

“Perhaps the Wolf May Arrive, but When?”

The Impact of Demographic Theory in the 20th Century

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Abstract

This paper explores the relationship between demographic trends, theory, and policy in the 20th century, focusing on Africa as a case study. In the post-industrial era, though varying in time and place, medical and technological advancements led to a decrease in mortality rates; the result was a global population boom. Prior to the 19th century, demographic change was seen as cyclic, with a slightly increasing mean that could accommodate periods of growth and decline. Post-industrial population growth in Europe, however, prompted a change in thought. T.R. Malthus offered a new theory that saw population change as linear and trending upward toward an unsustainable extreme. When European populations veered off the linear path, the Malthusian framework credited policy interventions with stopping a potential Armageddon, instead of pointing to a natural regression to the mean indicated by the cyclical model. I offer that the Malthusian precedent of linear, Euro-centric, and predetermined demographic theory resulted in a paradigm shift that provided political expediency to policymakers and became central to policymaking in Africa in the 20th century. Colonialism helped spur a continent-wide population boom that became the focus of numerous interventions. Policymakers continually reframed problems such as deforestation, terrorism, and climate change in an overpopulation narrative. My research investigates the origins and efficacy of the Malthusian model. I argue that the lack of theoretical alternatives is problematic and that looking outside of the Malthusian paradigm allows policymakers to engage in more complex social, economic, and political discussions about past and present problems in African countries.

Introduction

In “An Essay on the Principle of Population,” T.R. Malthus remarked, “It must be acknowledged that bad theories are very bad things, and the authors of them useless and sometimes pernicious members of society.”¹ Although Malthus surely would not have categorized himself in this way, his theory of impending demographic doom provided a framework that future demographic theorists have been hard pressed to escape, and which I will argue may indeed have had pernicious effects on certain societies. In this paper, I offer that the Malthusian precedent of linear, Euro-centric, and predetermined demographic theory became ingrained in the growing 20th century field of demography in a way that disconnected the field from local circumstances, while providing political expediency that allowed the theory’s tenuous premises to permeate public policy.

Global population concerns were a new problem in the 20th century. For the vast majority of human history, societies had to work to sustain population levels that could adequately provide for and protect their residents. Beginning in the 19th century, though varying in time and place, medical and technological advancements improved the standard of living and led to a decrease in mortality. Fertility rates were slower to follow and by the mid-20th century many societies around the world had experienced population growth to levels where, for the first time in human history, there was concern for an overpopulated planet.

This paper will explore the relationship between demographic trends, theory, and policy in the 20th century. I will focus on how this tripartite relationship played out in Africa, as the continent has become the poster child for a divide that emerged in the 20th century between population trends of the developed and developing world. Having experienced their population boom in the previous century, populations in developed countries were generally shrinking and getting older. The colonial era in Africa, however, helped spur continent-wide population growth in the first half of the 20th century. African countries consistently fell in the highest percentile among world fertility rates, which led to growing and increasingly younger populations. By 2010, the continent was home to 18 of the 20 youngest countries in the world, with a median age of 19 years old.² The “fertility gap” between developed and developing countries prompted population policy to become an international issue and led to increased intervention to help control the potentially dangerous population pattern.³

Looking at current population trends, however, it is apparent that the world’s population bubble has popped.⁴ Raw numbers may continue to grow, but massive 20th century growth rates are no longer common. Journalist Dan Gardner noted in his recent book, *Risk: The Science and Politics of Fear*, “We are the healthiest, wealthiest, and longest-lived people in history. And we are increasingly afraid. This is one of the great paradoxes of our time.”⁵ Even in the face of decreasing population growth rates, overpopulation rhetoric remains. I will argue that our fear of overpopulation emerged from a paradigm shift in which we abandoned a cyclical view of population that accommodated fluctuating population size and moved toward a linear model that

¹ Malthus, *The Principle of Population*, 412.

² CIA World Fact Book; Janneh, (speech, Commission on Population and Development, New York, NY, April 23-27, 2012).

