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The selective migration and children of migrants in China

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Abstract

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This study examines the selective migration process in China with a focus on age. The core argument is that China's internal migration overwhelmingly concentrates in young working-age adults, while their dependents, including children and the elderly, are often left behind in the origin villages. Moreover, when young working-age migrants become "old", they find it hard to stay in the destinations and have to return to the origins. In this way, "movement" or "migration" often does not lead to the expected end result of "settlement" in China. The great majority of migrant laborers are temporary as they cannot settle down, "burdenless" as they cannot bring dependents, and thus are more conveniently to be exploited. As such, the study interrogates the "low-cost" development model of China through the lens of age selectivity of migration, and contributes to the literature on China's economic development strategy, urban-rural dual system, and spatial politics of migration.

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Chapter 1. Introduction

1.1 The epoch of great migration and rapid industrialization in China

The rise of China to a global power is one of the most dramatic events in the first two decades of the twenty-first century. Noticeably, China's path towards a global power has a lot to do with the labor provided by massive internal migration, which was dominated by rural-to-urban migration (X. Ma et al., 2014). Following the agricultural decollectivization in the late 1970s, peasants were no longer fixated to the land and were allowed to move to the cities seeking employment. The rural-to-urban migration in China was considered the world's "largest peacetime flow of labor out of agriculture" (Taylor & Rozelle, 2003, p. 75), and it is the main driving force of the country's rapid industrialization.

Despite the voluminous research on internal migration of China to date, there has been many misunderstandings about it. A great number of works simply apply the theories, methods and conventions of general migration studies to the analysis of China's migration without much alteration. In doing so, they risk drawing on the experiences of relatively free migration environments to study what happens in the Chinese case, which consists of "two societies", namely the structural urban-rural inequality created by a strong state (Chan & Wei, 2019; Whyte, 2010). In the top-down administrative setting of China, migration has been utilized to serve the national development goals and thus is orchestrated by the state. And the rural population have been rendered a "permanent second class" (Chan & Wei, 2019, p. 428) from which mass migrant labor comes from. In the post-Mao era, China's major national development goal is to boost the economy at the lower "costs", and the pillar industry of the national economy is export-oriented manufacturing. Often dubbed as the "world's factory", China became the largest manufacturer of

global exports in 2009 (C. Yang & He, 2017). Internal migration has provided an abundant cheap labor supply to export industries, and the wages of Chinese migrant labor have been competitively low (Hongbin Li et al., 2012). Though labor wages have been on the rise recently (Hongbin Li et al., 2012), China's status as a manufacturing giant is irreplaceable at least in the short term.

Karl Marx defines labor power as the aggregate physical and mental capabilities of a human being to work, i.e. the "capacity for labor", that is sold to employers in exchange for a wage. The expansion of capital is preconditioned on the reproduction of labor power. If labor power is to be restored after a long working day, it involves the "time for education, for intellectual development, for the fulfilling of social functions and for social intercourse, for the free play of his bodily and mental activity..." (Marx, 1992, p. 152). In supporting the labor-intensive exporting industry, China has adopted a "low-cost" development model. Such a development model reduces the costs associated with social reproduction of migrant labor power to the state and employers through outsourcing the main part of the expenses from industrial cities to the rural communities, including the migrants themselves (Chan & Wei, 2019; Chuang, 2015). The spatial separation of industrial production and social reproduction of migrant labor power is a secret weapon of China's "economic miracle" in the twenty-first century.

The approach of passing on the responsibility of labor care to rural communities does not appear all of a sudden; it has its roots in Mao's China. Back to the initial decades after the establishment of the People's Republic of China, the national agenda was to quickly develop heavy industry. At that time, the agricultural sector was squeezed to finance the industrial sector, and peasants had to produce grains to be requisitioned by the state at prices below the market value (Chan & Wei, 2019). Moreover, urban residents were taken care by the state for various basic necessities, such as education, housing and health care, whereas rural residents were made

to rely almost totally on themselves for these basic services. A mega urban-rural dual system was established to maintain the inequality between the rural and urban sectors (Chan & Wei, 2019). In the post-Mao era, the backward rural areas resulting from the urban-rural dual system were taken advantage again, just to serve a new national agenda, i.e. to develop export-oriented economy. Because of the inferior socioeconomic status in the society, a big portion of rural population can only engage in low-skilled work. Rural areas become the source of cheap labor, and also the place to absorb social reproduction costs of the cheap labor. In both periods, an urban-rural division is maintained by the state to serve the “low-cost” development strategy.

1.2 The selective migration process of China

The spatial politics of production and migrant labor in China has been noticed by many scholars (e.g. Pun and Chan, 2013; Ren and Chen, 2015; Ren and Pun, 2009), but age has been a less-focused aspect in understanding the issue. In many cases, age is merely considered one of the socio-demographic factors influencing people’s migration decisions (e.g. Fan, Sun, & Zheng, 2011; Li & Zahniser, 2002; Tang & Feng, 2015; Yang, 2000). In filling the research gap, this study takes age as a central component in understanding China’s “low-cost” development model. It is proposed that by selecting young working-age adults to move to the urban destinations and leaving behind children and the elderly in the rural origins, the social reproduction costs borne by the state are greatly reduced.

In post-Mao’s time, the Chinese state strategically manipulates various elements affecting migration to exclude the dependents of laboring population and depress the corresponding social reproduction costs. In doing this, it invents or inherits and develops from Mao’s era a dozen of institutional and administrative tools, among which the most potent and far-reaching one is the

hukou system. The *hukou* system divides the population into two groups, migrant population and non-migrant, or “local”, population. Only non-migrant local population have access to all public services of a place, whereas migrant population only have limited or no access to the public services. The most essential benefits such as education and health care are largely reserved for the local population only. As such, migrant population work and reside in the destinations, yet they do not “belong to” the destinations. They can only be temporary laborers, but not permanent urban residents. Because of this, China’s urbanization in the reform era is “incomplete”, and the outcome is dubbed as “under-urbanization” in broader terms (Chan, 2010c). Unable to settle in the cities, rural migrant workers are “in the city, but not of the city” (Chan, 2011) and cannot be integrated to the destination society. The urban-rural dual system ensures the “disintegration” of migrant population, which is in sharp contrast to the natural assimilation of migrants in the case of many other countries, making them permanent “outsiders” of the urban destinations.

Additionally, in a large country like China, the relationship between central and local states is crucial in the execution of the “low-cost” development model. The central state implements *hukou* and other institutions to perpetuate the urban-rural dual system and hence retain a large pool of exploitable rural laborers. Local states play an increasingly important role in allocating public services within their jurisdictions as they have been given more administrative discretion and even legislative power since the financial and administrative decentralization in the 1980s. Besides the *hukou* system, which includes *hukou* itself and its various derivatives like the Residence Card (*juzhuzheng*), local governments also draw up educational policies, housing allowance, pension and healthcare schemes, regulations about other benefits like maternity, unemployment and workplace injury insurance, and launch some campaign-style programs, to exclude migrant population from the public service system and save the corresponding social reproduction costs. The *hukou* is often combined with the above other administrative means for the

purpose of excluding migrants. With economic growth as the national goal, central and local governments work hand in hand to take advantage of the cheap migrant labor power while depressing the social reproduction costs the best they can.

Burawoy (1976) divides social reproduction into two parts - the “maintenance” and the “renewal” of the labor force, with the former representing the sustainment of current workers and the latter referring to the upbringing of future laboring population. For the central state, it costs less to renew migrant labor in inland rural areas versus coastal metropolitan regions where education and other care are much more expensive. For local governments of industrial cities, they are only willing to bear the least costs of maintenance of current migrant labor to ensure they can keep working, whereas avoid any other spending of their social reproduction. Conceivably, the most “efficient” approach local governments can take is to refuse those “unnecessary” migrants who may increase their public expenditure. As a consequence, only young working-age adults are welcome to the cities for their temporary, “golden years” of labor force, so that the maintenance of their labor power is running at lower costs. Accordingly, the child and elderly dependents of the laborers are left behind in the rural areas, so that the renewal of labor power is also operating at lower costs. Under this mechanism, rural population are only allowed to migrate to work, but not to consume urban resources. This is a favorable situation for both the central government and local governments of migration destinations, at least in the short run, but a dire situation for migrants, especially in the longer terms. It is the selective migration process that makes the migration decision of rural migrant family never a truly voluntary choice (Y. Wei, 2018). Migrant households are forced to take into account the raft of obstacles raised by governments at all levels and struggle to scratch out a living.

In short, the purpose of this study is to demonstrate that age selectivity of migration plays a crucial role in China’s “low-cost” development model. The study contributes to the literature on

China's economic development strategy, urban-rural dual system, spatial politics of migration, the debate on China's "demographic dividend", and the general fields of contemporary China studies and population geography. The core argument is that China's internal migration concentrates in young working-age adults, while their dependents, including children and the elderly, are often left behind in the origin villages. Moreover, when young working-age migrants become "old", they find it hard to continue to stay in the destinations and have to return to the origins. In this way, "migration" does not lead to the expected end result of "settlement" in China. Migrant labor is temporary as they cannot settle down, burdenless as they cannot bring dependents, and thus are conveniently to be exploited.

1.3 Research design and overview

The following Chapter 2, 3 and 4 are in the form of three individual papers, and they examine the selective migration process of China from three different geographic scales: national, provincial, and local. In doing this, I intend to present a relatively full picture of the selective migration process drawing on empirical evidence from different geographic scales. The selective migration process is essentially the outcome of the central government's strategy, as it serves the national development goal, which is the most decisive element in the top-down administrative environment of China. But at the local level, there are other contributing factors, like the competition between provinces or cities, and the negotiation between provincial and sub-provincial governments. As the executor of the national goal, local authorities generally follow the central order, while they also take their own interests into consideration when implementing the central instructions. In this sense, the powerful "state" of China is not a monolithic whole; instead, it has different agents. Accordingly, the selective migration process takes different

formats. At the national level, it is manifest on the age structure of migrant population of the whole country that intensively concentrates in young working-age adults. At the provincial level, it is reflected by the unequal distribution of “demographic dividend” across the country. Most migrant population stay in the Eastern China where job opportunities are abundant. Given that China’s migrant population are dominated by young working-age adults, the Eastern regions are the main beneficiary of China’s “demographic dividend”. At the local level, it is embodied by local policies and schemes that exclude dependents in the local public service system.

At the same time, the multi-scalar approach taken in this study points to the necessity to situate the specific encounters and characteristics of migrant population in the broad socio-political-historical context. The context is constituted by the institutional foundations, the interactions of various agents, and the social order and social norm in the macro, meso and micro settings. In this way a more holistic understanding can be achieved by putting the issue being studied in the web of all related factors, instead of limiting to a narrow point in the immediate context. This is especially important for studying migration in China, as many existing analyses simply equate the case of China with the scenarios on the assumption of free migration and only one single society (no state-imposed urban-rural divide). Hence all three chapters below emphasize the key role of the state, be it the central or local states, in shaping the migration patterns in China.

Specifically, Chapter 2 uses India, the United States and Japan as points of reference to highlight the uniqueness of age selectivity in China. The chapter differentiates the concepts and data of “flow” and “stock” of migrants and uses them to derive useful findings. Based on a number of age-related indices, it is revealed that unlike other countries, China’s internal migration overwhelmingly concentrates in young working-age adults whereas children and the

elderly are grossly underrepresented. Also, the strong concentration of young working-age adults does not fade over time, so that China's migrant population appear "forever young". It uses age as a window into the inability of migrant population to settle and surveys the two demographic sources of that inability, the difficulties to maintain migrant family togetherness, and the impediments to long-term residence of migrants themselves.

Chapter 3 turns to the situation inside China at provincial level. It also harnesses age data and provides a new conceptualization of the unequal change not only of labor, but also of care between major destinations and origins of China's internal migration. As the major destinations, provinces on the coast possess an age advantage over the inland origin provinces and are the main beneficiary of China's "demographic dividend". Along with fiscal and administrative decentralization, the destination provinces have the power to take in working-age adults only while excluding the dependents, in which way the social reproduction costs borne by these provinces are outsourced to the origin provinces.

By continuing drawing on the thesis of age-selectivity of China's internal migration, Chapter 4 demonstrates how child dependents are excluded at local level. It inspects the educational rights of child dependents of migrant population in Shanghai to show how the dependents are treated in the destinations. It evaluates the *hukou* and educational policies related to the education of migrant children in Shanghai. The policies are situated in the political, institutional, and practical contexts that collectively "other" migrant children in the receiving society. The chapter is an in-depth study of the age-selective migration process through the "selective incorporation" of a small number of migrant children into Shanghai's public educational system, amid the purge of the great majority of them. Local authorities of Shanghai combine policy tools with campaign-style programs in singling out the "qualified" migrant

population and give them access to local education. As a result, only a small number of migrant children are “integrated” into the local educational system, while the vast majority of them are excluded.

The data sources of the study are 1) public-accessible census data of China at national and provincial levels, 2) age data of domestic migrants of India, Japan, and the United States and international immigrants of the United States from census and population surveys, 3) the *hukou* and educational policy papers related to the education of migrant children of Shanghai and China, and 4) field notes I took between 2017 to 2019 during visits to schools at compulsory education level (grades 1-9) in Shanghai. And the research methods of the study are quantitative methods including descriptive statistics, and statistical modeling and approximation, and qualitative methods, especially discourse analysis.

1.4 Concluding remarks

China’s economic success is closely related to its “low-cost” national development strategy. Both the state and the employers want to depress the social reproduction costs of migrant labor power, but the methods they take are different. While private enterprises make it by low wages, long work hours, and few social living spaces (Pun & Chan, 2012), the state achieves it by institutions designed at the top, especially the *hukou* system, and policies, regulations, and campaign-style programs implemented at the local level, especially the Residence Card and educational policies. These tools utilized by the state are powerful, and their influence is usually prolonged and lasting.

