THE DEMOGRAPHIC HISTORY AND CURRENT AGE STRUCTURE IN LATIN AMERICA: THE YOUTH BULGE AND IMPLICATIONS FOR SOCIOPOLITICAL STABILITY*

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Youth bulge is a globally important phenomenon itself generated by global processes like global demographic transition and global modernization in general. However, the youth bulge manifested itself at different times and scale in various regions and countries of the world. In the paper, the historical development and certain aspects of current age structure of ten Latin American countries are analyzed in terms of the youth bulge. Some methodological approaches to this phenomenon are compared, and its risks for a country's sociopolitical stability are revealed. We then proceed to apply these various approaches to reveal possible youth bulges in the recent past, present state, and their demographic future as forecasted by UN Population Division. We go deep into the social and demographic history of some nineteenth-century Latin American countries in order to reveal the roots of their differences from other countries. We also reveal two main 'waves' of Latin American countries passing through youth bulges and cases of political instability occurring at the time of these bulges. We also determine the country, which has quite recently experienced the bulge (due to a delayed fertility transition) and is still faces high risks of sociopolitical instability.

Keywords: *youth bulge, global demographic transition, global modernization processes, Latin American demography, age structure, political instability, Haiti.*

Introduction

The youth bulge is a globally important phenomenon generated by global processes like the global demographic transition and global modernization in general. The early modern world witnessed the start of a demographic process which further on acquired global scale and critical importance for the humankind, namely, the demographic transition from the traditional regime of population reproduction (characterized by high fertility and high mortality) to its modern regime (characterized by low mortality and low fertility). Crude birth rate varied from 30 to slightly more than 60 births per 1,000 people in pre-

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industrial societies. In the early twentieth century (*i.e.*, prior to the start of fertility transition) still larger values of this indicator (up to 50 per 1,000 people) were observed in many parts of the developing world, including Latin America (Brazil, Mexico, Colombia, Argentina, Chile), Asia (India, Indonesia, Thailand), Northern Africa (Egypt, Tunisia), *etc.* (Chesnais 1992: 102–109).

The first signs of sustainable fertility decline were observed in some countries of the developing world already in the late nineteenth – early twentieth centuries, especially in Latin American countries, like Argentina, Uruguay, and Chile, with substantial recent inflows of the West European migrants. However, a massive fertility transition in the developing world started much later, in the 1960s – 1970s (Livi-Bacci 2012: 174). Thus, the global phenomenon of youth bulge manifested itself at different times and scale in various regions and countries of the world.

During the nineteenth century, the European population more than doubled, growing from 180 to 390 million people (McEvedy and Jones 1978: 18). It was a historically unprecedented population increase. In comparison, during the eighteenth century, a relatively favorable period of demographic history of the humankind, the population of Europe grew 'only' by 50 per cent, from 120 to 180 million. However, even these very impressive numbers do not fully reflect the demographic reality since they do not account for the vast migration from Europe to various settler colonies. For example, the US population grew more than tenfold – from 6 million in 1800 to 76 million in 1900 – largely due to migration of the Europeans (*Ibid.*: 287). Hundreds of thousands or even millions of Europeans migrated to Australia (*Ibid.*: 328), Argentina and Chile (*Ibid.*: 313–314), Canada (*Ibid.*: 284), and other countries.

The European migration not only increased the population of these countries, but also significantly accelerated many global modernization processes there, such as global demographic transition, global modernization of education, *etc.* Say, in South America we can analyze the data for Argentina and Chile. The primary school enrolment ratio in Argentina was relatively high already in 1870 (20.9 per cent)[6] and rose steadily, reaching 33.9 per cent in 1900 (which is comparable with the level achieved by Greece, Italy, Bulgaria, *etc.*) and 58.2 per cent in 1935–1940 (which is comparable with Sweden, Belgium *etc.*). The national education law in Argentina was adopted in 1884, making primary education compulsory and free of charge for students (Gvirtz, Beech, and Oria 2008; Southwell 2013).

In Chile the expansion of primary education was a little lower than in Argentina: 18.7 per cent in 1870, 21.7 per cent in 1900, and 47.5 per cent in 1935–1940, close to some Eastern European and Southern European countries. We would like to point out that Chile was the first country in South America to establish a state education system in 1842 (Schiefelbein and Farrell 1980: 160).

In 1900, the literacy rates in Argentina (51–52 per cent) and Chile (43–44 per cent) among the residents aging above ten were also rather comparable with those of South European countries. High literacy rates were also present in Uruguay (54 per cent) and Cuba (38 per cent) (Astorga, Berges, and Fitzgerald 2006: 766; Mariscal and Sokoloff 2000: 172; Newland 1994: 452).