³ Note that in the United States, the term “fertility gap” has a different meaning, denoting a difference in fertility rates between members of political parties.

⁴ Lutz, Sanderson, and Scherbov, “The Coming Acceleration,” 716-719.

⁵ Gardner, *Risk: The Science and Politics of Fear*, 11.

leaves little room for natural corrections of course. The shift stems from a legacy two hundred years in the making, beginning with one man in a small English parish at the end of the 18th century inquiring on the fate of mankind.

The Malthusian Paradigm

People have worried about population for millennia. From Aristotle's *Politics* to Ibn Khaldun's *Muqaddimah*, great philosophers around the world have often debated the ideal population size and makeup. Given the scope of society at the time, these historical analyses focused on small, insular units of population in which most of day-to-day life occurred. T. R. Malthus was one of the first scholars to articulate a view of population that was not constrained by the boundaries of one society, but applied to the entirety of the human race.

In 1798, Malthus published his seminal work "An Essay on the Principle of Population," in which he opined that increased population would cause resource scarcity and the eventual extinction of the human race. Malthus lived during the beginning of the "population revolution," where advances in production and technology were causing increases in the standard of living and decreasing mortality rates for Europeans. For most times and places in human history, fertility and mortality rates had been fairly consistent; many people were born and many people died.⁶ Populations generally experienced long periods of slight growth, with short periods of loss due to famine, disease, or warfare – the basis for a cyclical demographic model.⁷ By the 19th century, however, Malthus saw Europe as breaking from the established pattern and the changing demographic situation led him to prophesize that agricultural outputs could not keep up with increasing population numbers, spelling doom for mankind.

Malthus's model was new in both shape and scope. He looked at demographic trends happening around him and projected them into the future along a linear model. He saw population as trending upward and concluded that it would continue that way. Unlike in the past, where demographic change tended to correct course away from extremes, the linear model propelled toward them. Malthus's framework provided for an ominous future, potentially catastrophic for everyone because the earth was a closed system with limited resources. His worldwide perspective was also new; previous cyclical models focused on population change within societies or regions. Malthus's theory naturally sparked fear and garnered attention; because it was one of the first broad articulations of population growth, its assumptions imprinted on people's minds. In the centuries to follow, it became the pillar of an emerging field of demographic study.

Interestingly, demographers, or anyone else who threw Malthus a ceremonial nod, continued to be in conversation with a theory that was almost immediately shown to be false. In 19th-century Europe, it became apparent that social norms could adapt to lower mortality rates by changing social mores. Two decades after his seminal essay, Malthus himself changed his theory to account for mitigating factors.⁸ Fertility rates fell to near or even below replacement levels. The rather quick disproof of Malthus's theory raises the question of why he has continued to be the interlocutor of demographic policy. As historian John Aird wrote, "In the study of population,

⁶ Reich and Goldstein, "Paleolithic Human Population in Africa," 8119-8123.

⁷ Boone, "Subsistence Strategies," 6-25.

⁸ Malthus, *Principles of Political Economy*, 250-251.

one of the most wasteful preoccupations has been the prolonged quixotic battle with the ghost of Thomas Robert Malthus.⁹ I believe that it was not the substance of Malthus's theory, but the linear growth framework within which he conceptualized population change that became the foundation of demography.

Cyclical models that had been the norm before Malthus largely vanished from popular discourse. Replacing them was the idea that if a population was increasing, it would continue to increase in perpetuity. If it veered from its linear path, it was due to intervention and not a natural cycle. Interventions were warranted because they prevented doomsday scenarios that lay at the end of the linear model. But unlike Malthus's food-shortage Armageddon, 20th-century doomsday scenarios became nebulous. What exactly were population interventions saving people from?

The industrial revolution had reduced reliance on agriculture and lessened the risk of major disease for much of the developed world. Without a clear apocalyptic scenario, overpopulation simply became synonymous with Armageddon; a tautology that required little analysis or empirical support. The nebulous doomsday could be applied to any population concern, and rather ironically first became prominent in public discourse in response to declining populations in Europe at the beginning of the 20th century.