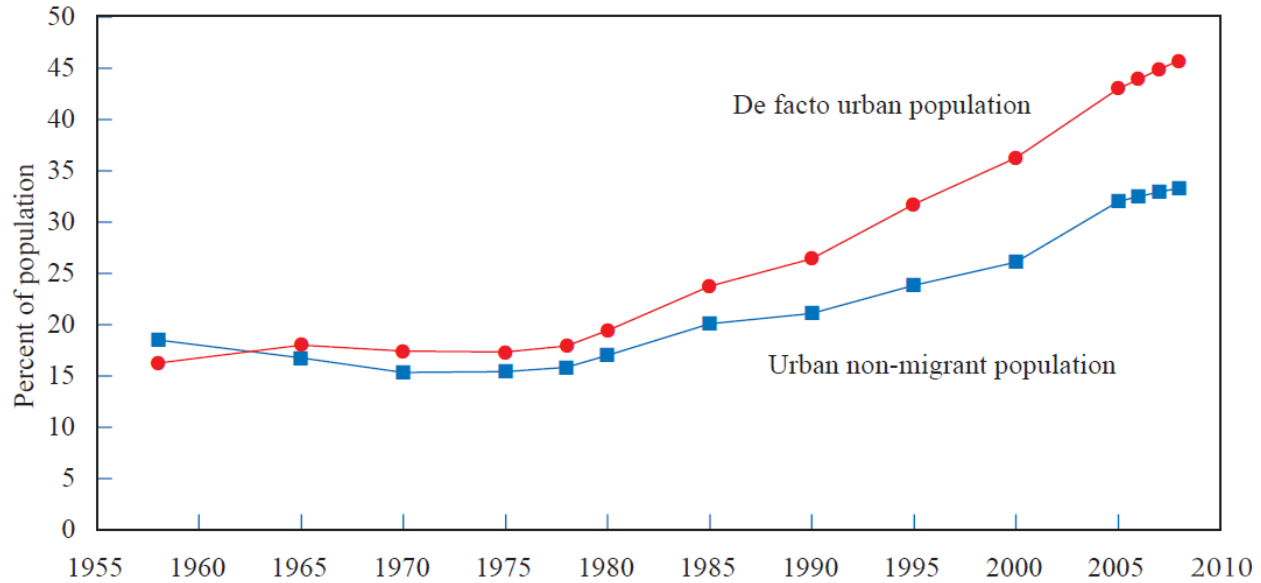


Figure 1. The difference between de facto urban population and urban non-migrant population, 1958-2008 (Chan, 2010e).

Notes: The data sources are *Chinese Statistical Yearbook* and *China Population Statistical Yearbook* of various years.

In most developing countries, urbanization and industrialization are preconditioned on the dispossession of peasants, via “uprooting” and relocating them from the countryside to the cities (Chan, 2010c; Chuang, 2015). However, China has never taken such a route. By design, peasants are not supposed to live in the cities on a permanent basis (especially in the major migration destinations), so that China’s urbanization is “incomplete”. There has always been a difference between the *de facto* population urbanization rate, i.e. the proportion of urban population out of total population, and the *hukou* population urbanization rate, i.e. the proportion of urban non-migrant population out of total population (Figure 1). The difference between the two indicates the gap between the public services being needed and those being provided, namely a “benefits gap”. Through examining age data, this study shows that in the absence of access to public

services, migrant population cannot reside in the destinations for a long time, and they cannot bring dependents with them, either. Settlement is hardly reachable for most of them.

Ironically, in most official statistics and news reports of China, there seems to be a “double standard”. For example, when a place’s gross domestic product (GDP) is being reported, typically a per capita indicator based on total population, which includes migrant population, is used (e.g. Xie and Ju, 2021); yet when a place’s life expectancy, educational quality and other issues associated with public services are being reported, typically a per capita indicator based on non-migrant population is used (e.g. Ma and Li, 2019; Loveless, 2014). In other words, when talking about welfare improvements, non-migrant population are used as the base population, since they are the only beneficiaries of the public service system; whereas when talking about economic growth, total population are used as the base population, since migrant and non-migrant population together create the wealth. This is of the same logic of the difference between the *de facto* and *hukou* population urbanization rates in Figure 1. And when the “incomplete” urbanization is shown by age, the outcome is the underrepresentation of dependents among internal migrants, either the flow of migrants or the stock of migrant population. Given this, future research may look at the urbanization rate, or the public service coverage rate, of dependents of internal migrants, specifically. That could be a more accurate way to construct measures that reflect the “true” level of urbanization in China.

Chapter 2. Forever young: China's migration regime and age profiles

2.1 Introduction

China's internal migration in the reform era by some accounts is one of the largest in human history (Liang, 2016). The great migration of China has injected momentum to the rapid economic advances of the country over the past four decades, and it has directly facilitated the growth of a belt of export-dependent cities along the coast such as Shenzhen. Shenzhen is a megacity in southern China that emerged from a small border county town back in the 1970s. The radical changes happened since 1979, when Shenzhen was designated as one of the four "special economic zones" focusing on developing export-oriented industries. Interestingly, since then, after four decades of rapid expansion, Shenzhen's population remains quite young. For example, in 2010 the median age of population in Shenzhen is 28.8 while that for China overall is as high as 35.9, a difference of 7 years (NBS 2010; GDBS 2010)! What is the secret of Shenzhen's being "forever young" despite the rapid aging of China, as noted earlier by Chan (Chan, 2010a, 2010b)? The short answer is that Shenzhen is a "city of migrants" that absorbs massive young migrant population every year and keeps "recycling" them, so that the population never seems to grow old over time! The Shenzhen case is more extreme, but it underlines a common yet special aspect of China's internal migration regime, which is closely tied to the country's development model.

Unlike many other countries in the world, China has a *hukou* system that functions as a citizenship classification system. Broadly speaking, it divides people into two groups, migrant population and non-migrant or "local" population. Migrant population are those without local *hukou*, whereas non-migrant or "local" population are local *hukou* holders. This study posits that the fundamental governing principle of China's internal migration is that through the denial of

access to basic local public services to migrant population, they can be producers of economic values (broadly defined) only, but not consumers of urban benefits in the destinations such as education for their children, health care for themselves, housing for a larger family, etc.

Consequently, the dependents of migrant population are discouraged to move, as they are in urgent need of local public services. Instead, they are often left behind in the origins. Moreover, current migrant population find it hard to stay in the destinations once they become “old” and need more public services. As a result, they work and eke out a living in the destinations mostly as transients and are not supposed to settle in the destination. They often return to the origins after turning infirm. Permanent relocation to the destination cities is therefore unattainable for most migrant families. For example, according to Ma et al.’s (2014) tabulation using data of 2010, for rural-to-urban migration, which is the main type of migration in China (X. Ma et al., 2014), up to 75% of the migrant population leave the destination and return to their origins within 6 years. In this way, there is a “recycling” of young migrant workers, with young workers keep replacing the older cohorts, thus renewing the workforce of the destinations, which is quite different from the case in many other countries where most earlier cohorts’ migrants get old and finally get settled in the destinations. These processes have resulted in a special age pattern of the migrant population, as will be examined in this chapter.

This study uses age as a window into the inability of migrant population to settle in the destinations. I relate the inability to settle to two typical sources, the difficulties to maintain migrant family togetherness, and the impediments to long-term residence of migrants themselves. I differentiate the concepts and data of “flow” and “stock” of migrants to measure the linkage between movement and settlement (or lack thereof). While there are various definitions of “migration” and “movement”, in this study they are used interchangeably to refer

to population-based (rather than individual-based) long-distance moving, which excludes short-distance commuting and short-term traveling. The chapter proceeds in the following sequence. Section 2 explains the salient feature of temporariness of China's non-*hukou* migration and links it with China's economic development strategy, followed by my research objectives. Section 3 provides the contextual background of China's internal migration. Section 4 details the research method of using age to analyze migrants' chance of settlement in the receiving society. Section 5 applies the method and use empirical data from various data sources to generate findings that buttress the core argument. The last section concludes the chapter.

2.2 The “perpetual temporariness” of China's migration and research objectives

Temporariness is nothing new for international immigration, especially for the “guest worker” programs in many countries (Costa & Martin, 2018). These programs import foreign workers to perform certain jobs in farming, construction, and domestic service, usually unwanted by the local citizens. These foreign workers in most cases are under the restriction of a range of laws and time-bound contracts. They are often classified by law as *temporary* or “guest” workers to denote their lack of access to the rights of permanent residency in the host countries. They are excluded from many rights and public services available to local residents in the destination countries, and they cannot be accompanied by families from the origin countries, either (Yeoh et al., 2019). Despite the prevalence of temporariness for transnational labor migration, the transitoriness of internal migration on a large scale is seldom seen. For most countries in the world, internal migration is free, or subject to few codified policy restrictions. And for most migrants in these countries, internal migration is a process in which an initial movement often,

and naturally, leads to family reunion and eventual settlement over time (more details to follow). By contrast, for China, there are two types of internal migration, *hukou* and non-*hukou* migration. *Hukou* migrants are those who successfully register their *hukou* in the destinations, while non-*hukou* migrants are those who cannot do that (Chan et al., 1999). Corresponding to the dichotomy of migrant and non-migrant population illustrated before, *hukou* migrants are those who become local population, while non-*hukou* migrants are those who remain as migrant population. The great majority of migrants in China are from the countryside and cannot get local *hukou* in the destination cities (Chan, 2009). Legally considered temporary, their movement to the cities are called “floating” - they are classified by the National Bureau of Statistics of China (NBS) as “floating population” (*liudong renkou*) to indicate, which accurately reflects their situation in the destinations—they are not officially admitted “citizens”, but rather “denizens”, whose full local citizenship are denied (Whyte, 2010). The focus of the study is this group of people, and their number essentially reflects the size of population who cannot access resources for social reproduction in the receiving society (more to follow). As noticed by Solinger et al. (1999), the aforementioned restrictions on foreign guest workers are similar to those experienced by internal non-*hukou* migrant population in China.

However, the feature of temporariness intrinsic to non-*hukou* migration in China has not been seriously theorized in existing, especially migration literature, except for a few¹. In general, this temporary nature is downplayed, sometimes misinterpreted, and even completely misunderstood. Many simply assume that migration in China is similar to that in other countries. For example, one stream of works looks at the “settlement intentions” of migrants in China, measuring how proximate determinants, especially socioeconomic variables affect their intention

¹ Examples are Chan (2012), Liang (1999), and Whyte (2010).

of permanent stay (e.g. Huang & Cheng, 2014; Wang et al., 2019; Zhu & Chen, 2010). This body of literature assumes that most Chinese migrants, just like those in other countries, are on the same path to eventual settlement in the destination cities. Those works have not seriously taken into consideration the structural constraints the *hukou* system has imposed on migrants; instead, the *hukou* is often reduced to one of the determining variables. In doing so, those studies have significantly underestimated the overarching contextual determinants in which migration occurs. In those narratives, the migrant is treated as if functioning in a free migration environment and it is the migrant who him/herself decides whether or not to become settled. In a similar vein, a considerable number of studies, both in English and in Chinese, are premised on the “assimilation” or “integration” thesis borrowed from international immigration research (e.g. Chen & Liu, 2018; Li & Tian, 2012; Xie et al., 2016; Yang, 2015). The lack of awareness of the paramount constraints faced by the migrants imposed by the mega institutions often leads them to operate on a wrong paradigm, as pointed out by Chan and Wei (2019). Those studies have largely missed the temporariness that features most migrants’ moving experience. After all, how can migrants possibly be assimilated when they and their descendants are barred from accessing the needed public services in an urban destination? Furthermore, another body of research normalizes the temporariness of China’s non-*hukou* migration as a “rational choice” made by migrant families, arguing that the care deficit suffered by children and the elderly in the origins can be offset by income transfer and remote communication such as video chats² (e.g. Z. Ma & Zhou, 2009; Murphy, 2014). As pointed by Wei (2018), this line of works ignores the structural constraints migrants are confronted with when making decisions about family arrangements.

² Research along this line also holds that family split of Chinese migrants is a household strategy to enlarge social and economic security and reduce risks (see C. Chen & Fan, 2016; Fan et al., 2011; Zhu, 2007). Wei (2018) has pointedly critiqued those arguments.

Facing the overwhelming structural discriminations, they do not have the choice of settling permanently and bringing their dependents. China's internal migration is thus *perpetually temporary* as it is enforced by the state.

The inadequate account of the temporariness of non-*hukou* migration in China stresses the need to link it with China's national development strategy. In the initial decades after the establishment of People's Republic of China, under Mao's regime, heavy industry was prioritized in the national economy. Following the Soviet Big Push industrialization strategy, the Chinese state exploited the agricultural sector to finance the industrial sector (Chan & Wei, 2019; Naughton, 2007). Rural-to-urban migration was restricted so as to tie rural population to the land and make them produce grains to be used to support urban population at state-dictated low prices. Moreover, a rural-urban dual system was established up through a series of institutions, among which the most powerful and far-reaching one was the *hukou* system. People with urban *hukou* enjoyed state-subsidized education, housing and other welfares, yet those with rural *hukou* were basically self-reliant for those. The access to public services is related to the social reproduction of labor power. According to Meillassoux (1981), social reproduction is the process to reproduce the labor community so that the production cycle is perpetuated. He indicates the process involves three parts: the maintenance of the labor him/herself, the bringing up of future producers, and the preparations to guarantee the current labor can still survive after turning infirm (Meillassoux, 1981). For rural-*hukou* population, all three parts of the social reproduction process are basically shouldered by themselves. As elaborated by Chan and Wei (2019) and Chuang (2015), this is a "low-cost" development strategy that generated an underclass of rural population geared to the national priority of industrialization.

