politically knowledgeable, do not participate in social or political activities, are more apathetic, and have low levels of political interest, etc. For almost every activity or attitude, young people have the lowest score. Conventional 'wisdom' dictates that young people are 'ignorant', 'apathetic', 'selfish', 'indifferent', 'alienated', 'disaffected' and 'disinterested' when it comes to politics" (Quintelier, 2007, p. 165).

Explanations advanced for the disengagement of young people from democratic politics in general and institutionalized politics, *in particular,* have been diverse. Three notable theories tested in the literature have been (1) life cycle effect theory (2) generational effect theory (3) issue-based or episodic participation theory. *Life cycle effect theory* supposes that young people show relatively low levels of commitment to politics due to the stage of life they find themselves in. As young people transitioning into adulthood, the challenges of gaining stability in life, including completing their education, finding gainful employment, finding a life-partner, and settling down in marriage, renting their own accommodation, among other social demands of adulthood, conflate to deflect their interest and attention as young people from politics, towards achieving these social markers of adulthood (Norris, 2003; Quintelier, 2007; Weiss, 2020). The life cycle view shows strong congruence with resource-based explanations of political participation, which identify the socioeconomic status and civic skills of individuals as key to their abilities to engage actively in politics, because they afford people the income, time and education required to actively participate in politics (Brady, Verba and Schlozman, 1995; Whiteley and Seyd, 2002; Panagopoulos and Abrajano, 2014). Lacking these critical resources, the life cycle view posits that young people become less motivated to participate in politics compared to the older generation who are more advanced on the life cycle continuum.

The *generational effect theory* on the other hand links the observed patterns to long term changes in the agencies and structures which shaped political socialization and participation in the past. It identifies factors such as rising levels of education, the changing demands of adult life in the contemporary world, the emergence of new forms and platforms for political participation, as having interplayed to diminish the loyalties and open dedication of young people towards institutionalized politics, in comparison to the older generation (Kimberlee, 2002; Norris, 2003). Closely linked to this interpretation is the perceived impact of the generation or cohort a person belongs to on their political attitudes and behaviors. Popularly

referred to as cohort effect, the theory suggests that individuals born in the same generation or period tend to share common historical, cultural, and societal changes and experiences which distinguish them in terms of their attitudes and behaviors from other cohorts or generations, and has been argued to explain generational differences in political attitudes and participation behaviors between the older and the younger generation (Grasso, 2014; Grasso *et al.*, 2019).

In contrast to both the life cycle and generational/cohort effect explanations, advocates of *issue-based interpretations* to young people's political attitudes and participation patterns explain that young people support, engage, or disengage from politics based on the biographical relevance of the political issues which invite their involvement (Benedicto, 2013; Soler-i-Martí, 2015). Thus, suppose their electoral participation is essential to the implementation of a policy which prioritizes their concerns as youth, such as environmentalism, human and animal rights, multiculturalism, educational funding and even youth employment, young people are likely to show greater levels of support and commitment (Harrison, 2018; Sloam and Henn, 2019). Amnå and Ekman call this the phenomenon of 'standby citizens' who are normally disengaged, yet keep themselves informed on political happenings, and are willing to 'enter into the game' should they find important reasons to do so (Amnå and Ekman, 2014).

The alternative evaluation of young people's political attitudes and participation by contrast, hails them for expanding the understanding of political participation, through their interest and penchant for *non-institutionalized politics* such as peaceful demonstrations, signing of petitions and product boycotts (Marien, Hooghe and Quintelier, 2010; Sloam, 2016; Sloam, Ehsan and Henn, 2018; Treviño *et al.*, 2019). Their supposed unfavorable attitudes towards democratic politics are also interpreted within this alternative framework as crucially important critical norms and dispositions, which, in difference to the dutiful loyalties expressed in time past - and even presently by the older generation to democratic politics and its handlers - help to increase performance and accountability within the political system (Dalton, 2009; Norris, 2011; Dalton and Welzel, 2014; Stoker *et al.*, 2017). They are also argued to be expressions of young people's response to the multi-layered barriers they face within the political system in their attempts to actively engage in institutionalized politics. These include the limitations on age of voting to only 18 years and above in most countries, unfriendly electoral schedules including periods and venues for registration and voting, the cost of participation in institutionalized political activities such as voting, and the bureaucratic nature of the institutionalized political processes if one wants to get her concerns across to political authorities (Bessant, 2004; Farthing, 2010; Briggs, 2017; Juelich and Coll, 2020; Grumbach and Hill, 2022). In a sense,

therefore, contemporary young people have and continue to evolve their own courses to active political participation, yet not in the conventional sense of the practice, as seen in their preference for the less bureaucratic non-institutionalized forms of participation.

The reasons the literature advances as explanations for young people's critical attitudes and changing patterns of political engagement majorly include *cultural and value change*. Theorists of this tradition, led by Ronald Inglehart and Pippa Norris, trace these changes to the evolution of industrialized societies from values that prioritized material benefits and social welfare in the post-World War II era, and which encouraged open support and loyalties to one's country and political leadership, as perhaps infamously captured in the clarion call of President John F. Kennedy of the United States, to American citizens to "ask not what your country can do for you, but what you can do for your country". In the stead of such patriotism has since the 1970s, arisen a new wave of cultural values which are post-material, and emphasize libertarian virtues of individualism, self -expression, freedom of speech, and elite-challenging attitudes, largely driven by higher levels of education and economic development within advanced democratic societies (Inglehart, 1990, 2016 [1977]; Inglehart and Norris, 2016; Norris and Inglehart, 2019). Young people are, importantly, seen to be among the main drivers of this cultural and value change, due to the relatively better socioeconomic contexts of their development (Dalton, 2009; Dalton and Welzel, 2014; Henn, Oldfield and Hart, 2018; Norris and Inglehart, 2019; Sloam and Henn, 2019).

Contextual explanations of political attitudes and participation have also been proffered in some strands of the literature. For instance, the socioeconomic conditions of countries, particularly the levels of education and economic development have since long been put forth as important predictors of political attitudes and participation (Lipset, 1959; Norris, 1999; Abramson, 2014; Campante and Chor, 2014; Kern, Marien and Hooghe, 2015). A country's level and length of democratization is also argued to determine people's political participation (Nový and Katrňák, 2015; Kitanova, 2019).

1.3 Summary of literature review & research questions

As seen from the above review of the literature the geographic focus, and explanations of the observed patterns in the political attitudes and participation behaviors of young people, have been mainly Western -centered, and importantly silent on the effect of the demographic size of

young people on their political attitudes and participation. In other words, the potential relationships between cohort size and cohort political attitudes and participation remain unexamined in the literature. While the generational/cohort effect theories provide important insights on the impact of the period of birth and the cohort a person belongs to, on their political attitudes and behaviors, they nonetheless focus on understanding generational differences in political attitudes and participation behaviors between the young and old, and importantly fail to account for the potential influence of the cohort sizes of these groups on such outcomes. This study, therefore, attempts to address these two important gaps in the literature. It leverages the ongoing debates within both the theoretical and empirical literature to respond to the following research questions:

(1) *Does the proportion of young people in the adult population of a democratic country affect their political attitudes and political behaviors?*

(2) *What mechanisms moderate and/or mediate such relationships?*

This dissertation adopts a portfolio approach and answers the above questions with three independent but theoretically connected studies. The dissertation is an explanatory empirical research which can be situated at the intersection of three sub-fields of political science: political participation, political demography, and political socialization/sociology. It draws on theories from these fields to synthesize its own theoretical framework. Specifically, the study engages some mainstream theories which explain political participation, such as the *life cycle effect theory, grievance theory* and resource-based models such as the *Civic Voluntarism Model* (CVM). It also turns to *social influence* and *political socialization theories* within the political attitudes literature, and even more importantly draws extensively from the *youth bulge theory* in political demography to explain the effect of young people's cohort size within the adult population of a country, on their individual political attitudes and political participation in both institutionalized and non-institutionalized politics, across both established and new democracies.

In comparison with the other theories discussed above, such as generational/cohort effect theory, issue based explanations, cultural and value change, the selected theories in this section : i.e., *life cycle effect theory*, *grievance theory,* the *CVM* and *social influence/political socialization theories,* share an important nexus with the demographic theory of interest to this study: the youth bulge theory. Evidence from the political demography and conflict studies literature demonstrates that the phenomenon of youth bulge impacts young people's

socioeconomic status, life cycle transitions, and socialization processes in ways which hold important political, social, and economic implications for societies with such age-structures (Urdal, 2006; Cincotta and Doces, 2011; Weber, 2019; Ganie, 2020; Korotayev *et al.*, 2022). Youth bulge is argued to reduce the economic opportunities of young people (Brunello, 2010), complicate their transition into social adulthood (Ozerim, 2019), and amplify the effects of peer socialization through the creation of a large pool of peer socializing agents (Hart *et al.*, 2004; Weber, 2013). The expectation of this study is that these attributes of a youth bulge can help to better explain the political attitudes and behaviors of young people. I theorize these relationships in the theoretical framework section of this introduction. Figure 1.1 below shows the main theories engaged in this study.

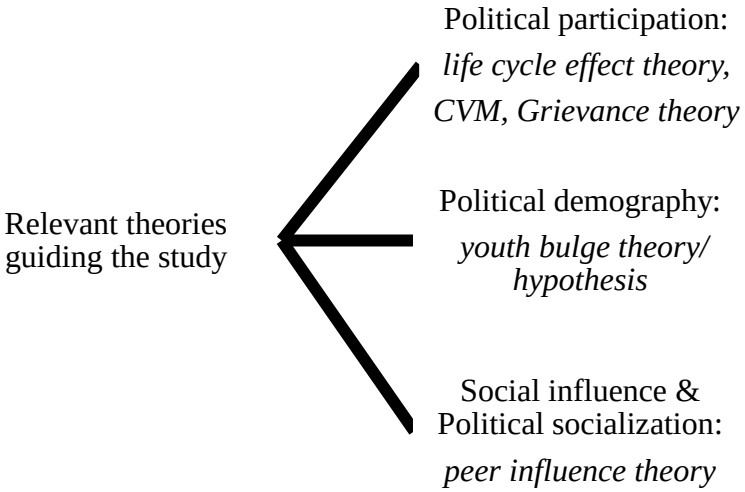


Fig 1.1: Main theories engaged in study.

1.4 Conceptual Framework: Definition of key terms

1.4.1 Political participation

Despite the consensus on citizen participation as a central feature of democratic politics, conceptualizing political participation has not been an easy endeavor for scholars. A concrete answer to what it is and what it is not remains an enduring debate in the literature (van Deth, 2001, 2014; Ekman and Amnå, 2012; Hooghe, Hosch-Dayican and van Deth, 2014; Sairambay, 2020). Prior to the 1960s, political participation was generally understood in terms of

involvement in electoral and political party activities (van Deth, 2001). The first major breakaway from this constricted emphasis was the seminal work of Sidney Verba and Norman Nie, who defined political participation as *"those activities by private citizens that are more or less directly aimed at influencing the selection of governmental personnel and/or the actions they take"* (Verba and Nie, 1972, p. 2). Their vision of political participation was much broader and included activities such as *voting* at elections, *campaign activity* with political parties, *communal activities* at community level, and *contacting* government and public officials with concerns (pp. 56-63). Their contemporary, Samuel Huntington generally followed Verba and Nie with his definition of political participation as any *"activity by private citizens designed to influence governmental decision-making"* (Huntington, 1976, p. 4). Two notable limitations from these early definitions and scope of activities constituting political participation are, however, evident. Firstly, the definitions focused on only government officials as the target of influence. Secondly, the typologies excluded contentious political activities such as protests and demonstrations.

More contemporary definitions of political participation and typologies of activities which qualify as participation have, however, attempted to be more encompassing. Teorrel et al. (2007) for instance, note that ordinary citizens may undertake political actions and achieve political outcome without necessarily targeting political elites. These actions, they argue, may include product boycotts and other forms of protestations against non-government institutions and corporate entities, aimed at achieving some desired political outcomes (ibid). These possibilities were not considered in the earlier conceptions of political participation. They accordingly define political participation as *"actions by ordinary citizens, directed towards influencing some political outcomes"* (Teorell, Torcal and Montero, 2007, p. 336). Ekman and Amnå on the other hand, merge the two intents of political participation- influencing government decisions and political outcomes - into their definition of political participation as *"actions directed towards influencing governmental decisions and political outcomes"*. (Ekman and Amnå, 2012, p. 289). Implicit in these definitions is the acknowledgement of non-government actors as potential targets of political actions, and contentious activities such as protests as modes of political participation. Also, despite a few nuances in the above definitions which generally see political participation as influencing government decisions or political outcomes, they are largely acknowledged within the sub-field as the classical understanding of political participation.

More recently notwithstanding, concerns about the overstretching of the meaning of political participation, in the wake of new modes of political engagements have been raised (Theocharis, 2015). The concept has and continues to be expanded to include new modes of activities such as online/social media engagements, and even offline individual activities popularly called lifestyle politics, which aim for personal expressivity, rather than influencing political outcomes (Rojas and Puig-i-Abril, 2009; Halupka, 2014; Sairambay, 2020). To remedy this conceptual stretch (Sartori, 1970), van Deth has attempted to provide a conceptual map of political participation, intended to aid researchers with an operational definition of the phenomenon in terms of key features to look out for in identifying activities which qualify as political participation. He notes these indicators to be acts which are: voluntary; target the government or the state; not compulsory by law or on the order of the ruling elite; and are undertaken by ordinary people who are not politicians (van Deth, 2014). Critics of the framework, however, point to imprecisions in the definition of what qualifies as a politically relevant behavior, as this allows any form of human behavior to be considered political participation without adequate emphasis on the goal of participation. They also point to limited attention given in the framework to the place of motivation for political participation: i.e., whether the reasons for participation are political or personal (Hooghe, Hosch-Dayican and van Deth, 2014). Subsequent modifications of the conceptual map have attempted to incorporate these concerns (Theocharis and van Deth, 2017, 2018).

An important insight to be gained from the ongoing conceptual debates on political participation is the fact that, it is not exactly easy to define the concept, particularly in the era of ever-changing forms of online and offline political engagements, and also the evolving motivations of participants. As a minimal attempt at conceptualization, notwithstanding, I find the definition of political participation by Teorell and associates as: *"actions by ordinary citizens, directed towards influencing some political outcomes"* as well suited for this study. This view of political participation is helpful, as it expands the potential targets of participation to include non-government actors, and allows for protest activities, including those which may not necessarily have the state as its direct target to be accommodated within such a conceptual framework. Also importantly, they propose a five-dimensional typology of political participation, which includes protest activities (Teorell, Torcal and Montero, 2007, pp. 340–341). I find this working definition and types of political participation adequate for the purposes of this study:

- Voting – i.e., involves voting at elections and referendum

- Consumer participation – i.e., includes product consumption related boycotts and signing of petitions.
- Party activity – i.e., includes membership in political parties and participation in party activities and programs.
- Protest activity – i.e., activities such as demonstrations and strikes.
- Contacting activities – i.e, contacting political actors and other government officials on issues of concern (ibid).

The study also follows the conceptualization of the above activities as institutionalized and non-institutionalized activities. The term institutionalized politics is used in reference to political activities which are controlled by the formal political system, and include actions such as voting, party activities and contacting activities, while my use of non-institutionalized politics refers to organized actions outside the control of the formal political system, and include the more contentious and elite -challenging acts such as protests and demonstrations (Marien, Hooghe and Quintelier, 2010; Stolle and Hooghe, 2011; Kern, Marien and Hooghe, 2015).

While the different types of participation activities listed above are acknowledged throughout this work, the emphasis of the study is on young people's interactions with one institutionalized activity (*voting*) and one non-institutionalized activity (*protest*). The decision to examine young people's voting and protest behaviors was informed by both theoretical and empirical considerations. Theoretically, the two activities are argued in the literature as the most significant political participation activities undergoing prominent changes among the contemporary younger generation. Voting is argued to be the most important institutionalized political activity young people are disengaging from, while protests continue to be the most preferred non-institutionalized activities, they are turning to (Pilkington and Pollock, 2015; Sloam, 2016; Weiss, 2020). Empirically, limitations with the dataset for the study, specifically, considerable amounts of missing data on other key institutionalized activities such as political party membership and young people's participation in party activities such as campaigns, and protests activities such as signing of petitions, boycotts and joining strikes across many countries included in the dataset for the study, constrained the analyses to *voting* and *peaceful demonstrations.* The two activities received the most responses across the highest number of countries within the dataset for the study. Given their theoretical relevance argued in the preceding texts, the study considered them to be representative enough of young people's

political participation behaviors in both institutionalized and non-institutionalized politics, and accordingly engaged them in the analyses. I reflect on the implications of these data limitations for the study and future research directions in the conclusion section of the dissertation.

1.4.2 Political attitudes

Conceptualizing political attitudes is a much more straightforward endeavor. Owing to the strong root of attitudinal studies in psychology, the works of scholars such as Icek Ajzen and Martin Fishbein provide strong foundations in understanding the concept (Ajzen and Fishbein, 1980; Ajzen, 1988). Ajzen's definition of attitude in particular has been perhaps the most influential in understanding the concept. He defines attitude as "a disposition to respond favorably or unfavorably to an object, person, institution or event" (Ajzen, 1988, p. 4). The concept of political attitude used in this study leverages Ajzen's insight. My use of the term can accordingly be understood as the: "*favorable or unfavorable opinions and outlooks of people towards political issues, political systems and/or institutions, individuals, or political events"*.

For the purposes of both theoretical and empirical parsimony, the study focuses on young people's *support for democracy* as a political system, as the political attitude of interest. The study treats the political attitude 'support for democracy' as conceptually distinct from the political attitude 'satisfaction with democracy'. The two concepts are argued to have different etiologies in the literature. While one strand of the literature treats support for democracy as a belief in the ideals, values, and principles of democracy as a political system, cultivated over a period through political socialization within a society (Klingemann, 1999, 2014; Bratton, Mattes and Gyimah-Boadi, 2004; Asomah and Dim, 2021), and not susceptible to changes in economic performance (Huang, Chang and Chu, 2008; Klingemann, 2018; Claassen and Magalhães, 2022), another strand of the literature sees support for democracy as, in part, a function of citizen's satisfaction with democracy, in terms of the political, and especially the economic performance of the regime (Dahl, 1971, pp. 144–146; Easton, 1975, p. 446; Magalhães, 2014; Cordero and Simón, 2016; Pennings, 2017). Put differently, people's experience with the effectiveness of a democratic regime influences their support for the regime.

The study takes note of the merits of both sides of the debate, particularly the fact that while the reason for people's support for democracy as a political system can be attributed to the strength of a country's democratic legacy and socialization systems, their personal experiences with the empirical outcomes of democratic governments may also influence these opinions. It nonetheless adopts the conceptualization of support for democracy as *commitment to democratic values or the democratic culture, understood in terms of loyalty to the concept of democracy (rule by the people), and associated values such as liberty and equality* (Fuchs, 2007; Fuchs and Roller, 2018). This definition of support for democracy is argued in the literature to be the highest level of commitment or support for democracy, and also impervious to even unfavorable economic conditions (Huang, Chang and Chu, 2008; Klingemann, 2018). Given the social and economic challenges youth bulge (a disproportionately large number of young people of young people in the adult population) is evidenced to pose to members of the cohort themselves (Korenman and Neumark, 2000; Brunello, 2010), this particular conceptualization of support for democracy becomes an important test case in the context of young people growing as part of a youth bulge.

1.4.3 Political attitudes and political participation

Past research has repeatedly emphasized the strong relationship between political attitudes and political participation behaviors. The conventional position holds that political attitudes determine political efficacy and participation behavior (Verba and Nie, 1972; Verba, Schlozman and Brady, 1995). Thus, declining levels of confidence and trust in political institutions such as the parliament, would, for example, translate into apathy towards parliamentary related engagements (Holmberg, Lindberg and Svensson, 2017). The second view sees political behavior as the determinant of political attitudes. Ellen Quintelier and Van Deth for instance, assert that political behavior has much stronger effect on political attitude than the reverse, and that peoples' participation in politics renders them more supportive of democratic values (Quintelier and Van Deth, 2014, p. 167). The third view of the 'attitude-behavior' interaction sees the relationship as one of reciprocal effects and re-enforcement. Whereas the political attitudes of individuals can predict their behavior, their experiences in participation also end up exerting significant effect and re-enforcement on the very attitudes which inspired their behavior in the first place (Gastil and Xenos, 2010). This study tested the

conventional position of the literature, and accordingly controlled for the effects of key political attitudes on the two political participation behaviors of interest, discussed in the preceding section: voting and participation in protests.

1.4.4 Youth, youth cohort size and youth bulge

The literature on youth defines the concept as both a demographic group and a social category. In demographic terms, different age cohorts are classified within this category. The United Nations for instance use 15-24 years as their working definition. *"…the United Nations—without prejudice to any other definitions made by Member States—defines 'youth' as those persons between the ages of 15 and 24 years"* (United Nations, n.d). The European Union Youth Strategy on the other hand, has no official working definition for youth, but uses 13 -30 years for operational purposes (European Commission, 2011, p. 2). Within the scholarly literature, extant studies have been equally diverse in their definition of youth, including categorizations such as 16-25 years (Hart *et al.*, 2004), 15-24 years (Urdal, 2006) and 16-24 years (Bricker and Foley, 2013).

For the purposes of this research, however, I define youth as persons aged between 15-29 years. This definition is in sync with more recent conceptualizations of the term in the youth political attitude/participation and youth bulge literature (Kitanova, 2019; Weber, 2019; Korotayev *et al.*, 2022). The range covers the ages of both theoretical and empirical interest to the study. Compared to the other definitions of the concept which have 25 years as the upper threshold for youth (15-25 years), I argue that the 15-29 years range offers a more representative age range which adequately captures the nuances in the life cycle experiences of young people. For instance, while young people below 25 years may still be relatively dependent on their families for financial support and have more pronounced experiences with ambitions to complete their education and start a job or a business, the relatively older youth above 25 years tend to have much broader ambitions, which may include the search for marriage partners, stable jobs, personal accommodation, and the quest for financial independence from their families. Since a key focus of the study is to understand how these life cycle effects over the developmental course of young people impact their political attitudes and behavioral choices, I found it more theoretically and empirically relevant that the definition of the term will be comprehensive enough to include the entire range of years during which these life cycle effects

are most pronounced for the average young person. The choice of 15-29 years tends to reflect this reality better than any of the other definitions which cap the range at 25 years.

I use the term *youth* interchangeably with *young people* throughout the study. I also use the term *youth cohort size* in reference to the proportion of young people within the adult population of a country. The concept of *youth bulge* is used in reference to a disproportionately large number of youth within the population of a country (Farzanegan and Witthuhn, 2017; Tzannatos, 2021), and is used interchangeably with *large youth cohort size* in this dissertation. The study is partly premised on assertions that the phenomenon of youth bulge significantly impacts the economy and politics of nations with such features (Ganie, 2020).

As a social category, youth is understood in terms of adult-determined socioeconomic pointers of adulthood. Thus, an individual may still be considered as a youth (although such a person is officially beyond the demographic category) if; s/he is unmarried, unable to support himself/herself economically, unable to extend help to the family, or continues to depend on the parents for shelter (Eguavoen, 2010; Roche, 2010; Ozerim, 2019). The concept of youth can, therefore, be understood in terms of a socially constructed period of transition from childhood to adulthood, marked by milestones largely tied to socioeconomic stability in life. These sociological understandings of youth are argued to hold particularly significant connections with young people's political attitudes and behaviors, including their perceived apathy towards politics (Kimberlee, 2002; Quintelier, 2007; Weiss, 2020). This dissertation leverages both the demographic and sociological constructs of youth for its overarching theoretical framework briefly elaborated below. The framework weaves together the three independent studies of this portfolio dissertation.

1.5 Theoretical Framework: Life cycle effect and youth bulge

As earlier intimated, multiple theories have been relied upon by extant research to explain young people's political attitudes and participation patterns. These include the life cycle effect theory, the CVM, the generational and cohort effect theory, the issue-based theory, value/cultural change theory, and even incentive-based theories. Despite the fact that each of these theories contributes valuable explanatory insights to the observed patterns, this dissertation deems the life cycle effect theory as particularly well suited for understanding young people's individual political attitudes and participation within the context of a youth

bulge. Compared to the less resource focused theories earlier discussed such as generational change, issue -based explanations and even cultural and value change, the life cycle effect theory offers a more individualized perspective on the relationship between young people's developmental milestones and the social and economic challenges which potentially hamper the achievements of these milestones. The phenomenon of youth bulge can, in this vein, become an additional bottleneck for young people as they strive to overcome these socioeconomic challenges.

Life cycle interpretations to young people's political disposition and participation behaviors have received considerable mention in extant literature (Leighley, 2001; Kimberlee, 2002; Norris, 2003; Quintelier, 2007; Panagopoulos and Abrajano, 2014; Weiss, 2020). They are strongly linked to the more general resource-based explanations to political participation, which identify access to resources such as employment, income, and education, as central to the availability of time, money, and civic skills to participate in politics (Brady, Verba and Schlozman, 1995; Verba, Schlozman and Brady, 1995; Schlozman, Burns and Verba, 1999; Whiteley and Seyd, 2002; Coffé and Bolzendahl, 2010). In brief, life cycle effect theory argues that young people's political participation, and general disposition towards politics is largely dictated by their place on the continuum of transition into adulthood, marked by social milestones such as marriage, employment, completion of education, housing, ability to support significant others, among others. A young person who has these milestones achieved in life, or significantly advanced in achieving these milestones is accordingly seen to be more likely to have the resources to actively engage in politics. By contrast, another who is struggling to meet these social markers of adulthood, is more likely to put premium on improving her socioeconomic situation, over her participation in political life.

Many past empirical studies examining the causes and predictors of participation in both institutionalized and non-institutionalized politics among young people have also identified factors such as income levels, employment status/condition, level of education, marital status and satisfaction with life and household income as among the strongest predictors of political participation (Quintelier, 2007; Dalton, 2009; Monticelli and Bassoli, 2019; Tzannatos, 2021). While these are clearly not the only known reasons for political participation, as there are also incentive-based motivations (Whiteley and Seyd, 2002; Teorell, 2006; Bob-Milliar, 2012), socioeconomic factors, nevertheless, seem to hold particular prominence in the case of young people. The important underlying question accordingly posed by the life cycle theory in this regards is, given the scarcity of resources, which option is likely to take preeminence in young

people's decisions: the socioeconomic or the political? While the socioeconomic provides a pathway towards attaining social markers of adulthood, the political provides a route to citizenship expressions and input into the political process. An evident implication of the foregoing is that *the youthful stage of life is a crucial stage, during which key decisions are required to be made by young people: they must strike a delicate balance between their socioeconomic priorities and their political participation.*

An important but surprisingly neglected theoretical space (which is probed by this dissertation within the parameters of the life cycle effect theory) is the role young people's relative numbers within the adult population play in influencing their transition into adulthood on the one hand, and participation in politics on the other hand. Traditionally, the phenomenon of large cohort size for any group of people within the population has been associated with the increased risks of deprivation within the group. Richard Easterlin is famed for his hypothesis that the social and economic fortunes of a cohort vary inversely with the size of the cohort, such that the larger the cohort size, the higher the risk of socioeconomic deprivation of individuals who are part of the cohort (Easterlin, 1987, p. 1). It has also recently been discovered that members of large cohorts are the least happy in life owing to higher levels of social disintegration and deprivation, despite their large pool of peers (Ye and Shu, 2022). Especially in the case of large YCS, the cause of their social and economic deprivations is linked to increased competition among themselves as a cohort with relatively similar skillsets and work experiences, for limited employment opportunities on the labor market in economies which have not adequately modernized to absorb their burgeoning numbers (Korenman and Neumark, 2000; Flückiger and Ludwig, 2018; Weber, 2019). The average youth growing in a country with a youth bulge is accordingly relatively disadvantaged in terms of securing gainful employment, and even when employed, earning commensurate wages (Brunello, 2010; Moffat and Roth, 2017; Ozerim, 2019).

*The main theoretical proposition based on the above arguments, and tested in this dissertation, is that youth bulge will exacerbate life cycle effects by delaying young people's achievement of the social markers of adulthood, and consequently engender lower participation in politics and lower support for the democratic systems they are growing within***.** Specifically, the study proposes that as the YCS of a democratic country increases, we can expect that the young people trapped within such a bulge will: *vote less in elections, will be less inclined to protest, and will also be less supportive of their democratic governments*. This will be due primarily to competition for limited labor market opportunities, which will end up deflecting their attention

from the political events in life, as they strive to deal with their socioeconomic challenges. The same situation is envisaged to create an aversion in them towards the democratic political system, due to its perceived failure to improve their socioeconomic conditions as young people. In other words, young people in affluent societies with small YCS, spared the challenges of a youth bulge, are more likely to participate actively in politics, and also hold favorable opinions about democracy as a political system, than their peers in societies with disproportionately large youth populations. The next three sub-sections briefly discuss specific theoretical propositions, developed out of the above general proposition, and tested in the three articles which constitute this dissertation.

1.6 Articles in dissertation

1.6.1 Study 1: "Does Cohort Size Matter? Assessing the Effect of Youth Cohort Size and Peer Influence on Young People's Electoral Participation"

The interest of this first study was to investigate whether YCS influences young people's electoral participation, and whether peer influence moderates this relationship in any way. The study was designed in response to the ongoing debates on the state of young people's electoral participation. Conventionally, the literature identifies young people as the most apathetic towards electoral politics. They are argued to be less connected to the political process, and accordingly vote less (Bergh, Christensen and Matland, 2021). Multiple empirical evidence gathered from opinion surveys and analyses of voter turnout rates and the voting gap over the past two decades point to the general disengagement of young people from electoral participation (Putnam, 2000; O'Toole *et al.*, 2003; Henn and Foard, 2014; Achen and Wang, 2019; Fraga and Holbein, 2020; Bergh, Christensen and Matland, 2021; Pastarmadzhieva, Pastarmadzhieva and Sakal, 2021). Evidence, however, continues to mount against this conventional position. Studies which show that young people are beginning to vote more, and a resulting narrowing of the voting gap between the young and the old, continue to challenge the conventional narrative (Harrison, 2018; Sloam and Henn, 2019; Symonds, 2020; Kamatayeva, 2021). In this study, we examined whether the patterns observed in youth electoral participation are influenced by their cohort size within the population.

The study draws on two important theories which explain political behavior. The first is the life cycle effect theory, which supposes a curvilinear relationship between age and political participation behavior, such that young people's propensity to participate in politics increases with their transition into adulthood, and decreases in their old age (Norris, 2003; Panagopoulos and Abrajano, 2014; Weiss, 2020). In sum, the theory supposes that young people vote less during their youthful years because they are preoccupied with achieving social milestones of adulthood, such as getting employment, life partners, completing school and having their own places of residence, and are accordingly less motivated to follow and also participate in politics, particularly voting(Quintelier, 2007). Peer influence theory on the other hand also argues that young people growing within a youth bulge are more likely to be influenced by their peers within the bulge in their political socialization, particularly the acquisition of civic and political knowledge, which are both important precursors to political participation, than their peers who live in adult-saturated communities (Hart *et al.*, 2004). The reason for such strong peer influence is linked to the ubiquity of peers in the lives of young people (Quintelier, 2015), and how their regular interactions among themselves influence a common perspective among them on most issues (Pilkington and Pollock, 2015). Since young people are relatively less politically knowledgeable compared to the older polity (Zvulun and Harel, 2018), the influence of peers in their daily interactions with each other could consequently be argued to be reasonably inimical to their own political socialization and participation.

The study accordingly tested the proposition that YCS will exert a negative effect on young people's propensity to vote in national elections, such that the greater the YCS of a country, the less likely the youth are to vote in national elections. Our argument built from the reduced social and economic fortunes which befall young people who grow as part of a youth bulge, and accordingly experience delays in achieving the social markers of adulthood. *We also hypothesized that strong peer influence, owing to the creation of a large pool of peer agents by the existence of a youth bulge, will negatively moderate the relationship between YCS and youth voting propensities in national elections.*

1.6.2 Study 2: "Youth Cohort Size, Structural Socioeconomic Conditions and Youth Protest Behavior in Democratic Societies (1995 -2014)".

Following repeated arguments in the literature that the contemporary younger generation of citizens in advanced democratic societies are showing stronger proclivities for non-institutionalized political participation, notably protest activities, over institutionalized political activities, this second study aimed to examine how this propensity may also be influenced by their relative numbers in the adult population within both established and developing democracies. Past explanations to this changing focus of participation for young people have been deeply rooted in value change theory (Inglehart, 1990; Dalton and Welzel, 2014; Norris and Inglehart, 2019; Sloam and Henn, 2019). Importantly, notwithstanding, evidence from the fields of conflict studies and political demography also suggest that young people's cohort size is a strong predictor of the likelihood of the onset of conflicts, violence, riots, and protests (Urdal, 2006; Weber, 2013; Alfy, 2016; Romanov and Korotayev, 2019; Ganie, 2020). Accordingly, the larger the YCS of a country, the greater the likelihood of political and civil instability in the country, with young people as the protagonists of such destabilizing activities. Their sheer numbers, coupled with labor market challenges for an educated bulge, are particularly thought to be crucial conflating conditions which can precipitate violent actions (Goldstone *et al.*, 2010; Weber, 2019).

This study supposed that since young people are likely to engage in acts of political and civil violence, they would be even more likely to engage in non-violent protests such as peaceful demonstrations, since that presents less risks of injuries and fatalities. Given that their cohort size is a strong predictor for the onset of violent activities, the study again supposed that similar parallels could be drawn between their cohort size and peaceful demonstrations. The novelty of this study lies in the observation that, while YCS has been found to predict macro level protest and riot activities, a review of extant studies showed that the question of whether YCS predicts young people's individual level propensities towards protest activities remains unanswered in the literature. Also, the interaction of YCS with socioeconomic conditions and their consequent effect on young people's individual level protest behavior similarly remains untested in the literature. The study accordingly aimed to ascertain whether YCS influences individual youth protest behavior on the one hand, and whether structural socioeconomic conditions moderate this relationship on the other hand.

Two diametrically opposed theories of political participation provide the theoretical framework for the study. On the one hand, grievance theory argues that when people (including young people) feel relatively deprived, due to unfavorable socioeconomic and political conditions within a country, they are likely to express their displeasure with the political system through acts such as protests and conflicts (Gurr, 1970; Muller, 1979; Vrablikova, 2014; Asingo, 2018; Monticelli and Bassoli, 2019). Youth bulge is seen to exacerbate this likelihood through the creation of a large pool of unemployed and low earning young people, who face stiff competition among themselves for limited labor market opportunities, particularly where they are educated (Brunello, 2010; Ganie, 2020; Weber, 2019). This resource limitation is in turn, argued to affect their transition into adulthood through delays in the achievement of the social markers of adulthood, earlier discussed in this dissertation (Ozerim, 2019). Also, given that young people, by virtue of the stage they find themselves in life, have naturally stronger penchant for risking taking, high sense of idealism, peer influence and extremist attitudes (Cincotta and Doces, 2011; Weber, 2013), these factors are argued to conflate to make them more likely to engage in protest actions as a way of expressing their grievances. Drawing on the above arguments, *the study accordingly hypothesized that large YCS and its interactions with structural conditions, such as youth unemployment and education will increase young people's individual propensities to engage in demonstrations.*

The counterargument on the other hand, draws from the predictions of resource -based models of political participation such as the civic voluntarism model. The theory argues that resource availability, rather than scarcity, primarily predicts participation, such that the more resources a person possesses in terms of education, employment, and income, the more likely the person is to participate actively in politics (Verba, Schlozman and Brady, 1995; Teorell, 2006; Dalton, 2009). Accordingly, since large YCS reduces the resource base of young people who form part of the bulge, due to widespread unemployment and low wages for even those employed, the phenomenon of youth bulge and its interactions with structural socioeconomic conditions will in this case, rather suppress young people's engagement in protest. Besides, as the social pressure to 'settle down' in life as an educated young person is high, an important implication the article draws from the foregoing argument is that young people growing within a youth bulge are more likely to focus on improving their socioeconomic conditions than to engage in political participation, and so much in time-consuming activities such as protests, which can sometimes take days, and weeks. As a counter hypothesis, therefore, *the study supposed that*

large YCS and socioeconomic conditions will in this case, reduce the likelihood of participation of young people in peaceful demonstrations.

1.6.3 Study 3: "Antidemocratic youth? The influence of youth cohort size and quality of democracy on young people's support for democracy"

Debates about the political attitudes of young people in established democracies of mainly the West have seen the emergence of two main positions. The conventional position sees young people as apathetically dispositioned towards democratic politics. This is argued to be typified by their declining support for democracy as a political system, and a lackluster approach to the much-cherished civic culture, which so defined Western societies in the past (Putnam, 2000; Foa and Mounk, 2016). Some analysts point to a growing complacency among the younger generation towards democracy, owing to their lack of experience with alternatives to democracy (Corbett, 2016; Mounk, 2018, p. 122).

The counterview argues that young people's present posture towards democratic politics can be understood within the framework of assertive/critical citizenship. Thus, contrary to claims that they hold a growing aversion towards democracy as a political system, young people are argued within this framework to, just like other better educated polity, manifest a new set of authority challenging and accountability demanding values and norms, which in fact, are a manifestation of their growing expectations of democracy as a political system, not a disapproval of the regime (Norris, 1999, 2011; Dalton, 2004; Dalton and Welzel, 2014). In other words, they can be described as a type of critical citizens or dissatisfied democrats: they support democracy as a political system but are dissatisfied with the way it is practiced (Klingemann, 1999; Dahlberg, Linde and Holmberg, 2015; Asomah and Dim, 2021). Even more importantly, these patterns of critical citizenship/dissatisfied democrats are argued to correlate with the quality of democratization of countries, such that the higher the level of democratization of a country, the stronger the support of citizens for democracy as a political system (Klingemann, 2014). The reasons advanced in support of this correlation include the strong institutions and structures of political socialization developed over many decades in established democracies of the West, which make it relatively easier for such democratic values to be transmitted from generation to generation (Nový and Katrňák, 2015; Kitanova, 2019).

In this study, we seek to address a key lacuna in the ongoing debate. Thus far, the potential effect of young people's cohort size on their individual support or otherwise for democracy as a political system has been overlooked in empirical research. This is against the backdrop of a plethora of evidence which strongly links youth bulge with increased risk of democratic instability and deconsolidation (Cincotta, 2009; Cincotta and Doces, 2011; Weber, 2013). Democratic countries with large youth cohort sizes are argued to be particularly at risk of unsuccessful transitions into established democracies, and particularly so if their share of youth is 35% or above (Urdal, 2006). Much of the risk posed by youth bulges to democratic instability is linked to three conflating phenomena which often accompany youth bulges. These are: increased socioeconomic deprivation of the youth (Korenman and Neumark, 2000; Brunello, 2010; Bricker and Foley, 2013), natural socio-biological changes during adolescence and youth adulthood which predispose young people to extremist, high risk and sometimes antidemocratic tendencies (Cincotta and Doces, 2011; Weber, 2013, 2019), and the creation of a large pool of peer agents who end up driving the socialization of young people, in favor of more 'youth-youth' over 'adult-youth' social and political learning experiences (Hart *et al.*, 2004; Weber, 2013). Particularly in terms of socioeconomic deprivation, young people growing within a bulge are argued to grow negatively inclined towards the political system, when they find opportunities for employment and income limited or lacking altogether: this is seen to lead to a weakening of the legitimacy of the political system in the eyes of the youth (Braungart, 1984; Ganie, 2020).

Building on the above theories linking youth bulge with democratic instability, we probe to establish whether across both established and new democracies, YCS has any relationship with the propensity of young people growing as part of such a cohort, to support democracy as a political system. Again, based on the aforementioned debate about the declining/rising support for democracy among young people, particularly in established democracies, the study further examines whether across the wider democratic world of both established and new democracies, the effect of YCS on young people's support for democracy is conditional on the quality of democracy of the countries in which they live. *Our first proposition based on existing evidence is that YCS will exert a negative influence on young people's support for democracy as a political system, such that the larger the YCS of a country, the lower the propensity of the youth to support democracy. For our conditional hypothesis, we suppose that the negative effect of YCS will be exacerbated in the case of individuals living in countries with low quality of democracy. (i.e., new democracies).*

The next section briefly elaborates the methodology employed for the empirical investigations of the theoretical propositions made herein.

1.7 Research design, data, and methods

The study utilized large-n research designs, with country-year as the unit of analysis. The study undertook the purposive sampling of all democratic countries included in the World Values Survey (WVS) Waves 3-7, spanning the years: 1995-1998, 1999-2004, 2005-2009,2010-2014, 2017-2020 respectively. The decision to limit the case universe to democratic countries was informed by the uniqueness of democracy as the only political regime type that allows for contestation and participation (Dahl, 1971, pp. 4–6), guarantees the protection of human rights (Lührmann, Tannenberg and Lindberg, 2018), allows for universal suffrage for voting, and also importantly accepts critical and dissenting opinions, authority defying, and elite-challenging repertoires of political expression such as citizen protests, as part of its inherent culture (Norris, 2002; Dalton, 2004; Dalton and Welzel, 2014). These political expressions importantly formed the central themes of the study. Besides, despite some reports of the deterioration of some of these attributes in some democratic countries, they are generally acknowledged as the bastion of the democratic political system. As these are no guarantees under non-democratic regimes, I found the inclusion of the survey responses from non-democratic regimes unreliable. Since they cannot freely express their political opinions without fear of intimidation, the validity of survey responses from such regimes remains questionable (Holmberg, Lindberg and Svensson, 2017).

The choice of WVS over other surveys was informed by the global and nationally representative nature of the survey, covering both poor and rich countries. It also provides longitudinal data which allows for the estimation of the long-term effects of variables on the values and behaviors of people (Inglehart *et al.*, 2014). The sampling of countries was done from the list of WVS survey countries, using the Polity IV democracy index in two of the studies in this dissertation, and the Economist Intelligence Unit (EIU) democracy index in the other study. The choice of these two indices over other indices such as the Variety of Democracy (V-DEM) liberal democracy index was informed by what I realized as the relative balance these two measures provide in the assessment of countries as democratic or otherwise. Accordingly, despite the obvious strengths of the V-DEM index over the others (Boese, 2019),

preliminary selection of cases using all three indices showed V-DEM to be the least balanced in terms of country profiles. Its choices of countries meeting the liberal democratic profile where overwhelmingly Western democracies with small YCS. V-DEM for instance, excluded countries with large YCS such as India, Pakistan, Mexico, Malaysia, and the Philippines from some of its categorization of liberal democracies.

By contrast, Polity IV, and the EIU index, scored these same countries as democracies, thus helping to provide a better mix of countries from both advanced and new democracies, with considerable variations in YCS. Since YCS was the main explanatory variable of interest to the study, the appreciable variations in the sizes across the selected democratic countries of interest was especially important for the purposes of the study.

The study utilized a combination of pooled individual level data for only young people (15-29 years), drawn from the WVS Waves 3-7 (1995-2020)[1] and country level data from the World Bank[2] the United Nations Population Office[3], the Polity IV index scores[4] and the EIU democracy index[5]. Due to the categorical nature of the dependent variables, and the hierarchical structure of the data (individuals are nested within countries), the study utilized *single level multinomial logistic regression with country fixed effects and country clustered errors in the case of study 1*, and *multilevel binary logistic regression for study 2 and study 3, to test the series of hypothesized main and moderated/interaction effect relationships*. The predicted probabilities of the different values of the explanatory and dependent variables were also estimated using Stata software commands *margins* and *margins plot.* The results of these analyses are reported in the three articles which constitute the analytical chapters of this dissertation. Tables 1.1 and 1.2 below provide a spread of the countries included in the study, the summary of the three studies respectively.