Youth Bulges

If we look in more detail at the phases of demographic transition, we may find out that a dramatic decline in mortality (especially infant and child mortality) is usually followed by a decline in fertility rates only with a certain time lag, quite often a considerably long one. Thus, a numerous generation of children are born, the majority of whom (as opposed to the previous generations) survive into adolescence and adult ages. When one considers the age-sex pyramid of such society it becomes obvious that when these children become young adults they producing a sort of 'protrusion', or a 'bulge', from where this phenomenon got its name – the youth bulge (the term first used by Fuller in a report for CIA [Fuller 1995]). In some Latin American countries, another factor leading to the youth bulge was the immigration flow. We do not have a detailed age-specific data on the Latin American immigrants at hand, but it is known that 76 per cent of immigrants entering the USA between 1868 and 1910 were aged between 15–40 (O'Rourke and Williamson 2001: 123).

Moller (1968) was the first to note the role of the increased share of young people in the French Revolution (1789), as well as in some other major cases of political turmoil in various parts of the world. The results of a later study by Mesquida and Wiener (1999) confirm that the increasing share of young people in society makes an important contribution to the frequency of violent conflicts, and the relative abundance of young people is associated with coalition aggression and severe conflicts (measured by the number of registered victims). Goldstone (2002) uses historical data to show that youth bulges may become a necessary, yet insufficient condition for the break of large-scale violent conflicts.

There are various approaches to measuring the youth bulge. In this paper we rely on two basic approaches proposed by Goldstone (2002) and Urdal (2004, 2006). Within Goldstone's approach the share of young people (aged 15–24) is measured within the total population number. Urdal indicated that this approach can be heavily influenced by the number of children cohorts (especially in countries with uncompleted demographic transition), so his proposal was to measure the proportion of young people (aged 15–24) among the adult population (15 and older). Moreover, some researchers pointed out to the fact that it is more reasonable to widen the notion of 'young' and 'youth' since people aged 25–29 turn out to actively contribute to political instability, so the youth bulge should be measured as the proportion of people aged 15–29 rather than 15–24 (Moller 1968: 247–248; Mesquida and Wiener 1999; Yair and Miodownik 2016: 30).

The period of the twentieth and early twenty-first centuries give us abundant examples of sociopolitical instability emerging against the peak proportion of youths (whichever approach is taken) in a country's population. The April Revolution in South Korea which made the President Rhee resign and paved a way for elections and the establishment of the Second Republic occurred in 1960, when the shares of both 15–24 and 15–29 age groups in adult (15+) population were close to their peaks (at 31.63 and 44.6 per cent respectively). The 1989 Tiananmen Square protests in China, the death toll of which is still highly disputable, took place after the share of 15–24-year-olds peaked in the Chinese population at 22.16 per cent in 1985. Between 1985 and 1990, a peak was also observed in the share of those aged 15–29 (at 30.33 and 30.78 per cent of the population respectively).

In the late twentieth and early twenty-first centuries the political instability related to the youth bulge received a new surge of attention from scholars, most notably in rela-

tion to the Arab Spring. So the risks of conflicts against the background and in connection with the growing absolute numbers and share of young people attracted more and more researchers' attention. In Egypt, for example, the relative shares of young people aged from 15 to 24 and from 15 to 29 in adult population peaked at 32.10 and 44.64 per cent in 2005 and were already starting to slowly decline by the start of 2011 Egyptian Revolution, but their absolute numbers were still growing. The cohort aged 20–24 nearly doubled within 15 years; so the more or less stable youth unemployment rate in relative terms (about 9 per cent) meant about a million more jobless young people in absolute terms. It was these people who constituted the main striking force of the revolution (Korotayev and Zinkina 2011: 88; for more details see Grinin and Korotayev 2019).

Among other factors that played their role in the genesis of the wave of sociopolitical destabilization in the Middle East one may point out the second wave of agflation and a rapid increase in food prices (FAO 2011). At the same time, the global rise in staple food prices hit the poorest groups of Latin America no less painfully than in the Middle East (World Bank 2011). However, there was observed no comparable sociopolitical destabilization comparable with the Middle East.

So, in our research we try to study two questions: 1) when did the youth bulges occur in Latin American countries and did they have any relation to political instability? and 2) are there any currently existing youth bulges that could destabilize their respective countries in the past decades or the near future?

Data and Methods

For our research, we selected only the countries with population exceeding the threshold of 10 mln people of total population in 2015. Thus, for South America we chose eight countries: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, and Venezuela.

In Central America there are only two countries with population exceeding 10 mln people in 2015, Guatemala and Mexico. However, we exclude both these countries from our research, since the potential youth bulges in these countries are considerably affected by migration flows to the US. For example, according to the 2010 US Census, the Mexican-born immigrants comprised nearly 30 per cent of the whole US immigrant population, and their absolute numbers totaled 11.7 mln, while the total population of Mexico in 2010 was 114.1 mln people. Moreover, one should distinguish between Mexican-born US citizens and Mexican-born citizens of Mexico who migrated to the US but did not change their citizenship. As for Guatemala, it ranked the tenth largest migrant-sender to the US. The Guatemalan-born population residing in the US totaled 1,044,209 people according to the 2010 US Census, while the whole population of Guatemala in 2010 was 14.6 mln people.