In the post-Mao era, along with a series of economic reforms, the codified policy restrictions on mobility were gradually lifted, and peasants flocked into the cities for jobs with higher incomes. Nonetheless, the *hukou* registration place of these rural migrants remains in their rural origins, and they still do not have access to state-supplied services in the urban destinations. Thus, they are forced to circulate between sending and receiving places, earning money in the cities and seeking care support in the countryside when needed, so that a start point of movement does not lead to an expected end point of settlement, as the care component is not “movable”. This mode of migration externalizes the second and third parts of labor social reproduction, i.e. the care of children and the infirm, from the destinations to the origins. The family members other than the laborer are all kept in the origins, and the laborer is always ready to move back should him or her “become unemployed owing to retirement, physical disability, or simply scarcity of opportunity” (Burawoy, 1976, p. 1060). This approach is in line with the “low-cost” development strategy in Mao’s time, only to serve a different national priority, which is to boost the export economy (Chan & Wei, 2019; Lee, 1998). Such a development strategy “outsources” the social reproduction costs of the dependents of migrant labor force as well as the former migrants no longer productive from the coastal urban manufacturing hubs to the rural hinterlands, in which way it separates the processes of industrial production from social reproduction of labor power across space. This is part of what makes the “China price” work—by refusing to underwrite expenses associated with social reproduction of migrant labor power in the destinations, the production costs of Chinese goods to the employers are reduced to a minimum, such that they are very competitive in the global market. In this sense, the *hukou* institution combined with other local rules functions as the key instruments in facilitating the rise of the “world’s factory”. In brief, China’s migration regime in the post-Mao era continues the

pre-existing “low-cost” development strategy and the ingrained unequal rural-urban dual structure, so that it exacerbates the socioeconomic cleavage in the society. On the other hand, it is different from Mao’s approach in that it selects the most “productive” population and lets them move yet leaves behind the “less-” or “unproductive” ones, thereby lowering the social reproduction costs of migrant labor power and resulting in some systematic distortions of the demographic structure of migrant population.

The current study makes use of age to investigate the “enforced” transience of China’s migration. The core contention is that to the great majority of internal migrants in China, movement generally does not lead to settlement. Settlement, of course, involves a lot of issues, but in the current study I only examine it from a demographic perspective focusing on age. I relate the inability to settle to two sources, one is the difficulties to maintain migrant family togetherness, and the other is the impediments to long-term residence of migrants themselves. When these two sources are manifested on the age profiles of migrants, I formulate two research questions that can be empirically answered with public accessible age data:

- Research question 1: Can family togetherness be maintained during migration? I expect only working-age adults are welcome to migrate to work, while dependent population including children and the elderly are discouraged to move;
- Research question 2: Can migrants stay in the destinations for a long time? I expect when (initially young) migrants age over time, most of them return to the origins instead of remaining in the destinations.

This study approaches the above questions by drawing on other countries’ internal migration and international immigration as reference points to highlight the “abnormality” of China’s migration age patterns. I offer an explanation for that age selectivity—the coastal industrial clusters

incessantly replenish their pool of cheap labor by young working-age adults who do not stay very long, thereby never depleting their “golden mine” of young migrant labor reserve.

Specifically, I use three countries, India, Japan and the United States, and compare and contrast their internal migrants’ age profiles with that of China. Each country has its own features, but they can be drawn on to be compared with China at a broad level³. Moreover, as mentioned above, transnational labor immigration shares similarities with internal migration in China. So the comparisons can be done both at the internal and international levels, as the age profile of international immigrants may have some commonalities with that of internal migrants in China. I select the age profile of immigrants in the United States for comparison⁴. The data sources are census and economic surveys that contain the most comparable migration age data across the countries. Admittedly, empirical analyses in the study are not full-fledged given the dearth of available data for comparisons across different countries. That said, I have tried my best to make the limited public-accessible migration data as comparable as possible. The goal of this chapter is to provide a broad comparison and bring out the contour of China’s special migration regime in contrast to that of other countries, instead of getting into all the details of migration in each country.

³ Specifically, the reason these countries are chosen is threefold. First, their migration age data are relatively accessible and can serve broadly the research needs. Second, they are all large economies. Despite some differences in their demographic features, there are still many commonalities that make them comparable, as will be discussed in the following sections. Third, notwithstanding the inconsistencies in their definitions of migrants, if one combs through these definitions, which I will do, some meaningful comparisons can be made. Our purpose is to sort out the broad similarities and differences of the four countries’ migrant population as an entry path to understand the uniqueness of migration age patterns in China.

⁴ The United States can be a good option for studying international immigration since there are detailed immigrant age data of it.

2.3 Examining the linkage between movement and settlement: Age profiles of migrant flow and stock

The previous section demonstrates that the partition of industrial production and social reproduction of labor power across space attained through institutional instruments is responsible for the separation of movement from settlement of migrant population (Chan, 2009). In this section, I explain the conceptual design and setup relating age with the processes of movement and settlement. I begin by setting up what the age profiles of migrants generally would look like under “free or unrestricted migration”, followed by how the age profiles can be applied to survey the linkage between movement and settlement.

Age profiles of migrant flow and stock without strong barriers

Migration can be measured in two ways, the flow and the stock. It is important to differentiate them. The flow refers to the number of migrants entering or leaving a place during a time period, while the stock indicates a snapshot of the number of migrants in the destination at a certain point of time (Bartram et al., 2014). The stock is the total of all net flows, births and deaths of migrants in the past. Existing demographic literature on age almost exclusively covers domestic migrant flow but not stock (e.g. Raymer & Willekens, 2007; Rogers, 1978; Schlottmann & Herzog, 1984). The most important reason for this is that, for internal migration in most countries, they do not have institutions like the *hukou* system that differentiate migrant population from non-migrant population; in other words, there is not a legal mechanism that distinguish the “locals” from the “outsiders” (Chan & Buckingham, 2008), akin to an internal passport or local citizenship system on a large scale as it operates in China. Initially “outsiders”,

many migrants gradually become “locals” over a number of years. Therefore, the census bureaus of most countries only collect information on the change of residents, i.e. the flow, rather than the static aggregation of population who used to experience migration in their life, i.e. the stock. Simply put, migrant stock data do not exist in the statistics of most countries. By contrast, for the Chinese case, the size of migrant population is an accumulative number of non-*hukou* migrants over time, and thus it is a stock number. As stated above, the great majority of Chinese migrants, no matter how long they stay in the destination, are non-*hukou* residents by law. Besides China, there are a few cases when some countries do have data on the stock. They provide the stay duration for internal migrants or the status of “foreign-born” for international immigrants, which gives me the chance to use them as reference points to study the peculiarity of China’s internal migration.

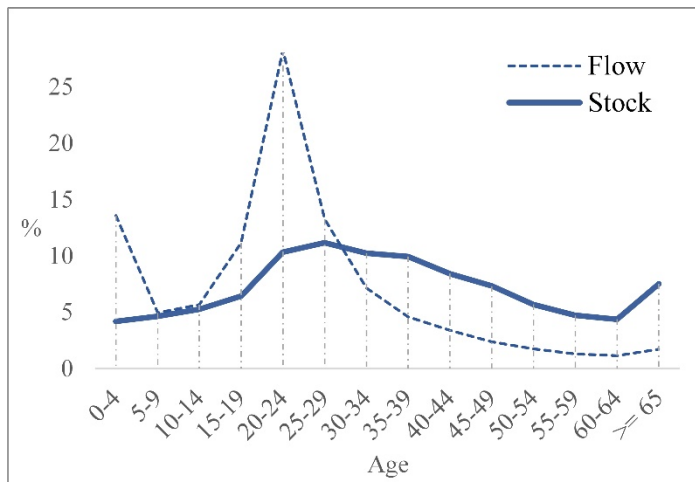


Figure 1. Age profiles of domestic migrant flow and stock in India, 2011

India is a general case that can be used to provide some broad age profiles for migrants under free migration. The Indian census does cover residence durations of migrants by age group, which enables the extraction of flow and stock data out of it. I use the age profiles of

migrant flow and stock of India in 2010 to approximate the general age patterns of internal migrant flow and stock without strong barriers (Figure 1, more details on the data source to follow). The age profiles in Figure 1 are generated by normalizing age structures into percentages, and I will keep using this method to present migration age patterns of the selected countries (see Appendix i for more details). A widely accepted “standard” age schedule of migrant flows has two peaks, a high peak at young adults’ age and a low peak at infants’ and young children’s age (Rogers & Castro, 1981). The peak during young adulthood is caused by major life course events such as job changing, marriage and giving births. And the peak during childhood is a derivative of their parents’ migration, since infants and young children tend to accompany their migrant parents. Conforming to the established knowledge, the high peak at young adults’ age and the low peak at young children’s age are quite evident on the flow curve in Figure 1. In terms of the stock curve, it appears rather flat compared to the flow curve (Figure 1), meaning its level of selectivity regarding age is relatively mild. Given that the stock is the aggregated result of the flow and other demographic factors over a long time, it involves the accumulation of different migrant flow cohorts and the aging effect of the earlier cohorts over time. Thus Figure 1 shows that surviving migrant flows of multiple cohorts at different times, while highly age-selective, combine to form a stock of a much more evenly distributed age pattern after migration has taken place over a long time period.

The transition from migrant flow to stock and the pathway towards settlement

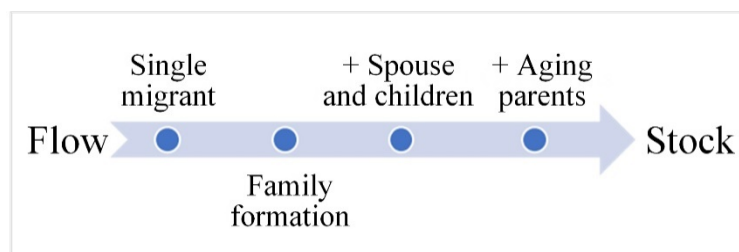


Figure 2. Schematic common settlement process of earlier migrant cohorts in the transition from migrant flow to stock

Having examined the general age profiles under free migration, I now turn to how this phenomenon can be used to analyze the linkage between movement and settlement. As argued before, the inability to settle is caused by two main sources, the difficulties to maintain migrant family togetherness, and the impediments to long-term residence of migrants themselves. Under free migration, migrants could stay in the destinations for a long time. Earlier cohorts in the migrant population, i.e. young migrants, generally would have experienced the formation and reunification of families. Figure 2 illustrates schematically the stages of possible settlement for a single migrant flow (i.e. one early migrant cohort) from a life-course perspective (Bernard et al., 2014). A pioneer migrant is typically a single young adult (stage 1 in Figure 2). Later, he or she forms a family (stage 2 in Figure 2). If not impeded by institutional barriers, married pioneer migrants would be joined first by their spouses and children (step 3 in Figure 2), and subsequently by their aging parents (step 4 in Figure 2). Overall, the age selectivity of pioneer migrants is much stronger (mainly young adults) than that of follower migrants (people of a much larger age range). This is because pioneer migrants tend to be employment-oriented, yet follower migrants could be triggered by family reunion (Castles et al., 2014; Lindstrom & Ramírez, 2010). Also, younger children are oftentimes prioritized over older children for family reunification (Barbiano di Belgiojoso & Terzera, 2018). These phenomena are consistent with the age profile of the typical flow in Figure 1. Young adults are the main force of pioneer migration, showing up as the high peak on the flow curve. And children aged 0-4 are most likely to be brought by their parents, followed by older children, showing up as the low peak on the

flow curve. As migrants from early cohorts get old and reunion with other family members, the young-adult- and young-child-dominated age pattern tapers off and is gradually replaced by a more evenly distributed age pattern. Long-term family reunion along with population aging mitigates the short-term strong age selectivity, so that the stock curve in Figure 1 appears considerably flatter than the flow curve.

On the other hand, with strong institutional barriers in settlement as is the case of China, migrants' family togetherness and long-term residence are significantly impeded. The chance of family reunion between migrants and their children and aging parents (stage 3 and 4 in Figure 2) is severely lowered. Therefore, regarding the flow curve, it is expected that the young children's peak will be quite small, or even completely missing. And the retirement hump, if any, will also be small or disappear. Also, early migrants cannot settle down over time and they leave the destination before turning old. Accordingly, the level of age selectivity among the migrant stock is expected to remain strong even over a long time. The age selectivity of the stock will be as strong as that of the flow, and the stock curve will not turn flat relative to the flow curve. In this sense, early migrants can hardly "survive" through the flow-to-stock transition process as normally one would expect; they would have left the destination before being counted towards the stock.

"Survival rate" of migrants through the flow-to-stock transition

The aforementioned flow-to-stock transition or lack thereof can be captured by a uniform "survival rate" given the flow and stock data with some assumptions. The "survival rate" is a simplified and idealized concept intended to measure the proportion of population who moved in a relatively short period of time—i.e. the flow—to remain in the destinations after a long period,

so that they become part of the aggregation of all alive population who experienced migration in their life, i.e. the stock. Put it another way, it looks at the “total staying rate” of a migrant group, using its current schedule of age-specific “staying rate”. Conceptually, it bears similarity with the demographic notion of “life expectancy”; but instead of looking at mortality of various age groups as what “life expectancy” does, the “survival rate” inspects the turnover of migrants of various age groups. For exposition purpose, I suppose all migrant groups in the selected countries are stationary populations, i.e. the age-specific mortality and net migration rates of each migrant group stay constant over time. A function of “survival rate” S is then the result of the two demographic elements:

$$S = M - D$$

where M is net-migration rate and D is mortality rate. Since M and D are constant, S is also constant. To create a standardized indicator measuring the “average” rate, I make S the same across different age groups. With the estimated S , the stock after the flow-to-stock transition can be computed, using the actual flow as the base population. Such a stock is a “hypothetical” one because it is produced artificially. Put it another way, if a reasonable S is estimated, the hypothetical stock should approximate the actual stock for a given migrant group. To make a rough estimation of S for each migrant group, one can simply try out a series of S values ranging from 0.1 to 0.9 and see which number pulls the hypothetical stock curve and the actual stock curve to the closest extent. A high S close to 1 implies a low attrition rate during the settlement process in Figure 2, with early flow cohorts gradually getting old and their child and elderly dependents progressively joining them. In contrast, a small S suggests a high attrition rate during the settlement process in Figure 2, with early flow cohorts leaving the destination as they grow old and their child and elderly dependents being unable to move to the destination. These are the

basic procedures of estimating S , and the specific mathematical calculations are attached in Appendix ii. Admittedly, S is only a rough estimation since I suppose that the mortality and migration rates stay constant. Our purpose is to make a broad estimation of migrants' likelihood of remaining in the destinations instead of doing precise calculations.

