

EURASIAN PULSE



China's precious children

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Introduction

China's population has been in the international spotlight for decades not only because it is the world's largest, but also because the "one-child" family planning policy, introduced in 1980, was the world's biggest, and probably also one of the harshest, social engineering projects implemented by a state.¹ The policy, which restricted Chinese new couples to stringent birth limits for 35 years.² touched almost every family. Facing a looming crisis of the aging population, the government finally relented in late 2015. While some scholars have argued that the policy was necessary for economic growth by generating large "demographic dividend" for the country, others have long anticipated the forthcoming crisis, and deplored the wrong-headed policy, including its associated excesses and human rights abuses, such as forced abortion and sterilization (Wang, Bu and Yong 2016; FT 2018; SCMP 2018). The policy also contributed to China's skewed gender imbalance and rapid aging, among many others (Ebenstein 2010; Cai and Wang 2009). China officially became an aging nation³ in 2000 at a much early stage of economic development mainly due to this policy and became the first country to "get old before it gets rich" (Wang 2015; The Economist 2019). China's laborforce has also steadily shrunk since 2014 (Taplin 2019). The onechild policy, replaced by a two-child policy to begin in January 2016, was aimed at raising fertility so as to slow down the aging of the population. This article extends and updates our recent research (Chan and Ren 2018; Chan and Wei 2019) and more importantly brings the issues of children of migrants and recent hukou (household registration) reforms into the conversation of China's now much-discussed aging population issue and places these interrelated questions in a broader context.

China is graying fast and the baby count is falling

It has become quite clear, especially after the 2018 birth figure was released, that ending birth controls will not lead to a baby boom. As Table 1 shows, the



Table 1. China's major population indicators, 2010–2018.