Finally, three Caribbean countries meet the defined limit: Cuba, Dominican Republic, and Haiti. However, we omit Cuba due to the same reasons as Guatemala and Mexico: its youth bulge dynamics is potentially much skewed due to several flows of migration to the USA. Indeed, Pew Research Center states that the Cuban foreign-born population living in the United States grew by 50 per cent, from 853,000 in 2000 to 1.3 million in 2017, while the Cuban-origin population nearly doubled during the same period, from 1.2 to 2.3 mln people (Noe-Bustamente, Flores, and Shan 2019).

Thus, only two countries, Dominican Republic and Haiti, are added to the eight South American countries, making our sample include ten countries.

To analyze the age structures of these countries we use the United Nations Department of Economic and Social Affairs Population Division database, World Population Prospects 2019, namely, the 'Age Composition: Population by Age Groups – Both Sexes' Excel datasheet, which contains age structures for countries and regions of the world by five-year age groups (in thousands of people) (UN DESA 2020). We employ this data to calculate the total population of a given country, its total adult (15+) population, the number of young people aged from 15 to 24, the number of young people aged from 15 to 29, and, most importantly, to calculate the relative proportion of each of the youth age groups in the total population and in the adult population. The results of our calculations are presented in Tables 1–4 below (the youth bulge figures; the periods when the share of young people was growing are put in bold type).

In some cases, to understand the economic development of a country when it experienced a youth bulge, we turn to the World Development Indicators Database by the World Bank and use the 'GDP growth (annual %)' indicator (World Bank 2020).

Research and Discussion

As we have mentioned earlier, Argentina, Chile, and Uruguay entered the fertility transition earlier than other countries of the region (their education advances probably contributed here as well). Thus, being more advanced in terms of demographic transition, they were bound to be the first in the region to experience various potential risk factors related to it. One of these risk factors was undoubtedly the youth bulge.

Unfortunately, we have reliable data only on the age structures of Latin American countries after 1950. Therefore, one can hardly define for sure when the youth bulges emerged in Argentina and Chile, since both countries had probably encountered the phenomenon before that year. In fact, Table 1 shows that in both countries the share of youths (age groups 15–24 and 15–29 measured both according to Goldstone and according to Urdal) was large but already decreasing at a considerable pace between 1950 and 1955, so this was probably the end of the youth bulge which the countries experienced in the 1940s. It also seems possible that the youth bulge played its role in the 1943 Argentine coup d'état (and it was likely that the growing youth cohorts exacerbated the economic situation in the country during the Infamous Decade between 1930 and 1943, especially during its later years, already complicated by sagging economy, corruption, and political fraud). Peronism of the period between 1946 and 1955 most likely coincided with the latest years of the youth bulge, so this factor played a certain role in the Revolucion Libertadora of 1955 (especially considering that although the share of young people both in the total and in the adult population began to decline, their absolute numbers continued to increase, from 3.1 to 3.2 mln for youths aged 15–24 and from 4.55 to 4.77 for those aged 15–29).

The Chilean political history has some similarities with the Argentinian one in terms of its turbulent years very likely coinciding with (and being related to) the youth bulge. Speaking of political turbulence during the Presidential era (1925–1973), one should mention the double military coup of 1924–1925 which caused considerable instability lasting until 1932. The heated atmosphere surrounding the 1938 election campaign, with a Nazi-backed (failed) attempt at a coup d'état, the following Seguro Obrero massacre with dozens of victims, and another attempt at coup d'état, this time by National Socialists, was most likely related to the growing proportion of youth in the total population. Had it not been for the masses of young and energetic supporters of various parties, the Chilean po-

litical history of the time, albeit burdened by various problems ranging from governance to economy, would have appeared less turbulent. Under the presidency of Eduardo Frei Montalva (1964–1970) Chile experienced another youth bulge (the share of youth growing by about 1 per cent in five years, see Table 1), though this one seems to be relatively smaller in scale than the first bulge. The economic growth was unstable, but remained all-time positive during the whole Montalva's term, and this, coupled with his reforms, seems to have mitigated the effect of the smaller youth bulge. However, as the bulge increased during Allende's Presidency, together with economic depression and recurrent attempts of foreign interference into the country's political arena, it very likely played a role in the almost chaotic situation in Chile at the time. Indeed, this second bulge should not be underestimated – it might be smaller in relative terms, but in absolute figures it meant a million young people added to the labor market, which meant a more than 40 per cent increase in just 15 years (from 2.3 mln aged 15–29 in 1965 to 3.36 mln in 1980).