Massive casualties from WWI and the influenza pandemic caused the natural-increase line of many European countries to dip below replacement value in the 1910s; birth totals were not keeping up with death totals. History had shown that growth rates would almost surely recover, but the new Malthusian mindset portended otherwise. Leaders in some European countries foresaw the potential for demographic catastrophe and began to install corrective fertility policies and family planning initiatives.¹⁰ The policies led Frank Notestein, a prominent US demographer, to "expect that efforts to increase births will be one of the major preoccupations of those concerned with social legislation in the Western world."¹¹ His prediction, however, did not materialize as fertility rates recovered rather quickly after 1950. European leaders invariably credited their family planning programs with prompting the demographic change away from its linear path, though their conclusions remained unsubstantiated in the realm of counterfactuals and the population's regression to the mean fit neatly in the now-forgotten cyclical model of old.¹² Post-war sentiments showed that policymakers had embraced Malthus's linear projection of population and the corresponding necessity of policy intervention.

Having "succeeded" in mitigating population concerns in Europe in the first decades of the 20th century, international policymakers shifted their attention to more pressing demographic concerns elsewhere. Improved medical treatments and hygiene practices had extended outside of Europe, resulting in similar decreased mortality rates throughout the world. Many societies experienced a general period of low mortality and high fertility rates, resulting in a global population boom. Although some of these populations quickly recovered to a fertility/mortality equilibrium, developing countries were slower to lower fertility rates, producing the fertility gap phenomenon.

The fertility gap became the most pressing demographic issue of the 20th century. In 1950, the world's population was 2.5 billion, with 1.7 billion (68 percent) of those people living

⁹ Aird, "Population Studies and Population Policy in China," 282.

¹⁰ Most notable were the emerging welfare states of Sweden and France, as well as fascist family planning policies of Italy and Germany. For a popular portrayal of the issue, see Charles, *The Twilight of Parenthood*.

¹¹ Notestein, "The Population of the World in the Year 2000," 339.

¹² Demeny, "Population Policy and the Demographic Transition," 256.

in developing countries.¹³ Today, the developing world accounts for over 82 percent of the world's population.¹⁴ Most developed countries have deemed themselves capable of handling their own population problems, whether they be from under or over population. The international community and its US/Euro leadership, however, thought developing countries would be unable to curb their own massive population growth without financial and policy help from outside actors.¹⁵ Thus, global population policy became a primary concern for state and international institutions.

The Demographic Transition and its Policy Implications

In order to mitigate global overpopulation worries, policymakers first needed to establish a knowledge and resource base. In 1936, Princeton founded the Office of Population Research (OPR) as a home for faculty in the nascent scientific field of demography. Previously, demographers had been isolated at various institutions and primarily concerned with executing and analyzing individual censuses.¹⁶ The OPR shifted the field's attention to broader historical trends that could help inform current events. Its team of demographers began their research by looking at Europe, the only available data set on fertility rates that was substantial enough to merit broad conclusions.

In 1963, the OPR published a major study on European fertility from 1870 to 1960. The study did not focus on testing various models of demographic change. Instead, it asked why the data set veered from a presumed linear path. The authors stressed that Europeans adopted various control mechanisms for early population growth, such as changing the role of children in the family economic structure and altering systems of intergenerational wealth transfer. Though their study dealt only with Europe, OPR's demographers noted the potential to generalize the study and it became the basis for demography's most prominent 20th-century theory, the demographic transition.¹⁷

John Caldwell, the leading proponent of demographic transition theory, noted that demographic studies "concentrate on the economically most advanced countries but imply that the rest of the world will probably eventually follow the same economic and demographic path."¹⁸ The study's assumptions made sure that was a linear path. Looking at the European dataset, demographic transition theorists posit that fertility rates lower as societies "modernize." Usually linked to industrialization and urbanization, the process of modernizing is predicated on changing society and family mores.¹⁹ As demographic transition theory evolved, the cause and effect relationship between modernity and social norms became much more circular. Theorists began investigating the fertility gap and the question of why social norms in some countries had not changed in the face of declining mortality rates, particularly in African countries.