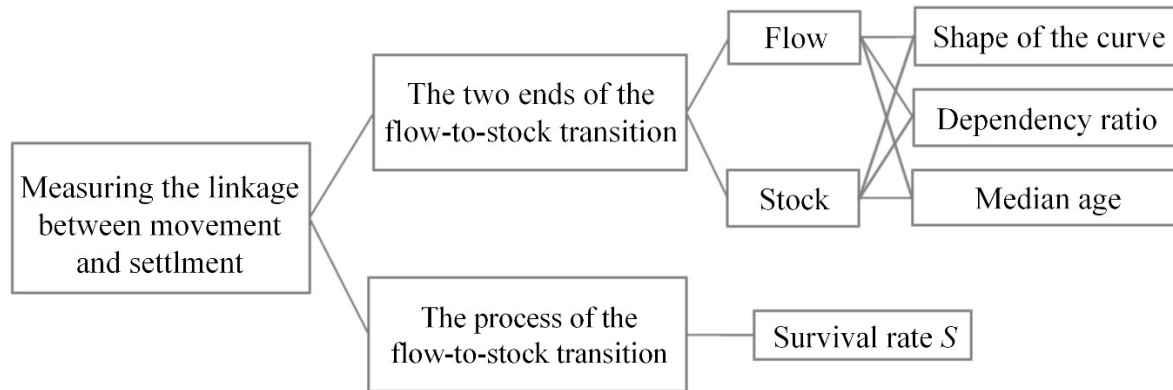


Figure 3. Measuring the linkage between movement and settlement through the transition from migrant flow to stock

In short, the linkage between movement can be captured by the transition from migrant flow to stock (Figure 3). One can observe the two ends of the transition, i.e., the shapes of the flow and stock curves, and also scrutinize the process of the transition, i.e., the “survival rate” S , to determine if movement leads to settlement. To supplement the visual observation of flow and stock curves, I draw on the dependency ratios⁵ and median ages⁶ as additional numerical indicators in examining the two ends of the flow-to-stock transition.

⁵ The child dependency ratio is derived by dividing the population under 15 by the 15-to-64 population and multiplying by 100. The elderly dependency ratio is derived by dividing the population over 64 by the 15-to-64 population and multiplying by 100. And the total dependency ratio is the sum of the child dependency ratio and the elderly dependency ratio.

⁶ The median ages indicate the midpoint of age distribution of flows and stocks.

2.4 Empirical analyses: The uniqueness of migrants' age profiles in China

The above section has illustrated the logic of utilizing age profiles of migrant flow and stock to determine whether migrants can successfully settle down; if not, their residence in the destinations would always be temporary. This approach allows me to break down my two research questions stated earlier, that child- and elderly-dependents are expected to be underrepresented in migration, and that early migrants are expected to leave the destinations when getting old, into four testable research expectations:

- (1) Since children and the elderly are expected to be underrepresented in the migration process, the child, elderly and total dependency ratios of China's flow should be rather low. And the flow curve of China should be sharply unimodal.
- (2) Since it is expected that aging parents of current migrants can hardly reunite with their children and move to the destinations, and migrants from early cohorts would have left the destinations when turning old, the elderly dependency ratio of China's stock should be low. Also, there should be a significant decline towards old ages on the stock curve of China.
- (3) The strong age selectivity of the flow is expected to remain through the transition into the stock of China, resulting in similar age curves of China's flow and stock. So are the dependency ratios and median ages of China's flow and stock.
- (4) Once again, the strong selectivity of the flow is expected to remain through the transition into the stock. Consequently, migrants can hardly "survive" in the destinations over time, and the "survival rate" of migrants in China should be quite low.

To empirically test these expectations, I compare the age profiles of China's internal migration with that of a number of broad reference points, including both internal migration and

international immigration, from countries with significantly different migration regimes. Without going into great lengths of researching those countries, I make use of their data I can possibly find. My data are limited to only public data of India, Japan, and the United States serving that purpose.

The United States and Japan are developed countries with very high urbanization rate, while India and China are developing countries with rapid urbanization taking place in recent decades. Since public age data are available for the 2010 round for China (and those countries included), the 2010 round is used as the year for which data are compiled. In 2010, Japan has the lowest crude birth rate of 8.5‰ among the four countries, followed by China of 11.9‰ and the United States of 13.0‰, and their total fertility rate are all below the replacement level of about 2.1 births per woman (World Bank). India has the highest crude birth rate of 21.1‰, and its total fertility rate is above the replacement level in 2010 (Ibid). Regarding the life expectancy at birth, Japan has a high of 82.8 in 2010, and the United States and China also reach 78.5 and 74.4 (Ibid). The 2010 life expectancy at birth of India is 66.7, the lowest in the four countries (Ibid). Apart from China, the other three countries do not have institutions like the *hukou* that legislatively limit the rights of domestic migrants.

Table 1. Definitions and coverage of migrations in China, India, Japan and the United States

Stock/Flow	Flow					Stock		
Internal/International migration	Internal migration				International immigration	Internal migration		International immigration
Country	China ^①	India ^②	Japan ^③	United States ^④ [1]	United States ^⑤	China ^⑥	India ^⑦	United States ^⑧
Time of survey	2000	2011	2010	2010	2010	2010	2011	2010
For stock: Duration of stay in destination	5 years	1 to 4 years	5 years	1 year	1 year	>= 6 months	All	All
For flow: The time period covering the migration								
Geographic boundary to cross	Township/Street	Census town/village	City/Special ward/Town/Village	County	National border	Township/Street	Census town/village	National border
<i>Series</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>

Data sources:

① 2000 decennial census. National Bureau of Statistics of China.

②⑦ 2011 decennial census. Office of the Registrar General & Census Commissioner, India.

③ 2010 quinquennial census. National Statistics Center, Japan.

④ 2010 Annual Social and Economic Supplement, Current Population Survey. U.S. Census Bureau.

⑤ Yearbook of Immigration Statistics: 2010. U.S. Department of Homeland Security, Office of Immigration Statistics.

⑥ 2010 decennial census. National Bureau of Statistics of China.

⑧ Trends in International Migrant Stock: Migrants by Age and Sex (United Nations database, POP/DB/MIG/Stock/Rev.2010). United Nations, Department of Economic and Social Affairs, Population Division (2011).

Notes:

[1] The dataset covers migrants aged 1 and above. To get a complete age distribution, I use crude birth rate 13.0 and sum of migrants aged 1 and above to estimate the number of migrants at age 0.

The different definitions of migrants

Admittedly, country-wide comparison of migration is never an easy task, as the definitions of migrants can vary a lot. As presented in Table 1, the definitions of internal migration or international immigration involve three main aspects: 1) whether it is a flow or stock; 2) time period covering movements in the case of flows, or durations of stay in the destinations in the case of stocks; 3) geographic boundaries to cross when measuring migration. Under the constraint of limited data access, I sought out publicly available survey data that are broadly comparable as best can be across different countries and scenarios. All the survey data in Table 1 are for the year around 2010, except China's internal flow data that is for 2000⁷. The study is largely constrained by data availability, and the 2010-round is when the most recent decennial census data for the selected countries are available. Also, it is a "normal" year with no special global events. Despite the shrinkage of migration due to the 2008 global downturn, migrant labor migration quickly rebounded afterwards (Chan, 2010d).

As said before, the migrant population in China, or the "floating population", is a stock concept (Series F in Table 1). Specifically, it refers to population without local *hukou* in the destinations and having left their *hukou* registration place for at least 6 months. Children under 6 months of age born to migrants in the destinations are included in the group. The internal migrant flow of China (Series A in Table 1), on the other hand, covers population whose residence is different from where they live five years ago, regardless of their *hukou* status. That is to say, the flow numbers include both *hukou* and non-*hukou* migrants. Therefore, when

⁷ China's 2010 census does not provide age information for migrant flow, and the next best thing I can do is to turn to the 2000 census to get the flow data. I expect the difference of these two years' migration age patterns is not too significant to the extent that it affects the broad country-wide comparison.

estimating migrants' "survival rate", I make some adjustments to account for the inconsistency of flow and stock data of China (more details to follow).

India's census data record residence duration of domestic migrants in the destinations varying from less than one year to ten years and above. I use migrants of one to four years' stay duration as a proxy of the flow (Series B in Table 1), considering this length is more comparable to the other countries' data. The number of migrants of any stay duration, i.e. all migrants, equals to the Indian stock figure (Series G). Internal migration data of Japan and the United States only have flow figures. In Japan's census, people are asked where they lived five years ago (Series C). Finally, the United States Current Population Survey enumerates migrants whose residence is different from where they live one year ago (Series D). Regarding international immigration, The flow data consist of permanent immigrant admissions and temporary nonimmigrant admissions in one year (Series E)⁸. the stock data refer to all existing foreign-born in the United States (Series H)⁹. As for geographic boundaries to cross when measuring migration, Japan's defining criterion is the closest to that of China (see Appendix iii for more details).

Empirical analysis

The conceptual setup and data sources lay the groundwork for empirical analyses, and they are now ready to be applied to check the four research expectations in sequence below.

⁸ The internal flow data of the United States exclude tourists and business travelers. They also exclude asylees whose age composition is not completely disclosed. Asylees only constitute 0.16% of immigrant flow so omitting them does not make much difference.

⁹ There are some inconsistencies with the U.S. immigrant flow and stock data. The flow data only cover authorized immigrants, while the stock data are about the foreign-born, which includes both authorized and unauthorized immigrants. However, there is no public-available accurate age data that can allow me to adjust the data to account for such inconsistencies. That said, as introduced in the beginning of the article, the purpose is to make a broad comparison and highlight China's uniqueness. As will be demonstrated in section 2.4, the age pattern of China's internal migration appears quite distinct, so that I expect such inconsistencies do not affect the overall picture.

Expectation I: The child, elderly, and total dependency ratios of China's flow should be rather low, and the curve of China's flow should be sharply unimodal.

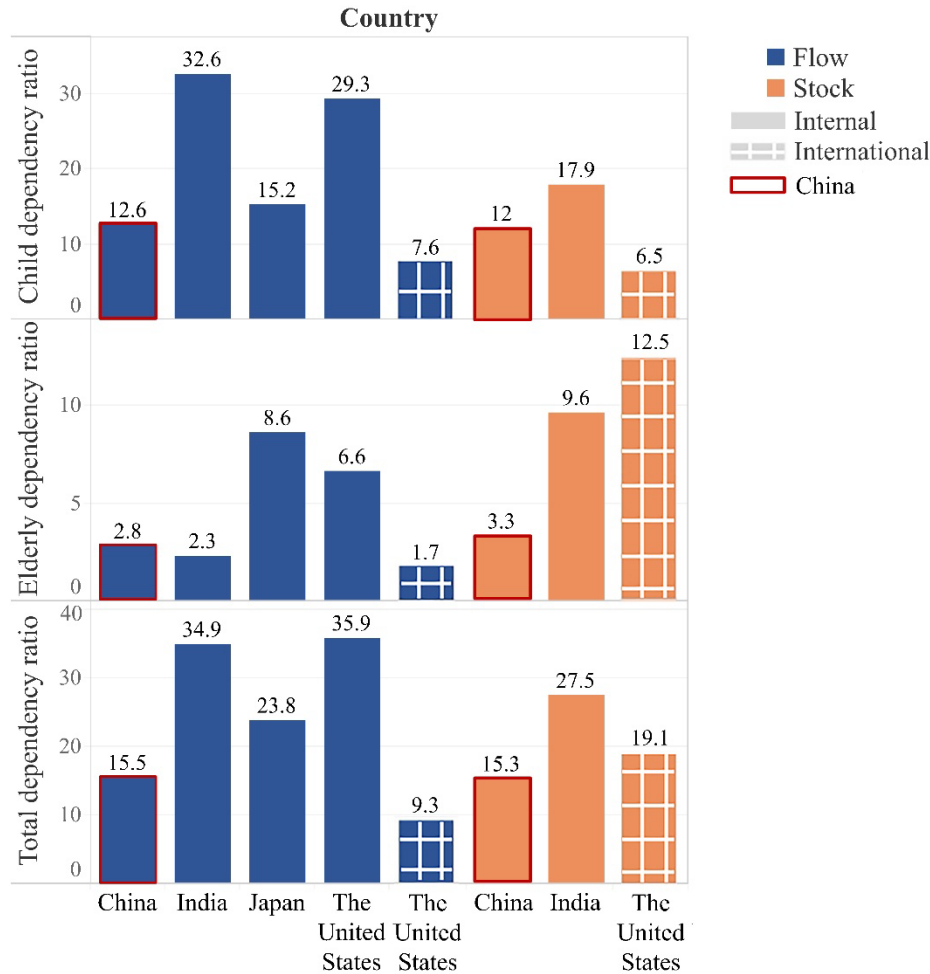


Figure 4. The child, elderly, and total dependency ratios of migrant flow and stock in China in comparison with those in other countries

Figure 4 shows the dependency ratios of China's internal migration in comparison to those of internal migration and international immigration of the selected countries. The five vertical bars on the left side in blue are about migrant flow, and the three columns on the right side in orange are about migrant stock. Among all internal migrant flows, China's flow has the lowest child and

total dependency ratios. The elderly dependency ratio of China is the second lowest among all internal migrant flows, only a bit higher than that of India.