Table 1

The proportion of youth cohorts according to various measurements in Argentina and Chile, 1950–2020, with forecast till 2050

	Argentina				Chile			
	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %
1950	**18.23**	**26.72**	**26.48**	**38.82**	**21.17**	**29.32**	**34.17**	**47.32**
1955	17.00	25.38	24.75	36.95	19.23	28.14	31.40	45.95
1960	16.54	24.29	23.99	35.23	18.18	26.21	30.02	43.29
1965	17.04	24.37	24.42	34.92	**18.21**	**25.61**	**30.13**	**42.37**
1970	17.38	24.82	24.63	35.18	**19.44**	**26.75**	**31.47**	**43.31**
1975	17.14	24.92	24.28	35.30	**20.56**	**28.28**	**32.14**	**44.20**
1980	16.29	23.88	23.41	34.31	20.70	**29.40**	31.12	**44.20**
1985	15.92	23.28	23.07	33.73	20.07	29.01	29.25	42.28
1990	**16.25**	**23.50**	**23.48**	**33.95**	18.67	27.67	26.72	39.60
1995	**17.40**	**24.46**	**24.71**	**34.75**	17.45	26.00	24.60	36.64
2000	**17.59**	**25.04**	24.59	**35.01**	16.77	24.82	23.07	34.15
2005	16.94	25.12	23.30	**34.55**	16.80	24.64	22.30	32.71
2010	16.85	24.56	22.78	33.21	16.91	24.63	21.70	31.61
2015	16.30	24.04	21.80	32.15	15.65	23.71	19.70	29.85
2020	15.53	23.31	20.55	30.85	13.85	22.18	17.15	27.46
2025	*15.09*	*22.43*	*19.75*	*29.36*	*12.80*	*19.82*	*15.65*	*24.24*
2030	*14.85*	*22.01*	*19.18*	*28.44*	*12.73*	*18.98*	*15.31*	*22.84*
2035	*14.61*	*21.64*	*18.64*	*27.60*	*12.28*	*18.59*	*14.59*	*22.09*
2040	*14.16*	*21.19*	*17.85*	*26.72*	*11.41*	*17.84*	*13.43*	*21.00*
2045	*13.67*	*20.57*	*17.06*	*25.67*	*10.75*	*16.65*	*12.58*	*19.49*
2050	*13.21*	*19.90*	*16.34*	*24.61*	*10.24*	*15.84*	*11.94*	*18.47*

Source: authors' calculations based on data from UN DESA 2020.

The youth bulge in Bolivia was particularly pronounced in the adult population (as opposed to total population) between 1950 and 1970. This period witnessed the Bolivian National Revolution of 1952, a dozen of subsequent tumultuous years (despite generally positive economic growth rates during the major part of this period), and the take-

over by military junta in 1964. Another youth bulge was observed in Bolivia between 1990 and 2015, during this period the share of those aged 15–29 grew by 2 per cent. This bulge seems also to have produced an impact on the country's political stability, since it probably contributed to the scale of the 2000 Cochabamba protests, the numerous strikes, presidential resignation (and then vice-presidential resignation as well) during the Bolivian Gas War of 2003–2005. The later years of this bulge were marked by relative stability, partially due to fast growing economy, partially thanks to various political measures undertaken by Evo Morales and his government (however, the end of Morales's last term was marked by turmoil and he was forced to flee).

The youth bulge became pronounced in Brazil somewhere between 1960 and 1965 (according to different estimates) and lasted until about 1980. Most of these years fell under the military dictatorship rule after the democratically elected President Joao Goulart was deposed via a coup d'état. The so-called Fifth Republic enacted a more restrictive Constitution, limited freedom of press and speech, installed censorship, practiced tortures and made dissidents flee for their lives (Skidmore 1990; Klein and Luna 2017). This type of regime partially explains the relative absence of large-scale political instability manifestations during this period despite the presence of a rather prominent youth bulge (between 1960 and 1980, the absolute number of young people aged 15–24 almost doubled, rocketing from 13.2 mln to 25.1 mln) and continuous economic hardships. In fact, the most authoritarian regimes (along with the most democratic ones) are known to be the least prone to political instability (Slinko *et al.* 2017).

Peru experienced its youth bulge almost simultaneously with Brazil, so it started in 1965 and ended between 1980 and 1985. Its political experience at the time of the 'bulge' was somewhat similar to Brazilian, with military rule lasting from 1968 till 1980. Against this background, the guerilla communist movements, inspired by the Cuban Revolution and reaching their first climax in the Revolutionary Left Movement insurrection of 1965, which was suppressed, continued their stability-shaking strife for power up until the 1990s, when both the USSR collapsed, and the Peruvian youth bulge began to decline (though the proportion of youth remained large, see Table 2).