African populations had increased exponentially in the 20th century. Proponents of

¹³ Ibid., 258.

¹⁴ United Nations Department of Economic and Social Affairs, Population Division. "Report on World Population Situation," 3.

¹⁵ Ibid., 26.

¹⁶ Notestein, "Demography in the United States," 651-687.

¹⁷ Coale and Watkins, *The Decline of Fertility in Europe*, 449, fn 18.

¹⁸ Caldwell, "Demographic Theory: A Long View," 297.

¹⁹ Ibid., 299-302.

demographic transition theory, referred to as *natalists* in African demography, argued that colonization brought advanced medical and hygienic technologies to the continent that helped lower mortality rates, similar to what happened in Europe a century earlier. African societies, however, failed to compensate by reducing fertility rates. Accordingly, the way to mitigate overpopulation was to alter African sociocultural norms.

Naturally this line of reasoning raised some eyebrows. John Iliffe, the renowned African historian, rather tersely summates demographic transition theory as the idea that “Africans have caused their own crisis because they have always bred like rabbits.”²⁰ A group of anti-natalists offered another version of events based on the cyclical model of population change, where populations in pre-Industrial Africa grew steadily with minor periods of disruption due to famine, warfare, or disease.²¹ The steady growth was a result of local social mechanisms: marriage age, rites of passage requirements, and other social controls worked to keep population growth in check. The colonial era disrupted these systems by displacing people, altering or banning local practices, and instituting new administrative systems. These disruptions resulted in a period of increased fertility that corresponded with and outpaced any minor decreases in mortality. In sum, anti-natalists removed blame from Africans and placed it on the colonial system.

Although natalists and anti-natalists offered differing theories of causality, they both worked within the Malthusian paradigm that assumed high growth rates to be a problem that needed fixing.²² Anti-natalists left open the possibility that population rates would return to the normal cycle with the end of colonialism and the general consensus among demographers was that African countries would eventually figure out a way to steady their population growth, but policymakers worried that perhaps the transition was not happening fast enough.

State and international institutions began relying heavily on demographic transition theory for their policy platforms. As Caldwell notes, “The conventional wisdom of this theory has had a deep impact and guides the work programs of international organizations, technical assistance decisions by governments, and popular analyses in the media.”²³ Their primary focus was on lessening the fertility gap. The perceived potential for global problems resulting from overpopulation in countries with high fertility rates gave state and international institutions the political expediency to implement policies aimed at curbing population growth in the developing world.²⁴ To do so, however, they needed to show that population was a pressing concern and that it warranted external intervention. Given that Malthusian Armageddon had become an empty category, the first step was articulating a more concrete 20th-century iteration.

In reconceptualizing Armageddon, policymakers simply reframed a myriad of African problems within a neo-Malthusian narrative. Since the 1930s, for example, demographic theorists have emphasized the central role of growing populations in deforestation and famine in Africa.²⁵ During the Ethiopian famine in the mid-1980s, the general consensus among international policymakers was that the famine was the result of overpopulation and its role in environmental

²⁰ Iliffe, “The Origins of African Population Growth,” 166.

²¹ For example see: Turshen. *The Political Ecology of Disease in Tanzania*; MacLeod and Lewis, eds., *Disease, Medicine, and Empire*; Packard, *White Plague, Black Labor*.

²² In 1966, Ester Boserup offered a more positive view of population growth. She believed increased population resulted in “intensification” or societal innovation, which could generate enough resources to keep up with increasing populations. Her theory failed to gain as much traction as the natalist and anti-natalist views in Africa. See Boserup, *The Conditions of Agricultural Growth*.

²³ Caldwell, “Restatement of Demographic Transition Theory,” 321.

²⁴ Connelly, *Fatal Misconception*.