Age 0-14 222.6 221.6 222.9 223.3 225.6 227.2 230.1 233.5 235.2 Age 15-64 999.4 1002.8 1004.0 1005.8 1004.7 1003.6 1002.6 998.3 993.6 Age 65 and above 118.9 122.9 127.1 131.6 137.6 143.9 150.0 158.3 166.6 % Age 6-14 16.60 16.45 16.46 16.41 16.49 16.52 16.64 16.80 16.86 % Age 65+ 8.87 9.12 9.39 9.67 10.06 10.47 10.85 11.39 11.94 Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (‰) 11.90 11.93 12.1 12.08 12.37 12.07 <th></th>										
Age 0-14 222.6 221.6 222.9 223.3 225.6 227.2 230.1 233.5 235.2 Age 15-64 999.4 1002.8 1004.0 1005.8 1004.7 1003.6 1002.6 998.3 993.6 Age 65 and above 118.9 122.9 127.1 131.6 137.6 143.9 150.0 158.3 166.6 % Age 0-14 16.60 16.45 16.46 16.41 16.49 16.52 16.64 16.80 16.86 % Age 65+ 8.87 9.12 9.39 9.67 10.06 10.47 10.85 11.99 11.94 Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (‰) 11.90 11.93 12.1 12.08 12.37 12.07 <td>Indicators</td> <td>2010</td> <td>2011</td> <td>2012</td> <td>2013</td> <td>2014</td> <td>2015</td> <td>2016</td> <td>2017</td> <td>2018</td>	Indicators	2010	2011	2012	2013	2014	2015	2016	2017	2018
Age 15-64 999.4 1002.8 1004.0 1005.8 1004.7 1003.6 1002.6 998.3 993.6 Age 65 and above 118.9 122.9 127.1 131.6 137.6 143.9 150.0 158.3 166.6 % Age 0-14 16.60 16.45 16.46 16.41 16.49 16.52 16.64 16.80 16.86 % Age 65+ 8.87 9.12 9.39 9.67 10.06 10.47 10.85 11.39 11.94 Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (‰) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 </td <td>Total population (millions)</td> <td>1340.9</td> <td>1347.4</td> <td>1354.0</td> <td>1360.7</td> <td>1367.8</td> <td>1374.6</td> <td>1382.7</td> <td>1390.1</td> <td>1395.4</td>	Total population (millions)	1340.9	1347.4	1354.0	1360.7	1367.8	1374.6	1382.7	1390.1	1395.4
Age 65 and above 118.9 122.9 127.1 131.6 137.6 143.9 150.0 158.3 166.6 % Age 0-14 16.60 16.45 16.46 16.41 16.49 16.52 16.64 16.80 16.86 % Age 65+ 8.87 9.12 9.39 9.67 10.06 10.47 10.85 11.39 11.94 Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (‰) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (‰) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	Age 0-14	222.6	221.6	222.9	223.3	225.6	227.2	230.1	233.5	235.2
% Age 0-14 16.60 16.45 16.46 16.41 16.49 16.52 16.64 16.80 16.86 % Age 65+ 8.87 9.12 9.39 9.67 10.06 10.47 10.85 11.39 11.94 Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (‰) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (‰) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	Age 15-64	999.4	1002.8	1004.0	1005.8	1004.7	1003.6	1002.6	998.3	993.6
% Age 65+ 8.87 9.12 9.39 9.67 10.06 10.47 10.85 11.39 11.94 Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (%) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (%) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	Age 65 and above	118.9	122.9	127.1	131.6	137.6	143.9	150.0	158.3	166.6
Total dependency ratio 34.2 34.4 34.9 35.3 36.1 37.0 37.9 39.2 40.4 Youth dependency ratio 22.3 22.1 22.2 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (%) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (%) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	% Age 0-14	16.60	16.45	16.46	16.41	16.49	16.52	16.64	16.80	16.86
Youth dependency ratio 22.3 22.1 22.2 22.2 22.5 22.6 22.9 23.4 23.7 Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (%) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (%) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	% Age 65+	8.87	9.12	9.39	9.67	10.06	10.47	10.85	11.39	11.94
Elderly dependency ratio 11.9 12.3 12.7 13.1 13.7 14.3 15.0 15.9 16.8 Crude birth rate (‰) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (‰) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	Total dependency ratio	34.2	34.4	34.9	35.3	36.1	37.0	37.9	39.2	40.4
Crude birth rate (%) 11.90 11.93 12.1 12.08 12.37 12.07 12.95 12.43 10.94 Crude death rate (%) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	Youth dependency ratio	22.3	22.1	22.2	22.2	22.5	22.6	22.9	23.4	23.7
Crude death rate (%) 7.11 7.14 7.15 7.16 7.16 7.11 7.09 7.11 7.13	Elderly dependency ratio	11.9	12.3	12.7	13.1	13.7	14.3	15.0	15.9	16.8
	Crude birth rate (‰)	11.90	11.93	12.1	12.08	12.37	12.07	12.95	12.43	10.94
	Crude death rate (‰)	7.11	7.14	7.15	7.16	7.16	7.11	7.09	7.11	7.13
Natural increase rate (%) 4.79 4.79 4.95 4.92 5.21 4.96 5.86 5.32 3.81	Natural increase rate (%)	4.79	4.79	4.95	4.92	5.21	4.96	5.86	5.32	3.81
Total number of births (millions) 15.96 16.07 16.38 16.44 16.92 16.59 17.91 17.28 15.27	Total number of births (millions)	15.96	16.07	16.38	16.44	16.92	16.59	17.91	17.28	15.27

Source: NBS (2019).

annual population growth rate in 2018 dropped to only 3.8 per 1000, the lowest in the entire post-1949 era except for the famine years in the early 1960s (NBS 2019). The relaxation of the one-child family planning policy in 2016 did result in a small, temporary bump in births in that year, but the number quickly fell in 2017 and plummeted precipitously in 2018 to an alarming level of only 15.3 million, yielding a birth rate even lower than in 2010 when the stringent family planning policy was still in place.

At the same time, the size of the elderly population, those aged 65 and above, grew rapidly, from 119 million in 2010 to 167 million in 2018, an increase of 40% in 8 years! The share of the elderly population similarly jumped from 8.9% of the population to 11.9% in the same period. Many experts expect the birth levels to stay low in the coming decades, following the world trends, and will not help counter the aging problem much (Qi and Wang 2018). This is also aggravated by the recent drop in the marriage rate.⁴ In other words, China is locked into an aging trajectory that family planning policy can do little about (Cui 2018). Indeed, based on the most probable trends, a recent (2017) UN model projects that the elderly population of China will double in size to 340 million and in percentage to 24% in 2040, raising the total dependency ratio to close 60%, up from today's 40% (Cui 2018; Zhang 2018)! Such a shift in the elderly proportion took USA nearly a century and Europe more than 60 years (The Economist 2019). China's rapidly rising crop of the elderly threatens to drain household savings and derail economic growth (Qi and Wang 2019).