Much like China, there are massive temporary, seasonal migrant workers in India (Coffey, 2013). Although mobility is free in India in the absence of the *hukou* system, migrants' food security, education, housing and health care needs are not well protected in the destinations, and children risk becoming victims of human trafficking (Rajan & M., 2020). In many ways domestic migrants are viewed as "outsiders" and burdens to the host society (UNESCO, 2013), which is somewhat similar to the situation faced by migrants in China. Despite the marginalization of migrants, child and total dependency ratios of migrant flow in India are much higher than those of China (Figure 4). Life expectancy of India is quite low, and therefore its proportion of elderly is understandably lower than that of China, so is its elderly dependency ratio; and in this case, the high total dependency ratio of India provides a startling contrast to the low total dependency ratio of China. Of course, one may ascribe the high child dependency ratio of Indian migrants to the high fertility rate of Indian population. Thus, I introduce the case of Japan, whose fertility rate is lower than that of China. As mentioned before, from the perspective of geographic boundaries to cross, the closest definition of domestic migrants to the one of China is from Japan. Considering such comparability, plus the worldwide low fertility rate of Japan and the underestimation of number of migrant children in the Japanese census, it is astonishing to find the child dependency ratio of Japan's flow is still higher than that of China's flow! Likely, the child, elderly and total dependency ratios of the U.S. flow are all higher than China. Further, the dependency ratios of China's internal flow lie between that of other countries' internal flow and that of the U.S. international flow. This corroborates the proposition that China's institutional barriers resemble immigration controls and regulations.

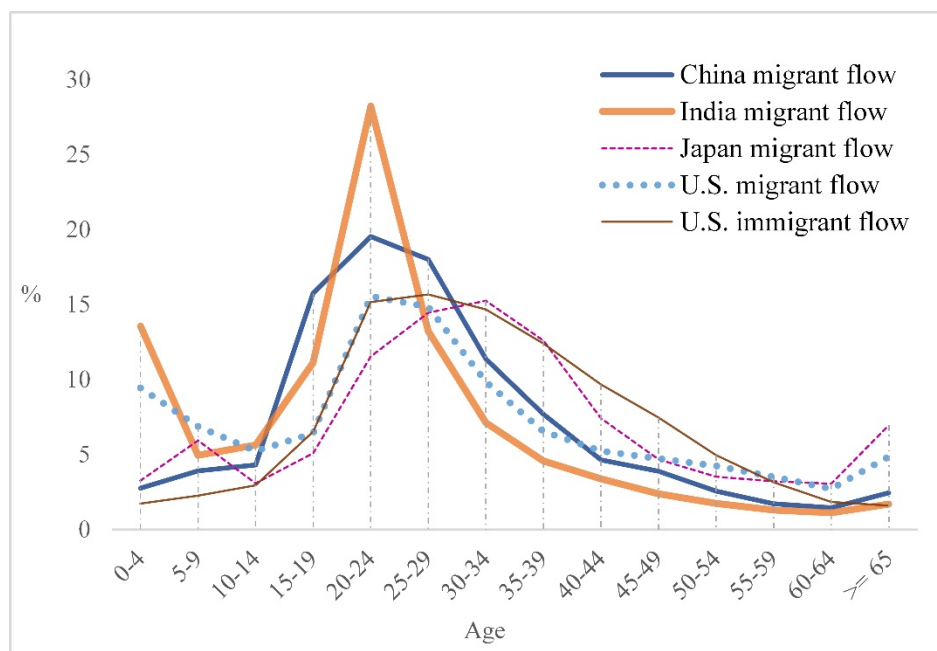


Figure 5. Normalized age structures of domestic migrants in China, India, Japan and the United States

Figure 5 exhibits the flow curves of the four countries' internal migration and the U.S. international immigration. The age structures of internal migrant flow of India, Japan and the United States all present two peaks, one high peak among young adults and one low peak among infants and young children. Infant migration intensity of Japan seems lower, but as mentioned above, newborns are undercounted in the Japanese census. If the undetected newborns were included, the children's peak of Japan would most likely look like those of India and the United States – young children are most likely to accompany their migrant parents, as mentioned in the previous section. By contrast, the age profile of China's flow only has one peak among young adults, missing the children's peak. More concretely, Lv et al. (2018) find that from 2000 to 2015, those aged 0-2 are always the smallest group among all migrant children in China. This fact runs counter to the general trend in other countries, and it suggests that it is basically a

“norm” that the children of migrants in China are left behind in their origins since their birth. In other words, it is almost taken for granted in China that children are separated from their migrant parents at a quite young age. Moreover, the unimodal shape of China’s flow is the same with that of the U.S. immigrant flow. It indicates China’s institutional barriers have the same effect with international border controls in discouraging children’s migration in particular.

Expectation II: The elderly dependency ratio of China’s stock should be relatively low, and a steep decline towards old ages should appear on the stock curve of China.

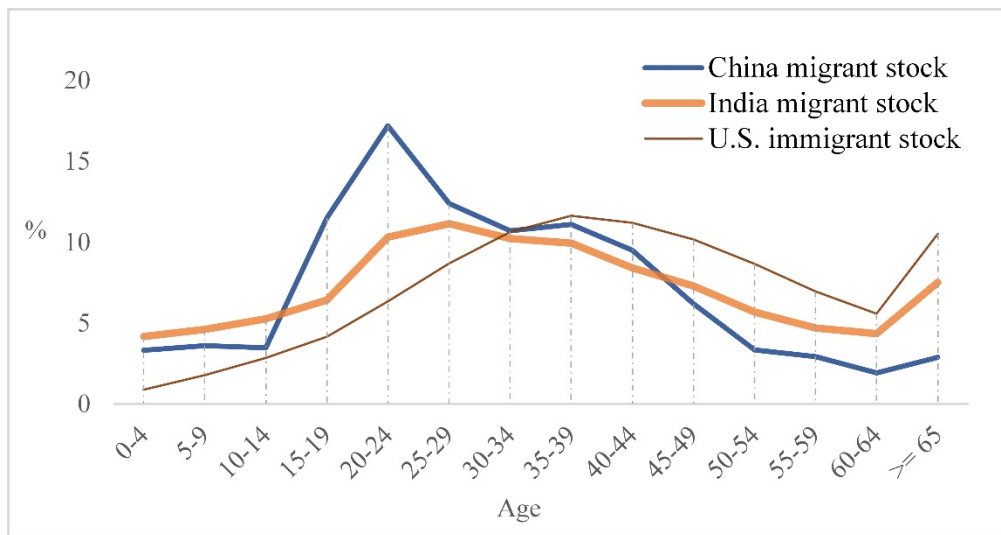


Figure 6. Normalized age structures of domestic migrants in China, India, Japan and the United States

Figure 6 shows that compared to India’s internal migrant stock and the U.S. international immigrant stock, China’s internal migrant stock has considerably low elderly dependency ratio. Also, China’s stock curve appears quite different from the others. India’s internal stock and the U.S. international stock curves are smooth at the beginning and go up after age 65, whereas China’s stock curve abruptly rises since 10-14 and steadily drops between 24 to 54. Clearly,

neither can older early migrants stay nor can elderly dependents join the pioneer migrants in the destinations in China.

Expectation III: China's stock and flow curves should be similar, so are the dependency ratios and median ages of China's stock and flow.

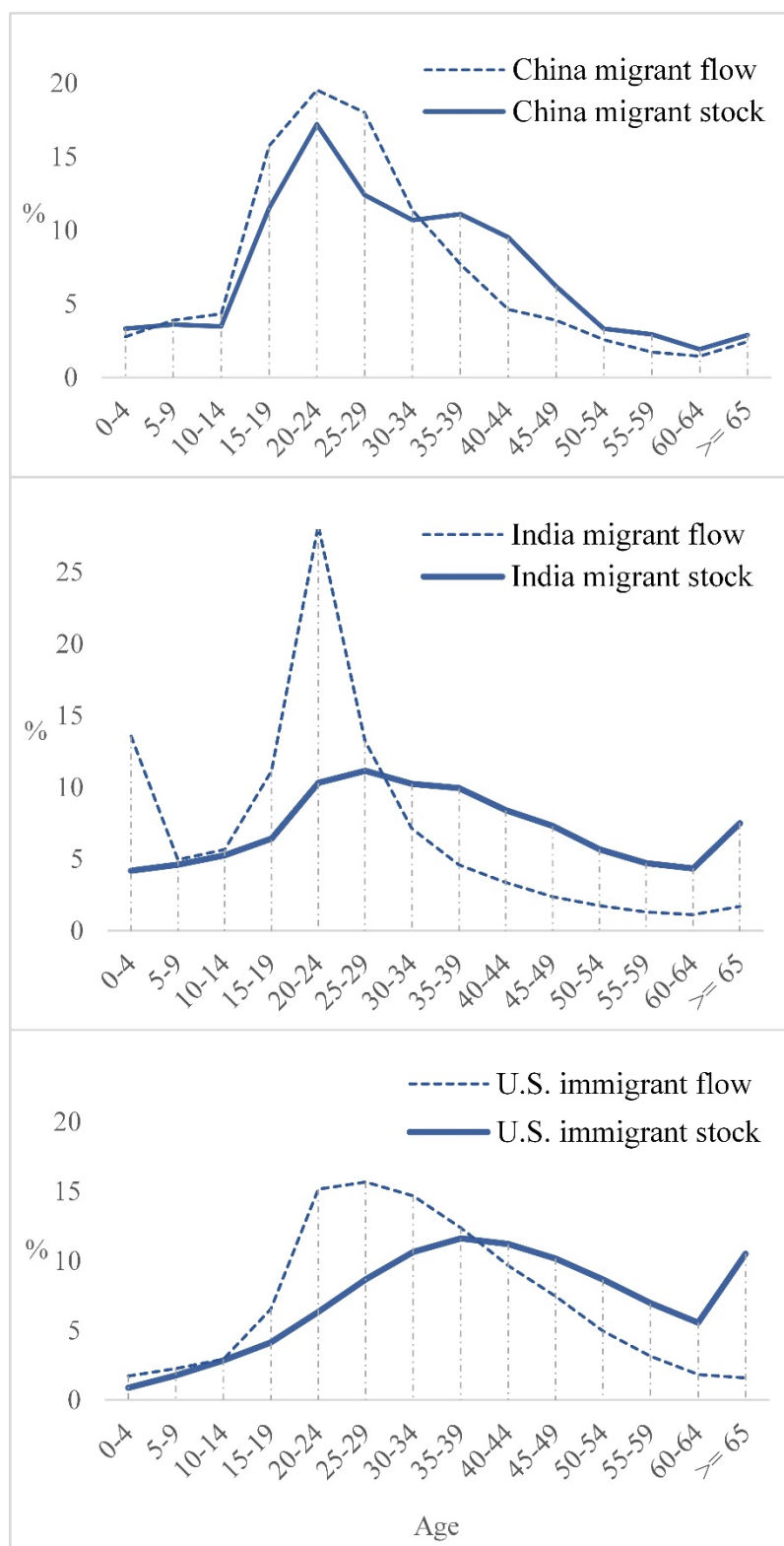


Figure 7. Flow and stock curves of internal migration in China and India and international immigration in the United States

Table 2. Difference of median age of the flow and stock of internal migration in China and India and international immigration in the United States

	Median age		Difference
	Flow (age 5+) ^[1]	Stock	
China migration	26.6	29.4	2.7
India migration	25.0	34.0	8.9
U.S. immigration	32.54	41.4	8.8

Data sources: Same with Table 1.

Notes:

[1] Different time intervals of movement would affect the median ages of migrant flows. To remove this influence, I compute median ages for those aged 5 and over rather than for population of all ages.

The stock and flow curves of the same migrant groups are lined up in Figure 7 to be compared. As stated above, India's internal migration and the U.S. international immigration both have a flat and smooth stock curve as a result of accumulation of early migrants and elderly dependents, while their flow curves are strongly age-selective. In the same vein, due to the conglomeration of those who are relatively older, the stock of these two migrant groups has higher elderly dependency ratio and lower child dependency ratio compared to their flow (Figure 4). By contrast, China's flow and stock curves look almost the same (Figure 7), and the child, elderly and total dependency ratios and median ages of China's flow and stock are quite close (Figure 4; Table 2). Compared to China's 2000 flow, its 2010 stock have only slightly lower child dependency ratio and higher elderly dependency ratio (Figure 4). An important reason for this is the rapid nationwide population aging (migrant population included) over the 10 years: the elderly dependency ratio of total population in China for 2000 is 10.1, yet that for 2010 has increased to 25.3. If one can rule out the effect of population aging, the 2000 flow and 2010 stock curves of China and their corresponding dependency ratios should be even closer. Furthermore, according to Table 2, the difference of median ages between the flow and the stock for China's internal migration are much smaller compared to those for India's internal migration

and U.S. international immigration. This reaffirms that the age patterns of China's migrant flow and stock are quite similar.

Expectation IV: The “survival rate” of migrants in China should be quite low.