Table 2

Proportion of youth cohorts according to various measurements in Bolivia, Brazil, and Peru, 1950–2020, with forecast until 2050

	Bolivia				**Brazil**				**Peru**			
	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %
1950	18.19	25.23	**30.03**	**41.66**	19.31	26.95	33.04	46.12	18.75	26.01	32.05	44.46
1955	17.92	**25.43**	**30.31**	**43.01**	18.77	26.66	32.41	46.03	18.64	25.86	32.44	44.99
1960	18.38	**25.66**	**31.28**	**43.65**	18.25	25.50	32.11	**44.87**	18.06	25.36	32.12	45.10
1965	19.10	**26.22**	**32.47**	**44.57**	**18.22**	**25.63**	**32.18**	**45.28**	**17.85**	**24.93**	**32.29**	**45.10**
1970	19.23	**26.74**	**32.63**	**45.38**	**19.42**	**26.45**	**33.61**	**45.78**	**18.68**	**25.51**	**33.69**	**46.01**
1975	19.05	26.70	32.30	45.28	**20.34**	**28.00**	**34.05**	**46.86**	**19.56**	**26.52**	**34.81**	**47.21**
1980	18.95	26.53	32.03	44.85	**20.80**	**29.06**	33.66	**47.01**	**20.16**	**27.75**	**34.97**	**48.12**
1985	18.90	26.35	31.70	44.19	20.40	**28.92**	32.26	45.73	**20.44**	**28.33**	34.47	47.77
1990	19.06	**26.53**	31.63	44.03	19.43	28.30	29.97	43.65	20.35	**28.53**	33.37	46.78

Table 2 continued

	Bolivia				Brazil				Peru			
	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %
1995	19.30	**26.91**	31.53	43.97	19.25	27.87	28.62	41.45	20.08	28.38	31.90	45.09
2000	19.30	**27.07**	30.99	43.47	19.61	27.95	28.00	39.90	19.93	28.44	30.40	43.38
2005	19.27	**27.18**	30.26	42.69	19.00	27.70	26.16	38.13	19.68	28.12	28.96	41.37
2010	19.32	**27.38**	29.50	41.80	17.69	26.71	23.53	35.52	19.14	27.40	27.37	39.20
2015	19.21	**27.42**	28.42	40.56	16.79	25.24	21.64	32.53	17.87	25.98	24.85	36.13
2020	18.86	27.21	27.03	38.98	15.70	23.67	19.80	29.86	15.31	23.70	20.32	31.47
2025	*18.15*	*26.52*	*25.36*	*37.05*	*14.16*	*21.94*	*17.59*	*27.25*	*14.66*	*22.07*	*19.24*	*28.96*
2030	*17.27*	*25.56*	*23.63*	*34.96*	*13.12*	*20.28*	*16.05*	*24.80*	*14.48*	*21.05*	*18.81*	*27.35*
2035	*16.42*	*24.39*	*22.08*	*32.79*	*12.71*	*19.20*	*15.31*	*23.12*	*14.32*	*21.33*	*18.24*	*27.18*
2040	*15.79*	*23.48*	*20.87*	*31.03*	*12.20*	*18.48*	*14.50*	*21.97*	*14.43*	*21.03*	*18.05*	*26.30*
2045	*15.36*	*22.73*	*19.96*	*29.54*	*11.45*	*17.67*	*13.48*	*20.80*	*13.77*	*20.75*	*16.97*	*25.58*
2050	*14.85*	*22.12*	*19.00*	*28.30*	*10.82*	*16.71*	*12.66*	*19.54*	*12.92*	*19.76*	*15.76*	*24.10*

Source: authors' calculations based on data from UN DESA 2020.

Colombia also experienced its youth bulge around the same time, from 1960–65 to around 1980. During this period, the National Front regime (1958–1974) was in force, which in its later years was frequently considered as a repressive regime. Against this background (and, seemingly, highly influenced by the fraud surrounding the 1970 elections), the M-19 guerilla movement emerged and gained strength. Somewhat earlier, in 1964, the Revolutionary Armed Forces of Colombia (FARC) was formed by the Communist supporters. Thus, during the youth bulge prime, quite a number of powerful guerilla movements undermining the country's political and social stability operated in Colombia along with a repressive regime.

Ecuador is remarkable for the fact that two different measurements of its youth bulge provide us with two different estimates of its timing – according to Urdal, the youth bulge was likely between 1950 and 1980, while according to Goldstone, the youth bulge became visible later, from 1965 to 1990. This discrepancy probably roots in the delayed fertility decline – actually, even in the early 1970s the total fertility rate still persisted at levels higher than six children per woman. Speaking of the political stability in this country, suffice it to say that it witnessed 15 heads of state (presidents of military leaders) alternating between 1950 and 1990.

Venezuela presents another tricky example, where Goldstone's youth bulge is visible from 1960–65 till 1980–85, while Urdal's youth bulge is hardly visible at all, which is a sign of a remarkably smooth demographic transition. Nevertheless, Goldstone's youth bulge was still present in the country and seems to have played a notable role in various episodes of political instability. In 1960, the assassination of the President was followed by an insurgency from some left-wingers supported by Cuban communists. At least two next presidents saw continuous guerilla warfare in the country and were challenged with the task of re-socializing the guerillas into peaceful and legitimate social and political life. Even when the relative proportion of youths began to decline, the problems of corruption, questionable governance, and turbulent economic development persisted.