[1] World Values Survey data accessible from (www.worldvaluessurvey.org)
[2] World Bank data accessible from (https://databank.worldbank.org/source/world-development-indicators#)
[3] UN population data accessible from (https://population.un.org/wpp/Download/Standard/Population/).
[4] Polity IV data available at https://www.systemicpeace.org/polityproject.html
[5] EIU data accessible from https://www.eiu.com/n/campaigns/democracy-index-2020/

Table 1.1: List and spread of countries included in the study.

Established Western democracies	**Post-soviet democracies in Eastern Europe**	**Global South**	**Other established democracies**
Germany, Spain, Italy	Hungary, Bulgaria	India, Chile, Turkey	South Korea
United Kingdom,	Poland, Serbia	Philippines, Trinidad and Tabago	Japan
France, United States of America	Czech Republic	Malaysia, Indonesia, Mali	Australia
Netherlands, Canada.	Slovakia, Estonia, Macedonia	Ghana, Peru, Guatamela	New Zealand
Sweden, Switzerland	Slovenia, Latvia, Luthuiana	South Africa, Colombia, Pakistan, Thailand	Israel
Norway, Spain, Cyprus	Romania, Moldova	Brazil, Bangladesh, Venezuela	
Finland	Croatia, Georgia, Ukraine	Uruguay, Mexico, Argentina, El Savador	

Table 1.2: Summary of articles in the dissertation

Title of Article	**Dependent Variable**	**Explanatory Variables**	**Main Hypotheses**	**Research Design & Sample Size**	**Method of Analysis**
Does Cohort Size Matter? Assessing the Effect of Youth Cohort Size and Peer Influence on Young People's Electoral Participation.	Voting in national elections.	Youth cohort size –(main explanatory variable).	*The larger the YCS of a country, the lower the propensity that young people will vote in national elections.*	N=29 democratic countries	Multinomial logistic models, with country fixed effects and country clustered standard errors.
		Peer influence – (moderating variable).	*The negative effect of YCS on young people's electoral participation is stronger in the case of individuals under strong peer influence.*		
Youth Cohort Size, Structural Socioeconomic Conditions and Youth Protest Behavior in Democratic Societies (1995 -2014)	Attending peaceful demonstrations	Youth cohort size –(main explanatory variable).	*There is a significant positive relationship between YCS and young people's propensity to engage in peaceful demonstrations.*	Large -N N=51 democratic countries	Random-intercept multilevel binary logistic regression
		Youth unemployment rate – (moderating variable)	*The positive effect of YCS on young people's propensity to engage in peaceful demonstrations is stronger for individuals in countries with high unemployment rates*		
		Tertiary enrollment rate – (moderating variable)	*The positive effect of YCS on young people's propensity to engage in peaceful demonstrations is stronger*		

			for individuals in countries with rising higher education enrollment rates.		
		Interaction of youth cohort, youth unemployment rate and tertiary enrollment rate	*The positive effect of YCS on young people's propensity to engage in peaceful demonstrations is stronger for individuals in countries with a combination of rising unemployment and rising higher education enrollment rates.*		
Antidemocratic youth? The influence of youth cohort size and quality of democracy on young people's support for democracy	Support for democracy	Youth cohort size –(main explanatory variable).	*The larger the youth cohort size of a country, the less supportive the youth are of democracy as a political system.*	Large-N N= 39 democratic countries	Random-intercept multilevel binary logistic regression
		Quality of democracy –(moderating variable)	*The negative effect of youth cohort size on young people's support for democracy is stronger in the case of individuals living in countries with low quality of democracy.*		

1.8 Outline of rest of dissertation

Following this extended introduction, the dissertation proceeds with three analytical chapters. The first is a co-authored study briefly discussed in study 1 above. This is followed by a single authorship study also briefly discussed in study 2. The last is also co-authored, briefly discussed in study 3. The dissertation closes with a concluding chapter which recaps the relevance of the study, the key findings of the study and their implications for theory, future empirical research, and youth policy. The conclusion also highlights some limitations of the study and future research directions.

ANALYTICAL CHAPTERS

2.0 DOES COHORT SIZE MATTER? ASSESSING THE EFFECT OF YOUTH COHORT SIZE AND PEER INFLUENCE ON YOUNG PEOPLE'S ELECTORAL PARTICIPATION

Godfred Bonnah Nkansah[6] **and Zsófia Papp**[7]

Citation: Nkansah, G. B. and Papp, Zs. (2022) 'Does cohort size matter? Assessing the effect of youth cohort size and peer influence on young people's electoral participation'. *Journal of Youth Studies*, pp.1–19. https://doi.org/10.1080/13676261.2022.2053666

Abstract

Do the relative numbers of young people in the adult population affect their extent of participation in electoral politics? The answer to this question remains elusive in both the theoretical and empirical literature on youth political participation. In this study, we test the hypothesis that young people's cohort size has a significant effect on their electoral participation. Using individual level data from the World Values Survey and country level data from the United Nations Population Division, we ran a series of multinomial logistic regression analyses with 29 democratic countries. The findings show that youth cohort size exerts a negative effect on young people's electoral participation. The study finds this effect to be stronger for young people whose main source of information is their peers. The results of this study represent a major step towards improving our understanding of the effect of cohort size on cohort political behavior; a topic so far neglected within the literature on youth political participation.

Key words

Youth Cohort Size, Voting, Peer Influence, Youth Bulge, Youth Political Participation

[6]Corresponding Author: Doctoral School of International Relations and Political Science, Corvinus University of Budapest, Közraktár street. 4-6, 1093 Budapest, Hungary. Email: godfredphanet@gmail.com (ORCID: 0000-0002-3140-0598)

[7] Centre for Social Sciences, Hungarian Academy of Sciences, Centre of Excellence, Tóth Kálmán u. 4, 1097 Budapest, Hungary. (ORCID: 0000-0001-6257-0568)

2.1 Introduction

Young people's electoral participation has come under close scrutiny in recent years. On the one hand, they are seen as the polity least likely to vote in elections (Quintelier, 2007, p. 165; Juelich and Coll, 2020). Evidence from multiple surveys and analyses of voter turnout rates in many Western democracies have repeatedly pointed to the low participation of the younger generation in electoral politics (Kimberlee, 2002; O'Toole *et al.*, 2003; Furlong and Cartmel, 2007; Henn and Foard, 2014; Pastarmadzhieva, Pastarmadzhieva and Sakal, 2021). The disengagement of young people from voting and other forms of institutionalized politics has led to their description as harbingers of a "crisis of democracy" (Farthing, 2010, p. 181). On the other hand, recent evidence showing increasing youth voter turnout rates (Harrison, 2018; Sloam and Henn, 2019), and the narrowing of the voting gap between the younger and the older generation in many developed democracies (Kamatayeva, 2021), continues to challenge the conventional narrative of youth apathy towards electoral politics.

Across the democratic world, countries continue to undergo demographic transition. United Nations population reports show that many developing democracies (new democracies in the developing world) are faced with large youth cohort size (YCS), due to the accumulated effects of high fertility rates and reduced infant mortality rates. Most developed democracies (established democracies in the industrialized world) on the other hand, have small YCS, due to persistently low fertility rates and rising life expectancy (United Nations, Department of Economic and Social Affairs, Population Division, 2013, pp. 6–8; United Nations, Department of Economic and Social Affairs, 2018, p. 14). Our interest in this study is to investigate YCS as a determinant of young people's electoral participation. We also seek to understand how peer influence interacts with YCS to influence electoral participation. Past empirical studies have looked to individual resources, political interest, and civic skills (Verba, Schlozman and Brady, 1995; Dalton, 2009), life cycle effects (Quintelier, 2007; Weiss, 2020), social capital (Putnam, 2000), issue-based motivations (Harrison, 2018), institutional barriers (Juelich and Coll, 2020), and the combinations of these factors for explanations to young people's electoral participation. Thus far, the potential effect of the demographic size of young people on their electoral participation remains unexplored in the literature. In this regard, our paper fills a crucial void in our understanding of how young people's relative numbers within the population may influence their own individual political participation.

The paper shows that YCS is a significant negative predictor of young people's participation in national elections. Our analyses reveal that as the YCS of a country increases, the young people within the country tend to vote less. Additionally, the dominance of peers as the main source of information for young people makes them refrain from voting when the YCS is large. Our findings are based on a series of multinomial logistic models, with country fixed effects and country clustered standard errors, ran on a combination of individual level data from the World Values Survey (WVS) and country level data from the UN Population database for 29 democratic countries. We believe that the findings of this paper are novel and contribute substantially, both theoretically and empirically, to the present debate on youth electoral participation.

We define youth as persons aged between 15-29yrs (Weber, 2019) and use the term interchangeably with 'young people'. We also use the expression 'youth cohort size' to represent young people's relative numbers within the adult population and 'youth bulge' to represent 'a disproportionately large number of youth, relative to the adult population' (Urdal, 2006). We also use the term electoral participation to refer to the act of voting in an election.

2.2 Literature review and theoretical argument

2.2.1 Young people's electoral participation

Within the literature on youth political participation, young people's (dis)engagement with electoral politics has been a recurring theme. The conventional position suggests young people as more disengaged from voting, compared to the older generation (Putnam, 2000; Pilkington and Pollock, 2015; Briggs, 2017). They are said to be "less plugged" into the political process, and hence vote less frequently (Bergh, Christensen and Matland, 2021, p. 1093). Multiple empirical studies report evidence in support of this position (Mycock and Tonge, 2012; Henn and Foard, 2014; Resnick and Casale, 2014; Wicks *et al.*, 2014). More recently, however, evidence from the UK 2017 General Elections (Sloam and Henn, 2019), which saw an unexpectedly high youth turnout rate (18-24yrs) of 71 percent (Harrison, 2018, pp. 258–259), reports of rising youth voter turnout rates (18-29yrs) in some Nordic countries such as Netherlands, Denmark and Sweden (Symonds, 2020), and the narrowing of the voting age gap in many developed democracies in recent years (Kamatayeva, 2021) has re-ignited the debate

on young people's electoral participation. *But is there reason to suspect that these observed patterns in youth electoral participation are in any way influenced by their relative numbers within the adult population?* Past research has surprisingly been silent on this relationship. Below, we present a brief theoretical argument on how we suppose YCS affects youth electoral participation and formulate two hypotheses for empirical testing.

2.2.2 Youth cohort size and youth electoral participation

Despite the dearth of literature, the work of Daniel Hart and his associates (2004) offers a good starting point for our theorization. They argue in respect of the acquisition of civic knowledge by adolescents (and by extension, young people) that; "An adolescent living in a community in which a large fraction of the population is composed of children and adolescents, a child-saturated community, will interact more often with peers, and consequently will be more influenced by them, than will an adolescent in a community with relatively few children and many adults, or an adult-saturated community" (Hart *et al.*, 2004, p. 591). Such a situation can negatively affect the acquisition of civic knowledge by young people, as they tend to learn more from their peers than from the more knowledgeable adults (ibid). As civic and political knowledge are both vital prerequisites for various forms of institutionalized political behaviors, including voting (Verba, Schlozman and Brady, 1995; Putnam, 2000), and young people are generally less politically and civically knowledgeable compared to adults (Quintelier, 2007; Zvulun and Harel, 2018; Weiss, 2020), we may reasonably expect that a youth bulge will have a generally negative effect on young people's electoral participation.

Intuitively, nonetheless, large YCS should hold significant advantages for increasing youth voter turnout. Ordinarily, their large numbers should give them political salience in the eyes of politicians (Posner, 2004), and particularly so in electoral politics where numbers are the deciding factor. In a sense, this should also give them higher political efficacy since their large numbers give them political power to influence the course of an election. Evidence suggests, however, that young people typically show dissatisfaction and disappointment in the political system and politicians (Pilkington and Pollock, 2015; Foa and Mounk, 2016; Pruitt, 2017). This often ends up creating a shared negative evaluation of their own political efficacy in their interactions with each other, as they tend to believe their votes would end up changing nothing

about the political system, and hence do not vote (Sola-Morales and Hernández-Santaolalla, 2017, p. 640).

Additionally, the youth bulge literature repeatedly links large YCS with increased disaffection, grievances, and frustrations against the political system among the youth (Urdal, 2006; Weber, 2013; Flückiger and Ludwig, 2018). Analysts attribute this widespread disaffection in large parts to socioeconomic deprivation, arising from limited labor market opportunities for young people, due to labor oversupply and underemployment within economies which have not adequately modernized to absorb such huge numbers (Alfy, 2016; Brunello, 2010; Weber, 2019). This risk of cohort size induced deprivation is even more explicitly told in Richard Easterlin's famed hypothesis, in which he argues that the social and economic fortunes of a group within the population vary inversely with its cohort size, all things being equal (Easterlin 1987, 1). A major effect of this deprivation for young people is that it affects their transition into adulthood, often socially constructed in terms of the ability to live an independent life, afford necessities, complete their education, marry, rent their own accommodation, among others (Eguavoen, 2010; Ozerim, 2019). Life cycle effect interpretations for young people's disaffection towards voting argues that during this challenging phase of transition, young people tend to vote less both as a result of their disillusion with the political system, and also to focus on using the available time for improving their socioeconomic situations (Quintelier, 2007; Weiss, 2020).

An evident implication we can draw from this argument is that large YCS will increase the volume of young people who are comparatively politically deficient in terms of knowledge, hold shared negative opinions about their own political efficacy, and struggling to navigate the path to adulthood due to cohort size induced challenges in terms of labour market competition, wages, and stability in life. This should make their disaffection towards voting look normal within their circles, as they come across large numbers of peers with similar passive tendencies. We accordingly expect that;

H_1: The larger the YCS of a country, the lower the propensity that young people will vote in national elections.

2.2.3 Youth cohort size, peer influence and youth electoral participation

The growing influence of peers as one of the dominant routes to political socialization among young people is well documented in the literature (Dostie-Goulet, 2009; Bergan *et al.*, 2021). The present generation of youngsters are argued to learn and experiment with politics more through peer networks and influences, than most of the conventionally known channels of politicization (Gordon and Taft, 2011). Friends are significantly more likely to inspire young people's political interest and values, as they grow into adulthood and become increasingly detached from their families (Dostie-Goulet, 2009). While the rising influence of peers might overstate the declining importance of families and parents, they remain an important factor of political socialization in this developmental period (Esau, Rondganger and Roman, 2019). Pilkington and Pollock (2015, p. 14) report, notwithstanding, that in 28 out of 30 locations across Europe, young people identified more with the political values and views of their peers than their families: peers such as partners (girlfriends/boyfriends) and best friends were found to hold political views closer to that of respondents, than those held by family (including father, mother, and grandparents). A major reason for this, as Ellen Quintelier (2015, p. 54) argues, is the fact that peers are "indisputably a part of young people's life: They are omnipresent, and they are constantly interacting with each other". Importantly, these peer interactions among young people are further intensified by the frequent usage of social media platforms (Liang and Shen, 2018; Marino *et al.*, 2020).

The ubiquity of peers and the ever-expanding opportunities for social influence hold diverse implications for young people's political socialization in general, and their electoral participation in particular. For instance, in Casey Klofstad's study (2011) on political conversations among college students, he found that civic talks among students increased the propensity of voting in elections by 7 percent: peer interactions proved critical for the purposes of information gathering, generating political interest and also recruitments into political activities. Similar positive influences of peers on youth electoral participation have been recently reported (Bergan *et al.*, 2021). Notwithstanding, we believe this same positive mobilizing power of peer influence for electoral participation, could be considerably stifled in the face of a youth bulge. Building from our earlier theorization on the socioeconomic inconveniences faced by young people within a youth bulge (Weber, 2019; Flückiger and Ludwig, 2018), we suppose that the phenomenon will make available a large pool of peer socializing agents who, as earlier argued, are relatively deficient in civic and political

knowledge, and generally share the same or similar challenging life experiences as part of their transition into adulthood, have low confidence in the political system, and are more inclined to doubt their own political efficacy. Their discussions of the inabilities of the political system and politicians to improve their socioeconomic conditions, during their online and offline interactions as peers, should further strengthen their disaffection and consequent apathy towards voting. We accordingly expect that;

H_2: The negative effect of YCS on young people's electoral participation is stronger in the case of individuals under strong peer influence.

2.3 Data and variables

To test our hypotheses, we analyze data on all democratic countries included in Wave 6 of the nationally representative WVS (Inglehart *et al.,* 2014). The data was collected between 2010 and 2014. Our focus on democratic countries is based on the argument that democracy is the only regime type which allows for contestation and political participation (Dahl, 1971, pp. 4–6), and accordingly expected that the quality of democracy will have significant consequences on people's electoral participation. We categorized countries in the WVS as democratic or otherwise with the help of the Polity IV democracy index (Center for Systemic Peace, 2013)[8]. On the scale of -10 and +10, countries with values between 6 and 10 qualify as democracies. We chose Polity IV over other indices such as the V-DEM liberal democracy index because it produces a much better mix of developed democracies with small YCS and developing democracies with large YCS. The final list of countries is, therefore, more in sync with the objectives of the study, compared with the output of the V-DEM index, which covers overwhelmingly Western democracies, typically known for their small YCS. Our sample included respondents who were between the country-specific voting age and 29 years. In all countries the voting age is 18. Table 1 in the Online Appendix shows the full list of 29 democratic countries included in the sample.

[8] Accessed 9 Nov, 2020.

2.3.1 Dependent variable

The dependent variable of our analysis was the respondents' participation record in national elections. Respondents were asked if 'When elections take place, do [they] vote always, usually or never?'. In the sample, 54.23 percent of young people claimed to have always voted, 21.13 percent usually voted, and 24.64 percent never participated in elections. This measure of electoral participation is not without disadvantages. While we cannot change how the WVS formulated the question, it is important to reflect on its shortcomings. It has been shown that post-election survey data where respondents self-report their electoral participation often overestimate participation rates (Burden, 2000; Karp and Brockington, 2005; Ansolabehere and Hersh, 2012). Morin-Chassé et al. (2017) surveyed the literature and found that this overestimation can be the result of (1) sampling error, (2) the respondents' inaccurate memories about past participation, and (3) deliberate misreporting of electoral participation to meet social standards (Stocké and Stark, 2007; Waismel-Manor and Sarid, 2011; Näher and Krumpal, 2012). With a suspiciously large share of respondents reporting strong commitment to voting, we suspect faulty memories and deliberate misreporting to be a source of concern in this data. Conclusions of this study must be read in this light.

As per the differences between countries in our sample, participation in national elections is mandatory and enforced in Australia, Brazil, Peru, and Uruguay. In Mexico and Turkey voting is compulsory but is not legally enforced. Figure 2.1 reveals that less than 30 percent are long-term participants in Pakistan, Malaysia, and Estonia, while - not surprisingly - more than 80 percent always vote in Brazil, Peru, and Argentina.

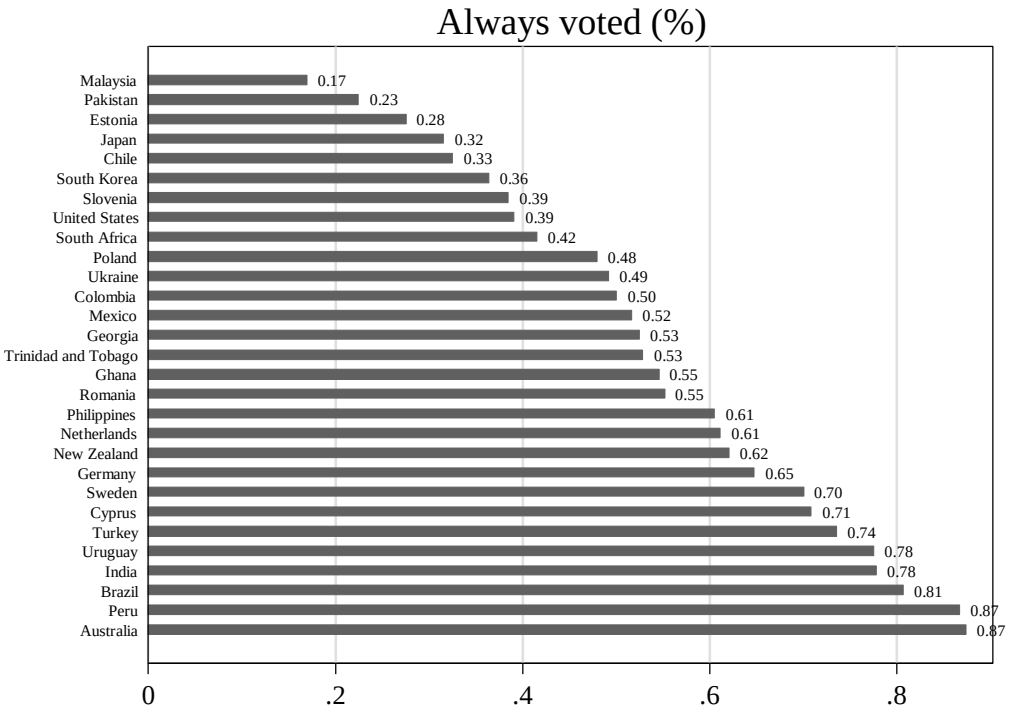


Figure 2.1 The share of young respondents claiming to have always voted

2.3.2 Independent variables

The main independent variable of the study is YCS, operationalized as the share of persons between 15 and 29 years of age within the adult population (15+years) of a country. Past estimates of YCS by leading theorists (Collier, 2000) had been done with the total population as the denominator. Urdal (2004) argues, however, that such an approach to estimating YCS is fraught with challenges because it underestimates youth bulges in countries with fast growing under-15 years populations, since they are typically overrepresented in such fast-growing populations. The inflated proportion of persons under 15 years of age, therefore, ends up dwarfing the more economically and politically relevant working population that is typically estimated from 15 years and above (Urdal, 2004, p. 13). Data on YCS was borrowed from the United Nations Population Division database (United Nations, Department of Economic and Social Affairs, Population Division, 2019)[9]. YCS in our sample ranges from 18.4 to 46.7 percent. At the time of the data collection Japan and Germany had a youth population smaller

[9] Accessed: 9 Nov, 2020

than 20 percent of the adult population. We observed the largest youth cohorts (above 40 percent) in countries such as Malaysia, the Philippines, South Africa, Pakistan, and Ghana.

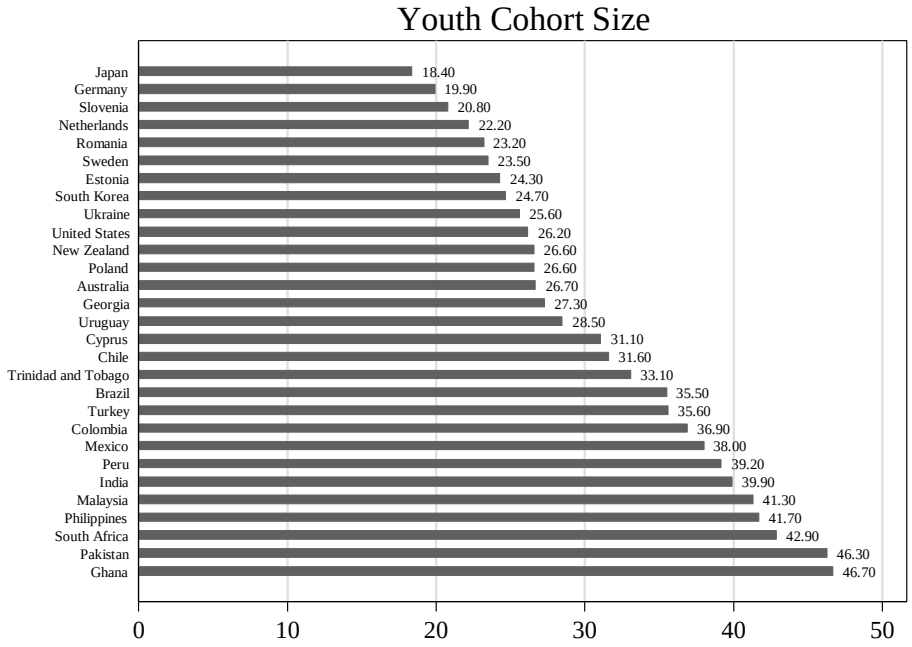


Figure 2.2 Youth cohort size in the sample

To map the importance of various sources in gathering information, respondents were asked the following question. ‘People learn what is going on in this country and the world from various sources. For each of the following sources, please indicate whether you use it to obtain information never, less than monthly, monthly, weekly or daily’. The questionnaire lists ‘friends and colleagues’ as a source of information, which we call *Peer Influence* in the analysis, and use it to test the second hypothesis of the paper (H_2). The variable ranges from 1 to 5, with larger values indicating more frequent peer contact. Mexico, South Africa, Pakistan, and India are amongst the countries in which friends played the smallest role in gathering information, whereas in Brazil, Germany, Ghana, Sweden and Trinidad and Tobago, the importance of friends is the largest in our sample.

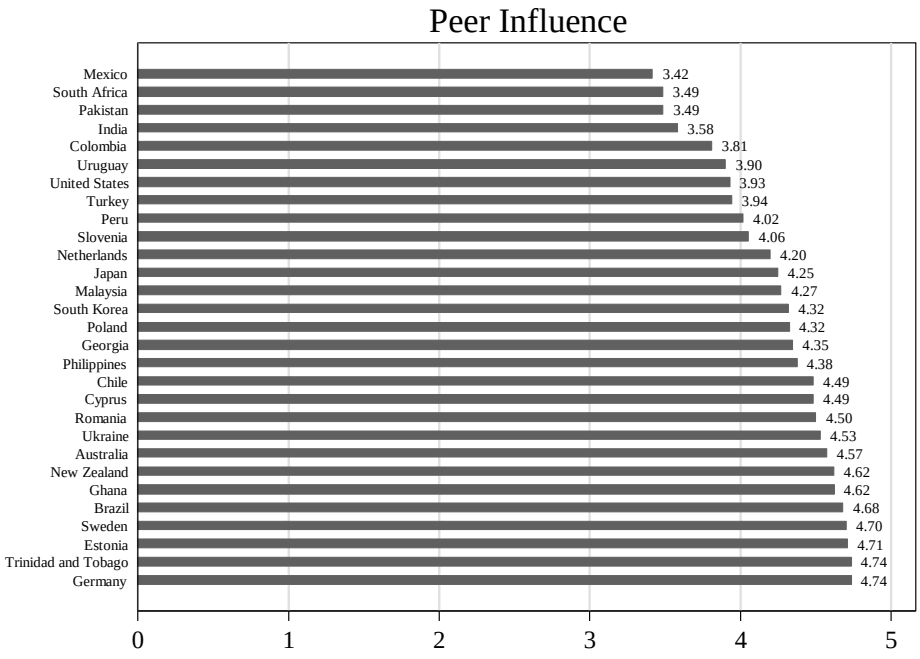


Figure 2.3 Average peer influence in the sample

2.3.3 Control variables

To obtain the net effect of the independent variables on young people's electoral participation, we control for additional factors in our models. Starting with individual sociodemographic indicators, we include *age*, *gender*, and *marital status*. Age is argued to correlate positively with institutionalized political participation, such that the older people become, the more they participate (Dalton 2009; Putnam, 2000). Also, past studies suggest that men are generally more engaged in institutionalized politics than women (Burns, Schlozman and Verba, 2001; Norris, 2002; Pfanzelt and Spies, 2019). Finally, married people are argued to participate in institutionalized politics such as voting more than singles (Struber, 2010; Halimatusa'diyah and Prihatini, 2021).

Further, individual socioeconomic status is argued to be a key determinant of political behavior within the resource-based model of political participation (Teorell, 2006). Resources such as *education*, *income*, and *employment* are reasoned to predict political participation by affording individuals the time, money, and civic skills necessary for effective participation in politics (Brady, Verba and Schlozman, 1995). As a proxy for individual socioeconomic status, we used

the age the respondent completed full time education, the individual's satisfaction with the household's financial situation and employment status.

Political attitude has long been seen as key antecedent to political behavior(Verba and Nie, 1972; Gastil and Xenos, 2010). We, therefore, include young people's responses on their *interest in politics*, and their opinions on the *importance of politics* and *importance of democracy*. All three variables have received considerable attention in discussions on young people's political behavior in past research (e.g., Foa and Mounk, 2016).

Various multilevel studies on political participation have emphasized the importance of macro level context in understanding individual political behavior (Katsanidou and Eder, 2018; Kitanova, 2019). The literature suggests that country level or structural conditions affect everyone in the society and are, therefore, appropriate indicators to gauge the mood of society, and the propensity for collective social response (Taylor, 2001, p. 18). However, our modelling strategy (see below) and the number of countries in our sample only permits us to control for a few country-level variables. Besides YCS, we include the *Polity IV score*, *mandatory voting*, and *the number of compulsory school years* into the models. The rationale for controlling for the number of compulsory school years is that the extension of formal education further into the teenage years and beyond, increases and prolongs the dependency of young people and young adults, and concomitantly reduces their autonomy, with implications for their civic engagement in all kinds of ways. For the full list of the variables and their coding see Appendix 2.

2.4 Results

As due to a small sample size on the country level (< 30) the advantages of multilevel modelling cannot be fully exploited (Moehring, 2012), and following Primo et al. (2007), we opted for a single-level multinomial logit model with country fixed effects (FE) and country-clustered standard errors. This allowed us to reach convergence in all our models as well as avoid omitted variable bias on the country-level.[10] The country fixed effects should incorporate all unmeasured country-level factors that may influence electoral participation on the individual level, such as historical and cultural effects. This is especially important, because YCS is

[10] For a discussion on the proper sample size on level-2 in logit models see Bryan and Jenkins (2016) and Maas and Hox (2004).

interconnected with a number of macro factors such as development, and leaving out the country fixed effects would overestimate the importance of YCS in explaining participation. To assess the robustness of our approach, we estimated a simpler multilevel multinomial logit model as well, which is available in the Online Appendix. Our results are presented in two models. In Model 1, we test H_1, namely the effect of YCS on young people's voting record. Our expectation is that the effect of YCS on young people's electoral participation is negative. Following this and in response to H_2, Model 2 includes *Peer Influence* in interaction with YCS, to test the effect of YCS over the varying roles friends play in gathering information. Table 2.1 displays the effects of *YCS*, *Peer Influence* and their interaction. The category 'Never vote' is selected as reference. Positive coefficients indicate that the given regressor increases the likelihood of usually/always voting against never voting. For the full models see Appendix 4 in the Online Appendix.

Table 2.1 Multinomial logit models explaining electoral participation of young people.

	Model 1		**Model 2**	
	Usually	Always	Usually	Always
	Coef. (SE)	Coef. (SE)	Coef. (SE)	Coef. (SE)
YCS	-0.374* (0.008)	-0.118* (0.008)	-0.348* (0.016)	-0.069* (0.022)
Peer Influence	0.012 (0.024)	0.084* (0.026)	0.232* (0.100)	0.485* (0.146)
YCS × Peer Influence			-0.006* (0.003)	-0.011* (0.004)
Control variables included				
Intercept	12.960* (0.608)	1.567* (0.613)	11.817* (0.794)	-0.483 (1.182)
N	10124		10124	
LR test	3582.266*		3594.455*	
Pseudo R^2	0.177		0.177	
Log pseudolikelihood	-8343.038		-8336.944	

* p< 0.05. Entries are multinomial logit coefficients. Robust standard errors in parentheses. Standard errors are clustered across countries. Country fixed-effects are included. Reference groups: Mandatory Voting: Voting not mandatory; Gender: Male; Marital Status: Married; Employment Status: Unemployed

Beginning with Model 1, with larger YCS the likelihood of both usually voting and always voting is smaller than that of never voting. If YCS increases with one unit (i.e. one percentage point), the relative likelihood of always voting and usually voting is expected to decrease by a factor of 0.888 (exp(-0.118)) and 0.688 (exp(-0.374)) respectively. These results confirm our first hypothesis: increasing YCS suppresses young people's electoral participation. This model will serve as baseline to our further analysis.

Turning to H_2 and the moderating effect of *Peer Influence*, Model 2 shows that the influence of peers significantly affects one's electoral participation record. The more young people rely on their peers in gathering information, the more likely it is that they always participate at the elections - as revealed by Figure 2.4. This effect, however, is not sizeable: When peer influence is low (= 1) the probability of always voting is 0.499, while at the other end of the scale (= 5) the probability is not much higher (0.56). The effects in the other two groups (i.e. never votes, and usually votes) are also in the same spectrum.

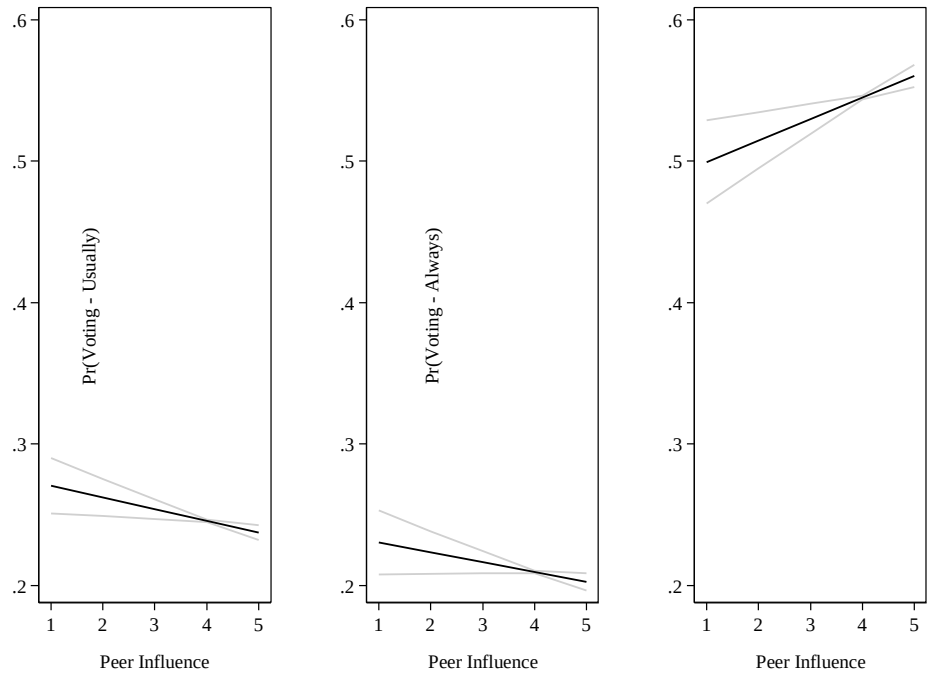


Figure 2.4. The predicted probabilities of electoral participation

But does peer influence affect the relationship between YCS and voting - as theorised in H_2? Figure 2.5 displays young people's predicted probability of voting over YCS and peer influence[11]. Each line on the figure represents one value of *Peer Influence*. The darker the line the stronger the influence of peers in gathering information. The probability of always voting (third panel in Figure 2.5) declines with increasing YCS, but at the same time, this decline is different across the values of peer influence. Young people whose primary source of information is their peers are the most likely to always vote when the YCS is small (probability = 0.674). Contrarily, when YCS is large, these same people are significantly less likely to always vote (0.470). At the same time, YCS does not affect voting when young people are not kept informed by their peers. Here, the range of probability of always voting across the whole spectrum of YCS is only 0.043. As for the categories of usually voting and never voting , we see a completely different picture. Large YCS combined with strong peer influence is associated with a comparatively high probability of never participating at the elections (first panel in Figure 2.5). The interaction of the two variables, however, shows no significant effect on the usually voting group (second panel). Put differently, the combination of the two variables neither generates apathy nor electoral commitment among young people who usually vote in elections: they seem unaffected. Substantively, what the results show is that the conflation of large YCS with strong peer influence increases the likelihood of young people never voting in a national election, and at the same time, decreases the likelihood of young people always voting in a national election. The results support H_2, but in interestingly nuanced ways. We reflect on these findings further in our discussions.

[11] Due to the low number of observations on the country-level, and with the country dummies in the model, we could not calculate the margins. To produce the margins plot we removed the main effect for YCS from Model 2. The discussion of this problem is available in the Online Appendix.

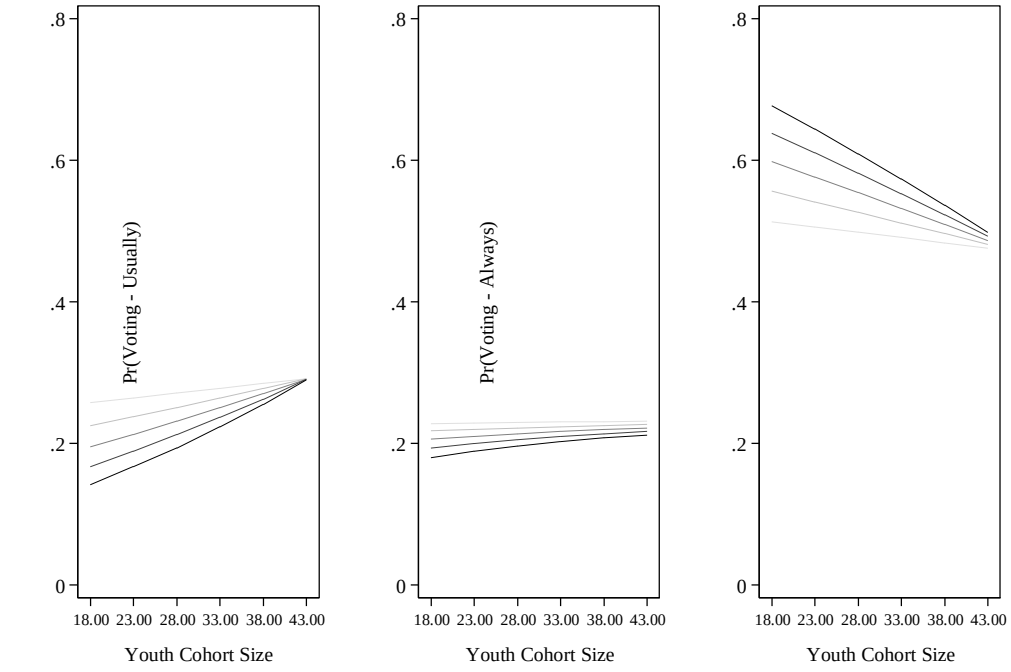


Figure 2.5. Young people's predicted probabilities of voting over youth cohort size and peer influence

Regarding our control variables, across the two models presented above, we found only a minor departure from the literature. The quality of democracy demonstrated a negative significant effect on young people's electoral participation. In countries where voting is mandatory, electoral participation is – naturally – more likely than in countries with no such rules. The extent of compulsory education has a negative effect on participation: young people who spend more time in school among peers are less likely to usually and always vote. Regarding the individual-level variables in our models, as opposed to never voting, *age* associated positively with the propensity to usually and always voting. Consistently, the employed and people with high interest in politics were more likely to usually or always vote. The perceived importance of politics and democracy as well as being married positively correlate with the likelihood of always voting. Interestingly, we found no significant effect for gender, satisfaction with one's income and individual level education.

2.5 Discussion

The above analyses of the influence of YCS on young people's electoral participation through its main effect, and interaction with peer influence reveal some major findings of interest.

First, we found support for our first hypothesis: YCS has indeed a negative effect on young people's electoral participation. As the YCS of a country increases, it tends to suppress the likelihood of the young people within the cohort usually or always voting in national elections. Our explanation of this outcome relates to the impact of youth bulge on the young people within the cohort. We find Richard Easterlin's argument that all things been equal, the economic and social fortunes of a cohort are inversely related to its relative size particularly insightful in this context (Easterlin, 1987, p.1). As earlier argued in the theoretical section, youth bulge presents the unique challenge of the oversupply of a cohort with the same or similar skillset onto the labor market (Apolte and Gerling, 2018; Weber, 2019; Juárez, Urdal and Vadlamannati, 2022). Apart from the high competition among themselves for limited labor market opportunities which leaves many of them unemployed, the wages of those who are fortunate enough to gain meaningful employment are also often significantly reduced under such circumstances (Brunello, 2010; Korenman and Neumark, 2000).

Effectively then, young people growing within a youth bulge tend to have relatively fewer economic opportunities and generally more challenging transition into adulthood, compared to their peers in countries with small YCS. As the limited fortunes affect most of them and frustrations and grievances grow, we find it plausible that they will point to the government or political system as the cause of their predicaments (e.g., high levels of youth unemployment), and be increasingly disaffectioned within their ranks towards the political establishment. Also importantly, we believe youth bulge tends to exacerbate the life cycle effect on youth electoral participation. Given the limited opportunities available to young people growing as part of a youth bulge, the vast majority of the cohort are likely to experience significant delays in achieving the much-appreciated social markers of adulthood, including finding gainful employment, supporting their significant others, completing tertiary education, renting their own apartments, marrying, among several others (Smets, 2012; Dassonneville, 2017). We think that the entrapment of a large cohort of young people within this stage of life where, in addition to their deficiencies in civic and political knowledge, they are also confronted with the challenge of gaining socioeconomic stability, can indeed mingle together to deflect their

attention and priorities away from political participation in general, and voting in particular (Quintelier, 2007; Weiss, 2020).

Unsurprisingly, we find that across all the models, young people who are unemployed, students, and unmarried were least likely to vote. This is consistent with the predictions of the resource-based model of political participation, which predicts higher levels of political engagement in response to the availability of resources (Brady, Verba and Schlozman, 1995; Leighley, 2001). The negative effect of large YCS may, therefore, in sum, be seen in the creation of a large pool of young men and women, undergoing almost the same kind of frustrating transition in life, who are likely to prioritize issues of direct biographical relevance to their individual lives, above spending their precious time voting for politicians they distrust anyway.

Second, the analyses show that our initial supposition on the influence of peers on the political socialization and electoral participation of young people, in the face of their growing cohort size, is tenable. As can be seen in the baseline model (Model 1), peer influence on its own exerts a positive effect on young people's electoral participation. Figure 2.4 shows that the more young people gather information from their peers, the greater the likelihood that they will always vote in national elections. This supports past findings which suggest that civic talks among young peers increase their propensity to vote in elections, due to the power of peer influence to inform, inspire and also recruit them into political activities (Andolina, 2011; Klofstad, 2011; Bergan *et al.*, 2021). However, when this same mechanism is analyzed in interaction with the relative numbers of young people within the population, a different picture emerges. Figure 2.5 shows that young people who have peers as their main source of information are more likely to always vote when they are part of a small YCS. Contrariwise, the same group shows varying degrees of apathy towards electoral politics when they are part of a youth bulge and gather information mainly from their peers.

The panels in Figure 2.5 reveal that the combination of large YCS and strong peer influence induces two unique forms of youth voter apathy. In the first case, the interaction of the two variables tends to increase the probability of young people abstaining altogether from voting (i.e., never voting group in left panel). In the second case, we see from the right panel of Figure 2.5 that the same phenomenon also tends to decrease young people's probability of always voting at national elections. An evident insight these findings offer is that where peers serve as the main source of information to young people, their burgeoning numbers within the adult

population become inimical to their own political socialization, much in line with the argument of Hart et al. (2004), put forth in the theoretical section of this paper. We find young people's electoral apathy as a natural consequence of this situation. The reduced socioeconomic fortunes which come with being a member of a youth bulge, and the associated difficulties in transition into adulthood, can indeed conflate to dominate their conversations as peers, both offline (i.e., in-person) and also via social media. Given that they are civically and politically less well informed, critical of the commitments of the political establishment towards improving their conditions as a cohort, it is reasonable to expect that their resentments towards the political establishment and politicians would be amplified by their interactions within their large pool as peers. An obvious outcome of this interaction can therefore be voter apathy.

2.6 Conclusion

Our paper set out to ascertain whether the relative numbers of young people in the adult population of a country has any effect on young people's electoral participation. We also sought to understand if the role of peers in gathering information could potentially moderate this relationship. Our findings show that YCS is a significant predictor which exerts a negative effect. In other words, young people growing within a youth bulge are significantly less likely to usually vote or always vote in elections, compared to their peers in countries with small YCS. Also importantly, we found that the probability of always voting in elections decreases for young people growing within a youth bulge, whose main source of information are their peers. Members of youth bulges are also more likely to abstain from voting in an election.