²⁵ Anderson, *The Economics of Afforestation*; Ross, *The Malthus Factor*.

degradation. Melissa Leach and Robin Mearns summate the classic narrative in a way that merits an extensive quote:

The core narrative is quite simple: ‘Long ago when there were fewer people in Ethiopia, indigenous farming systems and technology enabled them to make a living without seriously depleting their natural resources. Over the present century human and animal populations have grown. Indigenous farming systems have been unable to keep up. Population has exceeded carrying capacity, causing ever-increasing and perhaps irreversible environmental damage. Only a massive investment in environmental reclamation can reverse this process. People are unable to make this investment without outside assistance because they do not know how and because they are too poor to forego present for future income or to provide for their children.’²⁶

In sum, Ethiopians could no longer feed themselves because of overpopulation and their ignorance of its corresponding effects. The Ethiopian government, at the behest of the UN and international NGOs, began a massive food-for-work program centered on relocating Ethiopians to less-populated areas. By framing problems like the Ethiopian famine in demographic terms, external forces rationalized intervention in African domestic policy, even though in hindsight the measures were unsuccessful and massively disruptive to the people living through it, leading to unintended consequences that continued to hamper the country after the drought subsided.²⁷

The neo-Malthusian narrative prevented policymakers from seeking alternative explanations for the famine, but looking at Ethiopia from a historical perspective immediately complicates the argument that overpopulation led to the disastrous situation in the 1980s. Famine is by no means new to Ethiopia; the first recorded famine occurred in the 9th century, with over a dozen more major famines taking place before the 20th century and its corresponding population boom.²⁸ In this context, overpopulation could not have been the whole story. Policymakers working to combat the crisis had on blinders to any input that did not fit with their assessment of the problem, even though scholars from other disciplines attempted to point out the effects that changing environmental factors, disruption in farming practices with Northern Ethiopia’s military occupation of the south, and nationalist land reform programs had on the country’s ability to produce food.²⁹ The primary decision-makers generally ignored more nuanced arguments, believing that resettlement and conservation measures would solve Ethiopia’s problems.

While policymakers were establishing overpopulation as a primary problem in Ethiopia and potentially throughout the continent, international organizations began to promote policies aimed at preempting similar problems in the future by lowering fertility rates. Population policy in the second half of the 20th century became synonymous with family planning.³⁰ Most scholarly work on family planning programs has focused on their impact in Asian countries, but African countries also experienced significant family planning measures in the 20th century. One of the primary differences between family planning programs in Asia and Africa was the importance of external actors in creating and implementing policy.

Following WWII, colonizing powers began to hear louder and louder ticking from what one author called the “demographic time bomb,” where white minority rule became increasingly

²⁶ Leach and Mearns, *The Lie of the Land*, 195-196.

²⁷ *Ibid.*, 31.

²⁸ *Ibid.*, 199.

²⁹ *Ibid.*; McCann, *From Poverty to Famine*.

³⁰ Demeny, “Population Policy and the Demographic Transition,” 260.

threatened from burgeoning native populations.³¹ Many policies, particularly those carried out by Britain, fell within the category of eugenics by encouraging African women to have abortions or forcibly inserting IUDs.³² Other less draconian practices simply encouraged women to use birth control. Regardless of the policy, colonial governments could rationalize their actions by pointing to increasing population trends and neo-Malthusian rhetoric.

In the final decades of the colonial era and early years of independence, conflicting information and priorities led to a general ambivalence toward family planning by much of the African leadership, which prompted external actors to incentivize the implementation of family planning policies. Newly independent African states had few options for jumpstarting their nascent economies. One attractive plan centered on help from the international community, which of course came with contingencies. The UN and former colonizing powers offered bilateral aid packages in return for expansion of family planning programs aimed at lessening the fertility gap.

In August 1974, the UN assembled the World Population Conference in Bucharest, which was the first global conference to address population control and its relationship to development. The UN and its member states had previously proposed family planning policy in a rather patchwork manner, with discrete resolutions and aid packages. UN delegates began to compile a more comprehensive family planning policy in Bucharest and continued the work at similar conferences in Mexico City and Cairo over the following two decades.³³ By the early 1980s, virtually every African state had created a family planning program in conjunction with external funding agencies.³⁴ Increasingly, international policy rhetoric promoted their population control measures as the panacea for African and global woes, though the direct link to development remained tenuous.