The prognosis is even grimmer for many metropolises such as Beijing and Shanghai though they misleadingly appear to be enjoying a low dependency at the moment.⁵ These cities suffer from the high costs of living and especially preschool education, which have put a damper on fertility. Many of these metropolises exhibit fertility rates already lower than many other major cities in the developed world. While China's total fertility rate (TFR) is around 1.5 in recent years, Beijing's⁶ hovered between 0.7 and 1.1 in the last eight years (BBS various



years; Cui 2018). At the same time, these large cities have a much higher life expectancy, surpassing 80, and will continue to inch up (Cui 2018). Indeed, combined with its recent strict migration policy (examined below), Beijing's population already shrank in 2017 and 2018. Similarly, this also happened to Shanghai in 2015, and then again in 2017 ("Xin Zhongguo ... " 2019).

Eighty-eight million children "left behind"

The new enthusiastic reverse-gear efforts carried out by the government to promote births, in some instances, have swung to the other extreme, reminiscent of the heavy-handed approach during the "high-tides" years of the onechild policy (Myers and Ryan 2018; "Erhai ... " 2017). An official newspaper in Jiangsu in 2018 even floated the idea of taxing couples who do not have a second birth (Singtao Daily 2018). Ironically, in such a seemingly desperate pronatalist, pro-children fervor, an existing large population of children of about 100 million - the equivalent of all the children in the USA, U.K., and France combined - are left mostly in a rather deprived situation, in which they are separated from one or both of their parents, do not receive reasonable education, and in general, face many disadvantages and hurdles in their growing up. Their situation is somewhat similar to those faced by many undocumented immigrant children in the USA (Holdaway 2018).

This significant population of "children of migrants" accounted for nearly 40% of all Chinese children in 2015, a dramatic rise from only 14.4% (or 50 million) in 2000 (Chan and Ren 2018). They consist of generally two groups: the "left behind children" (LBC), making up about two-thirds of that population (69 million in 2015), and "migrant children," the remaining one-third (34 million) (see Table 2). Excluding those in divorced or widowed families, the LBC are children living in one's home village/town (based on hukou classification) but not living with both parents. Migrant children, on the other hand, live in a village or town different from where their hukou is registered and are therefore classified as "migrants" (NBS, UNICEF, and UNFPA 2017). These two groups are not disparate but are the two "forms" of the same children population. Many children shift from one category to another, following the vicissitudes of their families. As their parents migrate, some children follow. Others are left behind but could shift back later. Because of their frequent changes in where they live, they lead an unstable "floating childhoods," as Zhou, Tao, and Lin (2019) aptly describe.

A main reason for the parent-child separation - hence, children are left behind instead of accompanying their migrant parents – is the difficulty of accessing urban schools for their children, especially in large cities (Chen and Feng 2017; Lu and Wu 2018; Siu and Unger 2019). This problem is fundamentally created by a more prohibitive and enduring institution and related policies than the family planning policy. The hukou system of residency permits rigidly

	China							USA		
	Left-behind Children		Migrant Children							
	All	Rural	Urban	All	Not with both parents	Children of Migrants	All Children	All Children	African Americans	
1. Population size (millions)	68.8	40.51	28.26	34.26	18.84	103.1	271	73.6	13.8	
			Living	Arrang	gements (%)					
2. With both parents	-	-	- '	45	· -	15.0	67.7	~70	~48	
3. Not with both parents	100	100	100	55	100	85.0	38.3*	~30	~52	
(Single-parent and no-parent family households, SNF)										
A. With one parent	53.1	51	56.2	17.9	32.5	41.4	21.7*	28	49	
B. With no parent but with other people (mainly grandparents)	44.3	45.8	42.2	36.4	66.2	41.7	15.8	1.4	2.5	
C. Alone	2.6	3.3	1.6	0.7	1.3	2.0	0.7	NA	NA	

Notes:

NA: data not available

Sources:

China: Chan and Ren (2018); NHFPC (2014).

USA: Chamie (2016); Census Bureau, U.S. (2016); Child Trends (2018).