The central finding of our paper implies that whether or not young people will vote in an election, depends among others, on social and demographic factors such as their relative cohort size within the adult population, who they talk to the most for information, and the combination of both. We find this perspective presently unexplored in existing research and believe the findings of this paper provide a good basis for the incorporation of the demographic factor into existing theoretical and empirical frameworks for understanding youth electoral participation.

This said, we acknowledge some limitations of the present study. First, the research would have benefitted from more Waves of the WVS to better exploit longitudinal effects of interest. Unfortunately, missing data on key variables meant that we could only restrict our analyses to Wave 6. Second, we must reflect again on the disadvantages of our measure of electoral

participation. Based on prior research, we think that inaccurate memories about past participation and deliberate misreporting of electoral participation to meet social standards may be a source of concern. Third, our choice of the single-level fixed effect models with country cluster standard errors may not have been without challenges, given the hierarchical nature of our dataset. However, a series of robustness checks presented in the Online Appendix supports that our approach is robust for the present purposes. Fourth, goodness-of-fit measures (Pseudo R^2 = 0.177, Count R^2 = 0.318) indicate that while our models are overall significant, their explanatory power is in the lower registers. This leaves plenty of tasks for future research in identifying further suspects in explaining young people's electoral participation. Fifth, our choice of the Polity IV index over other indices in the categorisation and selection of the cases for the study may admittedly raise some concerns about comparability of countries. Further research could accordingly test our findings on alternative datasets, and also explore these dimensions we propose.

3.0: YOUTH COHORT SIZE, STRUCTURAL SOCIOECONOMIC CONDITIONS AND YOUTH PROTEST BEHAVIOR IN DEMOCRATIC SOCIETIES (1995 -2014)

Godfred Bonnah Nkansah[12]

Citation: Nkansah, G. B. (2022) 'Youth Cohort Size, Structural Socioeconomic Conditions, and Youth Protest Behavior in Democratic Societies (1995–2014)'. *SAGE Open*, 12(2), pp. 1-16. https://doi.org/10.1177/21582440221096146

Abstract

Conventional literature associates large youth cohort size (YCS) with increased risk of political violence in countries with such demographic profiles. Key questions which remain unanswered, however, are whether YCS is also associated with young people's proclivities towards more peaceful forms of protests, and whether structural socioeconomic conditions influence such a relationship? Using multilevel binary logistic regression techniques on pooled individual level data for 51 democratic countries purposively sampled from World Values Survey Waves 3-6, and country level data from World Bank, and UN Population Division, I show that YCS demonstrates a positive relationship with young people's participation in peaceful demonstrations. This relationship is, however, moderated by structural factors such as education and unemployment, which end up reducing young people's likelihood of participation. I argue that resource limitation, as predicted by the Civic Voluntarism Model, better explains the relationship between YCS and individual youth protest behavior in democratic societies, more than socioeconomic grievance, as suggested by grievance theory. An important implication of this finding is that participation in elite-challenging behaviors such as peaceful protests, can be expected to be more common among young people in affluent democratic societies, than their peers elsewhere in the democratic world.

Key words: *Youth Cohort Size, Youth Bulge, Youth Unemployment, Education, Peaceful Demonstrations.*

[12] Corresponding Author: Doctoral School of International Relations and Political Science, Corvinus University of Budapest, Közraktár street. 4-6, 1093 Budapest, Hungary. Email: godfredphanet@gmail.com (ORCID: 0000-0002-3140-0598)

3.1 Introduction

The proportion of young people in the adult population of a country is a subject with a long tradition of interest within the literature on political violence. Young people have been described as the protagonists in politically destabilizing acts such as ethnic conflicts, civil wars, and riots (Ganie, 2020; Huntington, 1996). Countries faced with youth bulge, defined as a disproportionately large number of young people within the adult population (Farzanegan and Witthuhn, 2017), have also been labelled as particularly prone to political instability and various forms of armed conflicts (Urdal, 2006). The argument is that the growing numbers of young people make available a large reservoir of agents, who can easily be mobilized for such political and social upheavals (Goldstone, 2002; Ozerim, 2019). The series of political protests which led to the 'Arab Spring' in 2011, for example, saw the mobilization and participation of one-third of youth in the Arab world (Thyen, 2018, p. 92).

Studies have also suggested various mechanisms linking youth cohort size (YCS) [i.e., the proportion of youth within the adult population of a country] to acts of political violence. Some scholars believe socioeconomic grievance, arising from limited labor market opportunities for educated youth, to be a key moderating mechanism which interacts with large YCS to instigate protests and riots (Campante and Chor, 2014; Alfy, 2016; Weber, 2019). Others point to factors such as political grievance, political opportunity, and even the increased access to Information and Communication Technologies (ICTs) as more important mediating and moderating mechanisms (Ang, Dinar and Lucas, 2014; Romanov and Korotayev, 2019). In this paper, I draw on the above-mentioned youth bulge theory and associated socioeconomic moderating mechanism, to explore the relationship between YCS and young people's likelihood to participate in peaceful demonstrations. I ask whether *the propensity of young people to engage in nonviolent protests is affected by their relative cohort size in the adult population?* And *whether this relationship is moderated by structural socioeconomic factors?* The paper's focus differs from past studies on the relationship between YCS and protest actions in the sense that all extant studies so far reviewed, use YCS as a predictor of macro level political actions, such as the likelihood of occurrence of protests within a country (Campante and Chor, 2012; Ang, Dinar and Lucas, 2014; Costello, Jenkins and Aly, 2015; Romanov and Korotayev, 2019). By contrast, I focus on YCS as a predictor of individual level youth protest behavior. I also explore the structural socioeconomic mechanisms which interact with YCS to shape such individual level protest decisions.

Furthermore, in contrast to past research which included both democratic and non-democratic countries in their universe of cases, this paper limits the investigation to only democratic countries. This defined focus of the paper on the relationship between YCS and youth protest behavior in democracies is important for the following reasons. Firstly, the present literature on youth protest behavior in democratic societies shows a strong Western bias and only largely reveals patterns in advanced democracies of the West and Australia (See, Dalton, 2009; Martin, 2012; Sloam, 2016; Sloam and Henn, 2019). We are, therefore, unable to tell whether these patterns are generalizable across space and time, or only reveal specific patterns of youth participation in the West. Secondly, and even more importantly, YCS as an explanatory variable for young people's individual proclivities towards non-institutionalized politics remains unexplored in the literature. The aim of this paper to explore how young people's individual engagements in protest behavior is influenced by their cohort size, therefore, addresses a critical gap in our existing understanding of youth participation in non-institutionalized politics, across both advanced and developing democracies. It also provides insights into trends to be expected in the foreseeable future.

This paper shows that YCS exerts a significant positive effect on young people's likelihood of engagement in peaceful demonstrations. The study also reveals that the joint effect of YCS, rising youth unemployment rates and increased enrollment in higher education of a country (i.e., the interaction effect of all three variables) on young people's propensity to engage in demonstrations is negative. Resource limitation due to high unemployment rates within an educated youth bulge, therefore, seems to be a key barrier to young people's effective participation in protests. The present finding is at variance with the predictions of socioeconomic grievance theory, which suggest an increase in protest activities in response to socioeconomic hardships. By contrast, the effect shows strong consistency with the predictions of the Civic Voluntarism Model (CVM) of political participation, which proposes lower levels of engagement under such circumstances. The findings are based on a series of multilevel binary logistic regression analyses with pooled individual level data from World Values Survey (WVS) Waves 3-6 (1995-2014) for 51 democratic countries, and country level demographic and socioeconomic data from the United Nations Population Division and the World Bank respectively.

Following this introduction, the remainder of the paper is structured as follows. The next section presents the theoretical framework for the study and hypotheses for testing. This is followed by the methodological section which discusses the research design, datasets, and

variables operationalization. Following that is the results section. The paper ends with the discussion and conclusion sections fused together. I use the term *youth* interchangeably with *young people* to refer to persons aged between 15-29 years. Peaceful demonstration is used in reference to mass protests by citizens which are lawful and devoid of violence and riots.

3.2 Theoretical framework

3.2.1 Youth, youth cohort size and non-institutionalized political participation

The literature on youth political participation argues that young people are increasingly showing disengagement from institutionalized politics, such as voting and party activities (Furlong and Cartmel, 2012; Putnam, 2000; Sloam, 2016), but progressively turning towards non-institutionalized politics, such as participation in new social movement networks (Gaiser, De Rijke and Spannring, 2010), demonstrations, signing of petitions and boycotts (Marien, Hooghe and Quintelier, 2010; Soler-i-Martí, 2015; Sloam, Ehsan and Henn, 2018; Treviño *et al.*, 2019), and various issue-based democratically innovative ways of protest engagement (Huttunen and Christensen, 2020). Explanations for this changing trend have notably been rooted in cultural and value change theory, particularly for post-industrialized Western societies. Postmaterialist theorists argue that evolving values and cultures since the 1960s, have led to the development of more individualized, libertarian, and self-expressive values, over the more conservative and dutiful loyalties to institutionalized political systems, among the contemporary younger generation (Inglehart, 1990; Inglehart and Norris, 2016; Norris and Inglehart, 2019). Importantly, the switch to the more personalized liberal and secular values is believed to have motivated the increased engagement of young people in protests, as they offer greater opportunities for self-expression (Inglehart, 1990; Sloam and Henn, 2019).

Apparently missing, however, from the ongoing debate on young people's engagement in protest activities is the influence of their cohort size within the population. This is against the backdrop of a growing body of scholarship which strongly links the growing cohort size of young people to increased risks of conflicts, riots, and other acts of political instability. Popularly known as the youth bulge theory, the argument goes that the growing demographic size of young people within the adult population of a country puts the country at a considerably high risk of political and civil instability (Olaiya, 2014; Gaan, 2015; Alfy, 2016; Yair and

Miodownik, 2016; Sukarieh and Tannock, 2018; Pruitt, 2020). This is because young people are the main protagonists in acts of political and civil violence (Goldstone, 2002; Huntington, 1996) Empirically, Henrik Urdal found that a one percentage point increase in the YCS relative to the adult population of a country increases the risk of internal conflict by 4%. Also, countries with YCS of 35% or more run the risks of conflicts three times higher than countries with demographic structures similar to that of developed societies (Urdal, 2006). It has also been shown that liberal democracies with large YCS stand a greater risk of deconsolidation into dictatorships, through revolutions and acts of political instability, than others with small YCS (Cincotta, 2009). More recent empirical investigations also generally affirm the youth bulge-instability correlation (Flückiger and Ludwig, 2018; Hafeez and Fasih, 2018; Weber, 2019).

Richard Cincotta argues that growing YCS births in its wake, youth cultures which 'coalesce around distinctive identities and untampered ideologies and find expression through experimentation and risk-taking' (Cincotta, 2009, p. 11). As a group, young people, and particularly male youth, tend to be 'highly idealistic, sensitive to peer approval, prone to risk-taking and naively accepting of ideological explanations' (Cincotta and Doces, 2011, p. 102). This tendency of young people is argued to be part of socio-biological changes young people experience in their transition to adulthood, during which, being now significantly disconnected from parental values and influence, become 'obsessed by an overwhelming desire to join a peer group and, above all, to participate in its collective aggression' (Weber, 2013, p. 338). Importantly, however, as the YCS increases, this propensity of young people to join peers in collective aggression increases further, because the greater the numbers of the young people, the more they influence themselves in their attitudes and behaviors, due to a 'self-enhancing socialization' effect (Weber, 2013, p. 350). Young people growing in communities with youth bulge are argued to interact more with their peers, and are also more influenced by their peers, than young people living in communities which are adult dominated (Hart *et al.,* 2004). A significant implication from the above arguments is, therefore, that young people growing within a youth bulge are more likely to show similar behavioral tendencies which manifest in terms of experimentation, risk taking and proclivities towards collective aggression, than their peers in adult dominated societies.

Drawing parallels with the predictions of the youth bulge theory leads us into a few inferential propositions. Firstly, it is reasonable to assume that since young people show strong propensity to engage in political violence, they will be even more likely to engage in peaceful

demonstrations. This is because, while we can expect the fear of injury, arrest or even death to restrain some youth from engaging in political violence, the peaceful nature of demonstrations should significantly reduce such concerns. We can therefore expect the nonviolent nature of peaceful demonstrations to considerably motivate them to join in such events, as the opportunity cost of participation, in terms of risk of injury and fatality is considerably low. Secondly, because youth bulges induce collective youth behavioral tendencies, which find expression through experimentation in risk-taking, we can expect the occasion of large YCS within a country to promote greater interactions among the growing young population, and also mobilize them around the idea of joining in peaceful demonstrations. This decision to participate can be either for the sheer fun and exhilarating experience of being a part of a political demonstration, irrespective of the outcomes (Teorell, 2006), or due to the cause-oriented and biographical relevance of the protest to them as young people (Soler-i-Martí, 2015) . This leads to my first proposition:

$H_{1:}$ *There is a significant positive relationship between YCS and young people's propensity to engage in peaceful demonstrations.*

3.2.2 Youth bulge and grievance theory

One of the main mechanisms linking youth bulge and protest actions is grievance. The grievance mechanism traces its roots to the relative deprivation theory (Runciman, 1966; Walker and Smith, 2002; Smith and Pettigrew, 2015; Asingo, 2018). Ted Gurr is generally credited with the initial development and robust application of relative deprivation theory to political actions, more specifically aggressive political participation (Gurr, 1970; Muller, 1979). Relative deprivation is defined as: "…actors' perception of discrepancy between their value expectations and their environment's apparent value capabilities. Value expectations are the goods and conditions of life to which people believe they are justifiably entitled. The referents of value capabilities are to be found largely in the social and physical environment […] For purposes of general theoretical specification I assume that perceived discrepancies between expectations and capabilities with respect to any collectively sought value – economic, psychosocial, political – constitute relative deprivation […] " (Gurr, 1968, pp. 252–253).

Gurr argues that when people feel what they are getting does not meet their expectations, or feel deprived of what they deserve, they nurse grievances towards the state. This is because the

state is the primary agent to blame for both individual and group deprivations and, hence, the target of any collective action (Gurr, 1970, p.180). Gurr importantly traces the source of the grievances and discontent of the affected individuals or groups to unfavourable political, economic, and social conditions. Since such structural conditions affect everyone in the society (Taylor, 2001, p.18), groups which feel relatively deprived in comparison with their own expectations, or to other groups, can be expected to react. Linked to this possibility, Gurr proposes three main reactions by such aggrieved persons and groups: *apparent resignation, nonviolent protest,* and *full-blown civil violence* (1968, p. 252). In other words, people express their structural conditions induced grievances against the state, by disengaging altogether from political life, engaging in peaceful protests to register their discontent, or resorting to civil violence. In relation to youth bulge and political violence, the argument is still that, the above-mentioned structural conditions can conflate to create or increase grievances in a large cohort of young people, which can foment nonviolent protests or full-blown political violence. These conditions are believed to include the combined effects of increased access to education and poor labor market conditions (Bricker and Foley, 2013; Campante and Chor, 2014).

Multiple studies have suggested that the failure of the labor market to absorb the growing proportions of youth is among the key factors which cause grievances among young people, leading to their involvement in conflict and violence (Apolte and Gerling, 2018; Flückiger and Ludwig, 2018; Goldstone *et al.*, 2010). Korenman and Neumark (2000) argue that there is a positive relationship between YCS and youth unemployment. They aver that large youth cohorts entering the labor market suffer high rates of unemployment, due to competition amongst themselves. Even where there are jobs, young people trapped within a large cohort tend to earn reduced wages, due to the saturation of the labor market by a generation with comparatively same skillsets, who are imperfect substitutes for the older generation (Brunello, 2010; Morin, 2015). A counter argument, however, holds that large YCS is rather advantageous for youth unemployment, as it represents a cheap and more malleable labor force, ready to take on even tasks they are not originally skilled at performing (Shimer, 2001; Moffat and Roth, 2017). This notwithstanding, the prospect that labor supply will outstrip demand for a large cohort of young people can be thought of as a stronger possibility, particularly across countries with large YCS.

Besides, the level of grievance within a growing youth cohort can be expected to heighten if the affected youth represent a cohort educated at higher levels. Hannes Weber suggests that higher education increases the expectations of young people for well paid jobs. They

consequently become disillusioned and frustrated when, after school, they are faced with prolonged periods of unemployment or underemployment (Weber, 2019). This is because, for many educated young people, good employment offers both economic and social value, as it gives a sense of dignity, pride, social inclusion, and also importantly represents a major milestone on the road to social recognition as adults in many societies (Ozerim, 2019). Unemployment for educated young people, therefore, represents a major setback in terms of their capacities to meet socially constructed markers of adulthood such as marriage and the financial capacity to rent your own accommodation (Quintelier, 2007), the capacity to support your significant others, and hence, quit depending on parents for assistance (Eguavoen, 2010; Roche, 2010). This likelihood of social exclusion, and the sense of lagging behind in life, arising from the afore-mentioned circumstances can, therefore, be expected to create discontent among affected youth, or even provoke latent grievances already held up within them.

Recent evidence shows that while educational attainment continues to increase in many parts of the developing world, including sub-Saharan Africa, the Pacific, Asia, the Middle East and North Africa, corresponding employment opportunities for the large, educated youth populations in these regions have been on a consistent decline (Ozerim, 2019, p. 422). Much of the literature on the Arab Spring protests, for example, identify, in addition to political grievances, the disequilibrium between education and employment opportunities for the large youth populations within the affected countries, as among the foremost factors which underlined the protests (Campante and Chor, 2012; LaGraffe, 2012; Alfy, 2016). Moreover, even apart from the grievances such a situation may create among young people, it can reasonably be argued that the excess time available on their hands due to their unemployed status, can also easily be channeled into aggressive collective actions. Afterall, the opportunity cost of venting grievances through protest acts is significantly low for youth, especially where they are unmarried and unemployed, as such statuses give them relatively fewer social and economic responsibilities, which would ordinarily have made it more costly for them to participate in such collective actions (Urdal, 2004; Campante and Chor, 2012).

Once again, drawing parallels with the predictions of grievance theory, we can expect that the moderating effects of socioeconomic grievance would be equally significant in terms of youth participation in peaceful protests. Recent empirical studies by Kern et al. (2015), show a significant positive relationship between rising unemployment rates and citizens' propensity to protests against the government over their deteriorating economic conditions. Campante and Chor (2014) also similarly highlight the positive relationship between socioeconomic

grievances and the likelihood of protests. Importantly, however, we know that grievance increases with population growth (Collier and Hoeffler, 2004, p. 588), due in part to competition over limited resources and opportunities. An evident implication is, therefore, that the tendency to protest may be strongly linked to the relative numbers of the youth in the population, such that the larger the YCS of a country, the stronger the propensity of the young people in the country to protest, particularly where considerable socioeconomic grievance is apparent within the population. Also importantly, the very nature of higher education, and its demands for critical thinking, politicizes young people by the time they come out of the educational system (Briggs, 2017). This critical nature of higher education is among the main reasons why educated young people prefer elite-challenging forms of participation such as protests, over the more institutionalized modes, in communicating their grievances with the political system (Dalton, 2009). The growing numbers of youth educated at higher levels within the population, therefore, represent an ever-expanding reservoir of critical agents with a strong inclination to challenge the political system through the more direct modes of participation such as protests.

In sum, the rising numbers of unemployed educated youth embody alienation, a growing feeling of disenfranchisement, and social anger (Ikelegbe, 2020, p. 78). We can accordingly expect such grievances to be major fuels for protests among young people. We can, therefore, hypothesize as follows:

> H_2*: The positive effect of YCS on young people's propensity to engage in peaceful demonstrations is stronger for individuals in countries with high unemployment rates.*
>
> H_3: *The positive effect of YCS on young people's propensity to engage in peaceful demonstrations is stronger for individuals in countries with rising higher education enrollment rates.*
>
> *H*$_4$*: The positive effect of YCS on young people's propensity to engage in peaceful demonstrations is stronger for individuals in countries with a combination of rising unemployment and rising higher education enrollment rates.*

3.2.3 Youth cohort size and civic voluntarism model

A persuasive counter argument is that economically deprived youth would, rather than spend their precious time engaging in violence and protests, channel them into more productive uses. Marc Sommers has consequently criticized the youth bulge theory as one with weak explanatory power, arguing that it is a correlation which provides "an incomplete and fairly distorted picture of the broader reality" (Sommers, 2011, p. 295). Using the case of Africa's youth bulge, Sommers contends that the typical youths on the continent are more concerned with improving their socioeconomic situation, which has to a large extent, limited their social inclusion into adulthood, than joining violent movements. As argued earlier, the social expectations of youth to be economically independent at some point in their development, marry, have a decent accommodation, and support ageing parents, among others, place considerable pressure on those who lack the material means to do so, to strive to achieve such ends (Wyn and White, 1997; Eguavoen, 2010). The imagery of young people within large youth cohorts being preoccupied with violence is, therefore, a marked departure from the reality, as evidenced by the strikingly low levels of political and civil conflicts in many states with youth bulge, and even where conflicts have been in recent years, have not seen the participation of most youths in those countries (Sukarieh and Tannock, 2014).

Sommers' position shares commonalities with the predictions of resource-based models of political participation, such as the CVM. The developers of the model argue that the decision to participate in politics depends, among others, on the socioeconomic status (SES) of individuals (Verba, Schlozman and Brady, 1995). People's SES (i.e., education, income, and employment) provide them with three main resources: time to participate in political activities, the money to contribute to political activities and the civic skills (i.e., the organisational and communication skills which enable effective participation in politics) (Brady, Verba and Schlozman, 1995). Thus, the higher the SES of an individual, the more time, money, and civic skills the individual possesses to participate effectively in politics. Since access to resources is fundamental to active participation in politics, the positive relationship between large YCS and youth unemployment already discussed, can in this case, be expected to impact negatively on young people's resources. Put another way, high rates of unemployment among many educated young people considerably extinguishes their capacity to meet their own needs and that of their significant others. Besides, because they are less skilled, inexperienced, and earn relatively less even when employed (Brunello, 2010; Moffat and Roth, 2016), the expectation that they

would have fewer excess resources to commit to political activities sounds particularly plausible.

In the first place, gaining access to the labor market itself to create the opportunity to earn some income is a challenge for young people (Bricker and Foley, 2013). As earlier discussed, however, youth bulge presents the extra challenge of oversupply of labor force, which renders a large proportion unemployed, while also reducing the wages of those fortunate enough to be employed. In this way, the employed face limited earnings and a tendency to use excess time for extra jobs to top up their incomes, or even pursue further capacity building opportunities to improve their market value. The unemployed on the other hand, faced with limited financial capacity or lacking it altogether, can be expected to be occupied with job searches with the excess time on their hands. This argument certainly does not overlook the active engagement of many young people with minimal capital in various political activities. Jan Teorell has aptly argued that two main reasons motivate the political participation of people: because they have the resources to do so, and also because they have the incentives to participate (Teorell, 2006, p.801). Focusing on the resource component of the motivations of participation, which is the interest of this study, however, an evident inference which can be drawn from the above argument is the fact that rising unemployment rates would present considerable constraints on young people's ability to participate politically, especially in the more time consuming and resource demanding activities.

Joining a protest takes hours, compared to voting, which is by the click of the button in most instances. Faced with employment uncertainties as educated youth, we can reasonably expect that a growing proportion of young people in the population, would be more likely to spend their time looking competitively for jobs and other opportunities to improve their socioeconomic situation, and meet the social markers of adulthood, than to protest. Accordingly, we can propose the following as counter to H_4.

H_5: The *effect of YCS on young people's propensity to engage in peaceful demonstrations is negative and stronger for individuals in countries with a combination of rising unemployment and rising higher education enrollment rates.*

I now test all five hypotheses with individual level and country level data from the WVS, World Bank and the UN Population Division.

3.3 Data and methods

The study utilized a combination of pooled individual level data for only young people (15-29yrs), drawn from WVS Waves 3-6 (1995-2014)[1] and country level data from the World Bank[2] and the United Nations Population Division[3], in a large-N statistical design with democratic country-year as the unit of analysis. The WVS provided a full sample of individual level data on the political attitudes, protest behavior, sociodemographic and socioeconomic statuses of young people, while the World Bank and UN World Population Prospect report provided country level information on youth unemployment rates, school enrollment rates and YCS respectively. Democratic countries included in the respective Waves were purposively sampled, based on the mean Polity IV index scores[4] of the countries during the years in which the surveys were conducted. These were 1995-1998, 1999-2004, 2005-2009 and 2010 -2014 for Waves 3, 4, 5 and 6 respectively. Democratic countries are defined by the Polity index as countries which score between 6 and 10 on the 0-10 Polity scale. All countries with scores below 6 are classified as non-democratic. The study accordingly excluded all countries which scored below the minimum threshold of 6 in each round of the WVS. Despite the strengths of alternative democracy indices such as the V-DEM liberal democracy index (Boese, 2019), the study preferred the Polity index. This was because preliminary comparisons of democratic countries generated by both indices from the same set of WVS countries, showed the Polity index as better at generating the preferred mix of countries, with appreciable variations in YCS, from both established and developing democracies. The V-DEM index on the other hand, generated a list overly dominated by established Western democracies with small YCS. As the multilevel nature of the study required significant variations in the main explanatory variable, YCS, at the country level, I found the Polity IV and its choice of countries better suited for the study.

The decision to limit the study to democratic countries was because only democracy, as a regime type, affords citizens the liberty to participate in politics as a fundamental right, guarantees freedom of expression and freedom of association, ensures suffrage and clean elections, and also elects its executive (Dahl, 1971). Democracy is also characterised by judicial and legislative oversights as means of restraining abuse of exercise of power, the rule of law and the protection of individual rights and liberties (Lührmann, Tannenberg and Lindberg, 2018), and as a result, importantly embraces elite challenging and authority defying modes of participation, such as protests as part of its repertoire of citizen engagement activities

(Norris, 2003; Dalton, 2009; Norris, 1999). While acknowledging reports of suppression of protest actions and attacks on free speech in some established and developing democracies in recent years, the above-mentioned characteristics can be related to as the more typical features of democratic regimes. By contrast, authoritarian regimes offer less freedom to citizens to challenge the political system, suppress political participation and restrict citizen mobilisation. Respondents under such regimes are, therefore, typically unable to freely express themselves in such political surveys, which brings the validity of survey results from authoritarian regimes into question (Holmberg, Lindberg and Svensson, 2017). The final analysis included a total of 51 countries with datasets on all key variables, selected from both the developed and developing worlds. Table 1 in the appendix section of this paper provides the full list of selected countries.

3.3.1 Dependent variable

The dependent variable for the study was *peaceful demonstrations*. The study chose peaceful demonstrations as the proxy for protest behavior from the different kinds of protest actions, because it is relatively more common, familiar, and also received the highest response rate from young people among the four types of protest activities within the WVS database. Also importantly, the literature identifies peaceful demonstrations as one of the most common 'public displays of protests' (Campante and Chor, 2014, p.497), and a growing form of non-institutionalized political expression among the youth (Sloam, 2016; Kalogeraki, 2021). The WVS asked respondents whether in relation to *peaceful demonstrations*, they; "have done, might do it or would never under any circumstances". Norris (2003, p.11) argues, however, that hypothetical questions such as asking whether a respondent "might do" something are limiting in their ability to predict actual behavior, compared with others which assess routine behavior actually done or not done. Following from Norris' argument, the study sought to measure actual behavior in relation to *peaceful demonstrations*, as having done or not done. The variable was, hence, recoded into a binary, with "never do and might do" collapsed into one category – "Not Done" and assigned the value of 0, while "Have Done" took on the value of 1. Across the full sample of 51 countries, an average of 85.8 percent of respondents reported not to have ever joined a peaceful demonstration, while 14.2 percent affirmed to have ever

done so. The range of youth protestors, however, varied widely across countries, constituting as high as 50 per cent in Italy, to as low as 1.5 percent in Japan.

3.3.2 Explanatory Variables

The main independent variables of the study were *YCS, youth unemployment rates* and *tertiary enrollment rates* of countries. YCS was operationalized as the share of individuals aged 15-29 years within the adult population of a country (15 years and above). The study settled on the 15-29 years age group because their cohort size has been shown in past studies to significantly predict collective social actions (Weber, 2013, 2019). This range also includes an important group of young people (25-29 years old) who are often overlooked in youth bulge related studies (for example, see Urdal, 2006; Flückiger and Ludwig, 2018), but are undergoing crucial life experiences (including transition into social adulthood) which are of theoretical relevance to the present study The proportion ranged from a minimum of 18.4 percent in Japan to 51.5 percent in Mali, with a mean of 34.9 percent and standard deviation of 8.7. Along with Japan, Italy and Germany were the two other countries with YCS less than 20 percent. By contrast, developing countries such as Ghana, Guatemala, and Bangladesh, along with Mali, had YCS more than 47 percent. *Youth unemployment rate* was operationalized as the percent of total labor force aged 15-24 years who are unemployed and used as the main proxy for structural economic conditions which can induce either grievance or apathy towards protest among young people. Country unemployment rates ranged from as low as 3.4 per cent in Pakistan, to as high as 59.4 percent in Macedonia, with a mean of 19.8 percent and standard deviation of 12.5. Tertiary enrollment rate[5] was measured as *School enrollment, tertiary (% gross),* and ranged from a minimum of 5.7 percent in Mali, to a maximum of 99.7 percent in South Korea, with a mean of 41.5 percent and standard deviation of 21.8. It was also used as the proxy for higher education among countries.

3.3.3 Control Variables

Based on existing literature on protest behavior, the study controlled for predictors which have shown strong relationships with protest at the individual level. Past empirical studies on

sociodemographic predictors argue that by age, young adults are more likely to protest than the older generation (Melo and Stockemer, 2014). The gender of protestors is, however, nuanced. While recent evidence in developing democracies in Africa show that women have less proclivities towards protests (Asingo, 2018), other studies in more established democracies of the West show the growing dominance of women in recent protests (Bowman, 2019; Wahlström *et al.*, 2019; de Moor *et al.*, 2020). The married on the other hand are argued to be less likely to engage in non-institutionalized political behaviors (Weiss, 2020, p.4). Socioeconomic predictors such as education and employment have also shown strong positive associations with protest behavior in past research (Dalton, Van Sickle and Weldon, 2010; Kern, Marien and Hooghe, 2015; Dalton, 2020). Similarly, political interest (Dalton, 2009) and postmaterialist values (Norris and Inglehart, 2019; Sloam and Henn, 2019) are argued to strongly predict protest behavior among young people. The study also included variables such as satisfaction with your life and satisfaction with the income levels of your household as proxies for individual level cause of grievance or apathy towards protests (Kern, Marien and Hooghe, 2015). I maintained their original 10-point Likert scale, ranging from "Very dissatisfied to Very satisfied". Marital status was, however, recoded from original 8 - categories into two (due to unclear distinctions): married and not married. Educational attainment was similarly recoded from original 8-category list with blurred distinctions, into 4- clear categories, while employment statuses were also collapsed into 3- groups: unemployed, student and employed, from originally 7 blurred categories. I also reversed the scale for political interest from the original order to; "Not at all interested to Very interested."

At the country level, the Polity IV score of countries served as proxy for democratic maturity and hence the political opportunity to protest. Since all the selected countries were democratic, I expected that political grievance due to constricted liberties would be a less probable motivator of protest. Instead, the guaranteed liberties of citizens within democracies implied that the political freedom to protest could motivate young people to express themselves without fear and intimidation. Thus, increasing Polity scores would be associated with increased propensities of protest by young people. GDP per capita measured at Purchasing Power Parity (PPP), also served as proxy for economic development, and was log-transformed to minimize skewness and outliers. Both political opportunity and economic development have been reported in past research to significantly predict protest activities (Dalton and van Sickle, 2005). For all country level variables, the mean value for each Wave years (e.g. mean of GDP

for 1999-2004 for India) was calculated and assigned to each observation within the country for the period.

3.4 Results

The analyses utilized random intercept multilevel binary logistic regression models, where individuals are nested within countries, and followed Sommet and Morselli's (2017) recommended techniques for multilevel logistic modelling. An initial estimation of the Intraclass Correlation (ICC) established evidence of clustering within the data (ICC = 0.146), and hence, the need for multilevel modelling. Further likelihood ratio tests between standard logistic regression models and the multilevel models reported in this paper also showed statistically significant differences, and hence the suitability of a multilevel approach. The outcomes of the multilevel logistic analyses for four different models are presented in Table 3.1 below. The effects of interactions between and among the three explanatory variables on young people's predicted probabilities of joining in peaceful demonstrations are also displayed in the Figures 3.1, 3.2 and 3.3 below.

Beginning with Model 1, I assessed the direct or independent effect of YCS on young people's individual likelihood to have ever protested, as proposed in H_1. As with all the other models, I controlled for all the country level and individual level variables previously discussed. The outcome confirmed H_1: YCS showed a positive significant effect on young people's propensity to have ever participated in peaceful demonstrations. Put another way, the result shows that the growing cohort size of young people within a country's population increases the individual likelihoods of young people within the country to protest. This effect is, however, relatively marginal (β= 0.008*), yet not unexpected, because country level variables accounted for only 14.6% of variations in the data, per the ICC. Substantively, notwithstanding, the significant direct positive effect of YCS on youth protest behavior, demonstrates strong similarities with the dominant position within the youth bulge literature. The finding shows congruence with past evidence of strong correlation between growing YCS and increased likelihoods of protests and various forms of social unrests and upheavals (Alfy, 2016; Goldstone, 2002; Urdal, 2006; Weber, 2013, 2019; Yair and Miodownik, 2016). I address this finding in detail in the discussion section of the paper.

Model 2 tested H_2 by assessing the moderating effect of youth unemployment on the relationship between YCS and youth propensity of engagement in peaceful demonstrations, and accordingly created an interaction between YCS and youth unemployment rates. The effect of this interaction was significant, yet not in the hypothesized direction. Contrary to expectations, the confluence of growing YCS with rising youth unemployment rate, surprisingly, rather suppressed youth participation in demonstrations, although the effect size was marginal (β=-0.001**). This strikingly unexpected result is apparently in difference to a large body of past scholarship which associate rising unemployment rates within a youth bulge with increased incidences of protests and various forms of political and social upheavals (See, Campante and Chor, 2014; Flückiger and Ludwig, 2018; Ikelegbe, 2020; Weber, 2019). Figure 3.1 below displays the predicted probabilities of young people joining in peaceful demonstrations across different levels of YCS and youth unemployment rates. Consistently across countries, we find that as youth unemployment rate increases within a growing YCS, the probability of young people engaging in demonstrations reduces (darker and thicker lines represent increasing youth unemployment rate). A higher probability to demonstrate among young people (0.2), occurs when YCS is large, but youth unemployment rate is low. By contrast, the probability of youth engagement in demonstrations reduces very considerably with the conflation of large YCS and high youth unemployment rates.

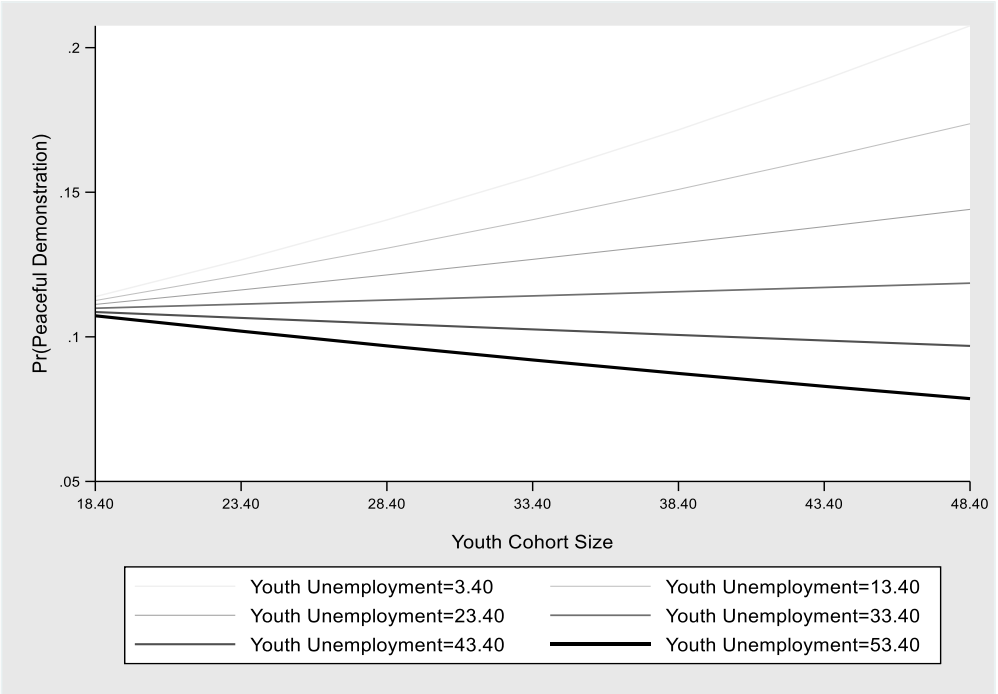


Fig 3.1: Interaction of YCS and youth unemployment on the predicted probability of participation in peaceful demonstrations for young people.

In Model 3, I tested H_3 by examining the moderating effect of rising tertiary education rates on the association between YCS and the propensity of demonstrations among young people, and thus replaced country youth unemployment rate with country tertiary enrollment rates in interaction with YCS. This time, there was a highly significant and positive interaction effect, in support of expectation in H_3 that increasing access to higher education within a growing YCS will enhance young people's propensity to demonstrate. Figure 3.2 shows the positive effect of the congruence of these two structural conditions on individual youth nonviolent protest behavior. The highest probability of joining demonstrations is seen in the context of simultaneous increases in YCS and access to tertiary education within countries. Notwithstanding, interpreting the interaction effect of Model 3 in the light of the arguments within the paper required caution, since both CVM and grievance theory could account for the reported outcome. Education, as earlier argued, increases the resource capacity of beneficiaries for political participation (Verba, Schlozman and Brady, 1995; Dalton, 2009). It can also fuel increased participation through grievances due to unmet expectations of youth educated at higher levels (Alfy, 2016; Weber, 2019). To further explore the explanatory power of both theories, I consequently ran a three-way interaction of all three explanatory variables, to assess their combined effect on youth participation in peaceful demonstrations, in response to H_4 and H_5, which predicted contrasting outcomes based on the two theories.

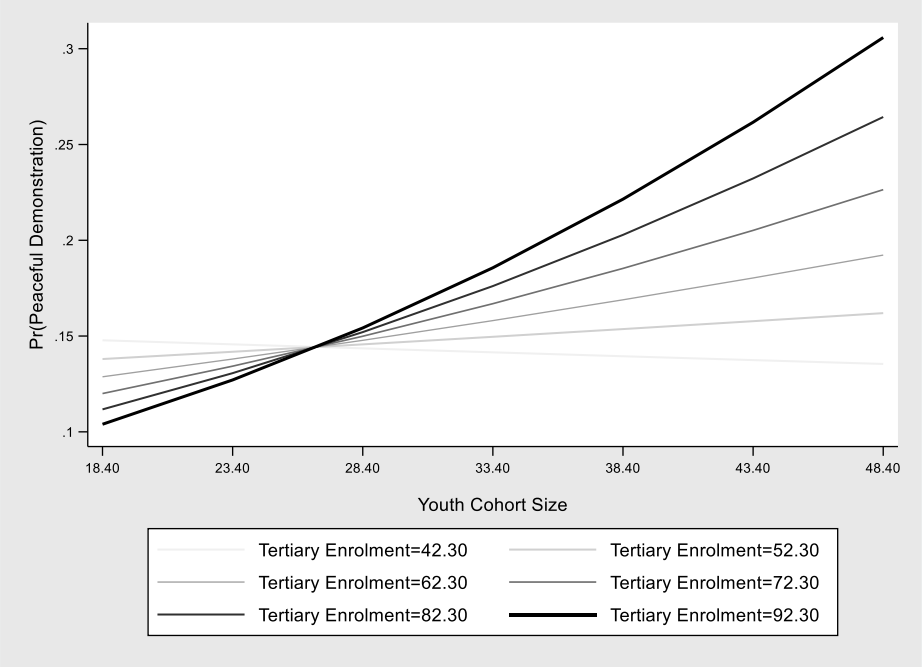


Fig 3.2: Interaction of YCS and tertiary enrollment rates on the predicted probability of participation in peaceful demonstrations for young people (Darker and thicker lines represent increasing tertiary enrollment).

Model 4 shows the results of the three-way interaction. The result showed a marginal, but significant negative effect on peaceful demonstrations, in support of H_5. In other words, the conflation of the three structural factors tended to weaken young people's individual proclivities to participate in peaceful demonstrations. Once again, the result is quite surprising as it contradicts the findings of the more dominant position with existing scholarship on youth bulge, which suggest higher risks of grievance induced acts of social upheavals and violence, among a growing population of unemployed educated youth (Alfy, 2016; Flückiger and Ludwig, 2018; Weber, 2019). Figure 3.3 displays the predicted probabilities for individual youth participation in peaceful demonstrations for different levels of the three variables. Notably, we see that as youth unemployment rate rises, it tends to reduce young people's propensity to protest, despite increases in YCS and tertiary enrollment rates within a country. When tertiary enrollment is high, but unemployment within a youth bulge is low, the effect shows in the positive direction. However, as unemployment rate increases, the probability of protesting among young people reduces significantly, even if tertiary enrollment rates within a growing youth bulge is high. This can be seen in the consistent drop in the darker and thicker lines for every 10 points increase in youth unemployment.

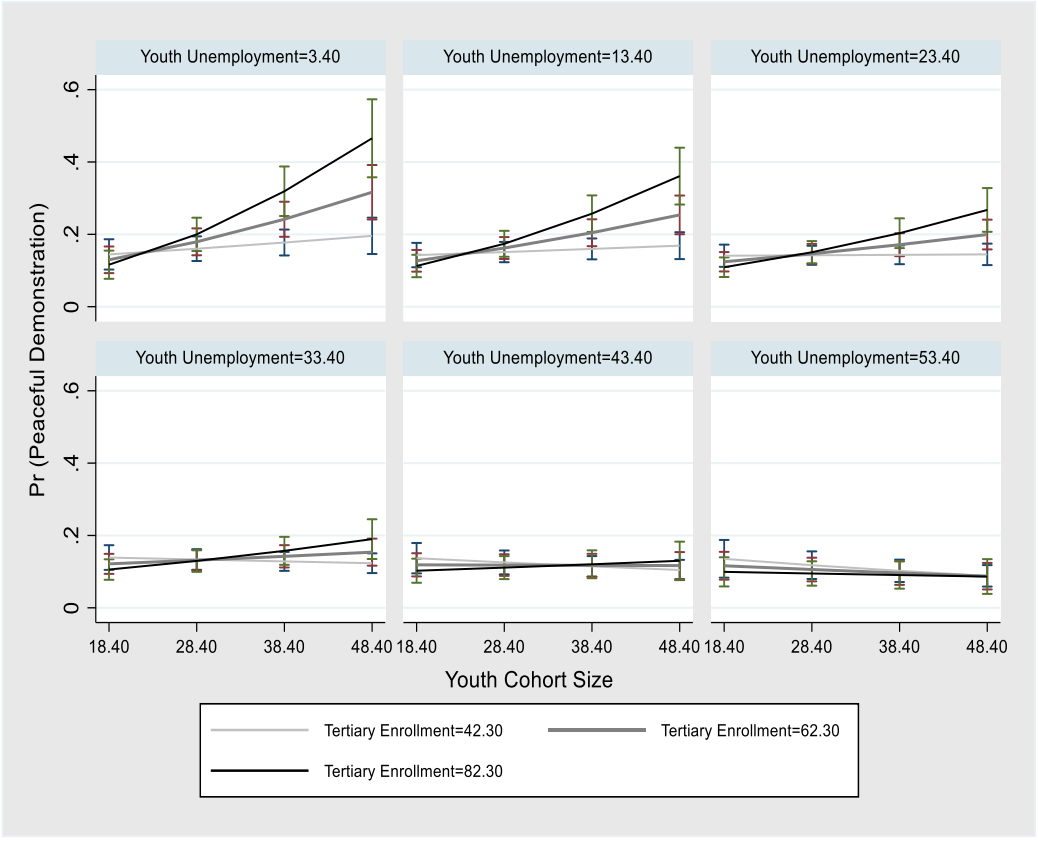


Fig 3.3: Interaction effects of YCS, youth unemployment and tertiary enrollment on young people's propensity to have ever engaged in peaceful demonstration.