Table 3

Proportion of youth cohorts according to various measurements in Colombia, Ecuador, and Venezuela, 1950–2020, with forecast until 2050

	Colombia				Ecuador				Venezuela			
	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %
1950	19.56	27.02	34.64	47.85	17.70	24.65	**29.38**	**40.92**	18.89	26.26	34.67	48.18
1955	18.63	26.03	34.01	47.52	17.62	24.60	**30.35**	**42.39**	18.87	26.29	34.56	48.15
1960	18.10	25.16	**33.95**	**47.20**	17.73	24.65	**31.33**	**43.55**	**18.59**	25.81	34.44	47.83
1965	**18.38**	**24.98**	**34.99**	**47.56**	**17.63**	**24.46**	**31.89**	**44.25**	**18.66**	**25.73**	**34.69**	47.82
1970	**19.37**	**26.10**	**36.03**	**48.55**	**18.72**	**25.70**	**33.63**	**46.16**	**19.19**	**26.27**	**35.20**	**48.19**
1975	**21.09**	**28.18**	**37.28**	**49.82**	**19.92**	**26.76**	**35.25**	**47.35**	**20.33**	**27.71**	35.88	**48.92**
1980	**22.18**	**30.22**	36.99	**50.39**	**20.17**	**28.09**	34.78	**48.44**	**21.05**	**28.84**	35.81	49.06
1985	21.79	**30.35**	34.90	48.62	**20.49**	**28.57**	34.23	47.73	20.91	**29.37**	34.41	48.31
1990	20.15	29.27	31.50	45.76	**20.50**	**28.78**	33.20	46.62	20.03	28.66	32.25	46.14
1995	19.21	27.96	29.34	42.70	19.99	28.51	31.50	44.92	19.52	28.11	30.51	43.94
2000	19.01	27.12	28.19	40.22	19.44	27.91	29.89	42.92	19.40	27.64	29.38	41.86
2005	18.60	26.86	26.70	38.55	19.20	27.47	28.72	41.08	19.27	27.65	28.22	40.47
2010	18.53	26.84	25.47	36.91	18.89	27.20	27.40	39.44	18.70	27.03	26.68	38.56
2015	18.02	26.34	23.88	34.90	18.45	26.79	26.00	37.76	17.67	26.11	24.67	36.45
2020	17.03	25.73	21.89	33.07	17.73	26.06	24.41	35.89	16.19	23.32	22.25	32.06
2025	*15.28*	*23.41*	*19.29*	*29.55*	*16.47*	*24.65*	*22.34*	*33.42*	*17.06*	*24.56*	*22.58*	*32.51*
2030	*13.89*	*21.54*	*17.24*	*26.74*	*15.83*	*23.51*	*21.07*	*31.30*	*16.58*	*24.48*	*21.40*	*31.60*
2035	*13.29*	*20.13*	*16.20*	*24.53*	*15.55*	*22.87*	*20.29*	*29.83*	*14.89*	*22.72*	*19.13*	*29.19*
2040	*12.73*	*19.18*	*15.28*	*23.03*	*15.11*	*22.35*	*19.35*	*28.63*	*13.57*	*21.20*	*17.27*	*26.99*
2045	*11.88*	*18.28*	*14.11*	*21.71*	*14.39*	*21.61*	*18.16*	*27.27*	*13.84*	*20.25*	*17.36*	*25.39*
2050	*11.17*	*17.20*	*13.16*	*20.27*	*13.69*	*20.67*	*17.05*	*25.74*	*13.90*	*20.41*	*17.17*	*25.22*

Source: authors' calculations based on data from UN DESA 2020.

Dominican Republic experienced its youth bulge in what we can call the 'common' time for Latin American countries, namely from the 1965 to roughly 1980. At that time, the election (and then re-election) of President Balaguer was accompanied with intense violence directed at members of opposition by pro-government groups. In the early 1970s the Dominican left planned an (unsuccessful) attempt at revolution. The subsequent presidential elections were also marked by fraud and violence.

Haiti represents a noteworthy case, as here the youth bulge clearly formed much later than in all the countries we considered above, namely in the 1990s, lasting until around the 2010 (see Table 4). However, one should emphasize here, that while the relative proportion of youths in the population started declining, the absolute number of youths continues to grow. The number of those aged 15–24 increased by 70 per cent between 1990 and 2020. Undoubtedly, this rapid growth poses a serious challenge for various Haitian social institutions, as well as for political stability of this country and should be taken into account in the process of decision-making.