^{*} This includes 6% from the divorced and separated families, based on 2010 data (NHFPC 2014, 34).

classifies the population in the city as urban (more generally, those with local hukou) and rural (those without local hukou), with schools in large cities open primarily to local urban-hukou children, especially in larger cities. Under the hukou system and more broadly, China's rural-urban dual system (Chan and Wei 2019), migrant workers moving to cities with their children are considered only temporary, legally and socially "outsiders" (外来人口) and generally are not eligible for local public education and other local social services (Chan 2009; Wang and Cai 2010). These children from low-income families have faced tremendous educational obstacles over the last two decades. Some changes in policy before 2010 resulted in a small portion of the children of migrants being admitted to schools in big cities, but problems remain and the situation has actually worsened since the early 2010s (Wei and Gong 2019). The great majority of the children of migrants are left in the countryside and small towns, separated from one or both of their parents. As expected, under China's urbanbiased policy, rural children have faced many serious challenges in education (Yiu and Yun 2017; Rozelle 2017; Wei 2018).

In general, LBC are found in the countryside from where their parents have moved to seek jobs in the urban areas. In recent years, as in 2015, a greater number of LBC were recorded in the "urban areas." This is partly because many villages where these children stay have been reclassified "urban" administratively and statistically though the "rurality" of many of these villages or townships remains unchanged.⁸ Migrant children, on the other hand, are those who live in a place different from their place of hukou registration. They are generally believed to be better off than LBC because they are assumed to be migrating with their parents and living with them in the destination. However, national data in 2015 actually show that more than half (55%) of migrant children did not live with both parents and about one-third of them did not live with any parent at all. Their family arrangements were very similar to the LBCs, and they have appropriately been called "流动的留守儿童" or "流留儿童" (Du, Zhang, and Liu 2018; Ren 2018). Here I term them "left-behind migrant children" (LBMC). This is a more recent phenomenon as a greater number of the LBC moved to nearby towns to continue schooling,⁹ some due to school closures in villages in the last decade. But the living arrangements with parents remained unchanged. In other words, they continued to be "left behind," whether statistically as migrants or non-migrants, or whether rural or urban. This segment of migrant children should be rightly included in the total LBC, and doing so would raise this population in 2015 to 87.7 million, representing 85% of all children of migrants (Table 2). This figure LBC is larger than the oft-cited figure (68.8 million for 2015) from NBS, NICEF and UNFPA (2017), and definitely far larger than the 9 million (for 2016) released by the Ministry of Civil Affairs ("Minzheng ... " 2016). 10 The renewed LBC figure paints a direr picture of the problem.

More than one-third of China's children live in split-family households

It has been amply documented in a special issue in this journal last year (volume 59, issue 2) and elsewhere (Liang and Chen 2007; The Economist 2015; Pan and Ye 2017; Normile 2017; Wei 2018; Lyu and Chen 2018) that the great majority of the children of migrants are highly disadvantaged in many ways. Many face multiple challenges in their lives and growing up; some encounter very serious ones. Poor or inadequate education and parental absence are the two most common and serious problems, both of which directly affect their future capacity to function adequately as workers and citizens in their adult life. They also run into many other shortterm and/or long-term problems. These range from stress to more serious psychological problems, falling behind in school, dropping out of school, and/or becoming victims of sexual and physical abuse, though LBC may be better off economically in the short run than children whose parents do not migrate (Wei 2018). Some LBC have also become easy recruits for criminals. The more extreme problems these children encounter occasionally make national and international headlines, as in a poignant case in June 2015 when four LBC siblings in a village in Guizhou committed group suicide (Wona 2015).

Added to the various challenges above, as I learned from last year's visit to schools attended principally by LBC in a county in Shaanxi, is another equally damaging and stressful situation faced by these children. Separation of parents and children and separation of couples were prevalent, causing serious tensions in family and marital relationships. The latter also led to de jure or de facto separation, divorce, or simply disappearance, and other forms of marital breakups, consistent with what has been reported from surveys (Jin et al. 2013; Ma and Shi 2017; Sun 2019). In relation to that, the magnitude of the problems associated with LBC can be further understood by looking at the incidence of China's de facto single-parent families. As most studies show, children raised in single-parent households in general do not have the same parental care and support and financial means available to them as those brought up in twoparent families. Single-parent households adversely affect a variety of children's outcomes, including educational attainment (McLanahan, Tach, and Schneider 2013; Brand et al. 2019). Consequently, children in single-parent families are frequently disadvantaged due to comparatively high levels of unemployment, poverty, poor health and stress within such households.