Problematic Data

The major issue for demographic theories and corresponding policies in Africa is that there is not enough good data to substantiate any of them. In order to prove causal change, demographers need sufficient data from before, during, and after the period of population growth. With few exceptions, that data simply does not exist. John Thornton's analysis of the Kongo's baptismal records from the 18th century is the only written pre-colonial record analyzed to date that is extensive enough to draw legitimate conclusions on a region's fertility rates.³⁵ His findings fit with the cyclical pattern of slight overall population growth in pre-industrial societies, despite brief periods of disruption due to civil wars and the slave trade. Continued problems with centralized data collection in Africa have caused post-colonial records to be equally nonexistent or unreliable. Instead of using the dearth of data to argue for the necessity of more qualitative analysis, 20th-century demographers fell back on established paradigms, common sense, and conjecture to try to explain African population trends.³⁶

³¹ Original phrase found in Ehrlich, *The Population Bomb*. Reference to colonialism found in Kaler, *Running After Pills*.

³² Kaler, *Running After Pills*, 114.

³³ Finkle and Crane, "The Politics of Bucharest," 87-114.

³⁴ Sai, "Changing Perspectives of Population," 267-276.

³⁵ Thornton, "Demography and History in Kongo," 507-530.

³⁶ This trend is beginning to change in the 21st century, as more data sets become available. For example, see Williamson, "Growth, Distribution, and Demography," 241-71. He notes, "If we have learned anything from the

Given the lack of data in Africa, most demographic theory is in some way derivative of the OPR's study on European fertility. Demographic transition theory did not require new or localized data outside of the small European dataset analyzed in the early 20th century since, in Caldwell's words, "the rest of the world will probably eventually follow the same economic and demographic path."³⁷ Historians have long questioned the ability of theories based on European models to translate to African countries and recent anthropological scholarship has confirmed the existence of a disconnect between European and African fertility norms, particularly with the importance of group decision-making, social obligation, and foresight.³⁸ But on an even more basic level, scholars have begun to wonder if the original OPR fertility project was a valid study in its own right.

The first generation of demographic transition theorists based their theory on the assumption that individuals are rational actors. As Caldwell said in 1976,

The underlying assumption of this study is that all societies are economically rational. The point is a simple one, but its acceptance is absolutely necessary if we are to arrive at an adequate theory of demographic transition, if we are to understand the contemporary population changes, and if we are going to make adequate predictions for planning purposes.³⁹

A plethora of recent scholarship, however, shows individuals do not always act rationally.⁴⁰ Even if new trends emerge in the future concerning rational action, scholars have emphasized that relationships between demographics and individual/societal aspirations are not stable, making the idea of demographic "transition" from one state to another rather suspect.⁴¹

Potential holes in demographic transition theory were often overlooked because of the Malthusian mindset. Where fertility fell in conjunction with family-planning programs, the result was seen as an indicator of success, but there were no efforts to establish control groups that could have offered a window into what would have happened in the absence of the program.⁴² In other words, policymakers mistook correlation as causation. When populations veered from a linear path, they assumed that intervention worked and never considered whether an alternative population model was possible. But there are other ways of thinking that account for population change outside of an intervention framework. The cyclical paradigm easily explains 19th and 20th-century population growth, and we are already seeing growth rates return to normal or even dipping below replacement, most notably in Europe. Using a cyclical lens questions the efficacy of population intervention policies and asks whether population interventions have potentially been more harmful to people than actual or mitigated population change.

recent outpouring of empirical growth equations, it is that life is far too complex to expect 'unconditional' convergence among all countries at all times" (241).

³⁷ Caldwell, "Restatement of Demographic Transition Theory," 297.

³⁸ For example, see Johnson-Hanks, "Natural Intentions," 1008-1043.

³⁹ Caldwell, "Restatement of Demographic Transition Theory," 321.

⁴⁰ As a starting point, see Clark and Mills, "Interpersonal Attraction in Exchange and Communal Relationships," 12; Kahneman and Tversky, "Prospect Theory," 263-29; Green and Shapiro, *Pathologies of Rational Choice Theory*.