Table 4

Proportion of youth cohorts according to various measurements in Dominican Republic and Haiti, 1950–2020, with forecast until 2050

	Dominican Republic				Haiti			
	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %	Ages 15–24 in total, %	Ages 15–29 in total, %	Ages 15–24 in adult (15+), %	Ages 15–29 in adult (15+), %
1950	20.03	27.32	36.67	50.01	18.60	26.21	30.81	43.41
1955	19.23	26.61	35.79	49.53	19.01	26.33	31.52	43.67
1960	17.49	24.71	33.79	47.72	18.96	26.34	31.75	44.10
1965	**16.96**	**23.72**	**33.31**	**46.56**	17.95	25.50	30.75	43.67
1970	**18.58**	**24.70**	**35.61**	**47.33**	18.29	25.66	31.25	43.84
1975	**20.44**	**26.96**	**37.46**	**49.42**	19.53	26.35	33.00	44.52
1980	**21.37**	**28.87**	**37.33**	**50.45**	19.61	27.14	33.16	45.89
1985	21.30	**29.50**	35.77	49.53	18.98	26.37	32.87	45.67
1990	20.74	29.22	33.71	47.50	**18.19**	**25.63**	**32.04**	**45.15**
1995	20.10	28.53	31.80	45.13	**18.81**	**26.04**	**32.75**	**45.35**
2000	19.68	28.01	30.23	43.04	**20.91**	**27.95**	**35.00**	**46.77**
2005	19.36	27.60	28.88	41.17	**21.65**	**29.57**	**35.01**	**47.83**
2010	19.42	27.61	27.99	39.79	20.77	**29.90**	32.59	46.91
2015	18.74	27.06	26.33	38.03	20.00	28.89	30.48	44.02
2020	17.50	25.93	24.12	35.74	19.38	27.97	28.70	41.42
2025	*16.59*	*24.56*	*22.43*	*33.20*	*18.79*	*27.22*	*27.08*	*39.23*
2030	*16.14*	*23.70*	*21.35*	*31.36*	*18.26*	*26.55*	*25.63*	*37.26*
2035	*15.81*	*23.19*	*20.47*	*30.01*	*17.64*	*25.82*	*24.17*	*35.38*
2040	*15.18*	*22.54*	*19.29*	*28.64*	*16.90*	*24.99*	*22.68*	*33.54*
2045	*14.32*	*21.59*	*17.93*	*27.02*	*16.15*	*24.03*	*21.29*	*31.67*
2050	*13.56*	*20.49*	*16.76*	*25.33*	*15.47*	*23.09*	*20.08*	*29.96*

Source: authors' calculations based on data from UN DESA 2020.

5. Conclusion

Our research sheds light on the important aspect of how global shifts of age structures and demographic globalization played a role in the modern history of Latin American countries. All the countries considered in the paper experienced a youth bulge – an increasing proportion of young people in the total population (or adult population) of the country. This is a global phenomenon (though experienced by various countries at different scale and periods of time) generated by the lag between the two phases of the demographic transition (mortality transition starting earlier and maybe developing faster than the fertility transition, which only begins after a certain time lag). However, this increased proportion of youth is related to higher risks of various manifestations of political instability in the corresponding countries, such as political violence (*e.g.*, surrounding presidential elections), guerilla movements, coup d'états, attempted revolutions (whether successful or failed) – not a single country in our sample managed to avoid political instability at the time of the youth bulge (with a probable exception of Brazil, where this was achieved through extremely severe repressions, so some sort of political violence was still clearly observed). Argentine and Chile (and very likely Uruguay, which was omitted from our sample) were in the avant-garde of demographic transition on the continent, so they were

the first countries to experience the youth bulge. The rest of the sample went through their youth-bulge stages almost simultaneously, between the 1960s and 1980s, which quite probably made Latin America 'the hotspot' of the world at that time. The only latecomer we revealed is Haiti, which experienced its youth bulge between 1990 and 2010. However, as we already pointed out above, while the relative proportion of youths in the population started declining, the absolute number of youths continues to grow. The number of those aged 15–24 increased by 70 per cent between 1990 and 2020, which poses a serious challenge for the Haitian social infrastructure, as well as for its political stability. Thus, global demographic transition in Latin American countries has similar results with many other countries and regions of the world (for the latest examples and about the Arab Spring events see, *e.g.*, Korotayev *et al.* 2011); however, with certain specific features determined by civilizational aspects of the region.

NOTES

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[1] Hereinafter the enrolment data is provided from Benavot and Riddle 1988: 205–207).

REFERENCES

Astorga P., Berges A. R., and Fitzgerald, V. 2005. The Standard of Living in Latin America during the Twentieth Century. *The Economic History Review* 58 (4): 765–796.

Benavot, A., and Riddle, P. 1988. The Expansion of Primary Education, 1870–1940: Trends and Issues. *Sociology of Education* 61 (3): 191–210.

Chesnais, J.-K. 1992. *The Demographic Transition: Stages, Patterns, and Economic Implications*. Oxford: Clarendon Press.

FAO (Food and Agriculture Organization of the United Nation). 2011. *FAO Annual Real Food Price Indices*. URL: http://typo3.fao.org/fileadmin/templates/worldfood/Reports_and_docs/Food_price_indices_data_deflated.xls. Accessed July 17, 2011.