Asian countries, especially China, have been touted for their marital and family stability based on the low percentage of single-parent families, defined conventionally as those families in which the child or children live with one parent rather than two, principally caused by their parents' divorce, marital separation, or the death of one parent. Under this definition, China's percentage of single-parent families is among the world's lowest, at about 6% of all the

family households in 2010 (Wang and Li 2014; NHFPC 2014), compared to the world average of about 14% and USA's 28%, one of the highest in the developed world (Chamie 2016). 11 China's percentage likely has increased since 2010 given the rising divorce rate in recent years (MCA 2018).

However, beneath China's low percentage lies a starkly different – and frightening - story. Wang (2009), along with Wang and Li (2014) and NHFPC (2014), have long argued that because of China's hukou system, which often splits members of the family into households in different locations, there are large numbers of married couples actually separated on a daily basis though they are not divorced or maritally separated. A large portion of them, those with children, is manifest in the LBC phenomenon described above. By the absence of one or more parents on a daily basis, the LBC live in de facto single-parent family households. Indeed, the LBC's family situation could be worse, as in the noparent families, than the conventional single-parent families. Statistics assembled in Table 2 show that in 2015 among China's children of migrants, 42% of them do not live with any parent at all (though many do live with grandparents). For the LBMC, the percentage is even more staggering, reaching about two-thirds!

Taking the above into consideration, I have compiled a "single-parent and noparent family household" (SNF) indicator, combining the divorced-based and the LBC-based split-family households with children. Based on this broader and more meaningful metric of single-parent families, China's percentage will jump from one of the world's lowest (6%) to about 38%, one of the highest! This percentage is even higher than those countries where high incidences of AIDS have taken away many parents from their children (Chamie 2016). ¹² More troubling is that 85% of the children of migrants live in SNF in 2015! This is much higher than the 52% estimated for African Americans in the USA¹³ (see Table 2), a group whose single-parent family problem has long drawn attention and been associated with poverty and many problems. Both high percentages of the SNF in migrant families and African American families speak to the similarly dire situations, though of different natures, of the two groups ensnared in various kinds of personal, family, social and economic difficulties. One can also add that compared to the basically urban SNF (especially in USA), the Chinese SNF is more serious because the great majority are in the rural areas. They are often geographically isolated (especially in poor villages), resulting in scant attention to their problems and support. Moreover, almost half of China's children of migrants in SNF do not live with any parent while in African American SNF, this percentage is only about 5%. Studies in China (e.g. Shen and Zhang 2018) have also shown that singlemother families generally do a better job in raising children than single-father families. Worldwide single-parent families tend to be headed by mothers, but in China's rural areas, divorced or separated families tend to be single-father families in which children generally experience more problems in their growing up (Li 2008).

To sum up, while LBC exist in many developing countries, the percentage of children "left behind" in China is extraordinarily high, as noted by Beh and Yao (2012). For children of migrants in China, the LBC size or those in single-parent or no-parent families are also overwhelming (88 million), accounting for 85% of that group. Decrying the grave situation, *The Economist* (2015) calls these children a "damaged generation," prognosticating a rather bleak future for them; others like Wei (2018) similarly have argued that migration with split families has pauperized the migrant population in the longer term. An op-ed in *The New York Times* also likens the LBC to "the orphans of China's economic miracle" (Zhang 2018). Indeed, the education situation many LBC face is an "apocalypse," as Stanford scholar Scott Rozelle poignantly puts it (Normile 2017).

Recent hukou policies and the future

Before the abolition of the one-child policy at the beginning of 2016, China's population policy in large cities had been to strictly limit births and in-migration. However, with the one-child policy scrapped, the policy has totally reversed to encouraging having more children. The central and local governments, especially in large cities, have been scrambling to devise measures to boost women's fertility, especially those with local city *hukou* ("Erhai ... " 2017). Paradoxically, the "pro-children" stance does not apply to the existing children migrating to large cities. In the last few years, especially after 2014 under the new urbanization blueprint and *hukou* reforms, migration to those cities has actually become much more difficult (Chan and Ren 2018).