⁴¹ Johnson-Hanks, "Natural Intentions," 1099.

⁴² Demeney, "Population Policy and the Demographic Transition," 261.

Moving Forward by Looking Backward

This paper has suggested that Malthus gave the world a new way of thinking about population. Instead of being cyclical with peaks and valleys that generally return to a slowly increasing mean, the world's population came to be conceived as linear and constantly trending toward an exaggerated extreme. Many scholars have deconstructed and reconstructed Malthus's theory, but they rarely escape his linear model of population growth. In other words, a Malthusian Armageddon perpetually remains on the horizon. Without a clearly defined Armageddon, policymakers often reframed long-existing problems within a neo-Malthusian narrative, giving states a sense of urgency to enact interventionist policies. As we move into the 21st century, climate change and terrorism have become two glaring examples.

In 2013, Climate One founder Greg Dalton and Executive Secretary of the United Nations Framework Convention on Climate Change Christina Figueres discussed the relationship between fertility and climate change:

Figueres: I mean we all know that we expect nine billion, right, by 2050. So, yes, obviously less people would exert less pressure on the natural resources.

Dalton: So is nine billion a foregone conclusion? That's like baked in, done, no way to change that?

Figueres: Well there again, there is pressure in the system to go toward that; we can definitely change those, right? We can definitely change those numbers and really should make every effort to change those numbers...⁴³

The conversation shows us that Figueres is locked into the Malthusian model of population growth. She implies that: 1) the world's population is increasing toward an expected nine billion people in 2050, which 2) poses serious risk to the human race as it puts pressure on resources, and 3) gives political expediency to adopting policies that could help mitigate population growth, thereby helping to combat climate change.

I do not think arguments like Ms. Figueres's are conspiratorial in nature. The century-long Malthusian narrative has permeated the agendas of state and international agencies to the extent that most policymakers genuinely believe in it. We should, however, address the issues that arise from such a framework. Neo-Malthusian arguments are problematic because they limit potential solutions. Exploring other demographic frameworks would encourage policymakers and academics to have more nuanced conversations about the social, political, and economic causes of contemporary problems.

Another example of an oversimplified population growth narrative is the recent trend in political science that uses demographics to link high percentages of youth populations to increased political instability and terrorism. "Youth bulge" theorists argue that sustained high fertility leads to bigger and younger populations with less available economic opportunities, creating a class of liminal youth that has contempt for the system and free time to do something about it. In the 1990s, Jack Goldstone first articulated the relationship in a historical manner by looking at youth's role in the English and French revolutions.⁴⁴ Following his hypothesis, scholars began to look for

⁴³ Figueres, Interview by Greg Dalton, November 2013.

⁴⁴ Goldstone, *Revolution and Rebellion*.

supporting data in more contemporary environments, like the Arab Spring.⁴⁵

Again, the connection between young populations, high fertility, and political instability prompts little constructive action outside of rationalizing global security interventions. Demographic mediations backed by established neo-Malthusian rhetoric offers a better rationale for intervention in parts of the Middle East and Africa than hegemonic endeavors of questionable legality. In other words, scholars and policymakers have reframed the problem of terrorism in a way that makes it easier to intervene in the developing world's affairs, at the risk of obfuscating the complex causes of youth unrest and eschewing alternative mediations that could benefit both young people and the countries in which they live.

These critiques do not mean we need to disregard the entire field of demography or claim that increasing populations have no destructive effects. We should, however, make an effort to add more nuance to demographic arguments than the Malthusian paradigm allows, realizing the limitations of data and putting population change into local contexts. Perhaps this process can be aided by bringing in historians. Before reifying grand claims of African overpopulation, it is imperative to look closely at how demographic data has been compiled, interpreted, and implemented, as well as the actors involved in the process.

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⁴⁵ For example, see Huntington, *The Clash of Civilizations and the Remaking of World Order*; Urdal, "A Clash of Generations?," 607-629; Cincotta, "How Democracies Grow Up," 82.

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