In respect of the control variables, the two other contextual variables; GDP and Polity IV were only significant in Model 2. Across all models, however, the strongest predictors of individual youth protest behavior were the level 1 variables. Consistently across all four models, an individual's age, sex, marital status, educational background, political interest, employment status, postmaterialist values and household income situation showed strong influence on their decisions to partake in demonstrations. Interestingly, females in this study showed less likelihood, compared to males to participate in peaceful protests, in contrast with recent findings which showed higher levels of participation in protests among females (Bowman, 2019; de Moor *et al.*, 2020). Lower levels of satisfaction with life and household incomes are also significantly associated with increased tendencies to protest across all four models (Kern, Marien and Hooghe, 2015). I discuss the effects of the levels of satisfaction in appreciable detail in the next section. The remaining variables, namely age, marital status, educational attainment, postmaterialist values and political interest, all showed congruence with past findings in terms of their predictive influences on protest behaviors.

Table 3.1: Logit regression table for predictors of youth participation in peaceful demonstrations

Peaceful Demonstrations	**Model 1 (Baseline - No interaction)**	**Model 2 (YCS and Youth Unemployment Rate)**	**Model 3 (YCS and Tertiary Enrollment)**	**Model 4 (YCS, Youth Unemployment and Tertiary Enrollment)**
Main Explanatory Variables and Interaction Terms				
Youth cohort size	0.008* (0.004)	0.029**(0.009)	-0.047***(0.009)	-0.047**(0.015)
Youth unemployment rate	-0.012**(0.004)	0.012(0.009)		-0.006(0.021)
Tertiary enrolment rate	0.007***(0.002)		-0.027***(0.005)	-0.034***(0.009)
Youth cohort size*Youth unemployment rate		-0.001**(0.000)		0.000(0.001)
Youth cohort size*Tertiary enrollment rate			0.001***(0.000)	0.001***(0.000)
Tertiary enrollment rate*Youth unemployment rate				0.000(0.000)
Youth cohort size*Tertiary enrollment*Youth unemployment rate				-0.000*(0.000)
Country Level Control Variables				
GDP per Capita	-0.002(0.095)	0.234*(0.105)	-0.004(0.096)	-0.037(0.114)
Polity IV score	0.060(0.048)	0.094*(0.047)	0.066(0.048)	0.050(0.049)
Individual Level Control Variables				
Age	0.039***(0.005)	0.038***(0.005)	0.039***(0.005)	0.038***(0.005)
Sex (female)[1]	-0.150***(0.032)	-0.151***(0.032)	-0.154***(0.032)	-0.157***(0.032)
Marital status (single/not married)[2]	0.236***(0.043)	0.238***(0.043)	0.247***(0.043)	0.244***(0.043)
Educational attainment[3]				

Completed secondary school	0.186***(0.041)	0.186***(0.041)	0.189***(0.041)	0.185***(0.041)
Completed university without degree	0.573***(0.054)	0.572***(0.054)	0.588***(0.054)	0.577***(0.054)
Completed university with degree	0.656***(0.050)	0.654***(0.050)	0.665***(0.050)	0.670***(0.050)
Employment status[4]				
Student	0.284***(0.049)	0.291***(0.049)	0.285***(0.050)	0.285***(0.050)
Employed	0.109**(0.041)	0.113**(0.041)	0.103*(0.041)	0.102*(0.041)
Post-materialist index	0.366***(0.026)	0.366***(0.026)	0.363***(0.026)	0.366***(0.026)
Interest in Politics	0.508***(0.017)	0.508***(0.017)	0.508***(0.017)	0.506***(0.017)
Satisfaction with financial situation of household	-0.027***(0.007)	-0.027***(0.007)	-0.025***(0.007)	-0.026***(0.007)
Satisfaction with your life	-0.020*(0.008)	-0.019*(0.008)	-0.018*(0.008)	-0.018*(0.008)
Constant	-5.762***(0.880)	-8.667***(1.098)	-4.132***(0.914)	-3.776**(1.278)
Country Level σ^2	0.592***(0.129)	0.637***(0.141)	0.583***(0.127)	0.594***(0.128)
No. of observations	38149	38149	38149	38149
Log likelihood	-14051.204	-14030.525	-14014.41	-14014.41
Mean VIF (Multicollinearity Test)	1.49	1.47	1.51	1.49

Note: Entries are the logit coefficients and robust standard errors in parenthesis for multilevel binary logistic regression Models. All Models were estimated with individual level data on youth non-violent protest behavior collated from 38,149 youth respondents in 51 countries drawn from WVS Wave 3 -6. Reference category: [(1)] = Male; [(2)] = Married; [(3)] = Below Secondary School; [(4)] = Unemployed. $***p \leq 0.001$, $**p \leq 0.01$, $*p \leq 0.05$

3.5 Discussion and conclusion

This study set out to ascertain whether the propensity of young people to engage in peaceful demonstrations is affected by their relative cohort size in the adult population of democratic countries. It also sought to assess whether this relationship is moderated by structural socioeconomic factors, notably youth unemployment and higher education. This research focus had so far been unexplored within the literature on youth political participation.

Notwithstanding, as existing literature strongly associates youth bulge with the increased likelihood of political conflicts and riots, with the youth as the main actors, the study hypothesized based on the youth bulge theory that young people growing as part of a youth bulge, would be similarly inclined to engage in the less risky collective acts such as peaceful demonstrations. The study also hypothesized that these tendencies would be significantly influenced by the socioeconomic conditions of a country, since structural conditions affect everyone in society (Taylor, 2001, p. 18).

Firstly, the findings of the paper show that YCS has a significant positive effect on young people's propensity to participate in peaceful demonstrations. Put another way, the results suggest that where a country has a youth bulge, the probability of young people within such a large cohort participating in peaceful demonstrations increases significantly. The earlier theoretical argument put forward by the paper in support of young people's natural inclinations towards collective actions, provides valuable insights into why this outcome should not be unexpected. For instance, young people are well known for their high idealism, vulnerability, and naivety to accepting new ideologies without adequate interrogation of such, high risk-taking inclinations, and strong tendencies to challenge the status quo and old forms of power (Cincotta and Doces, 2011, p. 102; Goldstone, 2002, pp. 10–11). This is inherently socio-biological, and forms part of changes they go through in their transition into adulthood, particularly during the stage when they begin to develop independence from parental influence, and high affinity for peer approval (Weber, 2013). They are also less burdened in terms of career, family, and other social responsibilities, which combine to considerably reduce the opportunity cost of a decision on their part to engage in protest actions (Romanov and Korotayev, 2019; Urdal, 2006).

Importantly, however, large YCS provides the additional incentive of facilitating the mobilization of young people for collective political actions such as demonstrations. As asserted earlier, youth bulge creates in its wake a youth culture which expresses itself in experimentation with risk-taking (Cincotta, 2009), and makes readily available, a large pool of peer agents, who interact more and influence themselves more (Hart *et al.,* 2004), and being now significantly disconnected from parental values and influence, become infatuated by an overwhelming longing to be associated with peer groups, and even more importantly, take part in collective undertakings (Weber, 2013). Their relative ease of mobilization for such activities also makes them an attractive target for organizers of such political activities at a significantly low cost, compared with the adult population (Collier, 2000; Collier and Hoeffler, 2004). The

positive effect of YCS on youth participation in peaceful demonstrations can, therefore, summarily be understood in terms of an increase in the number of agents who; naturally love to experiment with collective youth pursuits even if risky, influence each other's attitudes and behaviors as peers, and can also be easily mobilized by political actors for collective pursuits such as demonstrations, due to natural inclinations towards challenging existing norms and power relations.

Secondly, however, while existing literature strongly associates rising unemployment within an educated youth bulge with the growing propensity of involvement of affected young people in various politically destabilizing acts due to grievance (Alfy, 2016; Ganie, 2020; Ikelegbe, 2020; Weber, 2019), the findings of this study depart quite significantly from this well-founded expectation. The evidence presented in this paper shows that on the contrary, and particularly within democracies, rising unemployment among highly educated youth tends to reduce their engagement even in peaceful demonstrations. Quite interestingly, the study found that the only time the labor market exerted a positive influence in its interactions with education and demography, on individual youth nonviolent protest behavior, was when unemployment rates were low. In effect, the expectation that rising unemployment rates among well-educated and critical young citizens, would create a feeling of frustration, disenfranchisement, and social anger, leading to their inclinations to demonstrate against their socioeconomic hardships, according to the predictions of grievance theory, proved unsupported by the data. On the contrary, this finding is consistent with the earlier theorization within the CVM, that where resources are limited, due to factors such as unemployment, individuals would be less likely to participate in politics (Verba, Schlozman and Brady, 1995; Kern, Marien and Hooghe, 2015).

As argued elsewhere in this paper, educated young people are more likely to believe they must focus on improving their socioeconomic situations, meet the social markers of adulthood and consequently gain social recognition and inclusion into the adult community, with the limited resources they have at their disposal, than to commit them to demonstrations, even if peaceful. Since large YCS tends to further limit their labor market opportunities through labor oversupply, it is reasonable to expect that educated young people, growing as part of such a large cohort would, recognizing the competition they face among themselves, be more focused on improving their own integration into the socioeconomic system, rather than the political. Although, as already argued, higher education politicizes young people towards activism, it as well increases their opportunity cost of participating in violent political activities (Barakat and Urdal, 2009; Østby and Urdal, 2010) and political protests (Campante and Chor, 2012).

Sandwiched between the choices of committing scarce resources to economic production – to improve their lot as young people aspiring for social recognition as adults - and participating in resource consuming activities such as protests, it is plausible that most young people would prefer the economic over the political.

Besides, economic security in terms of gainful employment for educated young people presents the benefits of money, time and civic engagement skills which importantly motivate political participation (Brady, Verba and Schlozman, 1995). Employment, thus, resources the educated youth for active political engagement in ways which allow them to free up time and financial resources, and channel them into political causes. In the absence of security for daily bread, however, the capacity to participate is significantly curtailed. The composition of protestors in the Arab Spring of 2011 lends important insight in this respect. Evidence shows that the proportion of employed young protestors were significantly higher than the unemployed, while affluent middle-class youth with wider discontents beyond limited labor market opportunities, were the main protagonists of the upheavals (Tzannatos, 2021, p. 311).

Additionally, the constraint of unemployment on young people's engagement in protests may be seen in social perceptions held towards such a decision to engage in protests, given their economic challenges. Most likely, they would be seen as a bunch of unserious fellows, who, instead of spending their time growing a business or looking for employment, are rather wasting their lives away in unproductive protests. Thus, the social expectations of their roles as educated youth, coupled with resource constraints, are reasonable barriers which are also unfortunately aggravated by their growing numbers within the population. Over 30 years ago, Richard Easterlin, argued that *ceteris paribus "*the economic and social fortunes of a cohort … tend to vary inversely with its relative size" (Easterlin, 1987, p. 1). This evidently seems to underlie the participation of young people trapped within a youth bulge in protest activities.

Thirdly, the effects of individual level predictors included in the study on youth protest behavior are a bit more nuanced, and thus call for caution in interpretation. On the one hand, we find that consistently across all four models presented in Table 3.1, educated and employed youths are the likeliest to have ever participated in demonstrations. This is coherent with the CVM's argument of the place of resources in motivating participation. Notwithstanding, young individuals who are dissatisfied with their micro level economic conditions, such as the financial conditions of their households, and also dissatisfied with their own lives are also highly likely to have ever participated in a demonstration. This may be related to Asingo's

(2018, p.79) assertion that personal grievances due to an individual sense of relative deprivation is a more significant predictor of individual protest behavior, than other forms of grievances. A possible implication could, therefore, be that young individuals look more likely to join in a demonstration due to their personal unfavorable economic circumstances, than because of the poor macroeconomic conditions in a country. This implication is, however, drawn with much caution. Importantly, though, and much in consonance with value change theory, young people with postmaterialist values came across as being among the most likely to join peaceful demonstrations across all the models (Norris and Inglehart, 2019; Sloam and Henn, 2019).

In conclusion, the findings of this paper stand in contrast with the notion that youth bulge may increase the risk of protest actions, particularly where it conflates with unmatched employment opportunities for educated youth within such a bulge. I have argued to the contrary, based on the CVM of political participation that economic prosperity, rather than deprivation within a youth bulge is the more likely motivating mechanism for youth nonviolent protest behavior within democracies. In this respect, the paper associates itself with the strand of literature which argues that economic security, rather than resource scarcity, fundamentally drives non-institutionalized forms of political participation such as demonstrations (Dalton and Welzel, 2014; Kern, Marien and Hooghe, 2015). The paper argues this to be the case within the democratic context, where liberties are guaranteed, and political grievance due to suppression and disregard of such freedoms is less likely to motivate protest actions. An apparent implication of this position is that, despite the sheer volumes of young people presently located in many developing democracies, the democratic world would continue to see higher levels of youth participation in protests in advanced democracies, than in developing democracies, until some level of economic resource parity is achieved in developing democracies with youth bulge. Additional research is certainly needed to interrogate the findings of this paper further. In addition, further research can focus on the effect of YCS on other forms of protest behavior such as signing petitions and joining boycotts. The paper in the meanwhile, recognizes its inability to include several other factors which may also account for young people's motivations to engage in demonstrations, such as ethical commitments and social obligations, among many others, as a limitation. The study's choice of Polity IV as the index for the categorization of countries as democracies or otherwise may have also affected the eventual list of countries included in the analysis. These notwithstanding, the defined focus of the study on the effect of structural demographic and socioeconomic factors on youth protest behavior represents a major step forward in improving our understanding of the implications of the

growing cohort size of young people within democracies, on the future of the democratic tradition.

Notes

World Values Survey data accessible from (www.worldvaluessurvey.org)

World Bank data accessible from (https://databank.worldbank.org/source/world-development-indicators#)

UN population data accessible from (https://population.un.org/wpp/Download/Standard/Population/).

Polity IV data available at https://www.systemicpeace.org/polityproject.html

World Bank data for gross school enrollment for the different levels of education include percentages beyond one hundred for some countries. For instance, countries such as Colombia, Estonia, Germany, Japan, Netherlands, New Zealand, Slovenia, United Kingdom and Poland reported over 100% secondary enrollment rates between 2010-2014 in the database. It is therefore not unusual that South Korea has an enrollment rate of 99.7%.

4.0: ANTI-DEMOCRATIC YOUTH? THE INFLUENCE OF YOUTH COHORT SIZE AND QUALITY OF DEMOCRACY ON YOUNG PEOPLE'S SUPPORT FOR DEMOCRACY

Godfred Bonnah Nkansah[13] and Attila Bartha[14]

Nkansah, G.B. and Bartha, A. (2022) 'Antidemocratic Youth? The influence of youth cohort size and quality of democracy on youth support for democracy'. *Contemporary Politics.* pp. 1-23. https://doi.org/10.1080/13569775.2023.2196877

Abstract

This paper aims to investigate whether a country's youth cohort size and quality of democracy, independently and jointly predict young people's propensity to support democracy as a political system. We use pooled data from World Values Survey Waves 5-7, comprising 81 country-waves with 25,125 observations from 39 established and new democracies, in multilevel binary logistic regression analyses. The paper finds evidence that firstly, against conventional expectations, a large youth cohort exerts a positive influence on young people's support for democracy as a political system. Secondly, the effect of youth cohort size depends on the quality of democracy of countries: young people growing as part of the youth cohorts in established democracies show stronger propensities to support democracy than their peers in new democracies. This has implications for both theory and empirical research.

Key words: *Youth Cohort Size, Quality of Democracy, Youth Bulge, Support for Democracy, Young People.*

[13]Corresponding Author: Doctoral School of International Relations and Political Science, Corvinus University of Budapest, Közraktár street. 4-6, 1093 Budapest, Hungary. Email: godfredphanet@gmail.com (ORCID: 0000-0002-3140-0598)

[14] Corvinus University of Budapest & Centre for Social Sciences : (ORCID: 0000-0002-4590-2142)

4.1 Introduction

Young people's attitudes toward democracy remain one of the most contested issues within the scholarship on political attitudes. According to one strand of the literature, the posture of young people towards democratic politics within the established democracies of the West has been one of apathy, disinterest, indifference (Putnam, 2000; See similar discussions in Quintelier, 2007, p. 165) anti-democratic and even illiberal (Foa and Mounk, 2016; Mounk, 2018). They have even been infamously labeled as the *"harbingers of an incipient crisis of democracy"* (Farthing, 2010, p. 181). If democracy would deconsolidate, its main causal agents, it is argued, would certainly include young anti-democrats (Foa and Mounk, 2016). In contrast, a second strand of the literature argues that contemporary young people are neither anti-democratic nor indifferent. Instead, they represent a new generation of citizens who are expanding the repertoire of political expressions, through their critical and authority-challenging attitudes, which in themselves, represent a deepening support for the democratic culture, rather than a threat to its consolidation (Norris, 2002, 2011; Dalton, 2009; Dalton and Welzel, 2014).

In this paper, we explore an important but neglected theoretical/empirical space within the ongoing debate on young people's attitudes toward democracy. The study responds to the questions: (1) *Does youth cohort size (YCS) affect young people's propensity to support democracy as a political system? (2) Is the effect of YCS on young people's support for democracy conditional on the quality of democracy (QoD) of the democratic countries in which they live?* We explore these two relationships –main and moderated effects - across both established and new democracies. Our interest in these two relationships is informed by three main blind spots within existing literature.

Firstly, a strand of the youth bulge literature suggests that the growing cohort size of young people within the adult population of democratic countries, poses a threat to the stability of democracy as a political system across the democratic world (Urdal, 2006; Cincotta, 2009; Cincotta and Doces, 2011; Weber, 2013). Despite this concern, traditional explanations proffered for young people's supposed dwindling and/or growing support for the democratic culture, have mainly focused on factors such as decline in social capital (Putnam, 2000), young people's inexperience with non-democratic systems (Mounk, 2018) and cultural and value change (Inglehart, 1990, 2016 [1977]; Dalton and Welzel, 2014). The potential effect of young people's demographic size on their commitment to the democratic culture, however, remains

unexplored in the literature. Secondly, the current debate on the state of citizens' support for democracy as a political system has been mainly focused on established democracies of Europe and North America, and generally lacks a comparative focus with countries outside the western hemisphere (Klingemann, 2014, 2018; Claassen and Magalhães, 2022). Exceptions to this geographical focus are usually single case studies outside the West (For example, Asomah and Dim, 2021; Zhai, 2022). Thirdly, comparative research focusing on the extent of support for democracy as a political system across both established and new democracies, specifically focused on the youth sub-population within the general polity, remains frequently overlooked. This study is an attempt to address these blind spots in the comparative politics literature on youth political attitudes.

Our analyses of pooled data for the youth sub-population, gathered from 39 democratic countries selected across both established and new democracies, using multilevel binary logistic regression reveal three main findings. First, the YCS of a country associates positively with the propensity of its youth to support democracy as a political system. Second, young people living in countries with high QoD show stronger propensity of individual support for democracy as a political system, than their peers living in new democracies. Third, the effect of YCS on young people's propensity to support democracy differs by the QoD of the countries in which they live. Accordingly, young people growing as part of youth cohorts in established democracies show much stronger propensities to support democracy as a political system, than their peers in new democracies. We discuss the implications of these results for both theory and empirical research in the latter sections of the paper.

4.2 Conceptual/theoretical framework

4. 2.1 Definition of key terms

Our understanding of *support for democracy* builds from the hierarchical model proposed by Dieter Fuchs and Edeltraud Roller, which was inspired by David Easton's ideas about democratic legitimacy (Easton, 1965, 1975). They distinguish between three ordered levels of support for democracy (Fuchs, 2007; Fuchs and Roller, 2018). The highest level of support for democracy is seen in citizens' commitment to democratic values (also called the democratic culture), expressed in terms of their loyalty to the concept of democracy (rule by the people),

and associated values such as liberty and equality. This level of support is argued by Fuchs and Roller as essential to the consolidation of democracy as a political system. The second level of support relates to support for the democratic regime of one's own country. Here, support is based on an evaluation of the congruence between democratic culture/values, and the performance of the democratic regime of one's country. The more a regime adheres to democratic values/culture, the higher the support of citizens for that democratic regime. The lowest level of support for democracy within the model is seen in support for political actors within a democratic regime. This is expressed in terms of satisfaction with the performance of political actors.

In this paper, we define *support for democracy* at the highest level, as commitment to the democratic culture/values or the democratic political system. We define *youth* as persons aged between 15-29 years and use the term interchangeably with 'young people'. We also use the term *youth cohort size* to refer to the proportion of young people within the adult population of a country. We similarly use the term *youth bulge* to refer to a disproportionately large number of young people within the adult population of a country (Flückiger and Ludwig, 2018). The term *quality of democracy* is used in the paper to refer to the objective evaluation of the level of democratization of a country.

4.2.2 Theoretical arguments

4. 2.2.1 Main effect: youth cohort size and youth support for democracy

Conventional explanations for the variations in citizens' support for democracy as a political system have been rooted in factors such as the political legacies of countries (Klingemann, 2014), economic (Magalhães, 2014; Pennings, 2017), social and cultural changes (Norris, 1999, 2011). The impact of the demographic structure of democratic societies has, however, rarely received mention in such discussions. Notwithstanding, young people's cohort size in particular, may be of special interest in explaining their attitudes towards democracy. For example, the relationship between their disproportionately large numbers, and protests, political violence, terrorism, and democratic stability remains a contested issue within the political violence and conflict studies literature. While some studies find evidence of a link between youth bulge and political/social disorder and various forms of violence (Urdal, 2006;

Cincotta, 2009; Weber, 2013; Flückiger and Ludwig, 2018; Korotayev *et al.*, 2022; Sawyer *et al.*, 2022), others find only limited evidence of this association (Campante and Chor, 2014; Yair and Miodownik, 2016). Some studies also do not find any significant association between youth bulge and political/civil disorder (Collier and Hoeffler, 2004; Urdal and Hoelscher, 2012; Ang, Dinar and Lucas, 2014; Costello, Jenkins and Aly, 2015).

The arguments in support of youth bulge as a reliable predictor of political instability, protests, and various forms of violence, suggest that young people are the main protagonists of many protests and politically destabilizing acts (Moller, 1968; Huntington, 1996, p. 117), and are often overrepresented by numbers, compared to the older generations, in such acts (Cincotta and Doces, 2011; Goldstone, 2002). Decades of persistently high fertility rates or stalled fertility decline, due among others, to the influence of religious and cultural values which promote large family sizes, are argued to create the challenge of large, educated youth cohorts with limited economic opportunities in countries which also tend to be relatively fragile politically (Goldstone, 2002; Goldstone, Marshall and Root, 2014; Weber, 2019). Countries with YCS of 35% or more are, for instance, three times more likely to experience conflicts than others with demographic structures similar to developed societies, and are also less successful at achieving democratic consolidation (Urdal, 2006).

Much of the grievances and opportunities which motivate young people's increased propensity to engage in acts of political and civil disorder (Collier and Hoeffler, 2004), are related to the consequences of being a member of a large cohort within the population. For any group of people, their social and economic fortunes are evidenced to decrease with their growing cohort size (Easterlin, 1987; Macunovich and Easterlin, 2008). For instance, large YCS has been demonstrated to reduce labor market opportunities for young people due to competition within the group for the same limited employment prospects (Apolte and Gerling, 2018; Bricker and Foley, 2013; Flückiger and Ludwig, 2018; Korenman and Neumark, 2000). The same phenomenon reduces wages among even the fortunate to be employed young people (Brunello, 2010). The consequences of being a member of a youth bulge on the social and economic stability of young people, therefore, becomes an existential challenge to their smooth transition into social adulthood, marked by indicators such as completion of school, employment, personal accommodation, marriage, and financial support for significant others (Eguavoen, 2010; Ozerim, 2019). This can evidently be a potential source of grievance which can lead to their involvement in politically destabilizing acts.

Also important to the present discussion are the socio-biological experiences of youthfulness. Young adults (mostly men) in particular show greater approval for antidemocratic, aggressive and extremist attitudes (Weber, 2013). This is in part, attributable to the socio-biological experience of adolescence during which, as part of transition into adulthood, young people detach themselves from the cultural values and belief systems of their parents, and by extension the older generation, associate more with peers, and become more vulnerable to antidemocratic and extremist ideas (Weber, 2019). Importantly, these are general socio-biological tendencies of young people, regardless of the countries in which they live. Notwithstanding, if their cohort size is large, it increases the propensity to harbor antidemocratic attitudes for both the young men themselves, and also the rest of the population (Weber, 2013). This is because when young people live in communities with youth bulge, they interact more, and are influenced more by their peers, than when they live in communities with a disproportionately large adult population (Hart *et al.*, 2004).

The above skewness in social influence in favor of the younger generation due to their large cohort size implies that they are more likely to be politicized and influenced in their attitudes and beliefs, through a large pool of peer agents within the population, than through the more conventional structures of political socialization, such as the family and the school system. Past studies on the effect of peers on the political socialization of young people show this position to be strongly tenable (Dostie-Goulet, 2009; Pilkington and Pollock, 2015; Quintelier, 2015; Nkansah and Papp, 2022).

The foregoing arguments suggest that; firstly, the phenomenon of large YCS holds the potential of reducing the social and economic fortunes of members of the cohort. This can in turn, predispose them to grievances towards the state/government. Secondly, large YCS increases the sheer numbers of peers with similar socio-biological tendencies to detach from familial and traditional values and be attached to extremist and antidemocratic tendencies. Lastly, large YCS shifts the balance of social influence and social learning from the traditional 'adult-youth' to a more 'youth-youth' experience, although the youth are conventionally known to be less knowledgeable politically and civically. In theory, therefore, even if a country has a strong democratic culture, the above arguments suggests that the combination of these three conditions - socioeconomic, socio-biological, and social influence - within a growing youth population can be a source of concern for the democratic system. Such challenges can cause young people to have doubts about the ability of the democratic system to address their needs as a cohort. We, therefore, hypothesize based on the above argument that:

H_1: *The larger the youth cohort size of a country, the less supportive the youth are of democracy as a political system.*

4.2.2.2 Moderation argument: youth cohort size, quality of democracy and youth support for democracy

Dalton and Welzel identify two main types of citizen attitudes towards democracy and its institutions: *allegiant* and *assertive* dispositions (Dalton and Welzel, 2014). The allegiant position demands persistent loyalty and support for the democratic political system from the citizenry, as the desired disposition of the citizenry, needed to preserve the democratic culture (Almond and Verba, 2015 [1963]). Against this normativity, the attitude of young people towards the democratic political system has been found to be especially problematic. For instance, the much-cited empirical studies of Roberto Stefan Foa and Yascha Mounk show that the younger generation of established democracies of Western Europe and North America, hold a growing disaffection towards democracy as a political system (Foa and Mounk, 2016; Mounk, 2018). In the words of Yascha Mounk, *"One possible explanation for why a lot of young people have grown disenchanted with democracy is that they have little conception of what it would mean to live in a different political system"* (Mounk, 2018, p. 122). Mounk suggests that young people within established democracies appreciate democracy less, because they are oblivious of the ills of life under undemocratic regimes. An important implication of this argument is that compared to their peers in new democracies, which have relatively recent transitions from non-democratic cultures, young people in established democracies are likely to show less support for democracy as a political system.

The alternative evaluation of young people's attitudes toward the democratic culture is offered within the *assertive* citizens framework (Dalton and Welzel, 2014). This line of literature rejects the notion of growing opposition to democracy among young people in established democracies. It contends that young people's perceived antidemocratic attitudes, rather represent a shift from attitudes that gave open support to democracy as a patriotic duty, to alternative sets of critical norms and values, which demand greater accountability from politicians and the democratic institutions they represent (Norris, 1999; Dalton, 2009; Stoker *et al.*, 2017). Any perceived critical disposition towards democracy is consequently a manifestation of the growing public expectation with democracy, not a rejection of the system

(Norris, 2011). The assertive tradition sees the contemporary younger generation as a type of critical citizens (Dalton 2009; Norris, 1999, 2011), or dissatisfied democrats (Klingemann, 2014; Dahlberg, Linde and Holmberg, 2015): they indeed believe in and support democracy as a political system. They are, however, dissatisfied with the empirical outcomes of the regime in terms of performance. Put differently, critical citizens/dissatisfied democrats successfully decouple their faith in democracy as a political system, from their disappointments with systems outputs such as, for example, economic crisis, and do not support democracy as a political system less, due to such system performance challenges (Huang, Chang and Chu, 2008; Klingemann, 2018; Claassen and Magalhães, 2022).

Also importantly, the literature suggests that these patterns of citizen behavior (critical citizens/dissatisfied democrats) are more pronounced in established democracies than new democracies. For instance, Klingemann's empirical analysis of the relationship between level of democracy and support for democracy showed that respondents in countries with higher levels of democracy or higher quality of democracy exhibited the strongest support for democracy as a political system (Klingemann, 2014). He reasoned, however, that causality could be implied in both directions: *"Countries might have a high level of democracy because support for democracy is widespread since long. Alternatively, support for democracy might have become an integral part of a country's political culture because it is democratic since long"* (p.123). A recent multilevel study of European democracies also suggests that young people in older and established democracies are more likely to engage politically (and by implication actively support the democratic systems) than peers in new democracies (Kitanova, 2019). Importantly, this strong belief of citizens in the democratic culture is argued to be cultivated over time through political socialization and social learning (Klingemann, 1999; Bratton, Mattes and Gyimah-Boadi, 2004; Fuchs and Roller, 2018).

In contrast to the well-developed institutions and structures of established democracies for political socialization and social learning, new democracies have much shorter democratic legacies, are still reconstructing their political identities, and hence, struggle with the transition from undemocratic norms and orientations developed over years, into the new democratic political culture (Dahlberg, Linde and Holmberg, 2015; Nový and Katrňák, 2015). Comparatively then, we argue that young people in new democracies will show lower levels of support for democracy than their peers in established democracies.

Additionally, the phenomenon of large youth cohort which confronts new democracies implies that, the challenges associated with youth bulge discussed earlier, and the relatively low quality of democracy of new democracies, can combine to create a stronger disaffection with democracy as a political system among the youth in new democracies. By contrast, the strong institutions of political socialization and social learning of democratic values and culture within established democracies should significantly mitigate the negative effects of a youth bulge on young people's propensity to support democracy as a political system in established democracies. We accordingly expect the effect of YCS on young people's support for democracy as a political system, to depend on the QoD of the countries in which they live. We expect that members of youth cohorts in new democracies will show relatively weaker propensities to support democracy, compared to their peers in established democracies.

H_2: *The negative effect of youth cohort size on young people's support for democracy is stronger in the case of individuals living in countries with low quality of democracy.*

4.3 Materials and methods

4.3.1 Research design

The study utilized a large -N design with 39 democratic countries, purposively sampled from WVS Waves 5-7 (i.e., 2005-2009, 2010-2014, 2017-2020)[1.] These countries together generated a total of 81 country-waves pooled across all three WVS waves (Wave 1=36 country-waves; Wave 2 = 27 country -waves ; Wave 3 =18 country- waves). Countries covered in the respective WVS Waves were categorized as democratic or otherwise based on the Economist Intelligence Unit (EIU)'s 0–10 democratic index score scale [2]. Our list included countries with a minimum mean EIU score of 6.01 per each WVS Wave. These corresponded to EIU's categorization of flawed democracies (6.01-8.0) and full democracies (8.01-10). We excluded hybrid regimes (4.01-6.0) due to their peculiar profile of being mixture regimes. An equally viable measure of democracy we could have used was the V-DEM liberal democracy index, which is argued to be an improvement over alternatives such as the Polity IV and the Freedom House indices (Boese, 2019). Our preliminary selection of cases based on the EIU democracy index and V-DEM liberal democracy index, however, generated important differences in the mix of countries which qualified as democracies. The V-DEM index, for instance, excluded

countries such as India, Pakistan, Malaysia, Indonesia, Mexico, and a few others from some of the WVS Waves as not being liberal democracies, as they scored less than 0.6 on the V-DEM liberal democracy scale.

The exclusion of the above-named countries reduced the sample size considerably as the eventual set of countries were overwhelmingly established democracies of the West. It also importantly reduced the much-needed variation in YCS among countries required for our study design, given that the countries listed above are among those with the largest YCS within the WVS database. At the same minimum threshold of 0.6, which equates to 6.01 on the EIU democracy index, however, the EIU index qualified the same as democratic countries. This afforded the study two main benefits. Firstly, consistent with our research ambition, which seeks to know whether young people's support for democracy as a political system varies across different democratic societies based on the YCS and QoD of countries, the EIU democracy index generated a wider pool (a relatively larger sample of countries) of both old and new democratic societies. Secondly, the EIU's set of countries offered considerable variations in YCS by the inclusion of many new democracies with large youth cohorts. Given the nature of the research design, the above variations offered by the EIU democracy index in the choice of countries represented a major improvement in our design. The final list included 25,125 young respondents aged between 15-29 years sampled across 81-country-waves from 39 countries. The Online Appendix 1 shows the list of democratic countries selected based on the above index.

4.3.2 Data collection

We collected data for our analyses from four main sources. The WVS provided us with pooled individual level data on political attitudes and sociodemographic and socioeconomic statuses of young people aged 15-29 years, across Waves 5-7. Our preference for the WVS was due to its national representativeness, geographic reach and longitudinal nature (Inglehart et al., 2014), all of which made it the best suited for our kind of study. We also retrieved data from the World Population Database of the UN Population Division[3] for the YCS of countries, measured at 5-year interval for 2005-2020. The World Bank Database[4] provided data on youth literacy rate, and GDP per capita of all countries included in the analyses, whiles the EIU democracy index scores provided data on the QoD of countries.

4.3.3 Dependent variable

Our dependent variable (DV) for the study was *Political System: having a democratic system*. The WVS questionnaire asked respondents whether in their opinion, democracy as a political system was (1) '*very good, (2) fairly good, (3) fairly bad* or (4) *very bad* way of governing this country?'[5]. We chose this variable as a suitable proxy for estimating young people's support for democracy as a political system. Although many studies combine different questions to generate a composite index to measure support for democracy (Mattes and Bratton, 2007; Magalhães, 2014; Claassen and Magalhães, 2022), this particular variable is argued to be an adequate measure for a broader set of commitments to democratic values, and a good proxy for assessing the highest level of citizen support for democracy (Fuchs and Roller, 2018, p. 230; Klingemann, 2018, pp. 205, 209).

We followed the cited scholars in treating the variable as a binary in analyses, despite its ordered nature. Thus, we also grouped the *fairly bad* and *very bad* responses as one category of responses. We treated this group of responses as our reference category named *'bad'* and recoded as zero (0), and the *fairly good* and *very good* responses as the target category named *'good'* and recoded as one (1). A total of 86.87 per cent of all respondents across the selected countries thought democracy was good (i.e., fairly good or very good), while the remaining 13.13 per cent thought it was bad (i.e., very bad or fairly bad). We explain the rationale for our choice of binary categorization of the DV in the endnotes[6] and elaborate in the online appendix of the paper. Table 4.1 shows the proportion of youth who thought democracy was a bad or good political system in the 39 countries in our sample.

Table 4.1: Percentage of young people who thought democracy as Bad vrs. Good across study countries.

Country	**Bad (fairly bad & very bad) (%)**	**Good (fairly good & very good) (%)**
Norway	4.74	95.26
Spain	5.06	94.94
Ghana	5.12	94.88
Switzerland	5.15	94.85

Italy	5.29	94.71
Sweden	5.5	94.5
Germany	6.17	93.83
Chile	6.37	93.63
Thailand	6.42	93.58
Indonesia	6.81	93.19
Argentina	7.38	92.62
Peru	8.29	91.71
Uruguay	8.35	91.65
India	8.56	91.44
Cyprus	9.9	90.1
Netherlands	9.97	90.03
Malaysia	10.02	89.98
France	11.56	88.44
Hungary	11.56	88.44
Romania	11.99	88.01
Bulgaria	12.9	87.1
Brazil	13.32	86.68
Canada	13.66	86.34
Estonia	14.98	85.02
Trinidad and Tobago	15.42	84.58
Colombia	15.51	84.49
Finland	15.63	84.38
New Zealand	15.71	84.29
Australia	16.6	83.4
Mexico	17.02	82.98
Japan	17.04	82.96

United Kingdom	17.14	82.86
Poland	18.63	81.37
South Africa	19.73	80.27
Slovenia	20	80
United States	21.41	78.59
Serbia	21.63	78.37
Philippines	24.14	75.86
South Korea	27.48	72.52
Total	**13.13**	**86.87**

4. 3.4 Explanatory variables

Our two main explanatory variables were the youth cohort size and the quality of democracy of countries. We operationalized the YCS of countries as the proportion of persons aged 15-29 years within the adult population of a country (15 years and above). The 15-29 years range adequately captured our group of both theoretical and empirical interest, compared with other estimates which have much lower upper cut-off points, such as the 15-24 years (Weber, 2019; Korotayev *et al.*, 2022; Nkansah, 2022). Since the World Population Report database estimates within 5-year intervals, we calculated and applied the YCS estimates for countries to the respective WVS Waves which fell within the population years. Thus, for the Wave 5, covering the period 2005-2009, we calculated the YCS for 2005-2010 and applied to each country. The mean YCS across countries was 31.06, with a standard deviation of 7.67. Japan recorded the smallest YCS of 16.12, while Ghana had the largest YCS of 45.4 over the period. We operationalized quality of democracy as the mean EIU score for each WVS Wave for each country. The overall mean EIU score was 7.36 with a standard deviation of 0.92. Across all three Waves, we observed the lowest EIU score of 6.14 and the highest of 9.88, for Ghana and Sweden respectively. Figures 4.1 and 4.2 show the distribution of YCS and EIU scores across the sample.

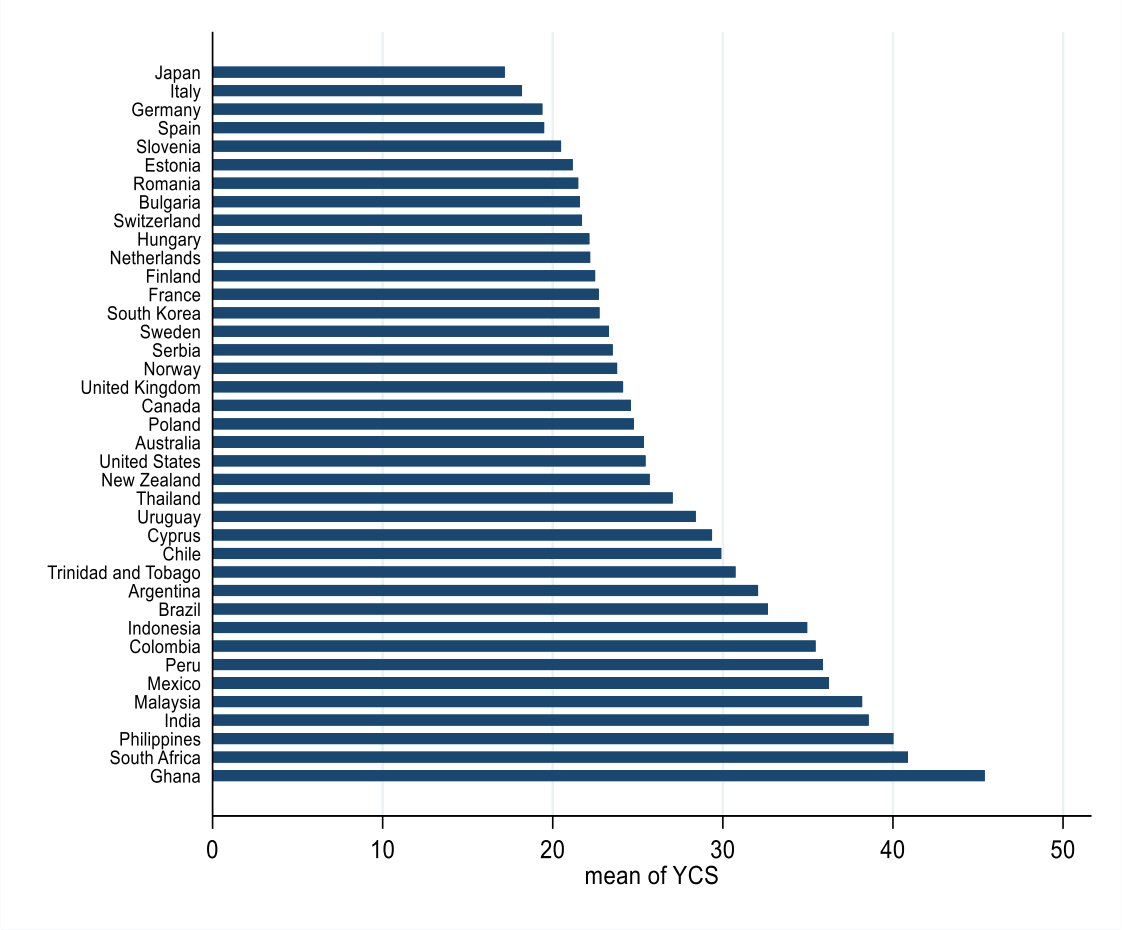


Fig 4.1: Youth Cohort Size in the sample

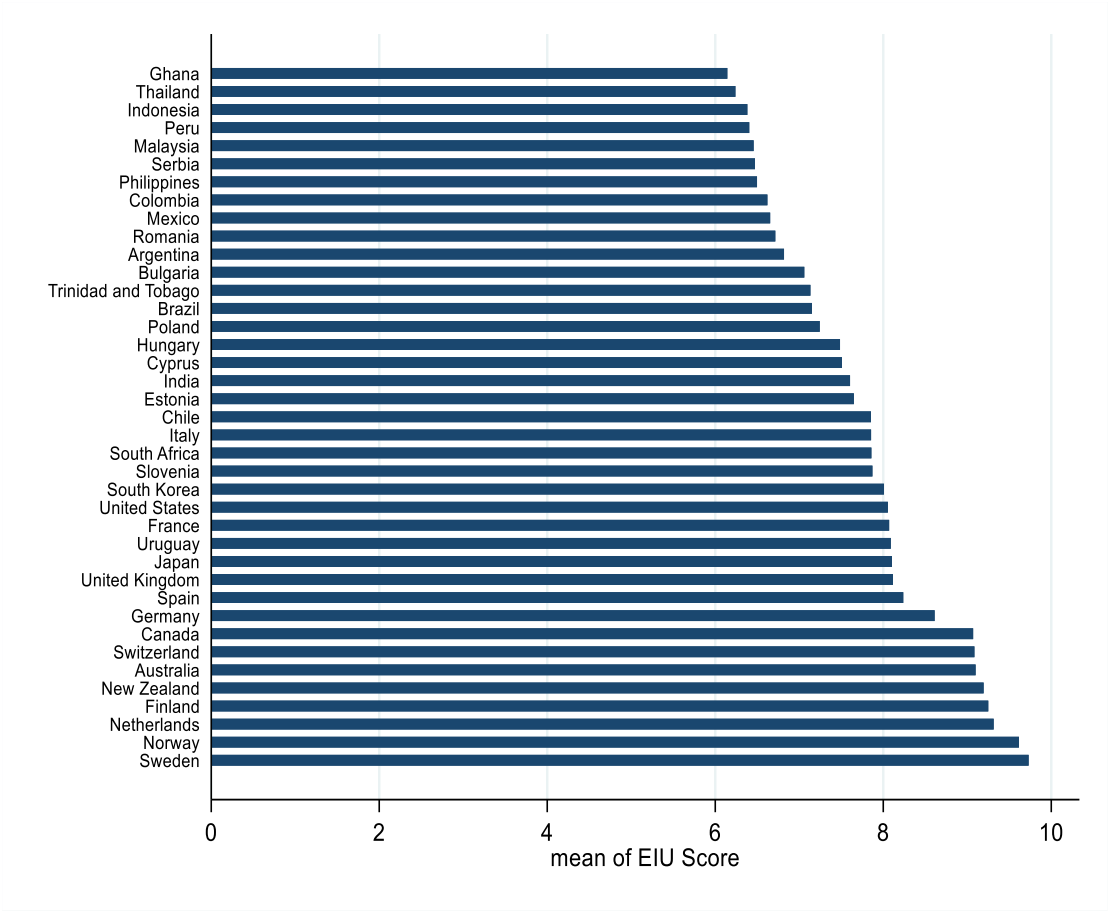


Fig 4.2: EIU democracy index score in the sample.