Specifically, in 2014 the central government issued *National New-type Urbanization Plan* and *Opinions on Reforming the Hukou System*, stipulating greater ease for migrants to settle in small urban centers, but more stringency in preventing migrants from entering large cities. The strictest was to be imposed on "super-large" cities (those over 5 million population, based on the *de facto* urban population of the city) (Chan and Wan 2017). The severity of the measures has gone beyond what was done before 2014. These large cities are the nation's major centers for migrant workers, including many who are college-educated. Prominent economists such as Lu (2016) have long argued that because of the agglomeration economy, these cities are important centers of growth for China, creating jobs to absorb the country's vast underemployed rural-*hukou* population. Many others have considered these heightened efforts to curb the population growth in large cities counter-productive and inefficient (e.g. Batson 2014; Hamlin 2014).

Under the 2014 initiatives, actions taken by Beijing and Shanghai, for example, include raising the bar of the "entry conditions" for outsiders to gain a local *hukou* or a lesser *hukou* called "resident permit." More importantly, ceilings were set for the 常住人口 (resident population, including those without local *hukou*)

of these cities. Beijing fixed a limit of 23 million in 2020 against a population of already 21.52 million in 2014; and for Shanghai, a ceiling of 25 million by 2020 against 24.15 million already at the end of 2015 (Chan 2018)! Essentially, both cities have been declared "full" and have actively pushed out existing migrants through limiting their access to rental housing and jobs, and curtailing migrant children enrollment in local schools (Chen and Feng 2017). Beijing and Shanghai have closed down dozens of "low end" markets and small businesses such as restaurants where a lot of migrants held jobs and many schools for migrant children (The Economist 2016; Cui 2017). Most notorious of all, the Beijing government ruthlessly knocked down tens of "illegal structures" that housed tens of thousands of migrant workers after a fire that claimed 19 lives in November 2017 (Haas 2017). The campaign led to eviction within a few days of tens of thousands of migrants, literally throwing out them onto the street in the autumn chill. In general, it is widely held that the hukou wall in recent years has become even stronger and harder to press open for the great majority of migrants (The Economist 2015; Chan 2018).

Table 3 pulls together some major statistics of Beijing's population in the last 10 years and some projected figures. Despite a small uptick in fertility following the relaxations of the family planning policy, 15 Beijing's

Table 3. Beijing: Major Population Statistics, 2000–2050.

		Population	(in Million	ns)	Age Composition (%)						
			t (Non- <i>Hukou</i>) pulation								
		Hukou		Migrant				Total Dependency			
Year	Total	Population	Total	Children	1-14	15-64	65+	Ratio			
			A.	Basic Statistic	S						
2000	13.64	11.08	2.56		13.6	78.0	8.4	28.2			
2010	19.62	12.57	7.05	1.06	8.6	82.7	8.7	20.9			
2011	20.19	12.76	7.42								
2012	20.69	12.96	7.74								
2013	21.15	13.12	8.03		9.5	81.2	9.3	23.2			
2014	21.52	13.33	8.19								
2015	21.71	13.48	8.23	0.64	10.1	79.6	10.3	25.6			
2016	21.73	13.65	8.08								
2017	21.71	13.59	7.94		10.4	78.7	10.9	27.1			
2018	21.54	13.89	7.65		10.5	78.3	11.2	27.7			
2020 (target)	23.00										
		B. Projecte	d (under	no more migr	ation fro	m 2011)	*				
2020	20.13	-		_	10.2	74.8	15	33.7			
2030	19.57				7.1	70.9	22	41.0			
2050	15.72				4.3	48.7	47	105.3			
		C.	Average .	Annual Growtl	n Rate (9	6)					
2000-2010	3.70	1.28	10.65		•						
2010-2015	2.04	1.40	3.14	-9.60							
2015-2018	-0.25	1.00	-2.37								

Notes and sources:

^{*} Also assumes: TFR = 1.1; life expectancy increases from 80 to 83 (for males); 83 to 85 (for females) between 2010

Sources: BBS (various years); BFPC (2012); Beijing Government (2019); "Beijing 2018 ... " (2019); Chan and Ren (2018); SC and NBS (2002).

population growth basically stopped from 2015 and actually declined in 2017 and 2018 in a row, unheard of for the capital since 1949 except for two Cultural Revolution years ("Xin Zhongguo ... " 2019). The average annual population growth rate was -0.25% in 2015-2018, compared to 3.7% in 2000-2010. More strikingly, the migrant population has continuously declined since 2016, dropping to below the 2012 level, in contrast to the rapid growth in the first decade of the century. These recent decreases reflect the outcomes of the strong ban on migration. Data from the 2010 Census and 2015 mini-Census also show that in 2010-2015, migrant children population experienced a very sharp, 40% decline, from 1.06 million to only 640,000.16 Based on the national ratio of migrant adults to children, Chan and Ren (2018, 149) estimate that in 2015, about 3 million, or 82% of the children of the migrants in Beijing were excluded and thus left behind in their home villages, separated from their parents. This percentage was 76% in 2010.¹⁷