Fuller, G. E. 1995. The Demographic Backdrop to Ethnic Conflict: A Geographic Overview. In Unit, C. I. (ed.), *The Challenge of Ethnic Conflict to National and International Order in the 1990s* (pp. 151–154). Washington, DC: CIA.

Goldstone, J. A. 2002. Population and Security: How Demographic Change can Lead to Violent Conflict. *Journal of International Affairs*: 3–21.

Grinin, L., and Korotayev, A. 2019. Perturbations in the Arab World during the Arab Spring: A General Analysis. In Grinin, L., Korotayev, A., and Tausch, A. (eds.), *Islamism, Arab Spring, and the Future of Democracy* (pp. 125–155). Springer, Cham.

Gvirtz, S., Beech, J., and Oria, A. 2008. Schooling in Argentina. In Gvirtz, S., and Beech, J. (eds.), *Going to School in Argentina* (pp. 5–35). Westport: Greenwood.

Klein, H. S., and Luna, F. V. 2017. *Brazil, 1964–1985: The Military Regimes of Latin America in the Cold War*. Yale University Press.

Korotayev, A., and Zinkina, J. 2011. Egyptian Revolution: A Demographic Structural Analysis. *Middle East Studies Online Journal* 2 (5): 57–95.

Korotayev, A., Zinkina, J., Kobzeva, S., Bozhevolnov, J., Khaltourina, D., Malkov, A., and Malkov, S. 2011. A Trap at the Escape from the Trap? Demographic-Structural Factors of Political Instability in Modern Africa and West Asia. *Cliodynamics* 2 (2): 276–303.

Livi-Bacci, M. 2012. *A Concise History of World Population.* 5th ed. Malden, MA: Wiley-Blackwell.

Mariscal, E., and Sokoloff, K. L. 2000. Schooling, Suffrage, and the Persistence of Inequality in the Americas, 1800–1945. In Haber, S. (ed.), *Political Institutions and Economic Growth in Latin America: Essays in Policy, History, and Political Economy*. Stanford, CA: Hoover Institution Press Publication.

McEvedy, C., and Jones, R. 1978. *Atlas of World Population History*. Harmondsworth: Penguin Books Ltd.

Mesquida, C. G., and Wiener, N. I. 1999. Male Age Composition and Severity of Conflicts. *Politics and the Life Sciences* 18 (2): 181–189.

Moller, H. 1968. Youth as a Force in the Modern World. *Comparative Studies in Society and History* 10 (3): 237–260.

Newland, C. 1994. The Estado Docente and Its Expansion: Spanish American Elementary Education, 1900–1950. *Journal of Latin American Studies* 26 (2): 449–467.

Noe-Bustamente, L., Flores, A., and Shan, S. 2019. *Facts on Hispanics of Cuban Origin in the United States, 2017*. Pew Research Center. URL: https://www.pewresearch.org/hispanic/fact-sheet/u-s-hispanics-facts-on-cuban-origin-latinos/. Accessed September 16, 2019.

O'Rourke, K. H., and Williamson, J. G. 2001. *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*. Cambridge – London: MIT Press.

Schiefelbein, E., and Farrell, J. P. 1980. Women, Schooling, and Work in Chile: Evidence from a Longitudinal Study. *Comparative Education Review* 24 (2): 160–179.

Skidmore, T. E. 1990. *The Politics of Military Rule in Brazil, 1964–1985*. New York: Oxford University Press.

Slinko, E., Bilyuga, S., Zinkina, J., and Korotayev, A. 2017. Regime Type and Political Destabilization in Cross-National Perspective: A Re-Analysis. *Cross-Cultural Research* 51 (1): 26–50.

Southwell, M. 2013. Schooling and Governance: Pedagogical Knowledge and Bureaucratic Expertise in the Genesis of the Argentine Educational System. *Paedagogica Historica* 49 (1): 43–55.

UN DESA = United National Department of Economic and Social Affairs Population Dynamics. World Population Prospects 2019. *Age Composition: Population by Age Groups – Both Sexes*. URL: https://population.un.org/wpp/Download/Standard/Population/. Accessed February 20, 2020.

Urdal, H. 2004. The Devil in the Demographics: The Effect of Youth Bulges on Domestic Armed Conflict, 1950–2000. *Social Development Papers 14*. Washington, D.C.: The World Bank.

Urdal, H. 2006. A Clash of Generations? Youth Bulges and Political Violence. *International Studies Quarterly* 50 (3): 607–629.

World Bank. 2011. *Food Price Watch*. August 2011. URL: http://siteresources.WorldBank.org/INTPOVERTY/News%20and%20Events/22982477/Food-Price-Watch-August-2011.htm. Accessed June 12, 2012.

World Bank. 2020. World Development Indicators Database. GDP Growth (annual %). URL: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG. Accessed February 15, 2020.

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): 25–44.