Given that one of our hypotheses focuses on estimating the interaction effect of youth cohort size and quality of democracy on our DV, we also show the visual relationship between the two variables across the three Waves of the WVS. Overall, the scatterplot shows that the two demonstrate an inverse relationship. Countries with relatively high QoD tend to have relatively small YCS. On the other hand, countries with relatively low QoD tend to have relatively large youth cohorts.

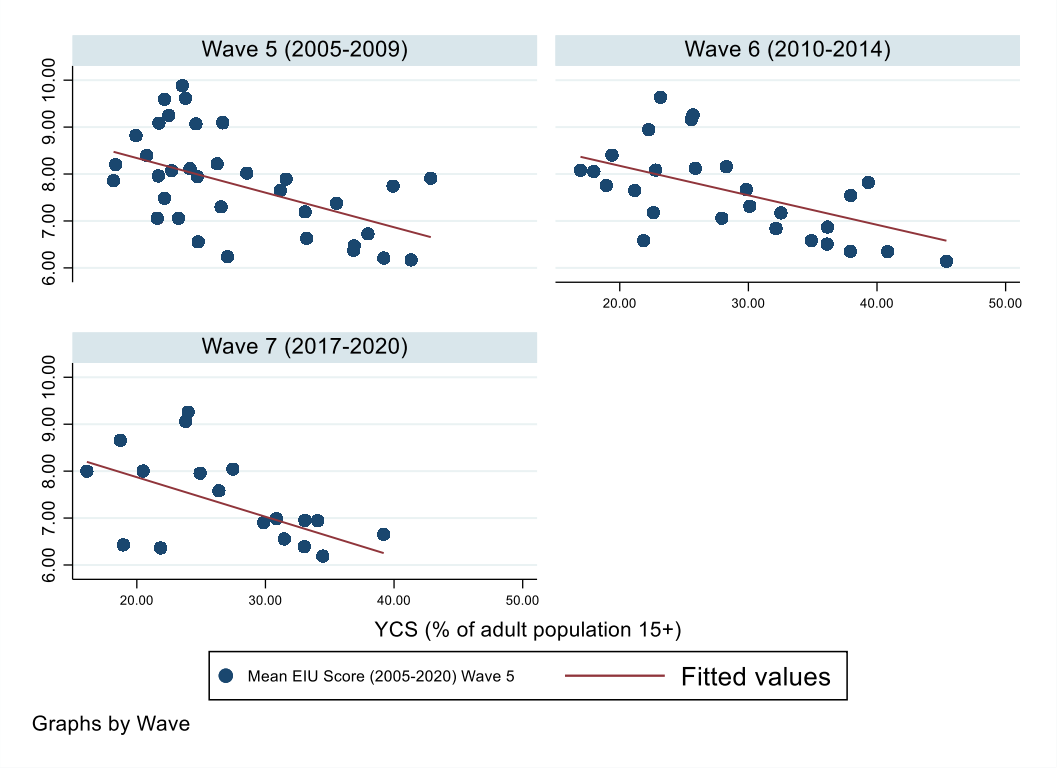


Fig 4.3: Scatter plot of QoD and YCS by Wave

4. 3.5 Control variables

We limited our choice of control variables to those which had been reported in extant literature as having the strongest effects on support for democracy. In terms of age, support for democracy is reported to be weakest among the youngest polity, due among others, to their lack of experience with alternatives to democracy, and limited cognitive competences to assimilate political information (Bratton, Mattes and Gyimah-Boadi, 2004; Foa and Mounk, 2016; Fuchs and Roller, 2018; Mounk, 2018). Also, while the conventional position in the literature shows females as less supportive of democracy compared to males, particularly in places with high gender inequality and discrimination (Maseland and van Hoorn, 2011; Walker and Kehoe, 2013), recent evidence suggests that gender difference in support for democracy becomes insignificant when the socio-political arrangements are favorable and supportive of women (Konte and Klasen, 2016).

The dissatisfied democrats literature also positively associates support for democracy with rising levels of education and economic resources of the public (Dalton, 2004; Norris, 2011). Counter evidence from African democracies, however, shows that there is no significant difference in citizen's levels of support for democracy based on economic status, with poorer people, being even more likely to be dissatisfied democrats (Doorenspleet, 2012). Education, notwithstanding, associates positively with support for democracy (Bratton, Mattes and Gyimah-Boadi, 2004; Evans and Rose, 2012; Asomah and Dim, 2021). We chose the variable *employment status* in the WVS database as proxy for individual employment, and recoded it into three clear categories: *unemployed*, *student* and *employed*, from the original eight categories. Closely linked to the individual economic situation, we also controlled for household economic situation with the variable, *satisfaction with financial situation of household*. Our education variable was categorized as *low*, *middle* and *upper*. These correspond to null/primary, secondary and tertiary levels of educational attainment respectively.

Also, building from the strand of the literature which associates group membership with the development of strong democratic and civic values (Verba, Schlozman and Brady, 1995; Putnam, 2000) and young people's current inclination towards joining groups more cause-oriented and micropolitical, as part of their political expressions (Benedicto, 2013; Soler-i-Martí, 2015), we controlled for young people's membership in environmental and humanitarian groups. We created a combined variable out of two variables within the WVS database which measure commitments towards environmental and humanitarian values: *membership of environmental group* and *membership of humanitarian group*, to try and estimate the strongest possible relationship with support for democracy.

At the contextual level, we accounted for the level of economic development and educational attainment of countries. Both factors are long argued in extant literature as strong predictors of support for democracy (Dalton and Welzel, 2014; Lipset, 1959; Norris, 1999). We accordingly controlled for *GDP per capita at Purchasing Power Parity*, log-transformed to reduce residual variance. We also controlled for *literacy rate, youth total (per cent of people ages 15-24)*, as proxy for educational attainment of our target group. As with all of our contextual variables, we calculated their mean values per WVS Wave, and assigned them to each wave period. Details of the nature, distribution and coding of all variables are contained in the online appendix to the study.

4. 4. Results

We utilized random-intercept multilevel logistic regression with country clustered standard errors to analyze the data. This was due to the binary nature of our DV and the hierarchical nature of the data, which had individuals nested within 39 countries. Likelihood ratio tests between standard logistic regression model and the multilevel model showed our choice of multilevel modelling as better fit for the data. We also report an Intra Class Correlation of 0.081, or 8.1 per cent of variations at the country level. We note, therefore, as a limitation, that not much of the variation in the data is explained by the country-level variables. Support for democracy may thus be influenced more by individual level measures. We present the results of two models testing the main and interaction effects of our explanatory variables on the dependent variable in Table 4.2. We control for all the other predictors of support from democracy discussed in the methodological section of the paper. We also present the predicted probability plot for the interaction of the two explanatory variables on our DV in Figure 4.4.

Model I tested our first hypothesis (H_1) of a direct negative relationship between YCS and young people's support for democracy. The evidence did not support our hypothesis. Against expectations, YCS was found to exert a significant positive effect on young people's individual propensities to support democracy as a political system. The effect of YCS was relatively marginal (β =0.093) but not surprising, however, given an ICC of 8.1 per cent. The analysis also showed a significant relationship between QoD and support for democracy among young people. Higher levels of democratization across countries corresponded with greater likelihood of support for democracy as a political system among the youth. The effect of QoD (β = 0.403) was stronger than that of YCS. Only higher education at the individual level showed a stronger effect (β =0.829) than a country's level of democratization, on young people's propensity to support democracy as a political system in the Model. Quite surprisingly, our measures of contextual economic influence - GDP per capita- and social influence- youth literacy rate - were both not significant in their effects on young people's likelihood of support for the democratic culture. As independent contextual factors, therefore, the Model shows that a country's QoD exerts the most pronounced effect on the opinions of its youth about democracy, followed by the demographic size of the youth. Other significant predictors included a student or employed status, both of which showed positive associations with support for democracy, and membership of cause-oriented groups, which interestingly rendered young people less likely to show commitment to the democratic culture.

Table 4.2: Full logit table with all independent variables for regression of support for democracy on quality of democracy and youth cohort size

Support for democracy (Dependent Variable)	**Model I (Baseline)**	**Model II (Model with Interaction)**
Main explanatory variables		
Youth Cohort Size	0.093***(0.016)	-0.107(0.073)
Quality of Democracy	0.403***(0.102)	-0.455(0.325)
Youth Cohort Size x Quality of Democracy		0.029**(0.010)
Individual level variables		
Age	0.011 (0.006)	0.011(0.006)
Sex (Female)[1]	0.076 (0.039)	0.075(0.039)
Education[2]		
Middle level	0.371***(0.058)	0.397***(0.059)
Upper level	0.829***(0.070)	0.850***(0.070)
Employment[3]		
Student	0.357***(0.063)	0.356***(0.063)
Employed	0.108*(0.048)	0.107*(0.048)
Membership: cause-oriented groups (Member)[4]	-0.148**(0.046)	-0.149**(0.046)
Satisfaction with household income	0.015 (0.008)	0.014(0.008)
Country level variables		
Youth literacy rate (15-24years)	-0.011(0.011)	-0.008(0.011)
GDP per capita	0.222 (0.227)	0.244(0.232)
Model Characteristics		
Constant	-5.714*(2.570)	-0.170 (3.267)
Country Level σ^2	0.531***(0.141)	0.618***(0.165)
No. of observations	25125	25125
No. of Countries	39	39

chi^2	312.102	321.203
Log-likelihood	-9289.9118	-9285.8209
Mean VIF	1.81	1.81

Note: Entries are the logistic regression coefficients and standard errors clustered at country level (in parenthesis) for multilevel binary logistic Models. Models were estimated using individual level data on young people's support for democracy as a political system, drawn from WVS Wave 5 -7. Reference category: (1) = Male; (2) =lower level; (3) = Unemployed; (4) Not a member ∗∗∗p ≤ 0.001, ∗∗p ≤ 0.01, ∗p ≤ 0.05

Since our interest was also in the moderating effect of QoD on YCS, we tested our proposition in $H_{2,}$ that the impact of YCS on young people's support for democracy will be conditional upon the level of democratization of the countries in which young people live. We supposed that the negative effect of YCS will be stronger for young people in countries with low QoD. We tested our assumptions in Model II. Table 4.2 shows the outcome of the analysis. Here, the interaction of the two variables shows a significant positive effect on young people's likelihood to support democracy (β=0.029). In other words, the positive effect of YCS on young people's propensity to support democracy differs by the quality of democracy of countries in which they live. The effect is stronger in the case of young people who live in established democracies, than their peers residing in new democracies. This result goes contrary to our expectation in $H_{2,}$ given that we had, based on the theorization for $H_{1,}$ supposed a negative effect of YCS. The predicted probability plot for the interaction effects of the two variables is seen in Figure 4.4.

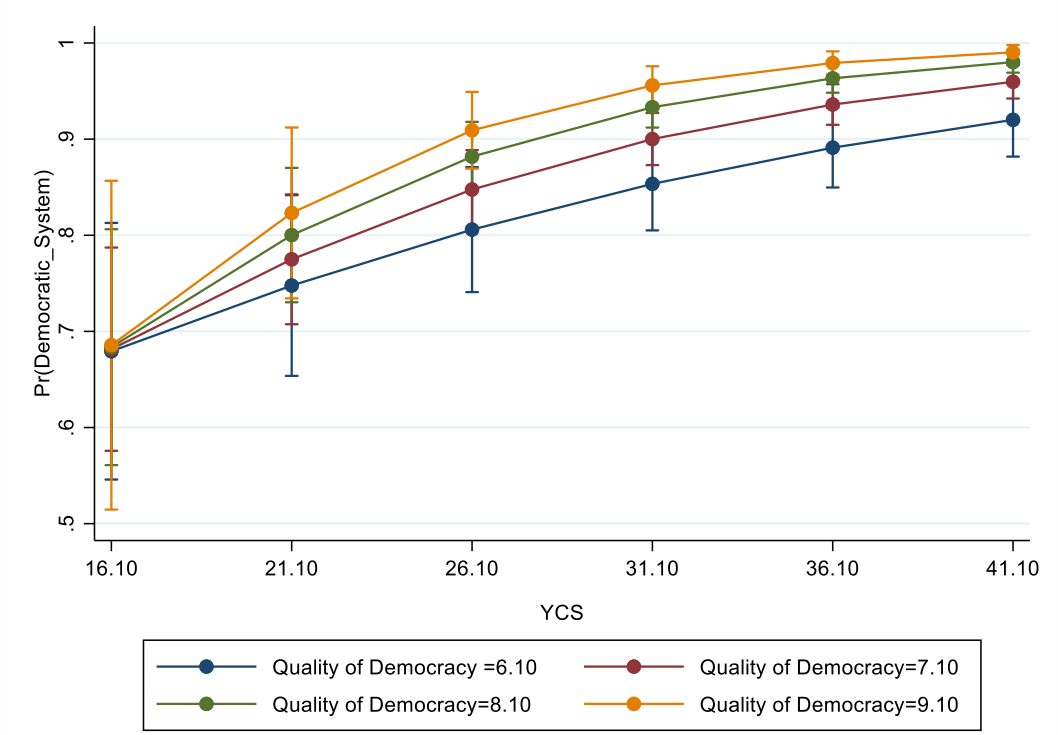


Figure 4.4: Interaction of QoD and YCS on young people's predicted probability of support for democracy as a political system.

The plot shows that regardless of the YCS of a country, young people's probability to support democracy as a political system increases with increasing levels of democratization within a country. For a given YCS, the probability of support for democracy is strongest in established democracies (QoD ≥ 8). This corresponds to countries such as Sweden, Germany, Finland, and Norway, in our sample. Such countries consistently showed predicted probabilities of support for democracy ≥ 0.8, regardless of a growing YCS. As the quality of democratization declines, however, the probability of support for democracy over increasing levels of YCS shows a decrease. Across countries, a one-point decrease in QoD for any measure of YCS, decreases the probability of support for democracy considerably. For instance, for four democratic societies with equal YCS of 26.10, the plot shows predicted probabilities of support for democracy from the most democratic (QoD = 9.1) to the least democratic (QoD =6.1) to be equal to 0.92, 0.875, 0.84 and 0.80 respectively. Put differently, young people in new democracies (QoD < 8.0) are more likely to show relatively lower overall positive levels of support for democracy, compared to their peers in established democracies with similar YCS. The plot also shows that the probability of support for democracy over varying YCS is lowest

in the most fragile new democracies (QoD<7.0). These in our sample correspond to countries such as Ghana, Argentina, The Philippines, Serbia, and Colombia.

Due to our initial observations in Figure 4.3, and the nature of the distribution of YCS across countries, we followed the recommendations of Hainmueller, Mummolo and Xu (2019) and used an alternative semi-parametric modelling approach to further assess the marginal effect and the underlying distribution of the variables. We estimated a non-linear marginal effect using the kernel estimation option of the "interflex" package in Stata. Figure 4.5 shows the scatter plot of the conditional effect of QoD on support for democracy by YCS, while Figure 4.6 reveals the uneven and non-linear effect of YCS over the different values of QoD. In other words, the conditional effect of YCS by QoD, although overall positive, may be more nuanced than our conventional margins plot in Figure 4.4 reveals. We reflect on the implications of these results in our discussion. We also briefly discuss the limitations of the non-linear kernel estimation approach for our kind of data (i.e., binary dependent variables and hierarchical datasets) in the Online Appendix 11.

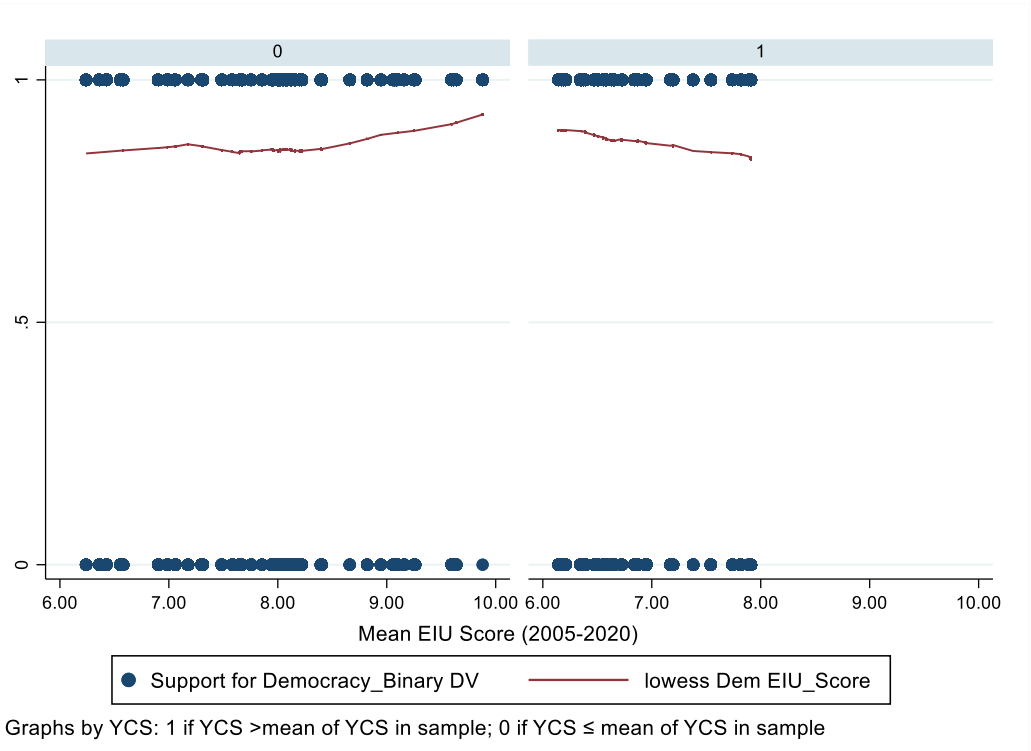


Fig 4.5: Scatter plot of support for democracy on QoD, by YCS.

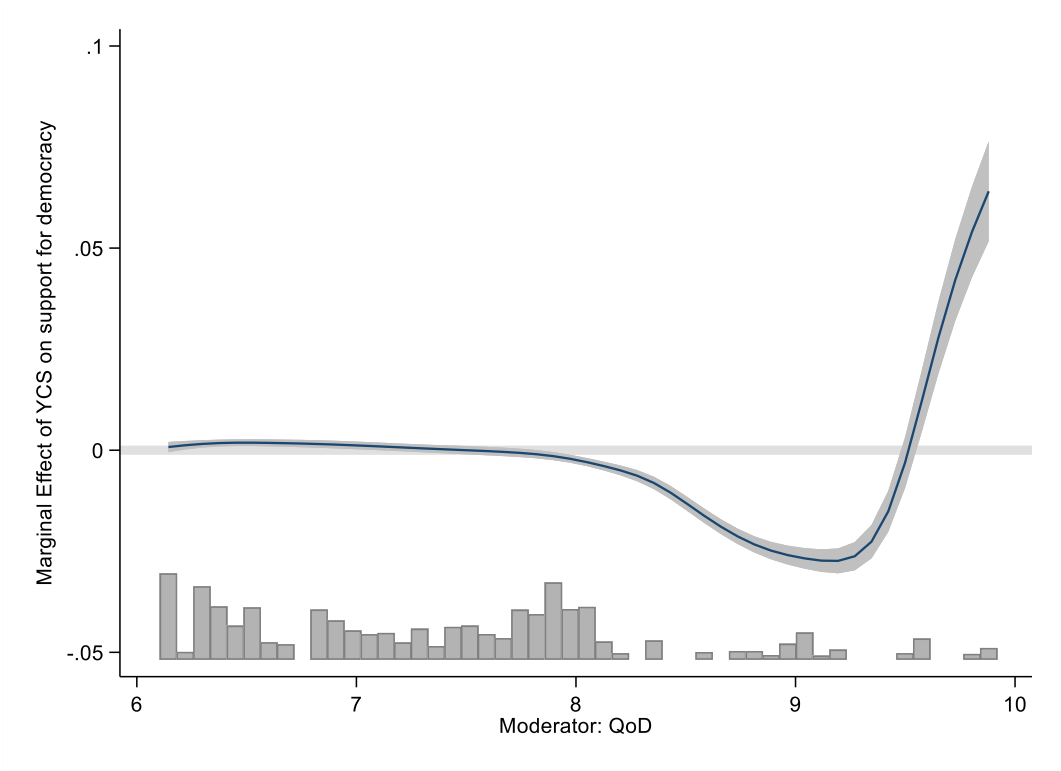


Fig 4.6: Marginal effect of YCS on support for democracy by QoD (kernel estimation)

4.4.1 Robustness checks

As a robustness check, we respecified our Models with country fixed effects for both our baseline Model and the Model with interaction, to see if the fixed properties of our cases would impact the net effect of both QoD and YCS on young people's support for democracy as a political system. We dropped all variables which were not significant in the main Model, to better estimate the net effect of our independent variables, controlling for fixed effects of the cases. We also replaced youth literacy rate with youth unemployment rate and dropped GDP, and significant variables such as membership of cause-oriented groups, and non-significant variables such as satisfaction with household income from the Models, to test the sensitivity of the effects of the two explanatory variables and their interactions on the support for democracy. In all respecified Models, both explanatory variables and their interactions showed significant positive effects on young people's support for democracy. Their effects were even stronger in some cases than in the main Models. We present the results in the Online Appendix 12.

4.5 Discussion/Conclusion

Are young people living in democratic countries with large YCS less likely to approve of democracy as a good political system for their nation, than their peers living in democratic societies with small YCS? Evidence from the youth bulge literature gives ample reasons to presume this to be the case, particularly as the presence of a youth bulge within a democratic country, has been consistently shown in extant studies to be a reliable predictor of democratic instability and deconsolidation (Cincotta, 2009; Cincotta and Doces, 2011; Urdal, 2006; Weber, 2013). Guided by the existing evidence, our study supposed that large YCS will be inimical to the faith of young people in the democratic culture. We assumed that the often-argued triune conditions created by a youth bulge: socioeconomic deprivation of the members of the cohort (Apolte and Gerling, 2018; Brunello, 2010; Korenman and Neumark, 2000), socio-biological experiences of adolescence and youthfulness which predispose young people to idealistic, antidemocratic and extremist ideas (Cincotta and Doces, 2011; Weber, 2013, 2019), and the shift in social influence from the preferred 'adult-youth' social learning environment to the more peer dominant and driven 'youth-youth' socialization experiences due to their sheer numbers (Hart *et al.*, 2004; Nkansah and Papp, 2022) would combine to negatively influence the judgement of young people about democracy.

Quite surprisingly, the result of this study shows that contrary to conventional wisdom, large YCS exerts a significant positive influence over young people's likelihood to approve democracy as a political system (β =0.093; OR=1.098; 95% CI: 1.064 -1.132). We found this finding to be robust under different model specifications. What, however, can explain this generally unexpected attitude of young people growing as part of a youth bulge? We think that the conceptualization of young people as critical citizens/dissatisfied democrats, as theorized earlier within this paper, provides useful insights in this regard (Dalton 2009; Dalton and Welzel, 2014; Norris, 2011). We believe that we can look to the two main characteristics of such democrats for possible answers. The first is the fact that they are staunch adherents of the democratic culture, believe in and support democracy as their preferred political system, despite their critical attitudes towards the empirical outcomes of the regime. The second is the fact that the belief of dissatisfied democrats in the democratic culture is impervious to socioeconomic changes, such that they do not approve of democracy as a political system significantly less in the face of unfavorable socioeconomic challenges.

We think that as critical citizens/dissatisfied democrats, young people across both established and new democracies, are able to conceptually decouple their belief in the democratic system and values, from the empirical performance of their democratic governments. Therefore, despite the socioeconomic deprivation and associated challenges with social transition into adulthood, posed by their large cohorts size, due among others to poor macro socioeconomic outcomes, they tend to remain steadfast in their core beliefs in the idea of democracy as a good and preferred political system. The considerable pool of peer agents large YCS creates in this case, becomes a positive social force which reinforces their fundamental beliefs and convictions about democracy. Peer interactions have been reported in past studies to play positive roles in gathering and sharing political information, galvanizing political interest, and even recruiting peers into political activities (Klofstad, 2011; Quintelier, 2015; Bergh, Christensen and Matland, 2021). We believe this to be also true in the case of young people's support for democracy as a political system. Large YCS seems to amplify this positive effect on young people's core commitments to the democratic culture, although they may in principle, hold strong reservations against the socioeconomic outcomes of democratic governance, as it relates to their peculiar situations as youth.

Importantly, nonetheless, the results of the study show that the net effect of YCS on young people's support for democracy is dependent on the quality of democratization of the countries in which they live. As a main effect of QoD (see Table 4.2), the analyses reveal that the higher the level of democratization of a country, the greater the likelihood of support for the democratic culture among the youth (β= 0.403; OR=1.497; 95% CI :1.23-1.83). This finding for the youth sub-population of democratic societies is consistent with Klingemann's findings for the general population which showed that, respondents in countries with higher levels of democratization demonstrate the strongest support for democracy (Klingemann, 2014). The net effect of QoD on youth support for democracy was only superseded by individual level educational attainment at the upper level (university education) in our Model. This was against the backdrop that our macroeconomic and social variables, GDP per capita and youth literacy rates, were both not significant in their effects on young people's belief in the democratic system. Of the four contextual variables initially envisaged to shape the individual attitudes of young people towards democracy as a political system, i.e., political (QoD), demographic (YCS), economic (GDP per capita) and social (education), the political context exerted the most pronounced impact on young people. This brings into focus the current debate on what drives support for democracy or otherwise among democratic citizens (Claassen and

Magalhães, 2022; Klingemann, 1999, 2018; Magalhães, 2014; Pennings, 2017). Our evidence suggests that support for the democratic culture may indeed be impervious to the economic context of countries, but much more dependent on the strength and depth of a country's political legacy. The findings of this paper show that young people's commitment to democratic values/culture tends to be stronger when they live in societies with strong democratic institutions which defend these values, and strong structures for political socialization and social learning of such values. In fact, we find this assertion to be quite plausible when we consider the interaction of a country's QoD with its share of youth cohort, on young people's faith in democracy as a political system.

The predicted probability plot in Figure 4.4 shows that the positive effect of YCS on young people's support for democracy differs by the level of democratization of the countries in which they live. For any given YCS beyond 16.1 percent of the adult population, the plot shows that young people within established democracies (QoD ≥ 8), show much higher probability to support democracy, than their peers in new democracies (QoD < 8) with equal YCS. In other words, while both the demographic size of the youth population and the strength of a nation's democracy jointly positively predict support for democracy, the effect is stronger in the case of individuals who live in countries with stronger institutions for socializing citizens into the democratic culture. A possible explanation for the observed interaction effect could be the phenomenon of young critical citizens/dissatisfied democrats that potentially becomes amplified when a large share of young people find themselves in highly democratized environments. In such contexts, their large numbers can combine effectively with strong institutions of political socialization; this creates a condition where peer influence and peer learning become effective avenues for inculcating democratic values within the cohort. Admittedly, however, the lack of highly democratized countries (i.e., QoD ≥ 8) with YCS ≥30 in our sample, as seen in Figure 4.3, lends caution to such a conclusion. Most probably, if such cases were present, the observed interaction effects may not be as reported in Figure 4.4. The marginal effect (kernel estimation) plot in Figure 4.6, partly lends credence to this likelihood. As we can see, the conditional effect of YCS on support for democracy across the different levels of QoD may be more nuanced than what the conventional margins plot in Figure 4.4 reveals. Given that this is a data limitation, we are cautious not to overstate the interaction effect in this case, despite their overall joint positive effect on support for democracy.

As our concluding reflections, we note a few important theoretical and empirical implications of the foregoing. Firstly, the often-suggested threat of youth bulge to democratic stability

presents an interesting case for re-examination in the light of the findings of this paper (For example, Cincotta, 2009; Cincotta and Doces, 2011; Weber, 2013). Our analyses show that even in the face of a youth bulge, young people in democratic societies at all levels of democratization – both new and established democracies – remain more likely to support the idea of democracy as their preferred political system. Youth bulge related acts of democratic instability may, therefore, be motivated more by the poor empirical outcomes of a democratic government or political actors (dissatisfaction with democracy), than a disillusion with democracy itself as a political system. We think that it is important for this conceptual distinction to be made about young people's disposition towards democracy. Secondly, the present concerns about the commitment of young people in established democracies towards the democratic culture, and fears about a potential deconsolidation may need re-examination from a more causal and predictive analytical point of view, rather than the present descriptive statistical approaches to the analysis of the issue (See, Foa and Mounk, 2016; Fuchs and Roller, 2018; Mounk, 2018). Even for new democracies, the evidence in this paper shows that belief in democracy as a political system among the youth shows a strong positive trend. Also importantly, this study has demonstrated that in addition to the usual predictors of support for democracy, contextual factors such as YCS and QoD, and the interaction of both, increase young people's propensity to support democracy as a political system. This is a novel finding in the youth political attitudes literature and opens up new theoretical and empirical orifices of enquiry on young people's evaluation of democracy, which account for especially YCS; a factor previously unexplored in extant research.

We note, notwithstanding, that these findings are not without limitations. For instance, our choice of a single variable DV, which we deem adequate, over the composite index DV with multiple variables used in other studies to estimate support for democracy, may have impacted outcomes significantly. We also note that our choice of multilevel binary logistic models over the potentially better suited non-proportional odds ordered models might have been potentially limiting. Also, our use of the EIU democracy index over other indices such as the Freedom House index, Polity IV index and V-DEM may have also affected our selection of cases and eventual outcomes. Further studies can, therefore, address these limitations with the alternative methods and indices mentioned above

Notes

[1] World Values Survey data accessible from (www.worldvaluessurvey.org)

[2] EIU data accessible from https://www.eiu.com/n/campaigns/democracy-index-2020/

[3] UN population data accessible from https://population.un.org/wpp/Download/Standard/Population/

[4] World Bank data accessible from (https://databank.worldbank.org/source/world-development-indicators#)

[5] WVS questionnaire for 2010-2014. Same questions repeated in the waves 5 and 7. Available at file:///C:/Users/user/Downloads/F00001101WV6_Official_Questionnaire_v4_June2012.pdf (p.9)

[6] The results of the likelihood ratio test and the Brant test for the original four ordered categories of the dependent variable showed that the parallel regression assumption was violated. Despite all efforts, however, the better suited non-proportional odds models could not converge. We could also not estimate the interaction effects and predicted probability plot. We therefore opted for a binary DV: Bad vrs. Good. This allowed us to estimate our models, the interactions effects and predicted probability plot.

5.0 CONCLUSION

This dissertation aimed to ascertain whether the proportion of young people within the adult population of a democratic country has any influence on young people's individual political attitudes and political participation in both institutionalized and non-institutionalized politics. The study was designed in response to the realization that none of the mainstream theories which explain political attitudes and participation behaviors of democratic citizens so far accounts for the potential effect of cohort size on cohort political attitudes and behaviors. Consequently, extant empirical investigations examining the explanatory potential of YCS, either as the main independent variable or as a control variable are scarce, if at all non-existent. Even where attempts have been made in the past, such as studies which examine YCS as a predictor of collective political activity, empirical investigations have focused on the contextual level outcome variables, such as the onset of violent and non-violent protests in a country. The study of the effect of YCS on young people's individual level attitudes and political participation within democratic societies, therefore, remains an unexplored domain within mainstream political science.

Three independent but theoretically connected explanatory empirical studies were accordingly designed in the light of the above lacuna (within the framework of a portfolio dissertation), to examine the effects of YCS on individual youth political attitudes and political participation. In a deliberate reverse fashion of the attitude-to-behavior direction of relationship, the study unconventionally first sought to ascertain whether, in addition to the well-known predictors of political participation, the much-reported shift in emphasis of young people from institutionalized politics such as voting, to non-institutionalized politics such as protests, is also influenced by their YCS. Following this examination, the research then probed whether YCS had an effect on the belief of young people in the democratic culture in the first place. Such a result could then aid a more comprehensive understanding of the link between young people's demographic size, their belief in democracy, and their preferences in participation in democratic political activities.

The first study investigated the effect of YCS on young people's electoral participation. It also examined the moderating role of peers - as an interaction effect between YCS and peer influence - on young people's electoral participation. The study revealed that an increase in the YCS of a democratic country exerts a significant negative effect on young people's likelihood to vote in national elections. The study also showed that when peers are the main source of

information for young people, the situation on the one hand, reduces the likelihood of young people (growing as part of a young bulge) , always voting in elections. On the other hand, the same condition increases their likelihood of abstaining altogether from voting in national elections. The explanation offered for this outcome relates to how large YCS reduces the socioeconomic fortunes of the cohort, through limited labor market opportunities for such large pools of peers, which consequently deflects their attention from the political demands of life, towards the prioritization of the achievement of socioeconomic stability in life. The finding is largely in line with the predictions of the life cycle effect theory of political participation, which posits reduced engagement in voting among young people due to a prioritization of socioeconomic and biographical goals over politics (Quintelier, 2007; Dassonneville, 2017; Weiss, 2020). Accordingly, the study submits that whether or not a young person would vote in a national election should be viewed as a function of many factors, two of which include how many other young people there are in the population, and where young people primarily receive information

The second study examined the effect of YCS on young people's individual proclivities towards participating in peaceful demonstrations. The study also examined the effect of the interaction of YCS, youth unemployment and tertiary education on young people's participation in peaceful demonstrations. Consistent with the youth bulge theory, the study found that the larger the YCS of a country, the higher the probability that young people growing as part of such a large group will participate in demonstrations. Importantly, however, the study also revealed that as youth unemployment rates begin to increase within a country with a youth bulge, the probability of engagement also begins to reduce significantly, and particularly in the face of rising levels of education. Put differently, rising joblessness tends to suppress the appeal of well-educated young people growing as part of a youth bulge from engaging in elite-challenging behaviors such as demonstrations. This was largely in contrast to expectations that a sense of socioeconomic deprivation within an educated youth bulge would precipitate grievance motivated engagements in demonstrations, much in line with the predictions of relative deprivation theory/grievance theory about collective action and social movements (Cincotta, 2009; Cincotta and Doces, 2011; Weber, 2013, 2019; Vrablikova, 2014). The study accordingly argues that economic security, rather than economic deprivation, is the more likely motivator of youth protest behavior in democratic countries with large YCS.

The third study probed whether a country's YCS on its own, and in interaction with the quality of democracy, have significant effects on young people's support for democracy as a political

system. Inferences from youth bulge theory predicted that a growing YCS within democratic societies would be inimical to the commitment of young people to the democratic culture, and this could be exacerbated in especially new democracies with fragile systems and structures for democratic consolidation (Urdal, 2006; Cincotta and Doces, 2011; Weber, 2013; Goldstone, Marshall and Root, 2014). Against conventional expectations, however, the study found that large YCS showed a strong positive association with young people's belief in democracy itself as a political system. This effect was nonetheless conditional upon the quality of democracy in the countries in which young people lived. Although overall positive, the positive effect of YCS was found to be stronger for individuals in established democracies, than those in new democracies.

As an explanation, the study argues that young people's attitudes towards democracy can be viewed as one of critical citizens/dissatisfied democrats (Norris, 2011; Klingemann, 2014, 2018). They support democracy and democratic culture as their preferred political system. And large YCS in this case creates a large pool of like-minded peers who re-enforce their core beliefs and preferences for democracy as a political system, although they may at the same time, hold reservations against the empirical outcomes of democratic governance.

5.1 Summary findings, theoretical and empirical implications

The summary finding of this dissertation is that a country's share of young people within the adult population may be viewed as a significant predictor of young people's political attitudes and participation behaviors. Put differently, cohort size exerts significant effects on cohort political attitudes and political participation behaviors. *Importantly, the larger the cohort size of the youth;*

1. The less likely that compared to their peers in democratic societies with smaller YCS, they will vote in national elections.
2. The more likely that compared to their peers in democratic countries with smaller YCS:
   (a) They will participate in demonstrations as a way of expressing their reservations with the establishment.
   (b) The less likely, however, that faced with limited labor market opportunities, those with higher education will participate in such protests.
3. The more likely that compared to their peers in democratic countries with smaller YCS:

(a) They will support democracy as a political system.

(b) Those living in countries with high quality of democracy/ established democracies will show much stronger support democracy than their peers growing as part of youth cohorts in new democracies.

The present findings have wide-reaching implications for both theory and empirical political science research. Firstly, the finding that large YCS within a country does not weaken popular support for democracy among the youth, despite the apparent challenges with socioeconomic deprivation youth bulge is evidenced to create, and the associated threats to democratic stability extant literature proffers, may require both theoretical and empirical re-examination in the light of the current evidence (for example, see, Cincotta, 2009; Cincotta and Doces, 2011; Weber, 2013). This study argues that in terms of their attitudes towards the democratic political system, young people behave like shrewd dissatisfied democrats, who would rather live in a democracy, despite all the concerns over the empirical outcomes of the regime, than opt for an alternative. They seem to have been able to establish a conceptual distinction between the preference for the democratic system itself, in terms of all that the democratic culture represents – including the freedom of expression, equality, voting rights, the space for elite-challenging and dissenting views, among others – and their grievances often underlined by population - related deprivation, which may cause them to abstain from voting or even go onto the streets in their large numbers to demonstrate. These reactions do not, however, represent their loss of faith, or despair, in democracy as a political system.

We can arguably claim, therefore, that most young people growing as part of a youth bulge support democracy as their preferred political system. However, they are less willing to vote in national elections, but more willing to protest, as a means of communicating their concerns to the establishment. Even so, when faced with rising unemployment, particularly among the better educated, who are conventionally thought to be more inclined towards elite-challenging political ventures, members of a youth bulge tend to shrink from the idea of engaging in protests. The present discourse on the link between youth bulge and democratic stability, which depicts youth bulges as threats to democracy would, therefore, need to consider the new evidence presented in this study.

Secondly, the findings that YCS suppresses electoral participation, and also in interactions with other contextual factors, decreases young people's propensities to engage in elite -challenging behaviors, brings into sharp focus, the ongoing debates about the changing trends of youth

political participation. It appears that we are unlikely to see the active engagement of the larger proportion of youth in politics, particularly in developing democracies with the unfavorable combination of youth bulge and economic challenges. The changing preference from institutionalized to non-institutionalized political participation may accordingly be a more pronounced feature of youth in affluent democratic societies. It seems that for many developing democracies, however, the apathy towards politics cuts across both institutionalized and non-institutionalized activities. And while I am unable to authoritatively assert an impending crisis of political participation in developing democratic societies with youth bulge, given the reported apathy of the younger generation, who are incidentally the future torchbearers of the democratic flame, I think that the evidence presented in this study should be a cause for concern for democratic enthusiasts.

Lastly, the significance of the direct effects of YCS on young people's political attitudes and participation behaviors, presents an interesting case for empirical political science research. The revelation that cohort size affects cohort political attitudes and political participation opens a new empirical space, in which cohort size can, moving forward, be considered at the very least, as a control variable, if not the main explanatory variable, in future research on the predictors of political attitudes and political participation. These investigations can even be expanded to assess the situation of the cohort size of the older generation, to help improve our understanding in that respect also. The seminal insights generated by this dissertation can accordingly serve as the springboard for future research within the political participation subfield.

5.2 Implications for policy

The findings of this study hold important implications for youth policy, particularly in developing democracies with youth bulge in the Global South. First, the study has demonstrated that the economic and social challenges which confront a youth bulge are also democratic challenges. And while it has conventionally been argued that targeted socioeconomic and technological investments into a youth bulge can deliver demographic dividends for a nation, understood largely in terms of improved social and economic outcomes, the evidence presented in this dissertation shows that such investments can as well produce *democratic dividends*. Policies which aim at improving the socioeconomic fortunes of young

people hold the additional benefit of strengthening young people's participation in democratic governance through increased social and economic capitals which make available to them the time, income and civic skills to participate actively in politics (Brady, Verba and Schlozman, 1995; Teorell, 2006; Dalton, 2009; Kern, Marien and Hooghe, 2015). Therefore, central to navigating the life cycle effects which hold back young people from effectively engaging in politics is the implementation of youth policies which increase young people's opportunities to gain employment, or pursue entrepreneurial choices. The *democratic dividend* on reducing youth unemployment should, hence, be an additional incentive for democratic governments committed to preserving democratic governance to implement pragmatic policies which can achieve such ends within the shortest possible time.

Second, given the negative effects of increased peer influence within a youth bulge on young people's electoral participation, and by extension, institutionalized political engagement, the implementation of policies which can counter such negative impacts are crucial. Citizenship education leveraging technologies and platforms currently used by young people, in addition to the conventional systems of political socialization, such as the school and family systems can be strategically useful in this regard. As argued earlier in this dissertation, the strong socio-biological mechanism at play during the youthful stage of life renders young people considerably detached from traditional and familial values, and inclined more towards idealistic, anti-democratic and even extremists views often shared by their peers (Weber, 2013, 2019). Targeted citizenship education which leverages modern technologies to 'invade' the social platforms young people use to engage as peers can, however, yield the benefit of equipping them with the requisite information which can inspire their commitment to core democratic duties such as voting in national elections.

A third policy intervention to boost young people's political engagements is institutionalizing youth representation as an affirmative action. This can be one of the ways of inspiring youth participation in politics and can include more young people in key political institutions, through mechanisms such as quotas for youth representation particularly in countries where they are overrepresented in the population, but severely underrepresented in power. This can give them a voice to advocate for needs and concerns of biographical relevance to them at different levels of the political governance structure. Since their large numbers give them political salience (Posner, 2004), the increased visibility of their peers within key political institutions, structures and processes can induce confidence and a sense of efficacy among them as a cohort within the population. The long-term benefit for democracy would include

increased popular participation among the most politically apathetic but demographically salient group within the population, due to a feeling of relevance to the political establishment on the one hand, and a renewed sense of efficacy on the other hand.

5.3 Limitations of study

The present study is not without limitation. Firstly, and as with all other empirical research, a delicate compromise had to be reached between parsimonious and comprehensive modelling. This led to the decision to exclude some variables which have been shown in past research to also influence political attitudes and participation, such as social obligations, collective responsibility, among others. For the most part, however, the decision to exclude some key variables was due to missing longitudinal data on such variables within the WVS database. Consistently across the different Waves of the WVS, many democratic countries lacked key data of interest to the study. For instance, while the original intent of the study was to research the effect of YCS on a wide range of youth political participation behaviors beyond only voting and peaceful demonstrations, such as signing of petitions, boycotts, joining strikes and joining political campaigns, data limitation on these variables implied that the findings of such investigations would have been based on significantly different sample sizes in terms of the number of countries and young people included.

Therefore, constrained by data on the one hand, and guided by the literature on the other hand, the study settled on the most prominent behaviors reported in the literature to be undergoing major changes among young people, which also had the most reported data within the WVS database in terms of the number and spread of countries and youth respondents. Voting in national elections and joining peaceful demonstrations were found to be the most reported in this regard, hence, the decision to focus on those two leading activities as suitable proxies for institutionalized and non-institutionalized political participation activities respectively. Evidently, such a pragmatic decision denies us the benefit of understanding the broader effect of YCS on young people's wide -ranging repertoires of political activities. This may have been a limitation of the study, and in some respects, constrained the study in its quest to demonstrate some important longitudinal effects within the data.