Implementing these harsh, even draconian, measures against migration, and with low birth numbers, Beijing is on pace to be under its target of 23 million in 2020 (Table 3). However, Beijing's low percentage of children, especially in 2010 (only 8.6%) for such a large metropolis is quite extraordinary by world standards. 18 With continuing low fertility and high life expectancy, tough policies to deter new migrants raise serious questions about the viability and the associated problems in the near future, as I did earlier (Chan 2015). A paper prepared by the Beijing family planning authorities (BFPC 2012) based on the detailed information about age, fertility and life expectancy from the 2010 Census offers a peek into the city's plausible demographic future. In one of the two scenarios generated, the "no additional migration" scenario, which simulates the current strict migration policy (a total ban on migration from 2011) and which assumes a TFR of 1.1 and a small increase in life expectancy, foretells a dismal and unsustainable demographic, and inevitably economic, future for the capital city. As displayed in Table 3 and Figure 1, Beijing's population will fall to 19.6 million in 2030 and drop by another 4 million to 15.7 million in 2050. More remarkable are the changes in the age structure. The share of the population in the elderly age group will double the present percentage to 22% in 2030 and to a stunning 47% in 2050, while the young group of age 14 and below will sharply contracts, to only 4.3%. This is most vividly shown in the incredible – almost fantastic – shapes of the age pyramids of Beijing in 2030 and 2050. The shape of the pyramid grows from one like a Christmas tree in 2010 and 2020, which is already unusual for a population of that size, to a top-heavy mushroom in 2030, and then finally in 2050 to an ominous-looking nuclear plume! To no one's surprise, the total dependency ratio will surge from 25 in 2015 to 41 in 2030 and 105 in 2050, a totally unthinkable situation in the mid-century!

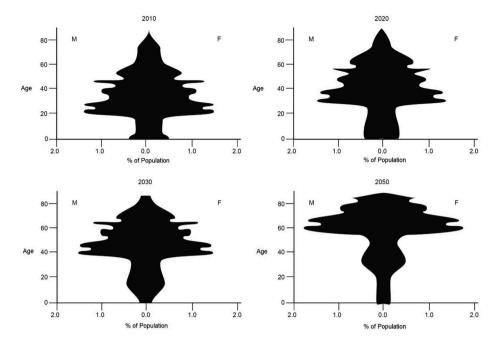


Figure 1. Beijing's Age Structure: 2010–2050 (Scenarios under no more in-migration from 2011). Source: adapted from BFPC (2012).

Concluding remarks

Not only is China's current elderly population the largest in the world, the rapidity of its growth also tops the world. Indeed, China's median age (about 40) in 2020 will overtake USA (The Economist 2019). Since the early 2010s, China has made many efforts to increase the population of children by changing the family planning policy. Ironically, at the same time, there are about 100 million children of migrants, not adequately cared for, educated or supported. This article has shown the size of the LBC, about 88 million, is much larger than what has been reported elsewhere. Moreover, including the LBC in a broader and better definition of single-parent families, China's percentage of single-parent (and no-parent) families ranks among the highest in the world. Even more shocking: 85% of the children of migrants live in families without two parents! This points to seriously misdirected policies and neglect, which are wrecking the family-oriented social fabric for the very large Chinese rural population. Attention and strong action to change this situation are urgently needed.

Instead of lavishing efforts on pushing women to have more babies, which is likely to be futile as fertility usually declines as the country gets richer and urbanizes, China should shift its focus on the existing and huge population of children of migrants. They are a major source of China's badly needed future laborforce and also badly need resources and support to live and grow up with their mothers and fathers, receiving parental care and love. Large cities like Beijing, which are

grappling with a more serious aging problem, should play an active role in fostering true "people-centered urbanization," as advocated by Premier Li Kegiang (Chan 2014a). The current harsh measures to clear out migrants, including their children, from large cities are unfair and counter-productive. Those acts have not only exacerbated aging in those cities, but also generated more LBC to the country.