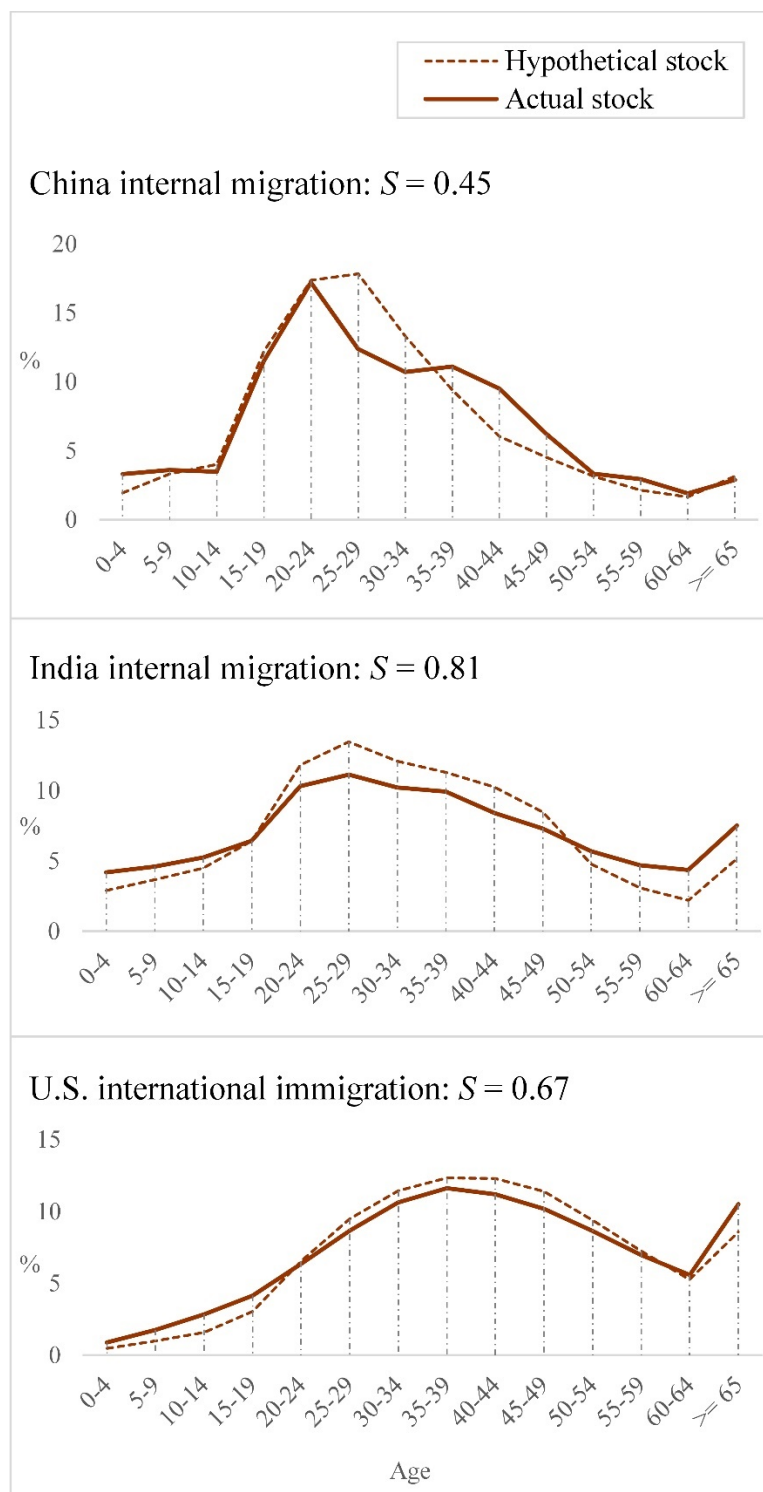


Figure 8. Approximation of the hypothetical and actual stock curves for internal migration in China and India and international immigration in the United States, and the resultant “survival rates”

After fitting in a series of “survival rate” S ranging from 0.1 to 0.9, the most approximate hypothetical and actual stock curves for China and India’s internal migration and the U.S. international immigration are drawn in Figure 8. The estimated S values for these three migrant groups are 0.3, 0.9 and 0.8, respectively. However, as noted earlier, the stock data of China cover only non-*hukou* floating population, while the flow data of China cover both *hukou* and non-*hukou* migrants. I make a broad correction for this inconsistency (see Appendix iv for more details), and S of China is raised to 0.45. Moreover, given the different time coverage of migrant flow of China and India’s internal migration and U.S. international immigration, adjustments are made to align them up with China’s 5-year “survival rate” (see Appendix v for more details), and their S are reduced to 0.81 and 0.67, respectively.

From the results, the S of internal migration in China is much lower compared with that of internal migration in India and international immigration in the United States (Figure 8), meaning that the proportion of domestic migrants who settle in the destinations in China is much smaller than other countries’ domestic migrants and international immigrants. I have demonstrated that the age structure of China’s internal flow shares many commonalities with international flow, meaning that the dynamic selection of migrants regarding age is similarly strong for these two cases. Yet further scrutiny in this part shows that although international immigration is strongly selective at the beginning, those who already become immigrants have a big chance of long-term residence. Whereas in China, that strong age selectivity largely remains unchanged over time.

2.5 Conclusions: The significance of age selectivity of China's internal migration

It is nothing new that migration is age-selective, but age has more complexity than it is normally assumed in the Chinese case. Using other countries' internal and international migration as reference points, this study finds that the migrant population in China appear abnormally "forever-young". The major migration destinations in China keep "recycling" young working-age adults, with young workers keep replacing the older cohorts, thereby never depleting their young labor reserve. This points to the feature of temporariness intrinsic to China's non-*hukou* migration. For most migrants in China, they can only stay in the destinations on a temporary basis, so that movement generally does not lead to settlement.

The study ascribed the inability to settle to two sources, the difficulties to maintain migrant family togetherness, and the impediments to long-term residence of migrants themselves. Methodologically, by differentiating the concepts and data of "flow" and "stock" of migrants, I develop a series of age-related indices to measure the transition from migrant flow to stock as a way to examine the linkage between movement and settlement. It is discovered that two main sources of inability to settle are both facilitated by institutions in China. Regarding family togetherness, China's internal migration overwhelmingly concentrates in working-age adults, while infirm elderly population are underrepresented in migration. Children, in particular young children shortly after birth, are underrepresented in migration, too. This is quite different from the case in other countries, where young children tend to accompany their parents in migration. As for long-term residence, when current migrants turn old, they are more likely to return to the origins rather than to stay in the destinations. It is shown that the chance of long-term residence

in the destinations of domestic migrants in China is not only much smaller than that of domestic migrants in India, but also smaller than that of international immigrants in the United States.

The age-selective migration process is part and parcel of the “low-cost” development strategy that China has been skillfully executing in the post-Mao reform era, which has its roots in the urban-biased national scheme in Mao’s time. This development strategy has given rise to China’s dominance in labor-intensive manufacturing industries worldwide, and therefore it contributes to the “economic miracle” of China. However, it comes at a high cost to the migrant population and long-term development of the country by continuing to maintain a dual society. One can argue that this is one of the strategies taken by the China’s “predatory state” (Pei, 2006). As such, the current study outlines avenues for future research in tapping into age data to interrogate the spatial politics of labor and the state-led development approach in China.

Appendix A

i In the literature, migration age patterns are most commonly demonstrated by age-specific migration rates, calculated by the number of migrants divided by the total population of a specific age group (Rogers, 1978). However, this study uses age structures of migrants to examine migration age regularities. And the age structures are normalized by percentages because it is the relative distribution rather than the specific numbers that is of interest in this study. There are several reasons for choosing normalized age structures instead of age-specific migration rates. First, migration rates evaluate the propensity to move. They emphasize the action of movement within a time window, not the accumulative result of population over a long time. Therefore, migration rates only apply to the flow but not the stock, which is an obvious limitation for this study. Second, even if I only look at the flow, it turns out the shape and trend of age structures and migration rates are quite similar to each other for the selected countries (see Figure 5 in the main text and Figure 9 below). Thus, age structures are good enough to show the age regularities of migrant flow. Third, by definition, dependency ratios are calculated from age structures, not age-specific rates. Hence the plots of age structures (Figure 5, 6, and 7 in the main text) can perfectly echo with dependency ratios (Figure 4 in the main text) in presenting migration age patterns, making the analytical reasoning process much easier. Fourth, the main disadvantage of age structures compared to age-specific rates is that the former cannot eliminate the influence of the total population's age distribution. For example, if the fertility rate of total population of a country is high, usually the fertility rate of migrants in the country is relatively high too. Yet this deficiency can be compensated for by taking fertility rate, life expectancy and other demographic factors into consideration in the specific analyses, as what I do in this chapter.

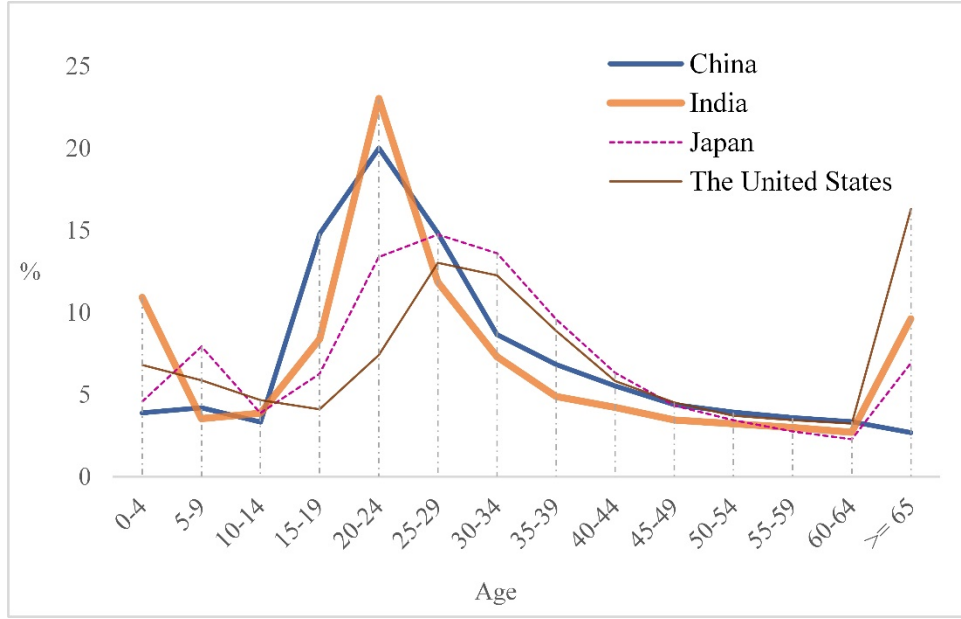


Figure 9. Internal migration (flow?) rates of China, India, Japan, and the United States, normalized into percentages

ii To expound the computational method of S , I start from the scenario when there is only one flow cohort. For age group i who survives over time t , the “survival rate” S can be denoted as:

$$S = \frac{j_{i+t}}{l_i}$$

where l_i is the population aged i at time 0, and j_{i+t} is the population aged $(i+t)$ at time t .

And hence

$$j_{i+t} = l_i S$$

The second scenario is when there are two flow cohorts arriving successively at time 0 and time t . Because the two cohorts are stationary populations, they have the same age composition.

Then for age group x , the aggregated population ${}_tK_x$ at time t would be:

$${}_tK_x = l_x + l_{x-t}S$$

where l_x equals to the population aged x at time 0, and l_{x-t} equals to the population aged $(i-t)$ at time 0.

Even if the transition from migrant flow to stock takes “infinite” time in theory, I suppose after $5t$ time of change, the flow of multiple cohorts aggregated into the hypothetical stock. The reason that $5t$ is picked is that longer time such as $6t$ does not make much difference in the estimation of S values in practice. In other words, after $5t$, the estimated S relatively stabilizes at a certain number. For age group x , the aggregated population ${}_5tK_x$ at time $5t$ would be:

$${}_5tK_x = l_x + (l_{x-t} + l_{x-2t}S^t + l_{x-3t}S^{2t} + l_{x-4t}S^{3t} + l_{x-5t}S^{4t})S^t$$

which can be simplified into:

$${}_5tK_x = l_x + l_{x-t}S^t + l_{x-2t}S^{2t} + l_{x-3t}S^{3t} + l_{x-4t}S^{4t} + l_{x-5t}S^{5t}$$

t can be regarded as one “unit” of transition period, so it can take the value of 1 for computational convenience. Thus, in the above function, $l_0, l_1 \cdots l_x$ are the age-specific population at time 0, with the age groups varying from “0-4”, “5-9” until “65 and over”. They take the values of age composition of the actual flow. Accordingly, ${}_5tK_0, {}_5tK_1, \cdots {}_5tK_x$ are the aggregated population at time t with the same age group division. They take the values of age composition of the hypothetical stock. The next step is to try out a series of S varying from 0.1 to 0.9 and observe what value pulls the actual and hypothetical stock curves to the closest extent, as covered in the main text.

iii Specifically, concerning the geographic boundaries to cross when measuring migration, as for internal migration, the Chinese census employs the geographic boundaries of streets in urban areas and townships in rural areas. But the flow and stock data of China differ in that the stock data leave off population relocating within the same “urban district” (*shixiaqu*), while the flow data include movements crossing all streets and townships. Prior to 2010, an urban district refers to the urbanized core of a city, i.e. the high-density built-up area (Chan, 2007). This counting method well accounts for short-distance rural-to-urban migration, which is an important

component of migration in China. That being said, according to the 2010 Chinese census, population relocating within the same urban districts take up 15% of all stocks, meaning that their share is not big. Therefore, the flow data are still worth being analyzed despite that they are less desirable in this regard.