Secondly, challenges encountered in statistical modelling due to issues such as sample size and model non-convergence prevented the full exploitation of some of the most robust multilevel

modelling techniques, which should have best suited the multilevel nature of the data used for this study. For instance, a multilevel random effect multinomial logistic regression may have better suited the data for study 1, given that the respondents were nested in countries. However, since the sample size of 29 countries failed to meet the minimum sample size of 30 clusters for a multilevel analysis, the study opted for single level multinomial model with country fixed effects and country clustered standard errors as an alternative, based on the recommendations of the methodological literature for such challenges. Notwithstanding these limitations, the alternative model adopted showed robustness and should accordingly give strong confidence in the results presented in this work.

Lastly, the use of Polity IV democracy index and the EIU democracy index for the study's case selection may not have been unproblematic, considering that there are potentially more robust indices such as the V-DEM liberal democracy index. For instance, the inclusion of some countries, such as India, Mali, Indonesia, Mexico, Malaysia, and Pakistan in some of the studies, based on the Polity IV and EIU scores was repeatedly met with questions from reviewers of the articles in the dissertation. V-DEM, on the other hand, had the effect of excluding these fragile democracies and a few others from some of the WVS Waves as not being liberal democracies. The choice of V-DEM would have, therefore, reduced the sample sizes for the three studies considerably. Also importantly, the eventual set of countries would have been almost exclusively limited to established democracies of the West. This would have significantly reduced the much-needed variation in YCS among countries required for the study design, given that the countries listed above are among those with the largest YCS within the WVS database.

Theoretically, the choice of democracy indices used to sample countries and the other shortcomings of the study discussed above may have admittedly influenced the outcome of the study. These limitations, however, leave room for future research to explore those dimensions not covered by the study. I briefly reflect on some of these potential areas for future research based on the limitations below. Notwithstanding these limitations, I believe an important novel contribution has been made by the present study to the youth political attitude/participation literature. The finding that cohort size affects cohort political attitude and behavior presents a seminal insight, which can help to further improve our understanding of the determinants of political attitudes and behavior within democratic societies.

5.4 Future research directions

In the light of the constraints and limitations of the study discussed above, I recommend the following as future research directions which can contribute further insights on the effects of YCS on a wider set of democratic attitudes and participation behaviors within a comparative research design:

- Relationship between YCS and other types of institutionalized and non-institutionalized forms of political participation (offline and online) – signing of petitions, youth participation in campaigns, boycotts, community engagements and strikes.
- Relationship between YCS and young people's satisfaction with democracy.
- Relationship between YCS and young people's sense of political efficacy.
- Comparison between YCS and adult cohort size in relation to all the above.
- Implications of the effects of YCS and moderating mechanisms on youth political attitudes and behaviors for youth policy in both established and new democracies.

The findings of these investigations will engender a more comprehensive appreciation of the political implications of the ongoing demographic transition in both established and new democracies and consequently improve our theoretical, empirical and policy related understanding of youth bulge for the democratic tradition in the medium to long term.

REFERENCES

Abramson, P.R. (2014) 'Value Change over a Third of a Century: The Evidence for Generational Replacement', in R.J. Dalton and C. Welzel (eds) *The Civic Culture Transformed: From Allegiant to Assertive Citizens*. New York, NY: Cambridge University Press, pp. 19–34.

Achen, C.H. and Wang, T.Y. (2019) 'Declining voter turnout in Taiwan: A generational effect?', *Electoral Studies*, 58, pp. 113–124. Available at: https://doi.org/10.1016/j.electstud.2018.12.011.

Ajzen, I. (1988) *Attitudes, personality, and behavior*. U.S. ed. Chicago, IL: Dorsey Press (Mapping social pschology series).

Ajzen, I. and Fishbein, M. (1980) *Understanding attitudes and predicting social behavior*. Englewood Cliffs, N.J.: Prentice-Hall.

Alfy, A. (2016) 'Rethinking the Youth Bulge and Violence', *IDS Bulletin*, 47(3). pp. 99-106 Available at: https://doi.org/10.19088/1968-2016.146.

Almond, G.A. and Verba, S. (2015[1963]) *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Princeton University Press. Available at: https://doi.org/10.1515/9781400874569 (Accessed: 9 September 2021).

Amnå, E. and Ekman, J. (2014) 'Standby citizens: diverse faces of political passivity', *European Political Science Review*, 6(2), pp. 261–281. Available at: https://doi.org/10.1017/S175577391300009X.

Andolina, M.W. (2011) '*Civic Talk: Peers, Politics and the Future of Democracy* , by Casey A. Klofstad: Philadelphia, PA: Temple University Press, 2011. 184 pp. $59.50 hardback and e-book.', *Political Communication*, 28(4), pp. 464–466. Available at: https://doi.org/10.1080/10584609.2011.615240.

Ang, A.U., Dinar, S. and Lucas, R.E. (2014) 'Protests by the young and digitally restless: the means, motives, and opportunities of anti-government demonstrations', *Information, Communication & Society*, 17(10), pp. 1228–1249. Available at: https://doi.org/10.1080/1369118X.2014.918635.

Ansolabehere, S. and Hersh, E. (2012) 'Validation: What Big Data Reveal About Survey Misreporting and the Real Electorate', *Political Analysis*, 20(4), pp. 437–459.

Apolte, T. and Gerling, L. (2018) 'Youth bulges, insurrections and labor-market restrictions', *Public Choice*, 175(1–2), pp. 63–93. Available at: https://doi.org/10.1007/s11127-018-0514-8.

Asingo, P.O. (2018) 'Relative deprivation, protests and voting in Kenya', *Commonwealth & Comparative Politics*, 56(1), pp. 65–83. Available at: https://doi.org/10.1080/14662043.2017.1351071.

Asomah, J.Y. and Dim, E.E. (2021) 'Determinants of citizens' support for democracy in Ghana', *Social Science Quarterly*, pp. 2578–2590. Available at: https://doi.org/10.1111/ssqu.13062.

Balakrishnan, N. *et al.* (eds) (2014) *Wiley StatsRef: Statistics Reference Online*. 1st edn. Wiley. Available at: https://doi.org/10.1002/9781118445112.

Barakat, B. and Urdal, H. (2009) *Breaking The Waves ? Does Education Mediate The Relationship Between Youth Bulges And Political Violence ?* The World Bank (Policy Research Working Papers). Available at: https://doi.org/10.1596/1813-9450-5114.

Benedicto, J. (2013) 'The political cultures of young people: an uncertain and unstable combinatorial logic', *Journal of Youth Studies*, 16(6), pp. 712–729. Available at: https://doi.org/10.1080/13676261.2012.744812.

Bergan, D.E. *et al.* (2021) 'Promoting the Youth Vote: The Role of Informational Cues and Social Pressure', *Political Behavior*, 44, pp. 2027–2047Available at: https://doi.org/10.1007/s11109-021-09686-x.

Bergh, J., Christensen, D.A. and Matland, R.E. (2021) 'When is a Reminder Enough? Text Message Voter Mobilization in a European Context', *Political Behavior*, 43(3), pp. 1091–1111. Available at: https://doi.org/10.1007/s11109-019-09578-1.

Bessant, J. (2004) 'Mixed messages: youth participation and democratic practice', *Australian Journal of Political Science*, 39(2), pp. 387–404. Available at: https://doi.org/10.1080/1036114042000238573.

Bob-Milliar, G.M. (2012) 'Political party activism in Ghana: factors influencing the decision of the politically active to join a political party', *Democratization*, 19(4), pp. 668–689. Available at: https://doi.org/10.1080/13510347.2011.605998.

Boese, V.A. (2019) 'How (not) to measure democracy', *International Area Studies Review*, 22(2), pp. 95–127. Available at: https://doi.org/10.1177/2233865918815571.

Bowman, B. (2019) 'Imagining future worlds alongside young climate activists: a new framework for research', *Fennia - International Journal of Geography*, 197(2), pp. 295–305. Available at: https://doi.org/10.11143/fennia.85151.

Brady, H.E., Verba, S. and Schlozman, K.L. (1995) 'Beyond SES: A Resource Model of Political Participation', *American Political Science Review*, 89(2), pp. 271–294. Available at: https://doi.org/10.2307/2082425.

Bratton, M., Mattes, R. and Gyimah-Boadi, E. (2004) *Public Opinion, Democracy, and Market Reform in Africa*. New York: Cambridge University Press.

Braungart, R.G. (1984) 'Historical Generations and Generation Units: a global pattern of youth movements.', *Journal of Political & Military Sociology*, 12(1), pp. 113–135.

Bricker, N.Q. and Foley, M.C. (2013) 'The Effect of Youth Demographics on Violence: The Importance of the Labor Market', *International Journal of Conflict and Violence (IJCV), 7*, pp. 179-194. Available at: https://doi.org/10.4119/UNIBI/IJCV.290.

Briggs, J. (2017) *Young people and political participation: teen players*. London: Palgrave Macmillan.

Brunello, G. (2010) 'The effects of cohort size on European earnings', *Journal of Population Economics*, 23(1), pp. 273–290. Available at: https://doi.org/10.1007/s00148-009-0250-y.

Bryan, M.L. and Jenkins, S.P. (2016) 'Multilevel Modelling of Country Effects: A Cautionary Tale', *European Sociological Review*, 32(1), pp. 3–22. Available at: https://doi.org/10.1093/esr/jcv059.

Burden, B.C. (2000) 'Voter Turnout and the National Election Studies', *Political Analysis*, 8(4), pp. 389–398.

Burns, N., Schlozman, K.L. and Verba, S. (2001) *The private roots of public action: gender, equality, and political participation*. Cambridge, Mass: Harvard University Press.

Campante, Filipe R. and Chor, D. (2012) 'Schooling, Political Participation, and the Economy', *Review of Economics and Statistics*, 94(4), pp. 841–859. Available at: https://doi.org/10.1162/REST_a_00206.

Campante, Filipe R and Chor, D. (2012) 'Why was the Arab World Poised for Revolution? Schooling, Economic Opportunities, and the Arab Spring', *Journal of Economic Perspectives*, 26(2), pp. 167–188. Available at: https://doi.org/10.1257/jep.26.2.167.

Campante, F.R. and Chor, D. (2014) '"The people want the fall of the regime": Schooling, political protest, and the economy', *Journal of Comparative Economics*, 42(3), pp. 495–517. Available at: https://doi.org/10.1016/j.jce.2014.04.010.

Cincotta, R., P. (2009) *Half a Chance: Youth Bulges and Transitions to Liberal Democracy*. Environmental Change and Security Program, 13, pp. 10–18.

Cincotta, R., P. and Doces, J.A. (2011) 'The age-structural maturity thesis: The youth bulge's influence on the advent and stability of liberal democracy.', in J.A. Goldstone, E.P. Kaufmann, and M.D. Toft (eds) *Political Demography: How Population Changes Are Reshaping International Security and National Politics*. Oxford: Oxford University Press, pp. 98–116.

Claassen, C. and Magalhães, P.C. (2022) 'Effective Government and Evaluations of Democracy', *Comparative Political Studies*, 55(5), pp. 869–894. Available at: https://doi.org/10.1177/00104140211036042.

Coffé, H. and Bolzendahl, C. (2010) 'Same Game, Different Rules? Gender Differences in Political Participation', *Sex Roles*, 62(5–6), pp. 318–333. Available at: https://doi.org/10.1007/s11199-009-9729-y.

Collier, P. (2000) 'Doing Well out of War: An Economic Perspective', in M.R. Berdal, D. Malone, and International Peace Academy (eds) *Greed & grievance: economic agendas in civil wars*. Boulder, Colo: Lynne Rienner Publishers, pp. 91–111.

Collier, P. and Hoeffler, A. (2004) 'Greed and grievance in civil war', *Oxford Economic Papers*, 56(4), pp. 563–595. Available at: https://doi.org/10.1093/oep/gpf064.

Corbett, J. (2016) ‘Diagnosing the Problem of Anti-Politicians: A Review and an Agenda’, *Political Studies Review*, 14(4), pp. 534–543. Available at: https://doi.org/10.1111/1478-9302.12076.

Cordero, G. and Simón, P. (2016) ‘Economic Crisis and Support for Democracy in Europe’, *West European Politics*, 39(2), pp. 305–325. Available at: https://doi.org/10.1080/01402382.2015.1075767.

Costello, M., Jenkins, J.C. and Aly, H. (2015) ‘Bread, Justice, or Opportunity? The Determinants of the Arab Awakening Protests’, *World Development*, 67, pp. 90–100. Available at: https://doi.org/10.1016/j.worlddev.2014.10.002.

Dahl, R.A. (1971) *Polyarchy: participation and opposition*. New Haven: Yale Univ. Press.

Dahlberg, S., Linde, J. and Holmberg, S. (2015) ‘Democratic Discontent in Old and New Democracies: Assessing the Importance of Democratic Input and Governmental Output’, *Political Studies*, 63(1_suppl), pp. 18–37. Available at: https://doi.org/10.1111/1467-9248.12170.

Dalton, R., Van Sickle, A. and Weldon, S. (2010) ‘The Individual–Institutional Nexus of Protest Behaviour’, *British Journal of Political Science*, 40(1), pp. 51–73. Available at: https://doi.org/10.1017/S000712340999038X.

Dalton, R.J. (2004) *Democratic Challenges, Democratic Choices*. Oxford University Press. Available at: https://doi.org/10.1093/acprof:oso/9780199268436.001.0001.

Dalton, R.J. (2009) *The good citizen: how a younger generation is reshaping American politics*. Rev. ed. Washington, D.C: CQ Press.

Dalton, R.J. (2020) *Citizen politics: public opinion and political parties in advanced industrial democracies*. Seventh Edition. Los Angeles, California: SAGE, CQ Press.

Dalton, R.J. and van Sickle, A. (2005) ‘The Resource, Structural, and Cultural Bases of Protest’, in *CDS Working Papers*. UC Irvine: Center for the Study of Democracy, p. 1-23. Available at: https://escholarship.org/uc/item/3jx2b911 (Accessed: 24 June 2022).

Dalton, R.J. and Welzel, C. (eds) (2014) *The Civic Culture Transformed: From Allegiant to Assertive Citizens*. New York: Cambridge University Press. Available at: https://doi.org/10.1017/CBO9781139600002.

Dassonneville, R. (2017) ‘Age and Voting’, in K. Arzheimer, J. Evans, and M.S. Lewis-Beck (eds) *The SAGE Handbook of electoral behaviour*. SAGE Publications Ltd, pp. 137–158.

van Deth, J.W. (2001) ‘Studying Political Participation: Towards a Theory of Everything?’, in *Electronic Democracy: Mobilisation, Organisation and Participation via new ICTs*. *Joint Sessions of Workshops of the European Consortium for Political Research*, Grenoble, pp. 1–20. Available at: file:///C:/Users/user/Downloads/partECPR2001.pdf.

van Deth, J.W. (2014) ‘A conceptual map of political participation’, *Acta Politica*, 49(3), pp. 349–367. Available at: https://doi.org/10.1057/ap.2014.6.

Doorenspleet, R. (2012) ‘Critical citizens, democratic support and satisfaction in African democracies’, *International Political Science Review*, 33(3), pp. 279–300. Available at: https://doi.org/10.1177/0192512111431906.

Dostie-Goulet, E. (2009) ‘Social networks and the development of political interest’, *Journal of Youth Studies*, 12(4), pp. 405–421. Available at: https://doi.org/10.1080/13676260902866512.

Easterlin, R.A. (1987) *Birth and Fortune: The Impact of Numbers on Personal Welfare*. Second edition. Chicago: University of Chicago Press.

Easton, D. (1965) *A systems analysis of political life*. New York: John Wiley & Sons.

Easton, D. (1975) ‘A Re-assessment of the Concept of Political Support’, *British Journal of Political Science*, 5(4), pp. 435–457. Available at: https://doi.org/10.1017/S0007123400008309.

Eguavoen, I. (2010) ‘Lawbreakers and livelihood makers: Youth-specific poverty and ambiguous livelihood strategies in Africa’, *Vulnerable Children and Youth Studies*, 5(3), pp. 268–273. Available at: https://doi.org/10.1080/17450128.2010.507803.

Ekman, J. and Amnå, E. (2012) ‘Political participation and civic engagement: Towards a new typology’, *Human Affairs*, 22(3), pp. 283–300. Available at: https://doi.org/10.2478/s13374-012-0024-1.

Esau, M.V., Rondganger, C.H. and Roman, N.V. (2019) ‘Family Political Socialisation and its Effect on Youth Trust in Government: A South African Perspective’, *Politikon*, 46(1), pp. 122–137. Available at: https://doi.org/10.1080/02589346.2018.1525927.

European Commission (2011) *Commission Staff Working Document on EU indicators in the field of youth*. European Commission. Available at: https://ec.europa.eu/assets/eac/youth/library/publications/indicator-dashboard_en.pdf.

Evans, G. and Rose, P. (2012) ‘Understanding Education’s Influence on Support for Democracy in Sub-Saharan Africa’, *Journal of Development Studies*, 48(4), pp. 498–515. Available at: https://doi.org/10.1080/00220388.2011.598508.

Farthing, R. (2010) ‘The politics of youthful antipolitics: representing the “issue” of youth participation in politics’, *Journal of Youth Studies*, 13(2), pp. 181–195. Available at: https://doi.org/10.1080/13676260903233696.

Farzanegan, M.R. and Witthuhn, S. (2017) ‘Corruption and political stability: Does the youth bulge matter?’, *European Journal of Political Economy*, 49, pp. 47–70. Available at: https://doi.org/10.1016/j.ejpoleco.2016.12.007.

Flückiger, M. and Ludwig, M. (2018) ‘Youth Bulges and Civil Conflict: Causal Evidence from Sub-Saharan Africa’, *Journal of Conflict Resolution*, 62(9), pp. 1932–1962. Available at: https://doi.org/10.1177/0022002717707303.

Foa, R.S. and Mounk, Y. (2016) ‘The Danger of Deconsolidation: The Democratic Disconnect’, *Journal of Democracy*, 27(3), pp. 5–17. Available at: https://doi.org/10.1353/jod.2016.0049.

Foster, J. and Taylor, D. (2019) ‘Voter turnout decline in New Zealand: A critical review of the literature and suggestions for future research’, *New Zealand Sociology*, 34(1), pp. 1–26. Available at: https://doi.org/10.3316/informit.456643931441294.

Fraga, B. and Holbein, J. (2020) ‘Measuring youth and college student voter turnout’, *Electoral Studies*, 65, p. 102086. Available at: https://doi.org/10.1016/j.electstud.2019.102086.

Fuchs, D. (2007) ‘The Political Culture Paradigm’, in R.J. Dalton and H. Klingemann (eds) *The Oxford Handbook of Political Behavior*. Oxford University Press, pp. 161–184. Available at: https://doi.org/10.1093/oxfordhb/9780199270125.003.0009.

Fuchs, D. and Roller, E. (2018) ‘Globalization and Political Legitimacy in Western Europe’, in U. van Beek (ed.) *Democracy under Threat: A Crisis of Legitimacy?* Cham: Springer International Publishing (Challenges to Democracy in the 21st Century), pp. 221–251. Available at: https://doi.org/10.1007/978-3-319-89453-9_9.

Furlong, A. and Cartmel, F. (2007) *Young people and social change: new perspectives*. 2. ed. Buckingham: Open Univerity Press (Sociology and social change).

Gaan, N. (2015) ‘Youth Bulge: Constraining and Reshaping Transition to Liberal Democracy in Afghanistan’, *India Quarterly: A Journal of International Affairs*, 71(1), pp. 16–36. Available at: https://doi.org/10.1177/0974928414554973.

Gaiser, W., De Rijke, J. and Spannring, R. (2010) ‘Youth and political participation — empirical results for Germany within a European context’, *YOUNG*, 18(4), pp. 427–450. Available at: https://doi.org/10.1177/110330881001800404.

Ganie, M.T. (2020) ‘Youth Bulge and Conflict’, in O. Richmond and G. Visoka (eds) *The Palgrave Encyclopedia of Peace and Conflict Studies*. Cham: Springer International Publishing, pp. 1–5. Available at: https://doi.org/10.1007/978-3-030-11795-5_113-1.

Gao, X. *et al.* (2017) ‘GEEORD: A SAS macro for analyzing ordinal response variables with repeated measures through proportional odds, partial proportional odds, or non-proportional odds models’, *Computer Methods and Programs in Biomedicine*, 150, pp. 23–30. Available at: https://doi.org/10.1016/j.cmpb.2017.07.008.

Gastil, J. and Xenos, M. (2010) ‘Of Attitudes and Engagement: Clarifying the Reciprocal Relationship Between Civic Attitudes and Political Participation’, *Journal of Communication*, 60(2), pp. 318–343. Available at: https://doi.org/10.1111/j.1460-2466.2010.01484.x.

Goldstone, J.A. (2002) ‘Population and Security: How Demographic Change Can Lead to Violent Conflict’, *Journal of International Affairs*, 56,(1), pp. 1–22.

Goldstone, J.A. *et al.* (2010) ‘A Global Model for Forecasting Political Instability’, *American Journal of Political Science*, 54(1), pp. 190–208. Available at: https://doi.org/10.1111/j.1540-5907.2009.00426.x.

Goldstone, J.A., Marshall, M.G. and Root, H. (2014) ‘Demographic growth in dangerous places: Concentrating conflict risks’, *International Area Studies Review*, 17(2), pp. 120–133. Available at: https://doi.org/10.1177/2233865914535596.

Gordon, H.R. and Taft, J.K. (2011) 'Rethinking Youth Political Socialization: Teenage Activists Talk Back', *Youth & Society*, 43(4), pp. 1499–1527. Available at: https://doi.org/10.1177/0044118X10386087.

Grasso, M.T. (2014) 'Age, period and cohort analysis in a comparative context: Political generations and political participation repertoires in Western Europe', *Electoral Studies*, 33, pp. 63–76. Available at: https://doi.org/10.1016/j.electstud.2013.06.003.

Grasso, M.T. *et al.* (2019) 'Socialization and generational political trajectories: an age, period and cohort analysis of political participation in Britain', *Journal of Elections, Public Opinion and Parties*, 29(2), pp. 199–221. Available at: https://doi.org/10.1080/17457289.2018.1476359.

Green, D.P. and Gerber, A.S. (2019) *Get Out the Vote: How to Increase Voter Turnout*. Washington, D.C: Brookings Institution Press.

Grumbach, J.M. and Hill, C. (2022) 'Rock the Registration: Same Day Registration Increases Turnout of Young Voters', *The Journal of Politics*, 84(1), pp. 405–417. Available at: https://doi.org/10.1086/714776.

Gurr, T. (1968) 'Psychological Factors in Civil Violence', *World Politics*, 20(2), pp. 245–278. Available at: https://doi.org/10.2307/2009798.

Gurr, T.R. (1970) *Why men rebel*. Princeton, NJ: Princeton Univ. Press.

Hafeez, E. and Fasih, T. (2018) 'Growing Population of Pakistani Youth: A Ticking Time Bomb or a Demographic Dividend', *Journal of Education and Educational Development*, 5(2), pp. 211-226. Available at: https://doi.org/10.22555/joeed.v5i2.2022.

Hainmueller, J., Mummolo, J. and Xu, Y. (2019) 'How Much Should We Trust Estimates from Multiplicative Interaction Models? Simple Tools to Improve Empirical Practice', *Political Analysis*, 27(2), pp. 163–192. Available at: https://doi.org/doi:10.1017/pan.2018.46.

Halimatusa'diyah, I. and Prihatini, E. (2021) 'Young voters and political participation in Indonesia: Revisiting a marriage gap', *Social Science Quarterly*, p. ssqu.13024. Available at: https://doi.org/10.1111/ssqu.13024.

Halupka, M. (2014) 'Clicktivism: A Systematic Heuristic: Clicktivism: A Systematic Heuristic', *Policy & Internet*, 6(2), pp. 115–132. Available at: https://doi.org/10.1002/1944-2866.POI355.

Harrison, S. (2018) 'Young Voters', *Parliamentary Affairs*, 71(suppl_1), pp. 255–266. Available at: https://doi.org/10.1093/pa/gsx068.

Hart, D. *et al.* (2004) 'Youth Bulges in Communities: The Effects of Age Structure on Adolescent Civic Knowledge and Civic Participation', *Psychological Science*, 15(9), pp. 591–597. Available at: https://doi.org/10.1111/j.0956-7976.2004.00725.x.

Henn, M. and Foard, N. (2014) 'Social differentiation in young people's political participation: the impact of social and educational factors on youth political engagement in Britain', *Journal of Youth Studies*, 17(3), pp. 360–380. Available at: https://doi.org/10.1080/13676261.2013.830704.

Henn, M., Oldfield, B. and Hart, J. (2018) 'Postmaterialism and young people's political participation in a time of austerity: Postmaterialism', *The British Journal of Sociology*, 69(3), pp. 712–737. Available at: https://doi.org/10.1111/1468-4446.12309.

Holmberg, S., Lindberg, S. and Svensson, R. (2017) 'Trust in parliament', *Journal of Public Affairs*, 17(1–2), pp.1-9. Available at: https://doi.org/10.1002/pa.1647.

Hooghe, M., Hosch-Dayican, B. and van Deth, J.W. (2014) 'Conceptualizing political participation', *Acta Politica*, 49(3), pp. 337–348. Available at: https://doi.org/10.1057/ap.2014.7.

Huang, M., Chang, Y. and Chu, Y. (2008) 'Identifying sources of democratic legitimacy: A multilevel analysis', *Electoral Studies*, 27(1), pp. 45–62. Available at: https://doi.org/10.1016/j.electstud.2007.11.002.

Huntington, S.P. (1976) *No Easy Choice: Political Participation in Developing Countries*. Cambridge, Mass: Harvard University Press.

Huntington, S.P. (1996) *The clash of civilizations and the remaking of world order*. New York: Simon & Schuster.

Huttunen, J. and Christensen, H.S. (2020) 'Engaging the Millennials: The Citizens' Initiative in Finland', *YOUNG*, 28(2), pp. 175–198. Available at: https://doi.org/10.1177/1103308819853055.

Ikelegbe, A. (2020) 'Youth Bulge and West Africa: Understanding Dispute Triggers and Conflict Prevention', in O. Akiba (ed.) *Preventive Diplomacy, Security, and Human Rights in West Africa*. Cham: Springer International Publishing, pp. 77–105. Available at: https://doi.org/10.1007/978-3-030-25354-7_3.

Inglehart, R. (1990) *Culture shift in advanced industrial society*. Princeton, N.J: Princeton University Press.

Inglehart, R. *et al.* (eds) (2014) 'World Values Survey: Round Six - Country-Pooled Datafile Version'. JD Systems Institute. Available at: www.worldvaluessurvey.org/WVSDocumentationWV6.jsp (Accessed: 25 May 2020).

Inglehart, R. (2016[1977]) *Silent revolution - changing values and political styles among western publ.* Princeton University Press.

Inglehart, R. and Norris, P. (2016) 'Trump, Brexit, and the Rise of Populism: Economic Have-Nots and Cultural Backlash', *SSRN Electronic Journal*. Available at: https://doi.org/10.2139/ssrn.2818659.

Juárez, N.C., Urdal, H. and Vadlamannati, K.C. (2022) 'The significance of age structure, education, and youth unemployment for explaining subnational variation in violent youth crime in Mexico', *Conflict Management and Peace Science*, 39(1), pp. 49–73. Available at: https://doi.org/10.1177/0738894220946324.

Juelich, C.L. and Coll, J.A. (2020) 'Rock the Vote or Block the Vote? How the Cost of Voting Affects the Voting Behavior of American Youth: Part of Special Symposium on

Election Sciences', *American Politics Research*, 48(6), pp. 719–724. Available at: https://doi.org/10.1177/1532673X20920265.

Kalogeraki, S. (2021) 'Inequalities in Young Adults' Electoral and Non-institutionalised Modes of Political Participation in Greece: Similar or Diverse Patterns?', in M. Giugni and M. Grasso (eds) *Youth and Politics in Times of Increasing Inequalities. Palgrave Studies in Young People and Politics.* Palgrave Macmillan, Cham., pp. 127–158.

Kamatayeva, A. (2021) *Contextual Determinants of the Age Gap in Voter Turnout across Europe*. Universitat Pompeu Fabra. Available at: https://dspace.cuni.cz/bitstream/handle/20.500.11956/151322/120406107.pdf?sequence=1 (Accessed: 28 October 2021).

Karp, J.A. and Brockington, D. (2005) 'Social Desirability and Response Validity: A Comparative Analysis of Overreporting Voter Turnout in Five Countries', *The Journal of Politics*, 67(3), pp. 825–840. Available at: https://doi.org/10.1111/j.1468-2508.2005.00341.x.

Katsanidou, A. and Eder, C. (2018) 'Vote, party, or protest: The influence of confidence in political institutions on various modes of political participation in Europe', *Comparative European Politics*, 16(2), pp. 290–309. Available at: https://doi.org/10.1057/cep.2015.27.

Kern, A., Marien, S. and Hooghe, M. (2015) 'Economic Crisis and Levels of Political Participation in Europe (2002–2010): The Role of Resources and Grievances', *West European Politics*, 38(3), pp. 465–490. Available at: https://doi.org/10.1080/01402382.2014.993152.

Kimberlee, R.H. (2002) 'Why Don't British Young People Vote at General Elections?', *Journal of Youth Studies*, 5(1), pp. 85–98. Available at: https://doi.org/10.1080/13676260120111788.

King, G. and Zeng, L. (2006) 'The Dangers of Extreme Counterfactuals', *Political Analysis*, 14(2), pp. 131–159. Available at: https://doi.org/10.1093/pan/mpj004.

Kitanova, M. (2019) 'Youth political participation in the EU: evidence from a cross-national analysis', *Journal of Youth Studies*, pp. 1–18. Available at: https://doi.org/10.1080/13676261.2019.1636951.

Klingemann, H.-D. (1999) 'Mapping Political Support in the 1990s:A Global Analysis', in P. Norris (ed.) *Critical Citizens: global support for democratic government*. Oxford [England] ; New York: Oxford University Press, pp. 31–56.

Klingemann, H.-D. (2014) 'Dissatisfied Democrats Democratic Maturation in Old and New Democracies', in R.J. Dalton and C. Welzel (eds) *The Civic Culture Transformed From Allegiant to Assertive Citizens*. New York: Cambridge University Press, pp. 116–157.

Klingemann, H.-D. (2018) 'The Impact of the Global Economic Crisis on Patterns of Support for Democracy in Germany', *Historical Social Research / Historische Sozialforschung*, 43(4), pp. 203–234.

Klofstad, C.A. (2011) *Civic talk: peers, politics, and the future of democracy*. Philadelphia: Temple University Press. Available at: http://site.ebrary.com/id/10436250 (Accessed: 2 December 2020).

Konte, M. and Klasen, S. (2016) 'Gender difference in support for Democracy in Sub-Saharan Africa: Do social institutions matter?', *Feminist Economics*, 22(2), pp. 55–86. Available at: https://doi.org/10.1080/13545701.2015.1103379.

Korenman, S. and Neumark, D. (2000) '"Cohort Crowding and Youth Labor Markets: A Cross-National Analysis".', in D. Blanchflower and R. Freeman (eds) *A Cross-National Analysis'. In Youth Employment and Joblessness in Advanced Countries*. Chicago: University of Chicago Press, pp. 57–106. Available at: https://www.nber.org/books/blan00-1.

Korotayev, A. *et al.* (2022) 'Urban Youth and Terrorism: A Quantitative Analysis (Are Youth Bulges Relevant Anymore?)', *Political Studies Review*, pp. 1-25. Available at: https://doi.org/10.1177/14789299221075908.

LaGraffe, D. (2012) 'The Youth Bulge in Egypt: An Intersection of Demographics, Security, and the Arab Spring', *Journal of Strategic Security*, 5(2), pp. 65–80. Available at: https://doi.org/10.5038/1944-0472.5.2.4.

Leighley, J.E. (2001) *Strength in numbers? the political mobilization of racial and ethnic minorities*. Princeton, N.J: Princeton University Press.

Liang, H. and Shen, F. (2018) 'Birds of a schedule flock together: Social networks, peer influence, and digital activity cycles', *Computers in Human Behavior*, 82, pp. 167–176. Available at: https://doi.org/10.1016/j.chb.2018.01.016.

Lipset, S.M. (1959) 'Some Social Requisites of Democracy: Economic Development and Political Legitimacy', *American Political Science Review*, 53(1), pp. 69–105. Available at: https://doi.org/10.2307/1951731.

Liu, I. and Mukherjee, B. (2005) 'Proportional Odds Model', in Kotz, S. et al., *Encyclopedia of Statistical Sciences*. Hoboken, NJ, USA: John Wiley & Sons, Inc., pp. 1–8. Available at: https://doi.org/10.1002/0471667196.ess7271.

Lührmann, A., Tannenberg, M. and Lindberg, S.I. (2018) 'Regimes of the World (RoW): Opening New Avenues for the Comparative Study of Political Regimes', *Politics and Governance*, 6(1), pp. 60–77. Available at: https://doi.org/10.17645/pag.v6i1.1214.

Maas, C.J.M. and Hox, J.J. (2004) 'Robustness issues in multilevel regression analysis', *Statistica Neerlandica*, 58(2), pp. 127–137. Available at: https://doi.org/10.1046/j.0039-0402.2003.00252.x.

Macunovich, D.J. and Easterlin, R.A. (2008) 'Easterlin Hypothesis', in S.N. Durlauf and L.E. Blume (eds) *The New Palgrave Dictionary of Economics: Volume 1 – 8*. London: Palgrave Macmillan UK, pp. 1490–1494. Available at: https://doi.org/10.1007/978-1-349-58802-2_420.

Magalhães, P.C. (2014) 'Government effectiveness and support for democracy: Government effectiveness and support for democracy', *European Journal of Political Research*, 53(1), pp. 77–97. Available at: https://doi.org/10.1111/1475-6765.12024.

Marien, S., Hooghe, M. and Quintelier, E. (2010) 'Inequalities in Non-Institutionalised forms of Political Participation: A Multi-Level Analysis of 25 Countries', *Political Studies*, 58(1), pp. 187–213. Available at: https://doi.org/10.1111/j.1467-9248.2009.00801.x.

Marino, C. *et al.* (2020) 'Social norms and e-motions in problematic social media use among adolescents', *Addictive Behaviors Reports*, 11, pp. 1-7. Available at: https://doi.org/10.1016/j.abrep.2020.100250.

Martin, A. (2012) 'Political Participation among the Young in Australia: Testing Dalton's Good Citizen Thesis', *Australian Journal of Political Science*, 47(2), pp. 211–226. Available at: https://doi.org/10.1080/10361146.2012.677003.

Maseland, R. and van Hoorn, A. (2011) 'Why Muslims like democracy yet have so little of it', *Public Choice*, 147(3–4), pp. 481–496. Available at: https://doi.org/10.1007/s11127-010-9642-5.

Mattes, R. and Bratton, M. (2007) 'Learning about Democracy in Africa: Awareness, Performance, and Experience', *American Journal of Political Science*, 51(1), pp. 192–217. Available at: https://doi.org/10.1111/j.1540-5907.2007.00245.x.

Melo, D.F. and Stockemer, D. (2014) 'Age and political participation in Germany, France and the UK: A comparative analysis', *Comparative European Politics*, 12(1), pp. 33–53. Available at: https://doi.org/10.1057/cep.2012.31.

Moehring, K. (2012) *The fixed effects approach as an alternative to multilevel analysis for cross-national analyses*. SocArXiv. Available at: https://doi.org/10.31235/osf.io/3xw7v.

Moffat, J. and Roth, D. (2016) 'The Cohort Size-Wage Relationship in Europe', *LABOUR*, 30(4), pp. 415–432. Available at: https://doi.org/10.1111/labr.12081.

Moffat, J. and Roth, D. (2017) 'Cohort size and youth labour-market outcomes in Europe', *Economics Bulletin*, 37(4), pp. 2735-2740.

Moller, H. (1968) 'Youth as a Force in the Modern World', *Comparative Studies in Society and History*, 10(3), pp. 237–260. Available at: https://doi.org/10.1017/S0010417500004898.

Monticelli, L. and Bassoli, M. (2019) 'Precariousness, youth and political participation: the emergence of a new political cleavage', *Italian Political Science Review / Rivista Italiana di Scienza Politica*, 49(1), pp. 99–113. Available at: https://doi.org/10.1017/ipo.2018.11.

de Moor, J. *et al.* (eds) (2020) 'Protest for a future II : Composition, mobilization and motives of the participants in Fridays For Future climate protests on 20-27 September, 2019, in 19 cities around the world'. Available at: http://sh.diva-portal.org/smash/record.jsf?pid=diva2%3A1397070&dswid=-5841 (Accessed: 24 June 2023).

Morin, L.-P. (2015) 'Cohort size and youth earnings: Evidence from a quasi-experiment', *Labour Economics*, 32, pp. 99–111. Available at: https://doi.org/10.1016/j.labeco.2015.01.001.

Morin-Chassé, A. *et al.* (2017) 'How to Survey About Electoral Turnout? The Efficacy of the Face-Saving Response Items in 19 Different Contexts*', *Political Science Research and Methods*, 5(3), pp. 575–584. Available at: https://doi.org/10.1017/psrm.2016.31.

Mounk, Y. (2018) *The People Vs. Democracy: Why Our Freedom Is in Danger and How to Save It*. Harvard University Press.

Muller, E.N. (1979) *Aggressive Political Participation*. Princeton University Press. Available at: https://doi.org/10.2307/j.ctt13x14rb.

Mycock, A. and Tonge, J. (2012) 'The Party Politics of Youth Citizenship and Democratic Engagement', *Parliamentary Affairs*, 65(1), pp. 138–161. Available at: https://doi.org/10.1093/pa/gsr053.

Näher, A.-F. and Krumpal, I. (2012) 'Asking sensitive questions: the impact of forgiving wording and question context on social desirability bias', *Quality & Quantity*, 46(5), pp. 1601–1616. Available at: https://doi.org/10.1007/s11135-011-9469-2.

Nkansah, G.B. (2022) 'Youth Cohort Size, Structural Socioeconomic Conditions, and Youth Protest Behavior in Democratic Societies (1995–2014)', *SAGE Open*, 12(2), pp. 1-24. Available at: https://doi.org/10.1177/21582440221096146.

Nkansah, G.B. and Papp, Z. (2022) 'Does cohort size matter? Assessing the effect of youth cohort size and peer influence on young people's electoral participation', *Journal of Youth Studies*, pp. 1–19. Available at: https://doi.org/10.1080/13676261.2022.2053666.

Norris, P. (ed.) (1999) *Critical citizens: global support for democratic government*. Oxford [England] ; New York: Oxford University Press.

Norris, P. (2002) *Democratic Phoenix Reinventing Political Activism*. Cambridge: Cambridge University Press.

Norris, P. (2003) *'Young People & Political Activism: From the politics of loyalties to the politics of choice? '* Council of Europe Symposium, Young people and democratic institutions: From disillusionment to participation, in. Strasbourg, France, pp. 1–32.

Norris, P. (2011) *Democratic deficit: critical citizens revisited*. New York: Cambridge University Press.

Norris, P. and Inglehart, R. (2019) *Cultural Backlash: Trump, Brexit, and Authoritarian Populism*. 1st edn. Cambridge University Press. Available at: https://doi.org/10.1017/9781108595841.

Nový, M. and Katrňák, T. (2015) 'Democratic maturity, external efficacy, and participation in elections: towards macro-micro interaction', *Österreichische Zeitschrift für Politikwissenschaft*, 44(3), pp. 1-20. Available at: https://doi.org/10.15203/ozp.274.vol44iss3.

Olaiya, T.A. (2014) 'Youth and Ethnic Movements and Their Impacts on Party Politics in ECOWAS Member States', *SAGE Open*, 4(1), pp. 1-12. Available at: https://doi.org/10.1177/2158244014522072.

Østby, G. and Urdal, H. (2010) *'Education and Civil Conflict: A Review of the Quantitative, Empirical Literature'*, (Background paper for the Education for All Global Monitoring Report 2011, The hidden crisis: Armed conflict and education). UNESCO. pp.1-40.

O'Toole, T. *et al.* (2003) 'Tuning out or left out? Participation and non-participation among young people', *Contemporary Politics*, 9(1), pp. 45–61. Available at: https://doi.org/10.1080/1356977032000072477.

Ozerim, M.G. (2019) ‘Can the Youth Bulge Pose a Challenge for Turkey? A Comparative Analysis Based on MENA Region-Driven Factors’, *YOUNG*, 27(4), pp. 414–434. Available at: https://doi.org/10.1177/1103308818797792.

Panagopoulos, C. and Abrajano, M.A. (2014) ‘Life-cycle effects on social pressure to vote’, *Electoral Studies*, 33, pp. 115–122. Available at: https://doi.org/10.1016/j.electstud.2013.07.019.

Parvin, P. (2018) ‘Democracy Without Participation: A New Politics for a Disengaged Era’, *Res Publica*, 24(1), pp. 31–52. Available at: https://doi.org/10.1007/s11158-017-9382-1.

Pastarmadzhieva, D., Pastarmadzhieva, D. and Sakal, H.B. (2021) ‘Participatory Attitudes and Electoral Behavior of Young People: The Cases of Turkey and Bulgaria’, *ACTA POLITOLOGICA*, 13(3), pp. 1–23. Available at: https://doi.org/10.14712/1803-8220/2_2021.

Pennings, P. (2017) ‘When and where did the great recession erode the support of democracy?’, *Zeitschrift für Vergleichende Politikwissenschaft*, 11(1), pp. 81–103. Available at: https://doi.org/10.1007/s12286-017-0337-x.

Pfanzelt, H. and Spies, D.C. (2019) ‘The Gender Gap in Youth Political Participation: Evidence from Germany’, *Political Research Quarterly*, 72(1), pp. 34–48. Available at: https://doi.org/10.1177/1065912918775249.

Pilkington, H. and Pollock, G. (2015) ‘“Politics are Bollocks”: Youth, Politics and Activism in Contemporary Europe’, *The Sociological Review*, 63(2_suppl), pp. 1–35. Available at: https://doi.org/10.1111/1467-954X.12260.

Pontes, A.I., Henn, M. and Griffiths, M.D. (2019) ‘Youth political (dis)engagement and the need for citizenship education: Encouraging young people’s civic and political participation through the curriculum’, *Education, Citizenship and Social Justice*, 14(1), pp. 3–21. Available at: https://doi.org/10.1177/1746197917734542.

Posner, D.N. (2004) ‘The Political Salience of Cultural Difference: Why Chewas and Tumbukas Are Allies in Zambia and Adversaries in Malawi’, *American Political Science Review*, 98(4), pp. 529–545. Available at: https://doi.org/10.1017/S0003055404041334.

Primo, D.M., Jacobsmeier, M.L. and Milyo, J. (2007) ‘Estimating the Impact of State Policies and Institutions with Mixed-Level Data’, *State Politics & Policy Quarterly*, 7(4), pp. 446–459. Available at: https://doi.org/10.1177/153244000700700405.

Pruitt, L. (2017) ‘Youth, politics, and participation in a changing world’, *Journal of Sociology*, 53(2), pp. 507–513. Available at: https://doi.org/10.1177/1440783317705733.

Pruitt, L. (2020) ‘Rethinking youth bulge theory in policy and scholarship: incorporating critical gender analysis’, *International Affairs*, 96(3), pp. 711–728. Available at: https://doi.org/10.1093/ia/iiaa012.

Putnam, R.D. (2000) *Bowling alone: the collapse and revival of American community*. New York: Simon & Schuster.

Quintelier, E. (2007) ‘Differences in political participation between young and old people’, *Contemporary Politics*, 13(2), pp. 165–180. Available at: https://doi.org/10.1080/13569770701562658.