In the times of rapid aging, no countries and cities can afford to "waste" their precious children and sacrifice the future. Only when families are protected and kept intact and when children are properly taken care of will the country and the big cities have a future. The current family-averse migration policies need to be reversed to allow migrant children to stay with their parents, as is done in Vietnam, which also operates under a household registration system, originally modeled after China's (Siu and Unger 2019). These child-friendly measures will help protect family togetherness and foster family settlement in cities, two ingredients crucial to a stable society in the throes of rapid industrialization and urbanization (Ren 2015). More fundamentally, the hukou system and the mega rural-urban dual system need to be gradually phased out to bring the equal treatment of rural-hukou and urbanhukou populations, i.e. a level-playing field for all (see Chan 2014b). This will help reduce and ultimately eliminate the country's LBC population. Failure to see that and act accordingly will turn the LBC problem into a time bomb, which will have catastrophic consequences when it is ignited.

Notes

- 1. Added to those, China also lost about 30 million people in the early 1960s to a cataclysmic famine, the largest in the 20th C.
- 2. Almost all new couples in urban areas were required to have only one child per couple, though most rural couples were actually allowed to have two children; some even more.
- 3. Defined as such when the population of age 60 and over reaches 10% of the total. China reached that in 2000 when its GDP per capita was only 7% of what Japan's when it also crossed the same threshold (UNFPA 2018).
- 4. The crude marriage rate dropped from 9.9/1000 in 2013 to only 7.7/1000 in 2017 (MCA
- 5. The low dependency ratio (e.g. 27.1 for the entire population of Beijing in 2017) is deceptive because most of the dependent population of the young migrant population in Beijing do not reside in the city. A meaningful dependency ratio for Beijing is one for the local hukou population, whose elderly percentage is much higher. For comparison, the total dependency ratio of the hukou population of Beijing in 2017 was 41.6, indicating a far greater burden of dependency (BBS various years, Table 3-9). If we broaden the elderly to include those aged 60-64 (60 is a common retirement age for most local hukou population), the total dependency ratio of Beijing's hukou population would surge to 57.2 for 2016, more than twice of that for the entire population ("Beijingshi Hukou ... " 2017).
- 6. All the statistics about Beijing used in this paper pertains to the whole administrative area of Beijing. This area contains a population slightly larger than what is defined on a "metropolitan area" concept. See Wang and Chan (2014).



- 7. Other measures range from the appeal for patriotism, monetary incentives for births, to limiting access to abortion (Myers and Ryan 2018; Myers and Fu 2019).
- 8. See discussions in Chan (2007) and Cui (2017) for a treatment of this problem in China's urban definitions.
- 9. The size of the LBMC population in 2010 was 13.1 million (NHFPC 2018, 140), rising to 18.8 million in 2015 (Table 2).
- 10. A detailed comparison of these figures is in Chan and Ren (2018, Table 3).
- 11. The Chinese figure is based on the percentage of family households. Strictly, it is not exactly the same as (but close to) the percentage of children reported in Chamie (2016).
- 12. Such as Mozambique (36%), Dominican Republic (35%), Liberia (31%) and Kenya (30%) as reported by Chamie (2018).
- 13. The US percentage will be higher if we include children placed in foster care due to their parental substance abuse (Riley 2019).
- 14. Siu and Unger (2019) also note that Vietnam has a much lower percentage of LBC. Though Vietnam also implements a *hukou*-like system, migrant children are often allowed to go with their parents in the big cities and access education.
- 15. Beijing's TFR was about 0.7 in 2010. The number of births in 2011–2017 steadily increased but peaked in 2017, partly also a result of a larger prime reproductive cohort in the age 25–35. The number dropped by almost 20% in 2018 (BMHC 2019). It is expected that the TFR will remain around 1.1 (2015 level) for the coming years and decades (BFPC 2012).
- This is partly attributed to the shrinkage of China's children population in general (see Duan, Xie and Lye 2019).
- 17. A smaller representative survey in 2006 reports a percentage of 50% in Beijing (Yang and Duan 2007).
- 18. For example, the comparable figure for the same age 0–14 group in Hong Kong in 2011 is 12.9% despite Hong Kong's population being older than Beijing's. The median age of Hong Kong's population was 41.7 in 2011 while Beijing's was only 35.7 in 2010 (HKCSD 2012; Beijing Census Office 2011).

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