For other countries' internal migration, the Indian census uses the geographic units of towns in urban areas and villages in rural areas. Compared to China's stock data, India's stock and flow data "exaggerate" the migrant population base, because they include movements across all towns and villages without leaving out those inside the same urban agglomeration. Yet India is less urbanized and its metropolitanization is not quite intense, and thus the numbers are still meaningful. Japan's census data offer migrants' age information at multiple geographic levels. In order to make it comparable with the data of China, I add up the number of migrants from "other prefectures" and "other cities, special wards, towns or villages". The sum result is a close counterpart to China's data regarding geographic boundaries to cross, as it does not consider change of residence within the same city as migration. Lastly, the United States data employ county as the basic unit to enumerate migrants, and they differentiate movers in the same county from movers to another county. I only keep the county-to-county movements for proper representation of internal migration, which is also the most frequently used geographic level in existing U.S. migration studies. In terms of international immigration to the United States, it evidently adopts the geographic units of national borders.

iv When estimating the survival rate of China, I am mainly interested in the chance of settlement of rural migrants in urban destinations, since urban-to-rural migration is quite minimal (X. Ma et al., 2014). Thus, ideally, I can have stock data of rural *hukou* population, and flow data

of rural-to-urban non-*hukou* movers (i.e. those who cannot convert their *hukou* to the destinations). Yet I only have access to data that do not differentiate rural-to-urban or urban-to-rural migration, and do not distinguish *hukou* movers from non-*hukou* movers. In view of this limitation, I resort to existing literature to make some statistical adjustments to the S value of China. Chan (2012) tallies there are approximately 90 million rural-to-urban net migration in 2000-2010, among whom about 30 million convert their rural *hukou* to urban *hukou* (Table 4, p. 76). Now that urban-to-rural migration is minimal, the 90 million can roughly be considered rural-to-urban migration. And in doing so, the *hukou* conversion rate is about 33.3% for rural migrants within 10 years; in other words, their “*hukou* settlement rate” of rural migrants stands at about 33.3% for 2000-2010. Now I can do a coarse correction of S to incorporate those who get settled via *hukou* conversion:

$$\dot{S} = \frac{S}{1 - h}$$

where $\dot{S}$ is the adjusted “survival rate”, and h is the *hukou* settlement rate.

v The procedure to adjust the “survival rate” S of India’s internal migration with 1 to 4 years’ moving period and U.S. international immigration with 1 year’s moving period follows the same equations in Appendix ii. What is different is that instead of using age-specific l , I suppose l is the same for all age groups. Now I will illustrate the computation process using the U.S. case as an example. First, I borrow the equation in Appendix ii:

$${}_5tK = l + lS^t + lS^{2t} + lS^{3t} + lS^{4t} + lS^{5t}$$

Then

$${}_5tK = l(1 + S^t + S^{2t} + S^{3t} + S^{4t} + S^{5t})$$

I plug in the previously estimated S value to compute a ${}_5tK$. In the case when $l=1$, ${}_5tK$ can be viewed as a 5-year accumulated survival chance, and it can be standardized to a “rate” via being divided by 5. In this way, a 1-year “survival rate” is transferred to a 5-year “survival rate” by estimating the attrition of migrants over 5 years.

To adjust the Indian case, I first do a reverse procedure to transfer the 3-year (1-4 years’ time ranges suggests a moving window of 3 years) S to a 1-year S , and then follow the same procedure set above.

Chapter 3. Unequal exchange induced by internal migration: The age selectivity of migrant population at the provincial level of China

3.1 Introduction

88% of the population in Shenzhen, a city on the southern coastline of China, are working-age adults (aged 15 to 64) according to the 2010 census. This suggests the age structure of Shenzhen is economically “superior,” possessing much demographic dividend. Demographic dividend refers to “the economic growth potential that can result from shifts in a population’s age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)” (UNFPA). A low ratio of dependent population reduces the economic burden to the society, and a high ratio of working population also increases saving rates of the society. In essence, it indicates an economic advantage characterized by the population’s age composition. China’s “economic miracle” in the past decades is believed to considerably benefit from the demographic dividend (Cai & Zhao, 2014; Z. Wei & Hao, 2010), which can be traced to the decline of fertility rate since the late 1960s (Cai et al., 2018). Despite the low fertility rate, how possibly can a city like Shenzhen has such a distorted age structure, with the vast majority of its population being working-age adults, whereas the dependent population only takes a minimal share? This points to the fact that the benefits brought by demographic dividend do not distribute evenly across space – the age pattern is heavily impacted by migration.

It has been well established in existing research that migration is selective regarding age (e.g. Bernard, Bell, & Charles-Edwards, 2014; Rogers & Castro, 1981). The propensity to move peaks at young adults’ age (15-40), as they are experiencing intensive life course events including job change and family formation. After young adults, the second group most likely to

move is young children, since they tend to be taken along by their migrant parents. However, the age selectivity of internal migration in China is distinct in that it is severely interfered by the *hukou* institution that limits the social rights of migrants traveling across jurisdictional borders, acting similarly to international immigration laws. Without local *hukou*, one cannot access public services in the destinations. This group of people are termed “floating population”¹⁰ in Chinese statistics, which exactly presents their somewhat rootless status in the destinations. Worth noting, the floating population is a stock concept of migration, as it includes migrants of all stay durations¹¹, typically the duration is not less than 6 months, often much longer. For simplicity, I use a dichotomy of migrant population vs. non-migrant population in reference to floating population and their counterpart, local *hukou* population. Due to the inaccessibility of necessary social welfare, the dependents of migrant population tend to be left behind in the origins instead of moving along with the workforce population. And this is the specialty of China’s migration age selection, namely the extraordinary concentration of young adults and the scarcity of children and the elderly.

The unique age selectivity of migration in China explains why the age structure of Shenzhen is highly distorted. In 2010, 79% of the total population in Shenzhen are migrant population. Known as the “city of migrants” (Zhai, 2008), Shenzhen has a massive labor pool constituted by working-age migrant population, and it epitomizes the general situation in the major ports and trading centers along China’s coast. Following this logic, the current chapter sets out to study the selective migration process in post-Mao China and argues there exists an unequal exchange between the destination and origins. By “exchange”, I mean the destinations are the main

¹⁰ Specifically, the “floating population” refers to those who have left their *hukou* registration place for at least 6 months.

¹¹ By contrast, a flow concept of migration limits to population who experience movement within a certain time window. Stock is the accumulated result of flows, deaths, and births in a relatively long period.

industrial products providers and labor power receivers, and the origins are the commodity consumers and labor power providers. By “unequal”, I mean the exchange process is exploitative. The binary division of destinations and origins derives from two paradigms, one is the urban-rural dual system inherited from Mao’s time, and the other is the coast-inland spatial labor division that deepens in post-Mao reform era. As throngs of young working-age adults leave their inland hometowns and flock to the coastal cities to work, the coastal urban regions become the main beneficiary of China’s demographic dividend; also, they prevent child and elderly dependents of young working-age adults from joining them in migration. By contrast, the inland rural areas of China suffer from a “demographic deficit” due to the departure of young laborers; meanwhile, children and the elderly are largely left behind there and these provinces have to care for them. The destinations drain labor out of the origins, whereas they suppress social reproduction costs of the labor power through various institutional and administrative methods. In this way the destinations enhance their economic growth at the expense of the origins, which makes the exchange “unequal”. Taken it more broadly, this economic growth strategy lies at the core of China’s model of development, and the strategy has persistently been a “low-cost” one from Mao’s time to post-Mao’s time.

The current chapter uses age as an angle to understand the unequal exchange caused by internal migration. This is a new method to examine labor exploitation across space. Section 2 of the chapter constructs a theoretical thesis of utilizing age to analyze the unequal exchange process in China. Section 3 to 5 provide empirical analyses based on China’s 2010 decennial census data at national and provincial levels to support the thesis. Specifically, Section 3 shows the distorted age profile of migrant population in China and the “complementarity” of age profiles of selected representative destinations and origins. Section 4 evaluates the general age

advantage of the destinations over the origins through looking at the share of workforce and dependent population at provincial level. Section 5 does a statistical calculation to determine the most “selective” provincial regions in China regarding age, so as to find the most “exploitative” areas of migrant labor. Finally, Section 6 concludes the chapter.

3.2 A thesis of selective migration in China

In illustrating the mechanism of unequal exchange between migration destinations and origins in China, a thesis of selective migration is proposed. To start, I draw on three seemingly disparate bodies of knowledge. The first body of literature is on the urban-rural dual system of China. The dual system experienced two stages of evolution. Under Mao’s regime, China’s development priority was given to industrialization, and agricultural products were coercively procured by the state at a low price and channeled into heavy industry (Chan & Zhang, 1999). Rural population were restrained from free mobility, and they were compelled to produce grains at collective farms for the state at low prices. An institution of *hukou* was created to guarantee the economic dominance of the urban sector. People’s *hukou* identity determines their eligibility for various social services. Non-agricultural (urban) *hukou* population in the cities enjoy state-provided education, housing, health care and so on, whereas agricultural (rural) *hukou* population in the countryside receive far few benefits. As economic reform was rolled out in the post-Mao era, control on population mobility was gradually lifted, and peasants were allowed to come to cities en masse and become “migrant workers”. Nevertheless, only a few of them can register their *hukou* in the cities¹² and access urban social services. Constant throughout the two periods

¹² The conversion of agricultural to non-agricultural remains extremely difficult until 2014, when the “National New-Type Urbanization Plan (2014–2020)” was promulgated. However, after the plan was unveiled, it only become

is the unequal exchange between the urban and rural sectors, first by ordering the procurement of agricultural productions in Mao's era, and later by taking advantage of the cheap rural migrant labor in post-Mao's time (Chan & Wei, 2019).

The second body of literature is on the relations between central and local governments in post-Mao China. Fiscal decentralization initiated in the 1980s gave local governments greater revenue autonomy, and they contended with each other for private and foreign investments to enlarge their revenue base (Painter & Mok, 2008). Among the local governments, a coastal belt of cities was granted more discretion and flexibilities in developing foreign-oriented economy, which facilitates the growth of labor-intensive manufacturing industries there. Along with fiscal decentralization, local governments also gained the power of granting local *hukou* to people they want the most - usually the top "talent", such as those possessing a doctoral degree or having established a startup.

The third body of literature is on social reproduction of migrant labor power. Marx defines labor power as the capacity to work. If labor power is to be reproduced, according to Burawoy (1976), there are two parts involved. One is the "maintenance" part, representing the sustainment of current workers. The other is the "renewal" part, referring to the upbringing of future working population. The spatial mismatch between industrial production and social reproduction of labor power (N. Zhang, 2015), as will be demonstrated below, saves much state-borne expenses.

Through synthesizing the three bodies of knowledge, it can be argued that in the post-Mao era, local governments of migration destinations are not interested in expanding the list of beneficiaries of their public services to include the mass rural migrants. Decentralization reforms gave local governments more autonomy in deciding their local policies about supplying public

easier for peasants to transfer their *hukou* registration place to small cities where job opportunities are fewer than big metropolitan areas. Hence the *hukou* reform after 2014 is still quite limited. See Chan (2019) for more details.

services. Thus, even when the central government request (usually not firm demand) local officials to offer education and other public services to migrants, the latter would not truly follow in the absence of enough incentives. More importantly, in most cases, the center only pays only lip service to the incorporation of migrants without giving adequate financial support to local executors. All these factors lead to a “race to the bottom” among local governments for public expenditures (Mok & Wu, 2013), of which the immediate consequence is that they take various methods to save costs of social reproduction of migrant labor power. Conceivably, the most efficient approach local governments can take is to deter the entry those “unnecessary” migrants who may increase their public expenditure. Here comes the key point of the selective migration thesis: only the healthy and young are welcome to the urban destinations for their temporary, “golden years” of labor force, so that the maintenance of their labor power is running at lower costs in the destinations. Accordingly, the elderly as well as the next generation of current laborers are left behind in the rural origins, so that the costs associated with renewal of labor power are shifted to the origins. The *hukou* and educational policies are two common and “effective” measures local governments of the destinations employ to accomplish this purpose - migrants find it exceedingly difficult to acquire proper health care and send their children to public schools without local *hukou* in the destinations. And the coast-inland economic disparity resulted from labor division along with the urban-rural dual system renders the coastal urban areas the most attractive destinations for migrants, which gives local governments of these places more leverage in using administrative measures to select the population they want.

The selective migration thesis suggests there exists an unequal exchange of labor and care between coastal urban areas and inland rural areas. The coastal urban areas “cherry pick” young healthy adults to move into their jurisdictions, leaving the old and frail at the origins. By doing

this, they are able to “economize” on social reproduction of migrant labor power. For the country as a whole, it is cheaper to carry out social reproduction in the less developed areas versus metropolitan areas where education and other care are much more expensive. In this sense, local governments of the destinations have the center’s tacit consent to only bear the least costs of maintenance of current migrant labor to ensure they can keep working, whereby avoiding any other spending of their social reproduction. Such a “low-cost” growth strategy is consistent with the industrialization strategy in Mao’s time, both being an inherent part of China’s model of development (Chan & Wan, 2017). The difference is the extraction of grains from the agricultural sector in Mao’s time is substituted by the extraction of labor power from the inland rural areas in post-Mao’s era. Put it another way, the growth strategy of unequal exchange that China has used, either in a direct or indirect way, has been persistent from the Mao to the post-Mao era. This proposition is developed out of the unequal change contention within the urban-rural dual system framework, yet it further incorporates the coast-inland spatial disparity and the subjectivity of local governments against the decentralization background.

In the short term, the selective migration process has greatly contributed to the “economic miracle” of China, as low labor costs have translated to the price advantage of Chinese commodities in the global market. However, while the major destinations manage to exploit cheap migrant laborers and accumulate much wealth, the origins bear the most burdens of social reproduction. One of the most devastating consequences is the lack of parental care for children of migrants in the origins as an outcome of this selective migration. It has been shown that left-behind children have more possibilities of physical illness (e.g. Tong et al., 2015), cognitive disorder (H. Zhang et al., 2014), and psychological and behavioral problems (F. Fan et al., 2010). In other words, while the destinations are enjoying an age advantage brought by the demographic

dividend, the origins are suffering from a “care drain” resulted from the demographic deficit. Therefore, in the long run, this “low-cost” growth strategy can be much more costly, and possibly unsustainable.

3.3 The distorted age profile of China’s migrant population and the mutual compensation of age profiles of the destinations and origins

The selective migration thesis holds that China’s internal migration extraordinarily concentrates in young adults, while children and the elderly are unwelcomed to move. To support the assertion, this section begins from contrasting age profiles of migrant and non-migrant population in China. It is expected that they look quite different, with migrant population centering around young adults’ age whereas non-migrant population distribute relatively uniformly. I then compare age profiles of three pairs of destinations and origins inside China, and it is expected that they balance out in getting the national average age profile. The age profiles presented in this section are normalized into percentages to cancel out the influence of diverse population size.