Quintelier, E. (2015) ‘Engaging Adolescents in Politics: The Longitudinal Effect of Political Socialization Agents’, *Youth & Society*, 47(1), pp. 51–69. Available at: https://doi.org/10.1177/0044118X13507295.

Quintelier, E. and Van Deth, J.W. (2014) ‘Supporting Democracy: Political Participation and Political Attitudes. Exploring Causality using Panel Data’, *Political Studies*, 62(1_suppl), pp. 153–171. Available at: https://doi.org/10.1111/1467-9248.12097.

Resnick, D. and Casale, D. (2014) ‘Young populations in young democracies: generational voting behaviour in sub-Saharan Africa’, *Democratization*, 21(6), pp. 1172–1194. Available at: https://doi.org/10.1080/13510347.2013.793673.

Roche, S. (2010) ‘From youth bulge to conflict: the case of Tajikistan’, *Central Asian Survey*, 29(4), pp. 405–419. Available at: https://doi.org/10.1080/02634937.2010.533968.

Rojas, H. and Puig-i-Abril, E. (2009) ‘Mobilizers Mobilized: Information, Expression, Mobilization and Participation in the Digital Age’, *Journal of Computer-Mediated Communication*, 14(4), pp. 902–927. Available at: https://doi.org/10.1111/j.1083-6101.2009.01475.x.

Romanov, D. and Korotayev, A. (2019) ‘Non-Violent, but Still Dangerous: Testing the Link Between Youth Bulges and the Intensity of Nonviolent Protests’, *SSRN Electronic Journal*. Available at: https://doi.org/10.2139/ssrn.3436744.

Runciman, W.G. (1966) *Relative deprivation and social justice*. Berkeley: University of California Press.

Sairambay, Y. (2020) ‘Reconceptualising political participation’, *Human Affairs*, 30(1), pp. 120–127. Available at: https://doi.org/10.1515/humaff-2020-0011.

Sartori, G. (1970) ‘Concept Misformation in Comparative Politics’, *The American Political Science Review*, 64(4), pp. 1033–1053. Available at: https://doi.org/10.2307/1958356.

Sawyer, P.S. *et al.* (2022) ‘Urbanization, the Youth, and Protest: A Cross-National Analysis’, *Cross-Cultural Research*, 56(2–3), pp. 125–149. Available at: https://doi.org/10.1177/10693971211059762.

Schlozman, K.L., Burns, N. and Verba, S. (1999) ‘“What Happened at Work Today?”: A Multistage Model of Gender, Employment, and Political Participation’, *The Journal of Politics*, 61(1), pp. 29–53. Available at: https://doi.org/10.2307/2647774.

Shimer, R. (2001) ‘The Impact of Young Workers on the Aggregate Labor Market’, *Quarterly Journal Of Economics*, pp. 969–1007.

Sloam, J. (2016) ‘Diversity and voice: The political participation of young people in the European Union’, *The British Journal of Politics and International Relations*, 18(3), pp. 521–537. Available at: https://doi.org/10.1177/1369148116647176.

Sloam, J., Ehsan, R. and Henn, M. (2018) '"Youthquake": How and Why Young People Reshaped the Political Landscape in 2017', *Political Insight*, 9(1), pp. 4–8. Available at: https://doi.org/10.1177/2041905818764697.

Sloam, J. and Henn, M. (2019) *Youthquake 2017: The Rise of Young Cosmopolitans in Britain*. Cham: Springer International Publishing. Available at: https://doi.org/10.1007/978-3-319-97469-9.

Smets, K. (2012) 'A Widening Generational Divide? The Age Gap in Voter Turnout Through Time and Space', *Journal of Elections, Public Opinion & Parties*, 22(4), pp. 407–430. Available at: https://doi.org/10.1080/17457289.2012.728221.

Smith, H.J. and Pettigrew, T.F. (2015) 'Advances in Relative Deprivation Theory and Research', *Social Justice Research*, 28(1), pp. 1–6. Available at: https://doi.org/10.1007/s11211-014-0231-5.

Sola-Morales, S. and Hernández-Santaolalla, V. (2017) 'Voter Turnout and New Forms of Political Participation of Young People: A Comparative Analysis Between Chile and Spain.' *Revista Latina de Comunicación Social* 72, pp. 629–648. Available at: https://doi.org/10.4185/RLCS-2017-1183.

Soler-i-Martí, R. (2015) 'Youth political involvement update: measuring the role of cause-oriented political interest in young people's activism', *Journal of Youth Studies*, 18(3), pp. 396–416. Available at: https://doi.org/10.1080/13676261.2014.963538.

Sommers, M. (2011) 'Governance, Security and Culture: Assessing Africa's Youth Bulge' *International Journal of Conflict and Violence*, 5(2), pp. 292–303. Available at: . https://doi.org/10.4119/ijcv-2874

Sommet, N. and Morselli, D. (2017) 'Keep Calm and Learn Multilevel Logistic Modeling: A Simplified Three-Step Procedure Using Stata, R, Mplus, and SPSS', *International Review of Social Psychology*, 30(1), pp. 203–218. Available at: https://doi.org/10.5334/irsp.90.

Stocké, V. and Stark, T. (2007) 'Political involvement and memory failure as interdependent determinants of vote overreporting', *Applied Cognitive Psychology*, 21(2), pp. 239–257. Available at: https://doi.org/10.1002/acp.1339.

Stoker, G. *et al.* (2017) 'Complacent young citizens or cross-generational solidarity? An analysis of Australian attitudes to democratic politics', *Australian Journal of Political Science*, 52(2), pp. 218–235. Available at: https://doi.org/10.1080/10361146.2017.1298718.

Stolle, D. and Hooghe, M. (2011) 'Shifting inequalities', *European Societies*, 13(1), pp. 119–142. Available at: https://doi.org/10.1080/14616696.2010.523476.

Struber, S. (2010) 'The Effect of Marriage on Political Identification', *Inquiries Journal/Student Pulse*, 2(01). Available at: http://www.inquiriesjournal.com/a?id=127.

Sukarieh, M. and Tannock, S. (2014) *Youth Rising?: The Politics of Youth in the Global Economy*. 1st edn. Routledge. Available at: https://doi.org/10.4324/9781315884660.

Sukarieh, M. and Tannock, S. (2018) 'The global securitisation of youth', *Third World Quarterly*, 39(5), pp. 854–870. Available at: https://doi.org/10.1080/01436597.2017.1369038.

Symonds, A. (2020) 'Why Don't Young People Vote, and What Can Be Done About It?', *The New York Times*, 8 October. Available at: https://www.nytimes.com/2020/10/08/upshot/youth-voting-2020-election.html (Accessed: 29 October 2021).

Taylor, M.C. (2001) 'Fraternal Deprivation, Collective Threat, and Racial Resentment: Perspective on White Racism', in I. Walker and H.J. Smith (eds) *Relative Deprivation*. 1st edn. Cambridge University Press, pp. 13–43. Available at: https://doi.org/10.1017/CBO9780511527753.002.

Teorell, J. (2006) 'Political participation and three theories of democracy: A research inventory and agenda', *European Journal of Political Research*, 45(5), pp. 787–810. Available at: https://doi.org/10.1111/j.1475-6765.2006.00636.x.

Teorell, J., Torcal, M. and Montero, J.R. (2007) 'Political Participation: Mapping the Terrain', in J. van Deth, José Ramon Montero, and A. Westholm (eds) *Citizenship and Involvement in European Democracies: A Comparative Perspective*. Routledge, pp. 334–357.

Theocharis, Y. (2015) 'The Conceptualization of Digitally Networked Participation', *Social Media + Society*, 1(2), pp. 1-14. Available at: https://doi.org/10.1177/2056305115610140.

Theocharis, Y. and van Deth, J.W. (2017) *Political Participation in a Changing World: Conceptual and Empirical Challenges in the Study of Citizen Engagement*. 1st edn. Routledge. Available at: https://doi.org/10.4324/9780203728673.

Theocharis, Y. and van Deth, J.W. (2018) 'The continuous expansion of citizen participation: a new taxonomy', *European Political Science Review*, 10(1), pp. 139–163. Available at: https://doi.org/10.1017/S1755773916000230.

Thyen, K. (2018) 'Managing Contention: Divergent Government Responses to Youth Protests in the Arab World', *Middle East Law and Governance*, 10(1), pp. 91–116. Available at: https://doi.org/10.1163/18763375-01001003.

Treviño, E. *et al.* (2019) 'Forms of Youth Political Participation and Educational System: The Role of the School for 8th Grade Students in Chile', *YOUNG*, 27(3), pp. 279–303. Available at: https://doi.org/10.1177/1103308818787691.

Tutz, G. and Berger, M. (2020) *Non Proportional Odds Models are Widely Dispensable -- Sparser Modeling based on Parametric and Additive Location-Shift Approaches*. Available at : arXiv:2006.03914

Tzannatos, Z. (2021) 'The youth bulge The mismeasured, misunderstood and mistreated Arab youth', in H. Hakimian (ed.) *The Routledge Handbook on the Middle East Economy*. 1st edn. Routledge, pp. 302–318. Available at: https://doi.org/10.4324/9781315103969.

United Nations (n.d) *Frequently asked questions | United Nations For Youth, United Nations Department of Economic and Social Affairs Youth*. Available at:

https://www.un.org/development/desa/youth/what-we-do/faq.html (Accessed: 16 February 2022).

United Nations, Department of Economic and Social Affairs (2018) *World Youth Report: Youth and the 2030 Agenda for Sustainable Development*. New York: United Nations Publications.

United Nations, Department of Economic and Social Affairs, Population Division (2013) *World Population Prospects: The 2012 Revision, Highlights and Advance Tables*. United Nations, Working Paper No. ESA/P/WP.228.

Urdal, H. (2004) 'The Devil in the Demographics: The Effect of Youth Bulges on Domestic Armed Conflict, 1950-2000', in *Social Development Papers-. Conflict Prevention and Reconstruction*, World Bank (14), pp. 1–31.

Urdal, H. (2006) 'A Clash of Generations? Youth Bulges and Political Violence', *International Studies Quarterly*, 50(3), pp. 607–629. Available at: https://doi.org/10.1111/j.1468-2478.2006.00416.x.

Urdal, H. and Hoelscher, K. (2012) 'Explaining Urban Social Disorder and Violence: An Empirical Study of Event Data from Asian and Sub-Saharan African Cities', *International Interactions*, 38(4), pp. 512–528. Available at: https://doi.org/10.1080/03050629.2012.697427.

Verba, S. and Nie, N.H. (1972) *Participation in America: political democracy and social equality*. University of Chicago Press ed. Chicago: University of Chicago Press.

Verba, S., Schlozman, K. and Brady, H. (1995) *Voice and Equality: Civic Voluntarism in American Democracy*. Cambridge: Harvard University Press.

Vrablikova, K. (2014) 'The different pathways of participation in new social movement and contemporary anti-austerity movement protests', in *Paper presentation. MPSA conference*, Chicago, IL, pp. 1–28. Available at: https://www.academia.edu/2964615/_The_different_pathways_of_participation_in_new_social_movement_and_contemporary_anti_austerity_movement_protests_Paper_presented_at_the_2014_MPSA_conference_Chicago_April_3_6_2014 (Accessed: 29 March 2022).

Wahlström, M. *et al.* (eds) (2019) *Protest for a future: Composition, mobilization and motives of the participants in Fridays For Future climate protests on 15 March, 2019 in 13 European cities*. Project Report. Available at: https://eprints.keele.ac.uk/id/eprint/6536/1/Protest%20for%20a%20future_GCS%2015.03.19%20Descriptive%20Report-2.pdf.

Waismel-Manor, I. and Sarid, J. (2011) 'Can Overreporting in Surveys be Reduced? Evidence from Israel's Municipal Elections', *International Journal of Public Opinion Research*, 23(4), pp. 522–529. Available at: https://doi.org/10.1093/ijpor/edr021.

Walker, I. and Smith, H.J. (eds) (2002) *Relative Deprivation: Specification, Development, and Integration*. 1st edn. Cambridge University Press. Available at: https://doi.org/10.1017/CBO9780511527753.

Walker, L.D. and Kehoe, G. (2013) 'Regime Transition and Attitude toward Regime: The Latin American Gender Gap in Support for Democracy', *Comparative Politics*, 45(2), pp. 187–205. Available at: https://doi.org/10.5129/001041513804634262.

Weber, H. (2013) 'Demography and democracy: the impact of youth cohort size on democratic stability in the world', *Democratization*, 20(2), pp. 335–357. Available at: https://doi.org/10.1080/13510347.2011.650916.

Weber, H. (2019) 'Age structure and political violence: a re-assessment of the "youth bulge" hypothesis', *International Interactions*, 45(1), pp. 80–112. Available at: https://doi.org/10.1080/03050629.2019.1522310.

Weiss, J. (2020) 'What Is Youth Political Participation? Literature Review on Youth Political Participation and Political Attitudes', *Frontiers in Political Science*, 2, pp. 1-13. Available at: https://doi.org/10.3389/fpos.2020.00001

Whiteley, P. (2012) *Political Participation in Britain*. London: Macmillan Education UK. Available at: https://doi.org/10.1007/978-0-230-35849-2.

Whiteley, P. and Seyd, P. (2002) *High-intensity participation: the dynamics of party activism in Britain*. Ann Arbor: The University of Michigan Press.

Wicks, R.H. *et al.* (2014) 'Correlates of Political and Civic Engagement Among Youth During the 2012 Presidential Campaign', *American Behavioral Scientist*, 58(5), pp. 622–644. Available at: https://doi.org/10.1177/0002764213515226.

Williams, B. (2005) *In the Beginning Was the Deed: Realism and Moralism in Political Argument*. Edited by G. Hawthorn. Princeton, N.J: Princeton University Press.

Wyn, J. and White, R.D. (1997) *Rethinking youth*. St Leonards, NSW: Allen & Unwin (Studies in society).

Yair, O. and Miodownik, D. (2016) 'Youth bulge and civil war: Why a country's share of young adults explains only non-ethnic wars', *Conflict Management and Peace Science*, 33(1), pp. 25–44. Available at: https://doi.org/10.1177/0738894214544613.

Ye, Y. and Shu, X. (2022) 'Lonely in a Crowd: Cohort Size and Happiness in the United Kingdom', *Journal of Happiness Studies*, 23, pp. 2235–2257 Available at: https://doi.org/10.1007/s10902-021-00495-x.

Zhai, Y. (2022) 'Embracing the concept of democracy in China: citizens' democratic perceptions and support', *Contemporary Politics*, 0(0), pp. 1–21. Available at: https://doi.org/10.1080/13569775.2022.2118436.

Zvulun, J.Y. and Harel, Y. (2018) 'Elections as an Opportunity of learning Civic Education and Political Participation for teenagers', *Citizenship, Social and Economics Education*, 17(2), pp. 136–147. Available at: https://doi.org/10.1177/2047173418768548.

APPENDICES

Study 1 Appendices : Does Cohort Size Matter? Assessing the Effect of Youth Cohort Size and Peer Influence on Youth People's Electoral Participation

Appendix 1. List of countries in the sample

Country	Year of data collection
Australia	2012
Brazil	2014
Chile	2012
Colombia	2012
Cyprus	2011
Estonia	2011
Georgia	2014
Germany	2013
Ghana	2012
India	2012
Japan	2010
Korea Republic	2010
Malaysia	2012
Mexico	2012
Netherlands	2012
New Zealand	2011
Pakistan	2012
Peru	2012
Philippines	2012
Poland	2012
Romania	2012
Slovenia	2011
South Africa	2013
Sweden	2011
Trinidad and Tobago	2010

Turkey	2012
Ukraine	2011
United States	2011
Uruguay	2011

Appendix 2. List of variables in the analysis

Variable	Contents	Coding	Original wording	Source
YCS	Youth Cohort Size; Size of the youth cohort relative to the adult population (15 +)			United National Population Division
Age	Age of the respondent	In years	'[…] you are ____ years old'	WVS; V242
Peer influence	The frequency of obtaining information from friends and colleagues	[1, 5]	'People learn what is going on in this country and the world from various sources. For each of the following sources, please indicate whether you use it to obtain information daily, weekly, monthly, less than monthly or never', 'Friends and colleagues'	WVS; V224 (scale reversed)
Polity IV Score	Quality of democracy	[6, 10]	'The Polity scheme consists of six component measures that record key qualities of executive recruitment, constraints on executive authority and political competition. It also records changes in the institutionalized qualities of governing authority.' [a]	The Polity Project, Polity IV democracy index
Mandatory Voting	Is voting mandatory?	1 – Voting is not mandatory 2 – Voting is mandatory but not enforced 3 – Voting is mandatory and enforced by law		Own collection

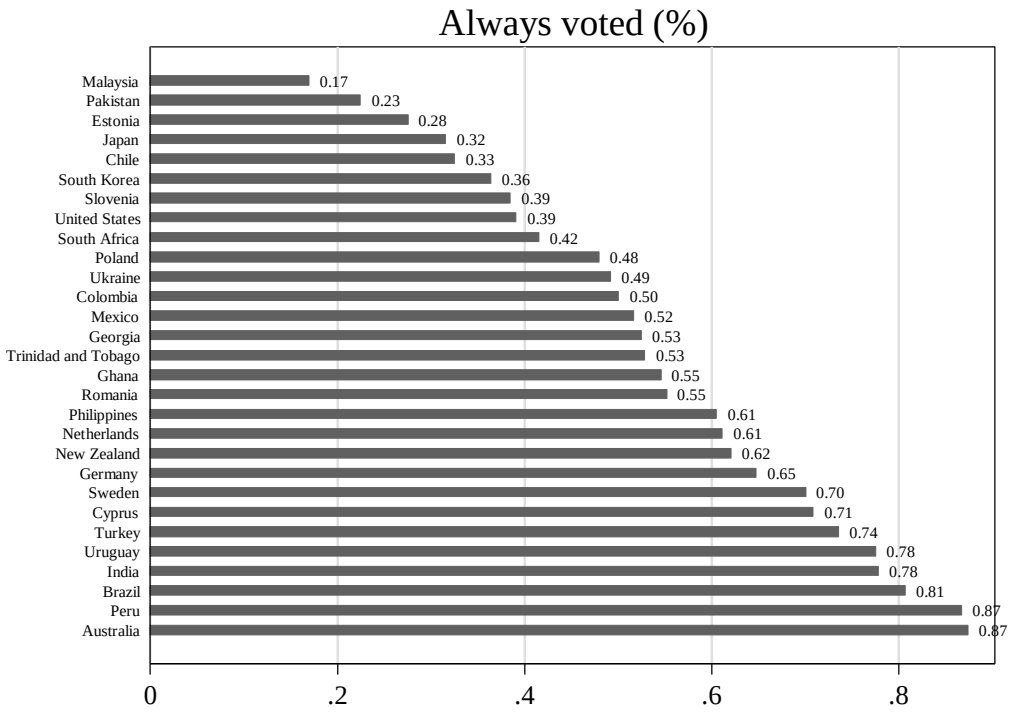
Compulsory education	The number of years citizens must spend in school in the country	In years		The World Bank; UNESCO Institute for Statitics [b]
Gender	Gender of the respondent	1 – Male, 2 – Female	Coded by observation	WVS; V240
Marital Status	Marital status of the respondent	1 – Married 2 – Unmarried	Are you currently (read out and code one answer only): 1 Married 2 Living together as married 3 Divorced 4 Separated 5 Widowed 6 Single	WVS; V57 (recoded)
Education	Level of education	In years	At what age did you (or will you) complete your full time education, either at school or at an institution of higher education?	WVS; V49
Employment Status	Employment status of the respondent	1 – Unemployed 2 – Student 3 – Employed	Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job (code one answer): Yes, has paid employment: 1 Full time employee (30 hours a week or more)	WVS; V229 (recoded)

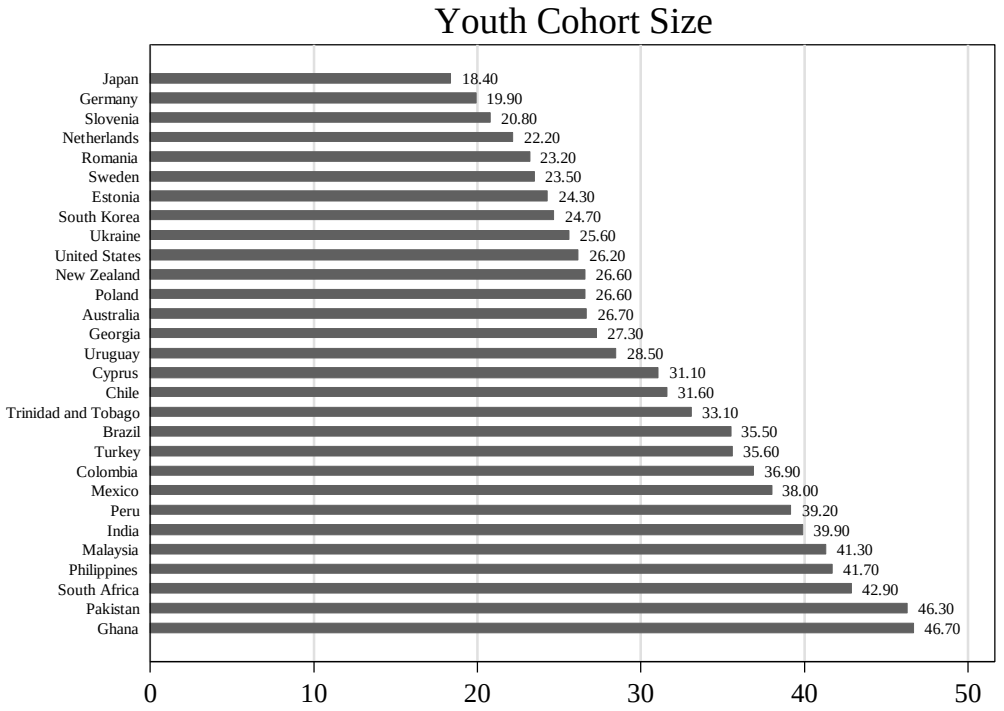
			2 Part time employee (less than 30 hours a week) 3 Self employed No, no paid employment: 4 Retired/pensioned 5 Housewife not otherwise employed 6 Student 7 Unemployed 8 Other	
Political Interest	Political interest	[1, 4]	'How interested would you say you are in politics?'	WVS; V84 (scale reversed)
Importance of Politics	How important is politics	[1, 4]	'[…] indicate how important it is in your life'	WVS; V7 (scale reversed)
Importance of Democracy	How important is democracy	[1, 10]	'How important is it for you to live in a country that is governed democratically? On this scale where 1 means it is "not at all important" and 10 means "absolutely important" what position would you choose?'	WVS; V140
Satisfaction with Income	Satisfaction with the household income	[1, 10]	'How satisfied are you with the financial situation of your household?'	WVS; V59

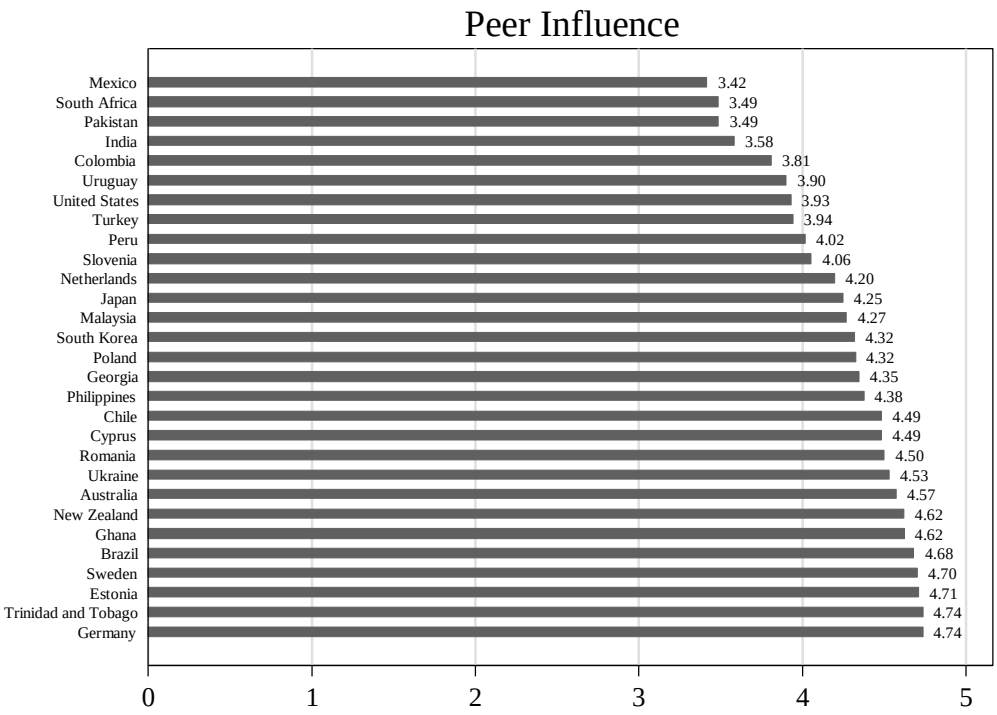
a https://www.systemicpeace.org/polityproject.html

b https://data.worldbank.org/indicator/SE.COM.DURS?most_recent_year_desc=true

Appendix 3. Distribution of key variables







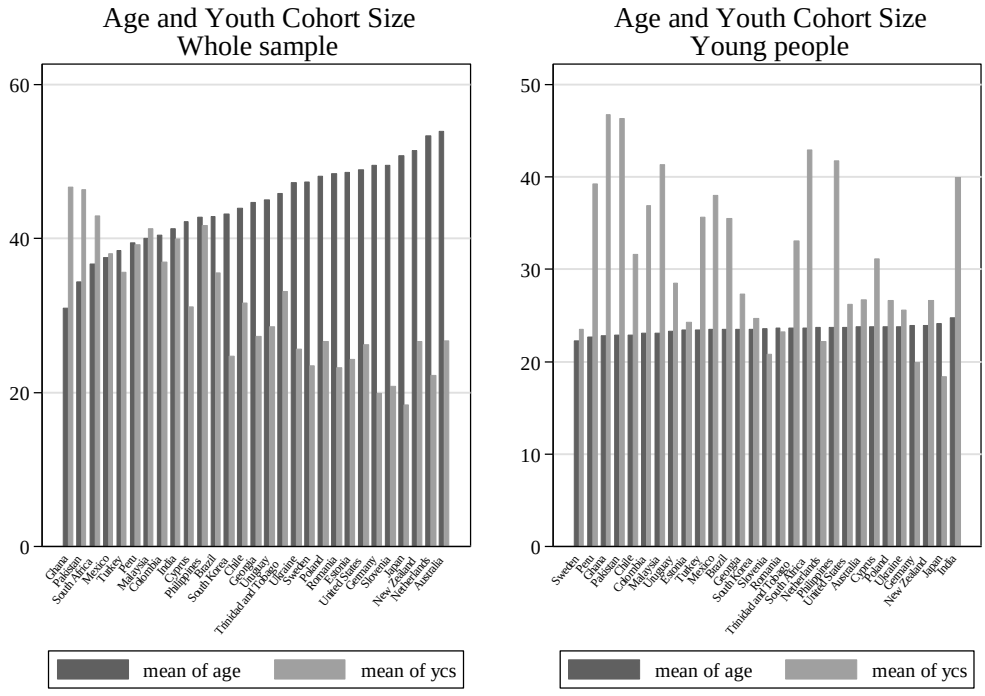
To sort out potential issues with multicollinearity in the models, below we present the individual and the average values of the Variance Inflation Factor (VIF). The table reveals that there is no disturbing multicollinearity in the model. The inclusion of country fixed-effects, however, increases the values of VIF for the country-level measures. This is due to the relatively small number of countries in our sample. Therefore, we aimed at minimizing the number of country-level control variables in the models. Even with the inclusion of country fixed effects, the country-level measures remain significant. Therefore, we decided to keep the country fixed effects in the model to minimize omitted variables bias on the country level.

Variance Inflation Factors in the models presented in the paper

Variables	**VIF**
Youth Cohort Size	1.29
Peer Influence	1.11
Age	1.41
Polity IV Score	1.25
Mandatory Voting: Mandatory but not enforced	1.45
Mandatory Voting: Mandatory and enforced	1.49

Compulsory Education	1.71
Gender: Female	1.09
Marital Status: Unmarried	3.00
Education	1.08
Employment Status: Student	1.77
Employment Status: Employed	1.58
Political Interest	1.41
Importance of Politics	1.39
Importance of Democracy	1.03
Satisfaction with Income	3.21
Average VIF	1.58

Furthermore, one could rightly assume that age and YCS are strongly connected, which may eventually inflate standard errors in the models. However, this is not the case. The correlation coefficient between age and YCS amounts to - 0.304 in the whole sample (young people and adults included), and only - 0.031 in the sample of young people. The figure below visualizes the relationship between age and YCS. In the analysis we use the sample of young people, where this relationship is negligible.



Appendix 4. Multinomial logit models with country fixed effects and country-clustered standard errors explaining electoral participation: the models presented in the paper

As due to a small sample size on the country level (< 30) the advantages of multilevel modelling cannot be fully exploited (Moehring, 2012), and following Primo et al. (2007) we opted for a single-level multinomial logit model with country fixed effects (FE) and country-clustered standard errors. This allowed us to reach convergence in all our models as well as avoid omitted variable bias on the country-level. Our decision for the single-level models is further supported by the discussion of Maas and Cox (2004) and Bryan and Jenkins (2016) on the proper sample size on level-2 in logit models. However, to assert the robustness of our approach, we estimated a simpler multilevel multinomial logit model as well, which is presented in Appendix 5. The multilevel models, however, do not contain country-fixed effects, and therefore, have a greater potential to omitted variable bias.

In the models presented below, the 'Never votes' category of the dependent variable is selected as reference. A one-unit increase in the independent variable is associated with a [Coef.] increase/decrease in the relative log odds of usually voting vs. never voting, and always voting vs. never voting respectively. Positive coefficients mean that the given regressor increases the likelihood of usually voting/always voting against never voting.

Due to perfect multicollinearity, from the country fixed effects the dummy variable for Trinidad and Tobago, Turkey, Ukraine, the USA and Uruguay are excluded from the models.

	Model 1		Model 2	
	Usually	Always	Usually	Always
	Coef. (SE)	Coef. (SE)	Coef. (SE)	Coef. (SE)
YCS	-0.374* (0.008)	-0.118* (0.008)	-0.348* (0.016)	-0.069* (0.022)
Peer Influence	0.012 (0.024)	0.084* (0.026)	0.232* (0.100)	0.485* (0.146)
YCS × Peer Influence			-0.006* (0.003)	-0.011* (0.004)

Controls				
Polity IV Score	-0.198*	-0.271*	-0.189*	-0.258*
	(0.013)	(0.009)	(0.013)	(0.009)
Mandatory voting: Not enforced	4.850*	3.170*	4.829*	3.130*
	(0.099)	(0.124)	(0.109)	(0.136)
Mandatory voting: Enforced	0.100*	2.450*	0.080	2.419*
	(0.048)	(0.044)	(0.046)	(0.040)
Compulsory Education	-0.539*	-0.275*	-0.530*	-0.260*
	(0.011)	(0.010)	(0.012)	(0.012)
Age	0.198*	0.229*	0.198*	0.229*
	(0.028)	(0.033)	(0.028)	(0.033)
Gender: Female	-0.063	0.020	-0.067	0.016
	(0.100)	(0.090)	(0.102)	(0.092)
Marital Status: Unmarried	-0.394*	-0.440*	-0.392*	-0.442*
	(0.179)	(0.151)	(0.178)	(0.151)
Education	-0.001	0.001	-0.001	0.001
	(0.005)	(0.004)	(0.005)	(0.004)
Employment Status: Student	-0.316*	-0.237	-0.320*	-0.244
	(0.151)	(0.154)	(0.149)	(0.152)
Employment Status: Employed	0.205*	0.278*	0.203*	0.276*
	(0.086)	(0.079)	(0.086)	(0.078)
Political Interest	0.184*	0.495*	0.183*	0.492*
	(0.059)	(0.073)	(0.058)	(0.072)
Importance of Politics	0.083	0.124*	0.082	0.125*
	(0.048)	(0.039)	(0.049)	(0.041)
Importance of Democracy	0.000	0.096*	0.000	0.096*
	(0.018)	(0.019)	(0.018)	(0.019)
Satisfaction with Income	0.052	0.044	0.051	0.044
	(0.029)	(0.031)	(0.029)	(0.031)
Intercept	12.960*	1.567*	11.817*	-0.483
	(0.608)	(0.613)	(0.794)	(1.182)
N	10124		10124	

LR test	3582.266*	3594.455*
Pseudo R^2	0.177	0.177
Log pseudolikelihood	-8343.038	-8336.944

* $p < 0.05$

Entries are multinomial logit coefficients. Robust standard errors in parentheses. Standard errors are clustered across countries. Country fixed-effects are included.

Reference groups: Mandatory Voting: Voting not mandatory; Gender: Male; Marital Status: Married; Employment Status: Unemployed

Appendix 5. Multilevel random intercept multinomial logistic regressions explaining electoral participation: a simple model

As mentioned in the paper and Appendix 4, we opted for a single-level multinomial logit model with country fixed effects and country-clustered standard errors. However, to assert the robustness of our approach, we estimated a simpler multilevel multinomial logit model as well. To ensure convergence, the multilevel model only includes the key independent variables: YCS and Peer Influence. The random effects on the country level (level-2) are not constrained to be equal.

Because of the omitted variable bias in the multilevel model, the effect sizes differ across the single-level and multilevel models. At the same time, the single-level model does not lead to an over-rejection of the null hypothesis of no effects. Thus, while the estimations of the standard errors may be biased ('downward') in the single-level model, this does not affect our decisions about the null hypotheses. YCS significantly and negatively affects young people's electoral participation, and *Peer Influence* further strengthens this effect – as proposed by our hypotheses.

	Usually	Always	Usually	Always
	Coef. (SE)	Coef. (SE)	Coef. (SE)	Coef. (SE)
YCS	-0.042* (0.003)	-0.023* (0.003)	-0.011* (0.004)	0.024 (0.019)
Peer Influence	-0.036 (0.021)	0.112* (0.168)	0.233* (0.031)	0.484* (0.071)
YCS × Peer Influence			-0.007* (0.000)	-0.011* (0.002)
Intercept	1.445* (0.141)	1.224* (0.101)	0.291* (0.146)	-0.468 (0.654)
N	10124		10124	
Log likelihood	-9367.177		-9359.70	

* p< 0.05

Entries are multilevel multinomial logit coefficients. Robust standard errors in parentheses. Standard errors are clustered across countries.

Appendix 6. Multinomial logit models with country fixed effects and country-clustered standard errors explaining electoral participation: Model 2 without the main effect of YCS

When trying to estimate the probabilities of the different categories of electoral participation in Model 2 in a post-estimation, we were faced with problems with the level-2 sample size. Unable to estimate the margins, we decided to exclude the main effect for the country-level variable in the interaction (i.e. YCS). We did this only to visualize the predicted probabilities (see figure below the table), which we think is helpful to interpret the results of Model 2. The table below presents the model that we used to estimate the probabilities. The effect of YCS dependent on *Peer Influence* is identical to the effect presented by Model 2 in the paper.

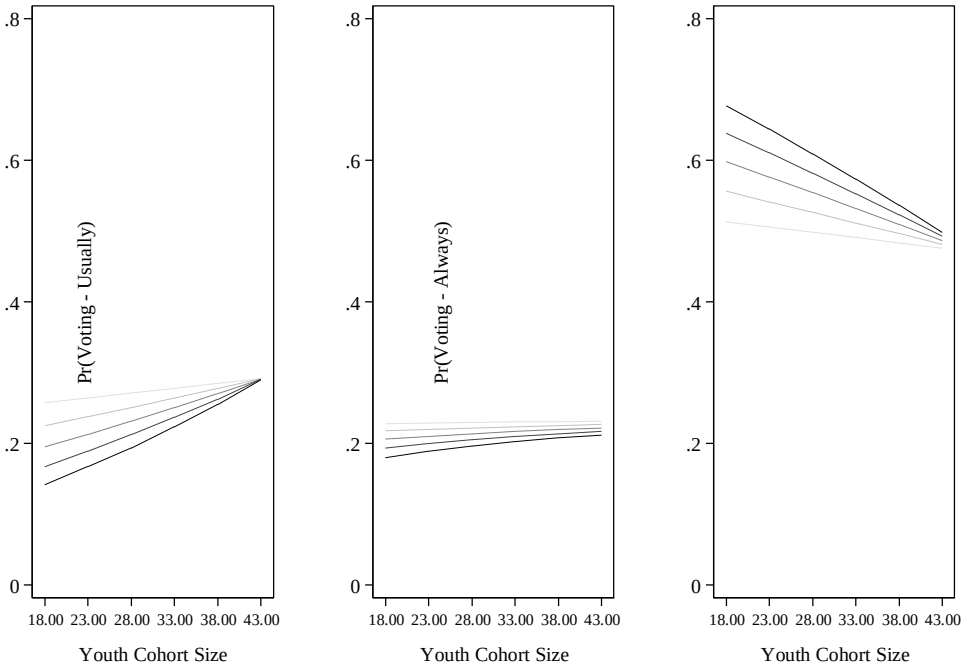
	Usually	Always
	Coef.	Coef.
	(SE)	(SE)
YCS (main effect)	Excluded	Excluded
Peer Influence (main effect)	0.232*	0.485*
	(0.100)	(0.146)
YCS × Peer Influence (interaction effect)	-0.006*	-0.011*
	(0.003)	(0.004)
Controls		
Polity IV Score	-0.202*	-0.260*
	(0.013)	(0.010)
Mandatory voting: Not enforced	1.546*	2.477*
	(0.102)	(0.158)
Mandatory voting: Enforced	-0.407*	2.322*
	(0.050)	(0.050)
Compulsory Education	-0.686*	-0.292*
	(0.018)	(0.020)
Age	0.198*	0.229*
	(0.028)	(0.033)

Gender: Female	-0.067	0.016
	(0.102)	(0.092)
Marital Status: Unmarried	-0.392*	-0.442*
	(0.178)	(0.151)
Education	-0.001	0.001
	(0.005)	(0.004)
Employment Status: Student	-0.320*	-0.244
	(0.149)	(0.152)
Employment Status: Employed	0.203*	0.276*
	(0.086)	(0.078)
Political Interest	0.183*	0.492*
	(0.058)	(0.072)
Importance of Politics	0.082	0.125*
	(0.049)	(0.041)
Importance of Democracy	0.000	0.096*
	(0.018)	(0.019)
Satisfaction with Income	0.051	0.044
	(0.029)	(0.031)
Intercept	4.712*	-1.897*
	(0.632)	(0.864)
N	10124	
LR test	3594.455*	
Pseudo R^2	0.177	
Log pseudolikelihood	-8336.944	

* $p < 0.05$

Entries are multinomial logit coefficients. Robust standard errors in parentheses. Standard errors are clustered across countries. Country fixed-effects are included.

Reference groups: Mandatory Voting: Voting not mandatory; Gender: Male; Marital Status: Married; Employment Status: Unemployed



Darker line represent stronger peer influence

Study 2 Appendices: Youth Cohort Size, Structural Socioeconomic Conditions and Youth Protest Behavior in Democratic Societies (1995 -2014).

Appendix 1: List of Democratic countries selected from WVS Waves 3-6.

Wave 3 (1995-1998)		**Wave 4 (1999-2004)**		**Wave 5 (2005-2009)**		**Wave 6 (2010 -2014)**	
Country	Polity 2 score	Country	Polity 2 score	Country	Polity 2 score	Country	Polity 2 score
Argentina	7	Argentina	8	Argentina	8	Australia	10
Australia	10	Bangladesh	6	Australia	10	Brazil	8
Bangladesh	6	Canada	10	Brazil	8	Chile	10
Brazil	8	Chile	9	Bulgaria	9	Colombia	7
Bulgaria	8	India	9	Canada	10	Cyprus	10
Chile	8	Indonesia	6	Chile	10	Estonia	9
Colombia	7	Israel	6	Colombia	7	Georgia	6
Czech Rep.	10	Japan	10	Cyprus	10	Germany	10
El Salvador	7	South Korea	8	Finland	10	Ghana	8
Estonia	9	Mexico	8	France	9	India	9
Finland	10	Moldova	8	Georgia	6	Japan	10
Germany	10	Peru	7	Germany	10	Korea Republic	8
Hungary	10	Philippines	8	Ghana	8	Malaysia	6
India	9	South Africa	9	Guatemala	8	Mexico	8
Japan	10	Spain	10	Hungary	10	Netherlands	10
South Korea	7	Turkey	7	India	9	New Zealand	10
Latvia	8	Macedonia	8	Indonesia	8	Pakistan	6
Lithuania	10	United States	10	Italy	10	Peru	9
Moldova	7	Venezuela	6	Japan	10	Philippines	8
New Zealand	10	Total	19	South Korea	8	Poland	10
Norway	10			Mali	7	Romania	9
Pakistan	8			Mexico	8	Slovenia	10
Philippines	8			Moldova	9	South Africa	9
Poland	9			Netherlands	10	Spain	10
Romania	7			New Zealand	10	Sweden	10
Slovakia	8			Norway	10	Trinidad and Tobago	10
Slovenia	10			Peru	9	Turkey	9
South Africa	9			Poland	10	Ukraine	6
Spain	10			Romania	9	United States	10
Sweden	10			Slovenia	10	Uruguay	10

Switzerland	10	South Africa	9	Total	30
Turkey	8	Spain	10		
Ukraine	7	Sweden	10		
Macedonia	6	Switzerland	10		
United Kingdom	10	Trinidad and Tobago	10		
United States	10	Turkey	7		
Uruguay	10	Ukraine	7		
		United Kingdom	10		
Venezuela	8	United States	10		
Total	38	Uruguay	10		
		Total	40		

Appendix 2: Descriptive statistics of variables used in analysis

Dependent Variables -Binary				
Variable	Percentage or respondents who have not done		Percentage of respondents who have ever done	
Attendance in Peaceful Demonstration	85.83		14.17	
Independent Variables -Continuous and Categorical (non-dummy)				
Variable	Mean	Standard Deviation	Minimum	Maximum
YCS (15-29yrs) in adult population	34.85	8.65	18.40	51.50
Youth Unemployment rate (15-24yrs)	19.77	12.52	3.44	59.47
Tertiary enrolment rate, gross %	41.55	21.81	5.66	99.77
Logged GDP per Capita at *ppp*	9.42	0.86	7.31	11.10
Polity IV score	8.41	1.28	6	10
Age	23.40	3.52	15	29
Educational Attainment	2.08	1.04	1	4
Employment Status	2.17	0.86	1	3
Interest in Politics	2.21	0.94	1	4
Postmaterialist Index score	1.88	0.63	1	3
Satisfaction with your life	7.02	2.29	1	10
Satisfaction with the income levels of your household	5.90	2.50	1	10
Independent Variables -Binary				
	Percent-Male		Percent-Female	
Gender	49.09		50.91	
	Percent-Married		Percent-Unmarried/Single	
Marital Status	25.80		74.20	

Appendix 3: List of variables used for study.

Variable	Definition	Final Coding used in analysis	Original wording/Coding	Source
		Country Level		
YCS	Youth Cohort Size; The proportion of youth (15-29years) relative to the adult population of a country (15 +)	N/A	N/A	United National Population Division
Youth Unemployment Rate	Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)	N/A	N/A	World Bank
Tertiary Enrollment Rate	School enrollment, tertiary (% gross)	N/A	N/A	World Bank
GDP (logged)	GDP per capita, PPP (constant 2011 international $)	N/A	N/A	World Bank
Polity IV Score	Quality of democracy	[6, 10]	'The Polity scheme consists of six component measures that record key qualities of executive recruitment, constraints on executive authority and political competition. It also records changes in the institutionalized qualities of governing authority.' [a]	The Polity Project, Polity IV democracy index
		Individual Level		

Peaceful Demonstrations [recoded]	Political action: attending lawful/peaceful demonstrations	0-Not Done 1-Have Done	Below is a list of some forms of political action that people can take. For each one, please indicate whether you have done any of these things, whether you might do it or would never under any circumstances do it. Attending peaceful demonstrations 1 - Have Done 2 - Might Done 3 - Would Never Do	WVS; E027
Age	Age of the respondent	In years	'[…] you are ____ years old'	WVS; X003
Sex	Gender of the respondent	1 – Male, 2 – Female	Coded by observation	WVS; X001
Marital Status [recoded]	Marital status of respondent	1 – Married 2 – Unmarried	Are you currently (read out and code one answer only): 1 -Married 2 -Living together as married 3-Divorced 4-Separated 5-Widowed 6-Single	WVS; X007

Educational Attainment [recoded]	Level of education	1 – No formal education 2–Not completed secondary education 3 – Completed secondary education 4–Completed tertiary without degree 5 – Completed tertiary with degree	What is the highest educational level that you have attained? 1 -No formal education 2 -Incomplete primary school 3 -Complete primary school 4-Incomplete secondary school: technical/vocational type 5-Complete secondary school: technical/vocational type 6-Incomplete secondary: university-preparatory type 7-Complete secondary: university-preparatory type 8-Some university-level education, without degree 9-University-level education, with degree	WVS; X025
Employment Status [recoded]	Employment status of the respondent	1 – Unemployed 2 – Student 3 – Employed	Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job (code one answer): Yes, has paid employment: 1-Full time employee (30 hours a week or more) 2-Part time employee (less than 30 hours a week) 3-Self employed No, no paid employment: 4-Retired/pensioned 5-Housewife not otherwise employed 6-Student 7-Unemployed 8-Other	WVS; X028

Post-materialist Index	Postmaterialist values	Original coding maintained [1-3]	Post-materialist index (4-item) 1-Materialist 2-Mixed 3-Postmaterialist	WVS; Y002
Political Interest [scale reversed]	Interest in politics	[1-4] 1-Not at all interested 2-Not very interested 3-Somewhat interested 4-Very interested	'How interested would you say you are in politics?' 1-Very interested 2-Somewhat interested 3-Not very interested 4-Not at all interested	WVS; V84
Satisfaction with financial situation of household	Satisfaction with the household income	Original Likert scale and coding maintained	'How satisfied are you with the financial situation of your household?' [1-10]	WVS; C006
Satisfaction with your life	Satisfaction with life	Original Likert scale and coding maintained	'All things considered, how satisfied are you with your life as a whole these days?' [1-10]	WVS; A170

a https://www.systemicpeace.org/polityproject.html

Study 3 Appendices : Antidemocratic Youth? The influence of youth cohort size and quality of democracy on young people's support for democracy

Appendix 1: Full list of democratic countries sampled from World Values Survey Waves (5-7) with their Mean EIU scores and YCS.

	WVS Wave 5	WVS Wave 6	WVS Wave 7	Mean EIU Score (Waves 5-7)	Mean YCS (Waves 5-7)
Argentina	x	x	x	6.8	32.1
Australia	x	x	x	9.1	25.3
Brazil	x	x	x	7.2	32.6
Bulgaria	x			7.1	21.6
Canada	x			9.1	24.6
Chile	x	x	x	7.9	29.6
Colombia	x	x	x	6.7	35.0
Cyprus	x	x	x	7.5	29.2
Estonia		x		7.7	21.2
Finland	x			9.3	22.5
France	x			8.1	22.7
Germany	x	x	x	8.6	19.4
Ghana		x		6.1	45.4
Hungary	x			7.5	22.2
India	x	x		7.6	38.9
Indonesia	x		x	6.4	34.9
Italy	x			7.9	18.2
Japan	x	x	x	8.1	17.1
South Korea	x	x	x	8.0	21.6
Malaysia	x	x	x	6.5	37.8
Mexico	x	x	x	6.6	36.2
Netherlands	x	x		9.3	22.2
New Zealand	x	x	x	9.2	25.5
Norway	x			9.6	23.8
Peru	x	x	x	6.4	35.6
Philippines		x	x	6.5	40.0
Poland	x	x		7.2	24.6
Romania	x	x	x	6.7	21.4
Serbia	x		x	6.5	23.3

Slovenia	x	x		7.9	20.3
South Africa	x	x		7.9	41.1
Spain	x	x		8.2	19.4
Sweden	x	x		9.8	23.4
Switzerland	x			9.1	21.7
Thailand	x			6.2	26.1
Trinidad and Tobago	x	x		7.1	30.5
United Kingdom	x			8.1	24.1
United States	x	x	x	8.1	25.7
Uruguay	x	x		8.1	28.4
Total	**36**	**27**	**18**		

Appendix 2: List of variables in the analysis

Variable	Contents	Coding	Original wording	Source
YCS	Youth Cohort Size; Proportion of youth [15-29 years] relative to the adult population (15 +)			United National Population Division[1]
EIU democracy Index	Measure of the quality of democracy of countries	[6.01-8.0; 8.01-10]	6.01-8.0-Flawed democracy 8.01-10 – Full democracy	Economist Intelligence Unit[2]
GDP	Gross Domestic Product per Capita of countries [logged]		GDP per capita, PPP (constant 2017 international $)	World Bank[3]
Youth literacy rate [15-24 years]	The proportion of youth aged 15-24 years who are literate		Literacy rate, youth total (% of people ages 15-24)	World Bank
Youth unemployment rate	Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estim			World Bank
Support for Democracy	Having a democratic political system.	1-Very bad 2- Fairly bad 3-Failry good 4-Very good	I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Political System: having a democratic system 1-Very good 2-Fairly good 3-Fairly bad	WVS; E117 (recoded)

			4 - Very bad	
Age	Age of the respondent	In years	'[…] you are ____ years old'	WVS[4]; X003
Education	Level of education	1 – lower Level 2 – middle level 3 – Upper level	What is the highest educational level that you have attained? [NOTE: if respondent indicates to be a student, code highest level s/he expects to complete]: 1 Inadequately completed elementary education 2 Completed (compulsory) elementary education 3 Incomplete secondary school: technical/vocational type/comp 4 Complete secondary school: technical/vocational type 5 Incomplete secondary school: university-preparatory type/sec 6 Complete secondary: university-preparatory type 7 Some university education, without degree/Higher educ/low-level 8 University-level education, with degree/Higher educ/upper[tertiary.	WVS; X025R (recoded)
Sex	Sex of the respondent	1 – Male, 2 – Female	Coded by observation	WVS; X001
Employment Status	Employment status of the respondent	1 – Unemployed 2 – Student 3 – Employed	Are you employed now or not? If yes, about how many hours a week? If more than one job: only for	WVS; X028 (recoded)

			the main job (code one answer): Yes, has paid employment: 1 Full time employee (30 hours a week or more) 2 Part time employee (less than 30 hours a week) 3 Self employed No, no paid employment: 4 Retired/pensioned 5 Housewife not otherwise employed 6 Student 7 Unemployed 8 Other	
Membership of cause-oriented groups	Combined variable: membership of environmental group & membership of humanitarian group	0-Not a member of either group 1-Member of one or both groups	'For each organization, could you tell me whether you are an active member, an inactive member or not a member of that type of organization?: 0-Not a member 1-Inactive member 2-Active member	WVS; A103, A105
Satisfaction with Income	Satisfaction with the household income	[1, 10]	'How satisfied are you with the financial situation of your household?'	WVS; C006

[1] UN population data accessible from https://population.un.org/wpp/Download/Standard/Population/

[2] EIU data can be accessed from : https://www.eiu.com/n/campaigns/democracy-index-2020/

[3] World Bank data accessible from (https://databank.worldbank.org/source/world-development-indicators#)

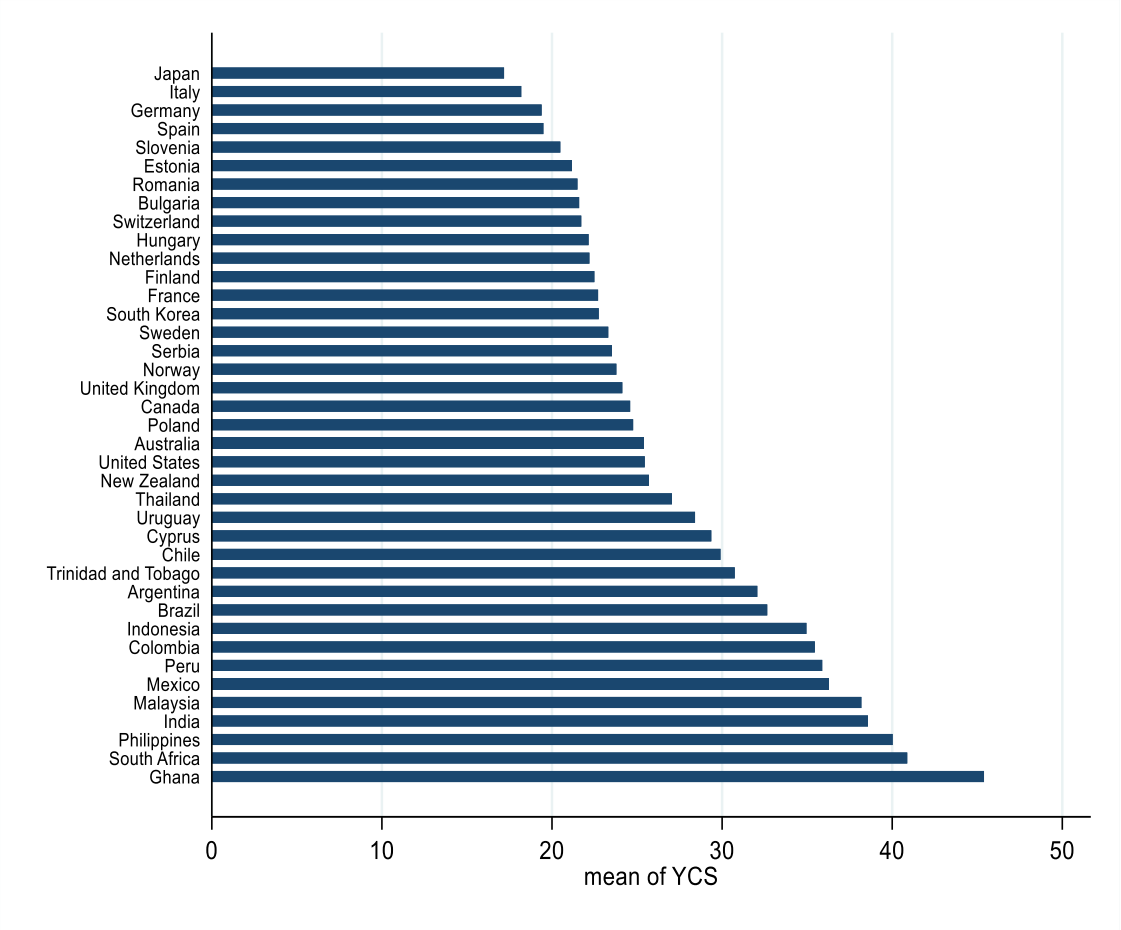
[4] World Values Survey data accessible from (www.worldvaluessurvey.org)

Appendix 3: Distribution of dependent variable - percentage of young people who thought democracy as bad vrs. Good across study countries.

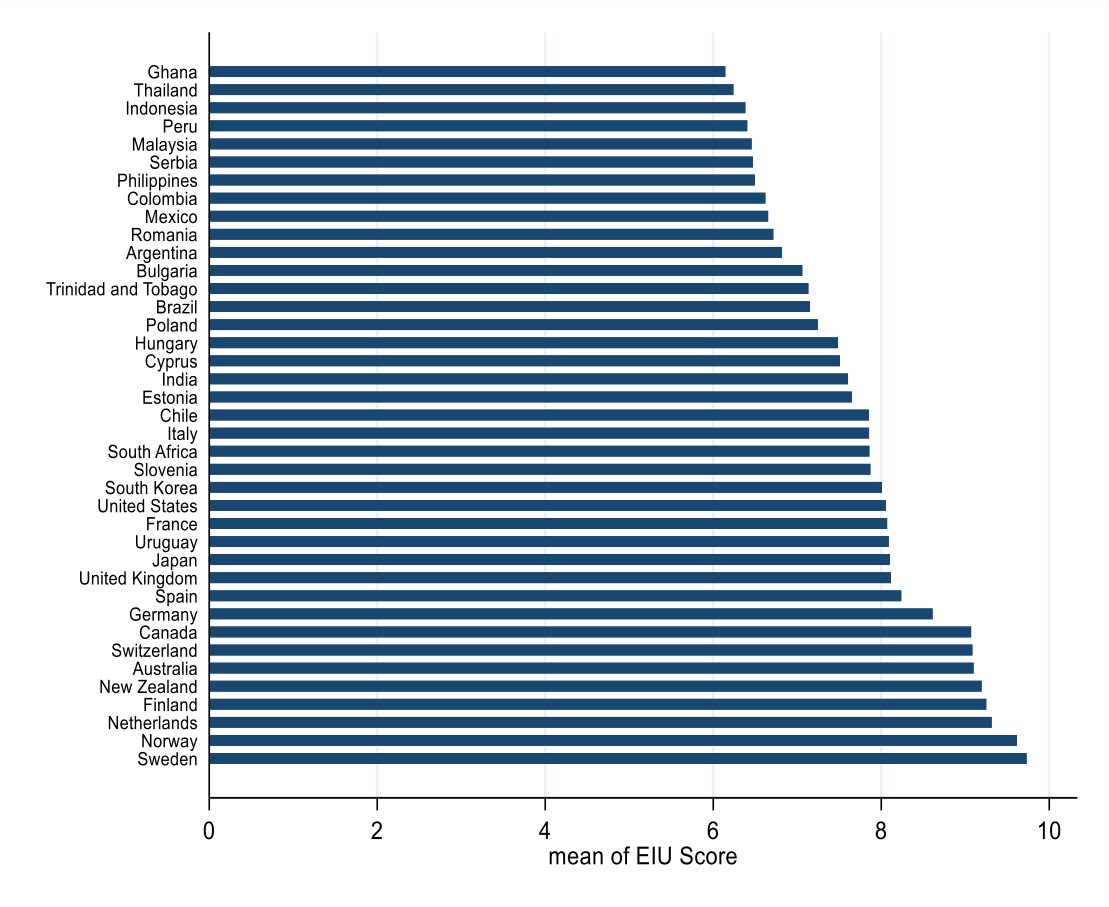
Country	Bad (fairly bad & very bad) (%)	Good (fairly good & very good) (%)
Norway	4.74	95.26
Spain	5.06	94.94
Ghana	5.12	94.88
Switzerland	5.15	94.85
Italy	5.29	94.71
Sweden	5.5	94.5
Germany	6.17	93.83
Chile	6.37	93.63
Thailand	6.42	93.58
Indonesia	6.81	93.19
Argentina	7.38	92.62
Peru	8.29	91.71
Uruguay	8.35	91.65
India	8.56	91.44
Cyprus	9.9	90.1
Netherlands	9.97	90.03
Malaysia	10.02	89.98
France	11.56	88.44
Hungary	11.56	88.44
Romania	11.99	88.01
Bulgaria	12.9	87.1
Brazil	13.32	86.68
Canada	13.66	86.34
Estonia	14.98	85.02
Trinidad and Tobago	15.42	84.58
Colombia	15.51	84.49
Finland	15.63	84.38
New Zealand	15.71	84.29
Australia	16.6	83.4
Mexico	17.02	82.98
Japan	17.04	82.96
United Kingdom	17.14	82.86
Poland	18.63	81.37

South Africa	19.73	80.27
Slovenia	20	80
United States	21.41	78.59
Serbia	21.63	78.37
Philippines	24.14	75.86
South Korea	27.48	72.52
Total	**13.13**	**86.87**

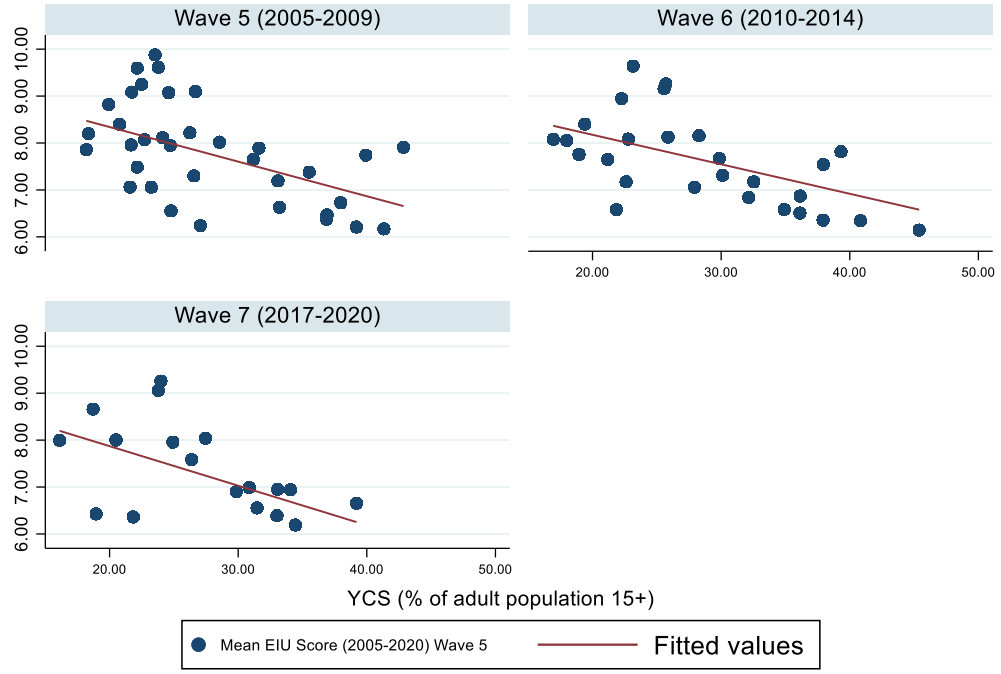
Appendix 4: Distribution of key explanatory variables – youth cohort size



Appendix 5: Distribution of key explanatory variables – quality of democracy



Appendix 6: Relationship between key explanatory variables – youth cohort size and quality of democracy



Appendix 7: Variable Correlation Matrix

Although the result shows a significant correlation between GDP and YCS, we did not think this was a problem for the analysis since they theoretically and empirically represent and also measure two distinct concepts.

	Dem	Age	Sex	Employ~t	educat~n	Mem_ca~p	Satisf~e
Dem	1.0000						
Age	-0.0046 0.4500	1.0000					
Sex	0.0077 0.2020	0.0210* 0.0004	1.0000				
Employment	0.0288* 0.0000	0.1560* 0.0000	-0.1901* 0.0000	1.0000			
education	0.0575* 0.0000	0.0843* 0.0000	0.0065 0.2741	0.1352* 0.0000	1.0000		
Mem_causeo~p	-0.0171* 0.0050	0.0115 0.0529	0.0089 0.1347	0.0237* 0.0001	0.0595* 0.0000	1.0000	
Satisfy_Ho~e	0.0202* 0.0011	-0.0505* 0.0000	-0.0054 0.3748	0.0788* 0.0000	0.0900* 0.0000	0.0246* 0.0001	1.0000
YouthLit	-0.0415* 0.0000	-0.0100 0.0915	0.0450* 0.0000	0.1003* 0.0000	0.1191* 0.0000	-0.0402* 0.0000	0.0743* 0.0000
EIU_Score	-0.0129* 0.0330	0.0350* 0.0000	0.0195* 0.0009	0.0472* 0.0000	0.1263* 0.0000	0.0081 0.1710	-0.0208* 0.0006
YCS	0.0197* 0.0012	-0.0717* 0.0000	-0.0405* 0.0000	-0.1285* 0.0000	-0.1672* 0.0000	0.1134* 0.0000	-0.0172* 0.0044
loggedgdp	-0.0327* 0.0000	0.0257* 0.0000	0.0460* 0.0000	0.1506* 0.0000	0.1775* 0.0000	-0.0747* 0.0000	0.0363* 0.0000

	YouthLit	EIU_Sc~e	YCS	logged~p
YouthLit	1.0000			
EIU_Score	0.4062* 0.0000	1.0000		
YCS	-0.5933* 0.0000	-0.5461* 0.0000	1.0000	
loggedgdp	0.7597* 0.0000	0.6272* 0.0000	-0.7951* 0.0000	1.0000

Appendix 8: Multicollinearity Test - Variance Inflation Factor

To check for multicollinearity in the models, we estimated the Variance Inflation Factor (VIF) for individual variables and the mean for the entire model. We report a VIF for the main model in the Appendix below. The value shows that there were no multicollinearity issues in our data.

Variable	VIF	1/VIF
loggedgdp	4.79	0.208662
YCS	2.78	0.359334
YouthLit	2.44	0.409921
EIU_Score	1.73	0.577852
Employment	1.11	0.897915
education	1.07	0.937449
Age	1.05	0.953410
Sex	1.05	0.956430
Mem_causeo~p	1.03	0.970355
Satisfy_Ho~e	1.03	0.975521
Mean VIF	1.81	

We also report the VIF for all the models run for robustness, including the ones with country-fixed effects and youth unemployment rates below. In all cases, the VIF was below 1.81.

Appendix 9: Descriptive Statistics of Variables

Dependent Variable -Ordinal				
Variable	Per centage of respondents =Very bad	Per centage of respondents =Fairly bad	Per centage of respondents =Fairly good	Per centage of respondents =Very good
Political System: having a democratic system	3.47	9.66	43.38	43.49
Independent Variables -Continuous and Categorical (non-dummy)				
Variable	Mean	Standard Deviation	Minimum	Maximum
YCS (15-29yrs) in adult population	31.16	7.65	16.12	45.40
EIU democracy Index	7.39	0.93	6.14	9.88
Youth literacy rate [15-24 years]	98.24	5.04	81.13	111.91
GDP per Capita at *ppp* [logged]	9.85	0.72	8.18	11.07
Youth unemployment rate	18.78	12.02	4.02	50.87
Age	23.39	3.56	15	29
Employment Status	2.25	0.84	1	3
Satisfaction with household income	6.25	2.36	1	10
Independent Variables -categorical (Binary or other)				
	Percent-Male		Percent-Female	
Sex	48.56		51.44	
	Percent -Member of one or both groups		Percent -Not a member of either group	
Membership of cause-oriented group	22.17		77.83	
	Percent lower level	Percent middle level	Percent Upper level	
	13.73	57.03	29.24	
Educational Level				

Appendix 10: Modelling strategy

Proportional Odds, Non-Proportional Odds modelling and Binary modelling.

The dependent variable (DV) for our study has four categories as responses to the following question in the WVS battery of questions on political systems (see appendix 2 above):

‘‘I’m going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Political System: having a democratic system’’.

- Very good
- Fairly good
- Fairly bad
- Very Bad.

Given the ordered nature of the DV therefore, our analysis required a guided decision on whether to use the proportional odds model for ordered multilevel analysis, or the non-proportional odds model.

The proportional odds model assumes that the effects of the independent variables (IV) on the DV are not category-specific. In other words, the model estimates the same effect of the covariates for all our four DV response categories: very bad, fairly bad, fairly good and very good. Parameters are accordingly interpreted in terms of the cumulative odds for all response categories of the DV, which show as a single regression coefficient for each IV. This masks possible nuances in the effect of the IVs across the different categories of the DV. The non-proportional odds model on the other hand estimates the effects of covariates for each response category of the DV, and consequently presents category-specific parameter estimates for each IV. Thus, for our four categories, the non-proportional odds model would generate four different coefficients which correspond to the specific effects of the covariates in each category. The proportional odds test is then used to decide which of the two best fits a given data.

The advantages and disadvantages of both models are well elaborated in the ordinal modelling literature (Liu and Mukherjee, 2005; Balakrishnan *et al.*, 2014; Gao *et al.*, 2017). For instance, Tutz and Berger discuss the comparatively poor goodness of fit of proportional odds models, to the better fitting non-proportional odds models. However, they also explain

how the unnecessarily complicated nature of fitting non-proportional odd models, and also interpreting their parameter estimates when there are many IV and DV response categories, as major disadvantages, which make non-proportional odds models widely dispensable, in favor of much simpler models (Tutz and Berger, 2020) We are tempted to believe from our experiences on this study that the afore-mentioned disadvantages of the non-proportional odds model *are most probably exacerbated in multilevel data modelling which also contains interaction terms.*

Our assessment of the parallel regression assumption for the original ordered categories of our DV using both *likelihood-ratio test* and *Brant test* showed that the assumption was violated. The chi-square value of 138.14 obtained for the likelihood -ratio test, and a value of 133.38 obtained for the Brant test were both statistically significant. We could, therefore, not model our multilevel data on the assumption of proportional odds. Despite all efforts, however, our repeated efforts at fitting the non-proportional odds models proved unsuccessful. Our models could not converge after several days of running the analysis. Other challenges with the non-proportional odds model for our multilevel data was that it could also not allow for interactions between explanatory variables unless a combined variable was created. It could also importantly not estimate margins and margins plots for our probability functions. The margins and margins plot are central to our analysis as they enable us to estimate and plot the predicated probabilities of support for democracy across countries based on varying youth cohort sizes and quality of democracy. We also encountered the same challenge of model non-convergence when we tried to relax the proportional odds assumption through our main explanatory variables-QoD and YCS-with a partial proportional odds model using the *gllam* and associated *eq thru: QoD YCS* commands in STATA 16. These setbacks informed our choice of a binary DV.

We followed the literature in treating the variable as a binary in analyses, despite its ordered nature. Thus, we grouped the *fairly bad* and *very bad* responses as one category of responses. We treated this group of responses as our reference category named *'bad'* and recoded as zero (0), and the *fairly good* and *very good* responses as the target category named *'good'* and recoded as one (1). The results presented in this paper should therefore be viewed in the light of this limitation. A total of 86.87 per cent of all respondents across the selected countries thought democracy was good (i.e., fairly good or very good), while the remaining 13.13 per

cent thought it was bad (i.e., very bad or fairly bad). We present the details of the parallel regression assumption tests below.

The likelihood ratio test required a maximum number of variables, beyond which it would not run. We therefore included the maximum number allowable in a model and kept the same set for the Brant test. The exclusion of some variables from the list below was therefore a modelling requirement and did not significantly affect the results in terms of whether or not the chi-square values were significant, or the parallel regression assumption was violated.

Likelihood ratio test:

```
Ordered logit estimates                           Number of obs   =      20974
                                                  LR chi2(6)      =     169.03
                                                  Prob > chi2     =     0.0000
Log likelihood = -21933.723                       Pseudo R2       =     0.0038

------------------------------------------------------------------------------
Democratic~m | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
         Age |  -.0010481   .0037408    -0.28   0.779    -.0083799    .0062837
         Sex |  -.0552892   .0263245    -2.10   0.036    -.1068842   -.0036942
   Education |   .1314834   .0131141    10.03   0.000     .1057803    .1571866
Mem_causeo~p |  -.0039263   .0331569    -0.12   0.906    -.0689125     .06106
   EIU_Score |    .106975   .0174604     6.13   0.000     .0727532    .1411969
         YCS |   .0198016   .0021348     9.28   0.000     .0156174    .0239857
-------------+----------------------------------------------------------------
       _cut1 |  -1.851173   .2108904          (Ancillary parameters)
       _cut2 |  -.3706819   .2082131
       _cut3 |   1.834532   .2084628
------------------------------------------------------------------------------

Approximate likelihood-ratio test of proportionality of odds
across response categories:
         chi2(12) =    138.14
       Prob > chi2 =    0.0000
```

Brant test

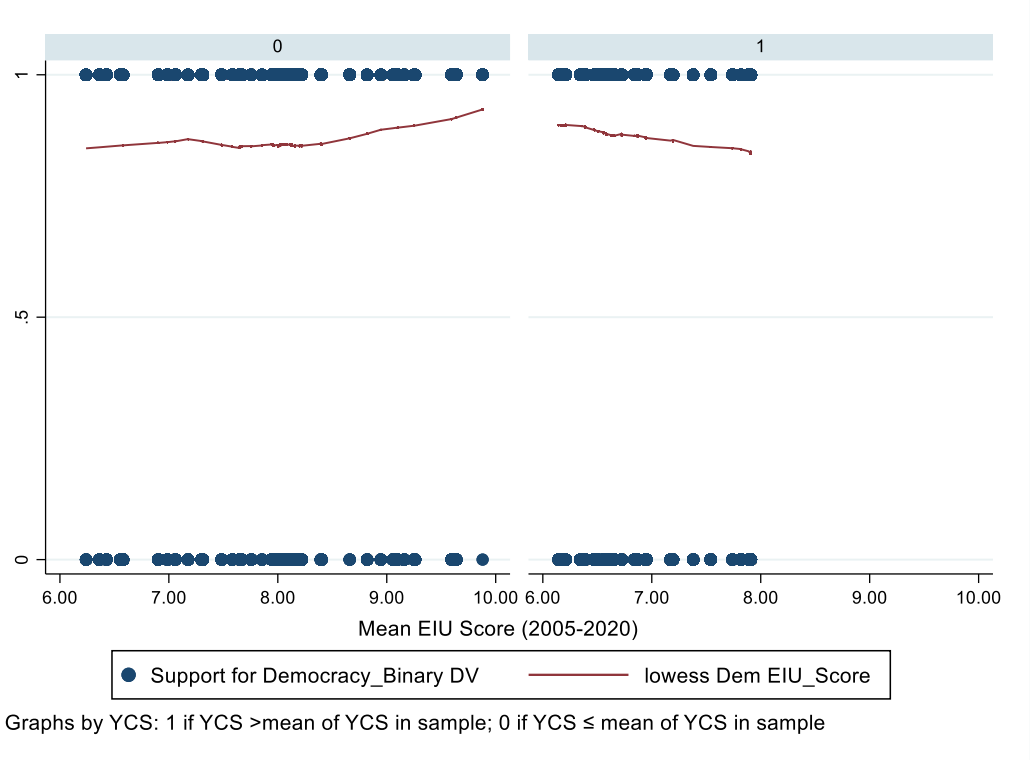
```
Brant test of parallel regression assumption
```

	chi2	p>chi2	df
All	133.38	0.000	12
Age	6.43	0.040	2
Sex	17.02	0.000	2
Education	21.25	0.000	2
Mem_causeoriented_group	7.82	0.020	2
EIU_Score	51.19	0.000	2
YCS	36.65	0.000	2

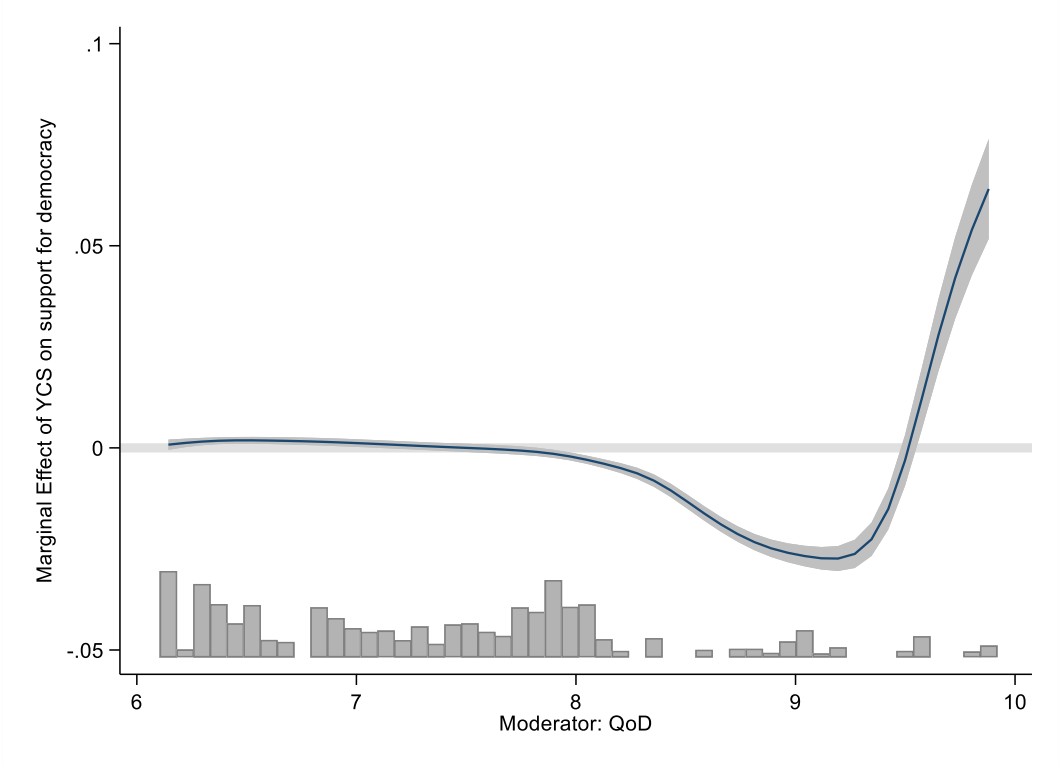
```
A significant test statistic provides evidence that the parallel
regression assumption has been violated.
```

Appendix 11: Estimating marginal effects

Our estimation of the marginal effect of YCS and QoD on support for democracy utilized the conventional margins plot. The plot revealed that QoD exerts a positive conditional effect on YCS in its relationship with our binary DV. As argued by Hainmueller et al (2019) and King and Zeng (2006), however, interpreting conventional interaction plots require caution against excessive extrapolation and extreme counterfactuals, which could be the result of the uneven distribution of variables in the model. In addressing these concerns, the scholars recommend a closer attention to the distribution of variables, and marginal effect estimation techniques which can address the non-linear nature of interactions, particularly in the case of semi parametric data. Following Hainmueller et al (2019), we re-estimated the margins plot for the interaction between YCS and QoD, given that the two have an inverse relationship. For instance, there were no data points in our sample for full democracies with YCS>30. This implied that the predictions of our conventional margins plot may have excessively extrapolated beyond the actual distribution of the dataset, particularly in the case of established democracies with YCS>30. We, therefore, used the kernel option in STATA interflex package to estimate a non-linear margins plot to help us better appreciate the underlying distribution of the dataset. The figures below show the scatter plot of the distribution and the re-estimated margins plot. The results show that the interaction effect is more nuanced than we see in the conventional margins plot.



Scatter plot of support for democracy on QoD, by YCS.



Marginal effect of YCS on support for democracy by QoD (kernel estimation)

Importantly, however, some inherent limitations of the interflex package make conclusions on the marginal effect above concerning. Firstly, we found that the logic of the package is built on linear regression modelling and, therefore, shows evident challenges with binary dependent variables. As can be seen above, some of the predicted probabilities are below zero (0) – a challenge well-known for linear probability models, which we suspect, is the default estimation method used by the interflex package if the dependent variable is binary (as we have in our case). Secondly, the current interflex package does not account for clustered data/multilevel data, as we have in our case. Therefore, while we acknowledge the strengths of the package, and the marginal effect estimation rationale, we think that particularly in our case, the results of the kernel estimation presented here, and in the revised manuscript, may equally need to be viewed with considerable caution.

Appendix 12: Robustness checks for country fixed effects and youth unemployment

As a robustness check for our random intercept multilevel model, we controlled for country fixed effects, to among other things, account for omitted variable bias at the country level. The appendix below provides the logit coefficients for the models which include country fixed effects. We dropped all the variables which were not significant in the main models from this one. When juxtaposed with the original models presented in the main paper, we see that results do not change. Indeed, the effect sizes of both main explanatory variables, and the interaction effect rather increased in these cases.

Full model with country fixed effect without interaction

```
Mixed-effects logistic regression               Number of obs      =     26,391
Group variable: S003                            Number of groups   =         39

                                                Obs per group:
                                                              min =         97
                                                              avg =      676.7
                                                              max =      2,229

Integration method: mvaghermite                 Integration pts.   =          7

                                                Wald chi2(45)      =    1059.88
Log likelihood = -9670.4541                     Prob > chi2        =     0.0000
```

Dem	Coefficient	Std. err.	z	P>|z|
Employment				
Student	.3226465	.0571343	5.65	0.000
Employed	.1189071	.0449818	2.64	0.008
education				
Middle	.3711534	.05691	6.52	0.000
Upper	.8661924	.0677902	12.78	0.000
Mem_causeoriented_group				
Member of one or both groups	-.1414056	.0458225	-3.09	0.002
S003				
Australia	-1.538492	.3384818	-4.55	0.000
Brazil	-.7180096	.183868	-3.91	0.000
Bulgaria	.4047027	.3126818	1.29	0.196
Canada	-1.063804	.352027	-3.02	0.003
Chile	-.1885361	.259046	-0.73	0.467
Colombia	-1.001487	.1750288	-5.72	0.000
Cyprus	-.5390926	.2146684	-2.51	0.012
Estonia	-.112852	.2781038	-0.41	0.685
Finland	-1.073178	.3911309	-2.74	0.006
France	-.1823605	.3256643	-0.56	0.576
Germany	.7542222	.3246068	2.32	0.020
Ghana	-.5479406	.2751083	-1.99	0.046
Hungary	.3119441	.3038672	1.03	0.305
India	-1.087039	.2247443	-4.84	0.000
Indonesia	.1786466	.1973943	0.91	0.365
Italy	1.204656	.4115404	2.93	0.003
Japan	-.1473033	.2997227	-0.49	0.623
South Korea	-1.520433	.2497993	-6.09	0.000
Malaysia	-.7166522	.1955869	-3.66	0.000
Mexico	-1.24074	.178664	-6.94	0.000
Netherlands	-.5450851	.3900278	-1.40	0.162
New Zealand	-1.588801	.3787237	-4.20	0.000
Norway	-.1479137	.5026138	-0.29	0.769
Peru	-.3158915	.1949603	-1.62	0.105
Philippines	-1.909625	.2118169	-9.02	0.000
Poland	-.4468844	.2264936	-1.97	0.048
Romania	.7102456	.2336299	3.04	0.002
Serbia	-.3028703	.2246019	-1.35	0.178
Slovenia	-.5869549	.2713454	-2.16	0.031
South Africa	-2.484762	.2311354	-10.75	0.000
Spain	1.165301	.3340277	3.49	0.000
Sweden	-.2685878	.4344	-0.62	0.536
Switzerland	.3697687	.5620969	0.66	0.511
Thailand	1.119409	.3227941	3.47	0.001
Trinidad and Tobago	-.7227666	.2054063	-3.52	0.000
United Kingdom	-.7755309	.3009589	-2.58	0.010
United States	-1.200101	.2363728	-5.08	0.000
Uruguay	-.3068694	.2769123	-1.11	0.268
EIU_Score	.5148816	.1152356	4.47	0.000
YCS	.108467	.0113381	9.57	0.000
_cons	-5.022847	.8978152	-5.59	0.000
S003				
var(_cons)	1.36e-17	8.21e-07		

```
LR test vs. logistic model: chibar2(01) = 0.00          Prob >= chibar2 = 1.0000
```

Full model with country fixed effect and interaction term between youth cohort size and quality of democracy

```
Mixed-effects logistic regression               Number of obs      =     26,391
Group variable: S003                            Number of groups   =         39

                                                Obs per group:
                                                              min =         97
                                                              avg =      676.7
                                                              max =      2,229

Integration method: mvaghermite                 Integration pts.   =          7

                                                Wald chi2(46)      =    1083.43
Log likelihood = -9662.6379                     Prob > chi2        =     0.0000
```

Dem	Coefficient	Std. err.	z	P>|z|
Employment				
Student	.3166588	.0572143	5.53	0.000
Employed	.1159989	.0450309	2.58	0.010
education				
Middle	.3966082	.057232	6.93	0.000
Upper	.8822352	.0678706	13.00	0.000
Mem_causeoriented_group				
Member of one or both groups	-.1427281	.0458872	-3.11	0.002
S003				
Australia	-.5587454	.420599	-1.33	0.184
Brazil	-.7206042	.1838508	-3.92	0.000
Bulgaria	.5011156	.3136675	1.60	0.110
Canada	-.0343481	.4380095	-0.08	0.937
Chile	.0293892	.2658234	0.11	0.912
Colombia	-.9752371	.1753402	-5.56	0.000
Cyprus	-.3898012	.2184901	-1.78	0.074
Estonia	.3667148	.3036054	1.21	0.227
Finland	.2909174	.5219363	0.56	0.577
France	.4792133	.3663168	1.31	0.191
Germany	2.005667	.456112	4.40	0.000
Ghana	-.132207	.2943171	-0.45	0.653
Hungary	.6609052	.3165567	2.09	0.037
India	-1.232823	.2276833	-5.41	0.000
Indonesia	.1813937	.1975507	0.92	0.359
Italy	1.95826	.4539212	4.31	0.000
Japan	.857437	.3936174	2.18	0.029
South Korea	-.8764883	.2992679	-2.93	0.003
Malaysia	-.6024335	.1991304	-3.03	0.002
Mexico	-1.235721	.1788058	-6.91	0.000
Netherlands	.9127204	.5427673	1.68	0.093
New Zealand	-.5837288	.4581003	-1.27	0.203
Norway	1.254249	.6153723	2.04	0.042
Peru	-.2755656	.1960523	-1.41	0.160
Philippines	-1.791772	.2140955	-8.37	0.000
Poland	-.2941371	.2298092	-1.28	0.201
Romania	.5456966	.2346982	2.33	0.020
Serbia	-.5383651	.2317022	-2.32	0.020
Slovenia	.0644964	.3177738	0.20	0.839
South Africa	-2.799625	.2441661	-11.47	0.000
Spain	2.125829	.4136327	5.14	0.000
Sweden	1.256997	.5816743	2.16	0.031
Switzerland	1.721279	.658241	2.61	0.009
Thailand	.8816568	.3283886	2.68	0.007
Trinidad and Tobago	-.6941811	.2055885	-3.38	0.001
United Kingdom	-.1729097	.3374573	-0.51	0.608
United States	-.7065493	.2673818	-2.64	0.008
Uruguay	.0336685	.2900274	0.12	0.908
EIU_Score	-1.177887	.4438454	-2.65	0.008
YCS	-.232356	.0869814	-2.67	0.008
c.EIU_Score#c.YCS	.049433	.0125212	3.95	0.000
_cons	6.636893	3.083429	2.15	0.031
S003				
var(_cons)	1.71e-34	5.05e-19		

```
LR test vs. logistic model: chi2(0) = 2.5e-11              Prob > chi2 =       .
```

We also replaced youth literacy rate with youth unemployment rate and dropped GDP, and significant variables such as membership of cause-oriented groups, and non-significant variables such as satisfaction with household income from the models, to test the sensitivity of the effects of the two explanatory variables and their interactions on the support for democracy. In all respecified models, both explanatory variables and their interactions showed significant positive effects on young people's support for democracy.

Full model with youth unemployment as control variable.

Support for democracy (Dependent Variable)	**Model I (Baseline)**	**Model II (Model with Interaction)**
Main explanatory variables		
Youth Cohort Size	0.093***(0.016)	-0.142 (0.075)
Quality of Democracy	0.478***(0.102)	-0.526 (0.337)
Youth Cohort Size x Quality of Democracy		0.034**(0.011)
Individual level variables		
Age	0.011 (0.006)	0.011(0.006)
Sex (Female)[1]	0.078* (0.039)	0.077 (0.039)
Education[2]		
Middle level	0.375***(0.058)	0.403***(0.059)
Upper level	0.824***(0.070)	0.849***(0.070)
Employment[3]		
Student	0.350***(0.063)	0.347***(0.063)
Employed	0.100* (0.048)	0.098* (0.048)
Satisfaction with household income	0.016 (0.008)	0.016 (0.008)
Country level variables		
Youth Unemployment rate (15-24years)	0.006 (0.005)	0.008 (0.005)
Model Characteristics		

Constant	-5.294***(0.884)	1.822(2.445)
Country Level σ^2	0.588***(0.154)	0.729***(0.200)
No. of observations	25236	25236
No. of Countries	39	39
chi^2	306.769	318.093
Log-likelihood	-9341.552	-9336.323
Mean VIF	1.27	1.27