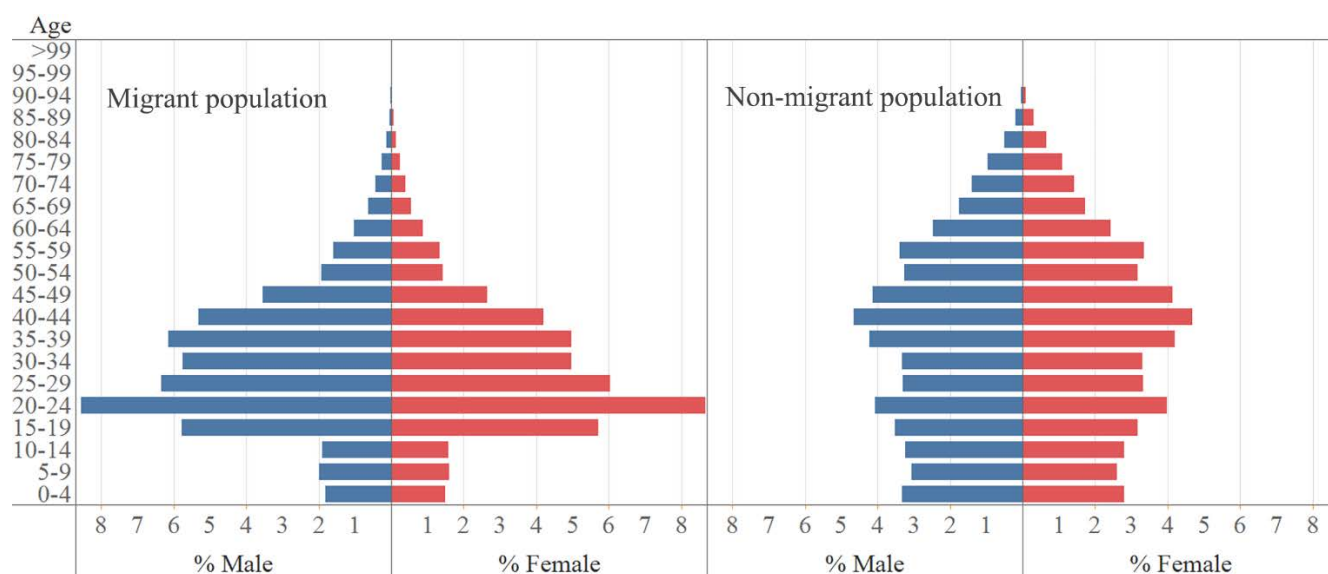


Figure 1. Normalized age pyramids of migrant and non-migrant population in China, 2010

In Figure 1, compared to non-migrant population who spread relatively evenly across different age groups, migrant population dramatically cluster in young adults, to the extent that their age pyramid appears like a Christmas tree. The minute children group is especially noticeable, showing up as the tree trunk. Moreover, one can see a wide gap between population above and below 15. The minimum age for working in China is 16, so the gap indicates the great bulk of migrant population only move to labor, and it is difficult for them to keep family intact.

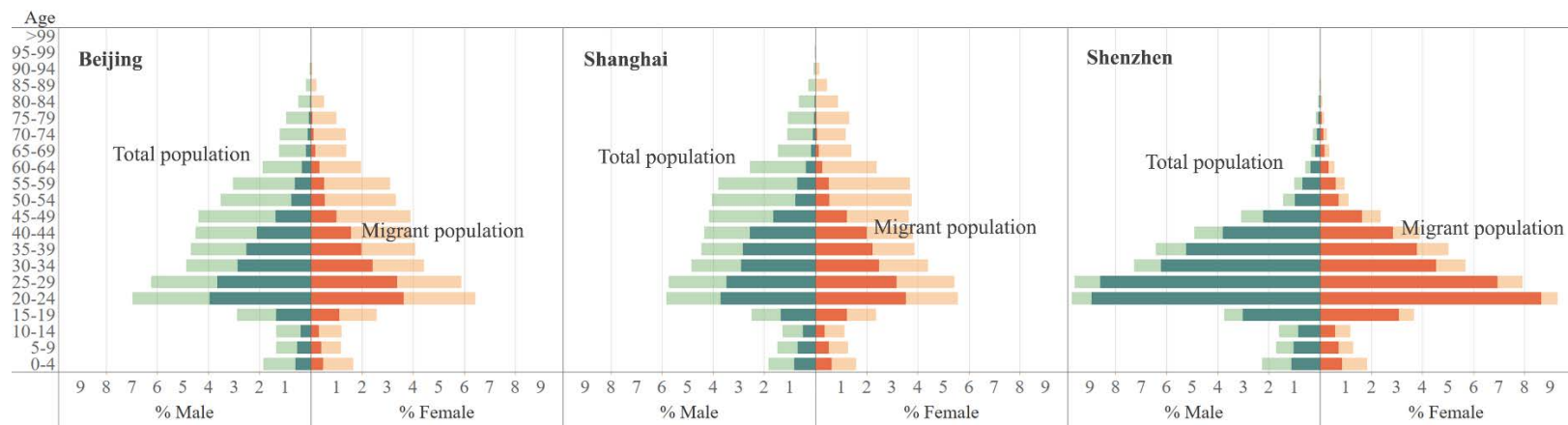


Figure 2. Normalized age pyramids of total and migrant population in three migration destinations – Beijing, Shanghai, and Shenzhen, 2010

In major destinations where the migrant population is large, the age composition of total population can be significantly affected by migration. Figure 2 demonstrates age profiles of total and migrant population in three representative destination cities, Beijing, Shanghai and Shenzhen. Beijing and Shanghai's age pyramids of total population have the shape of a Christmas tree (Chan, 2019b), suggesting they have been profoundly influenced by the age structure of migrant population. Relative to that in Beijing and Shanghai, the age profile of total

population in Shenzhen is more extreme concerning the dominance of young adults. Figure 2 shows that the vast majority of Shenzhen's residents are migrant population, which accounts for the strikingly biased age structure of Shenzhen's total population. In 2010, Beijing and Shanghai both have a proportion of migrant population of around 40%, while Shenzhen has a stunning high of 79.3%.

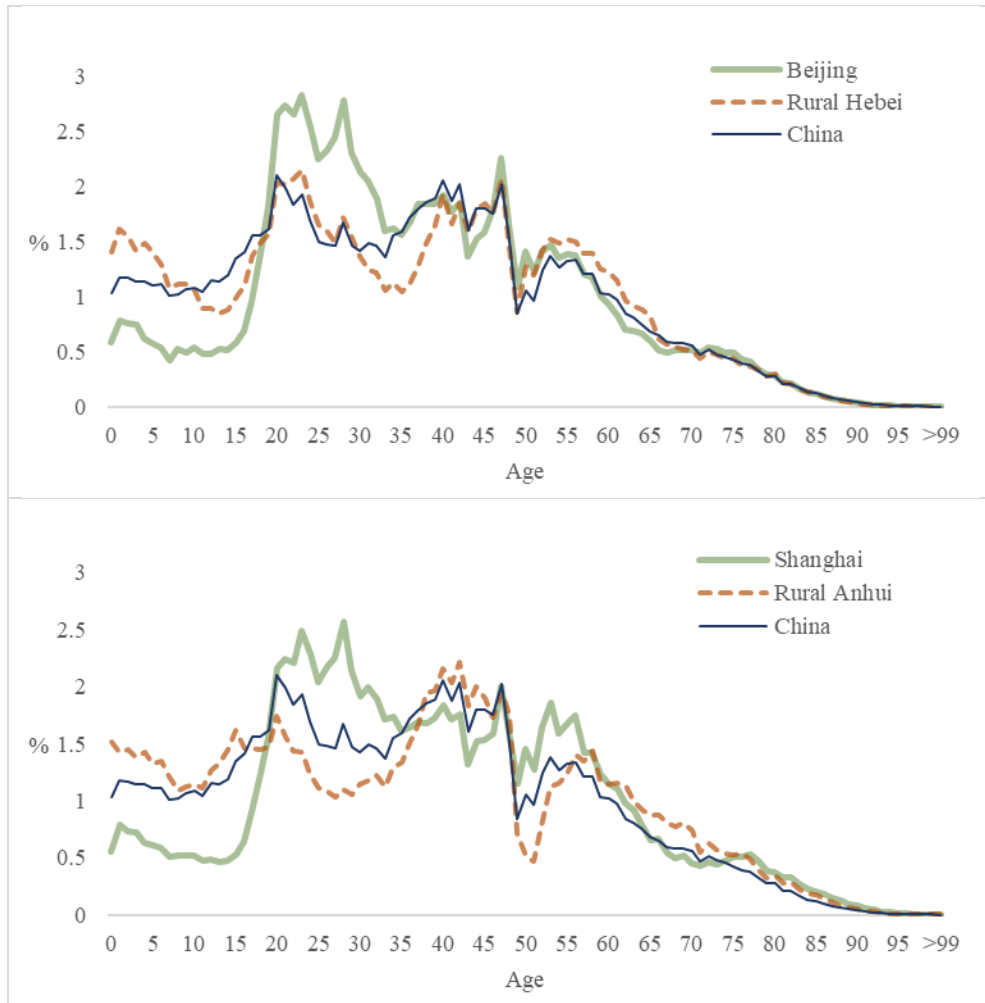




Figure 3. Age profiles of selected destinations and origins in China, 2010

Now that total population's age profile of the destinations is reshaped by the "import" of young adults, that of the origins should also be remarkably remolded by the "export" of young adults. To investigate this expectation, age profiles of three pairs of destinations and their largest migrant population source places are exhibited in Figure 3. The three selected destinations include two municipalities Beijing and Shanghai¹³, and the urban areas of a coastal province, Guangdong. Their corresponding largest migrant population source places are rural areas of three inland provinces, Hebei, Anhui and Hunan. From Figure 3 one can see the age structures of the destinations and origins are clearly compensating each other in getting the national average age structure. Additionally, the strong age selectivity of migration is clear in Figure 3. Young adults around 20-40 are selected to move, while children below 15 and seniors above 60 stay in the origins.

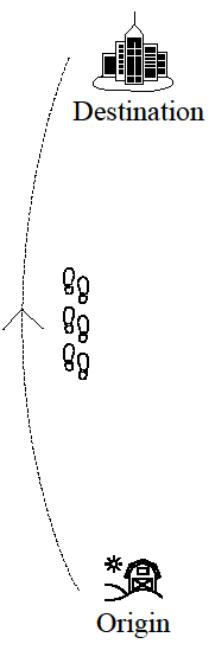
¹³ Beijing and Shanghai are provincial-level units under the direct administration of the central government, and their urbanization rates are among the highest in China. For this reason, there is no need to single out their urban areas for analysis.

3.4 The age advantage of the destinations over the origins

Section 3 demonstrates the age selectivity in selected provincial regions. This section seeks to present the general age regularities of 30 mainland provinces in China (excluding Tibet¹⁴), so as to explore the whole picture of age advantage of the destinations over the origins. I draw on four indicators to show the age regularities: proportions of three age groups including young adults between 15 to 49¹⁵, children below 15, and seniors of 65 and above, and also total dependency ratio (population aged 15-64 divided by population aged below 15 and of 65 and above). I examine proportion of “young adults” below 50 instead of adults below 65 for the purpose of indicating how “picky” the destinations are, i.e. if they only want migrant population of the best age for laboring. Our expectation is that destinations have higher proportion of young adults and lower proportions of children and the elderly. As for the total dependency ratio, it is used to quantify demographic dividend, namely the economic burden of a society. A high total dependency ratio corresponds to a heavy burden and low total dependency ratio corresponds to light burden. Our expectation is that through admitting primarily young-adult migrant population, the destinations manage to keep their total dependency ratio low. And because of the departure of young-adult migrant population, the origins’ total dependency ratio increases.

¹⁴ I leave Tibet out because it is an outlier in many facets. Demographically, it is dominated by ethnic minorities, and its in- and out-migration are quite special (see Chan & Ren (2018)). Economically, its per-capita gross domestic product ranks one of the lowest in China since the 2000s (Shen, 2018). Also, for decades, it has the lowest urbanization level in China (Shen, 2006).

¹⁵ Strictly speaking, it should be “young working-age population” instead of “young adults” because the lower bound of age is 15 rather than 18. For simplicity and coherence of this chapter, I continue using “young adults” onward.

	Migrant population		⊕ Selective in-migration		⊖ Selective in-migration		⊖ Selective in-migration	Total dependency ratio ↓	⊖ Selective in-migration
	Non-migrant population		⊖ More population aging		⊖ Low fertility rate		⊕ More population aging	Total dependency ratio ↓	⊖ Children account for a larger proportion than the elderly and thus are more influential
	Total population		⊕ Selective in-migration		⊖ Low migrant child proportion ⊖ Low non-migrant child proportion		⊕ Low migrant elderly proportion ⊖ High non-migrant elderly proportion • Non-migrant population account for a larger proportion than migrant population and thus are more influential	Total dependency ratio ↓	⊖ Low child proportion ⊖ High adult proportion
	Migrant population		⊖ Less selective in-migration		⊕ Less selective in-migration		⊕ Less selective in-migration	Total dependency ratio ↑	⊕ Less selective in-migration
	Non-migrant population		⊕ Less population aging		⊕ High fertility rate		⊖ Less population aging	Total dependency ratio ↑	⊕ Children account for a larger proportion than the elderly and thus are more influential
	Total population		⊖ Selective out-migration		⊕ High fertility rate of non-migrant population ⊕ Left-behind children		⊖ Less aging ⊕ Left-behind elderly • Non-migrant population account for a larger proportion than migrant population and thus are more influential	Total dependency ratio ↑	⊕ High child proportion ⊕ Low adult proportion

Legend
 Young adult proportion (age 15-49)

 Child proportion (age < 15)

 Elderly proportion (age > 64)

$$\text{Total dependency ratio} = \frac{\text{Population under 15 and over 64}}{\text{Population between 15 to 64}}$$

 Quite high

 Quite low

 High

 Low

 Slightly high

 Slightly low

⊕ Factor that has increasing effect on the indicator

⊖ Factor that has decreasing effect on the indicator

Notes:

• Size of the icon represents relative scale of the population - migrant population in the origin is small.

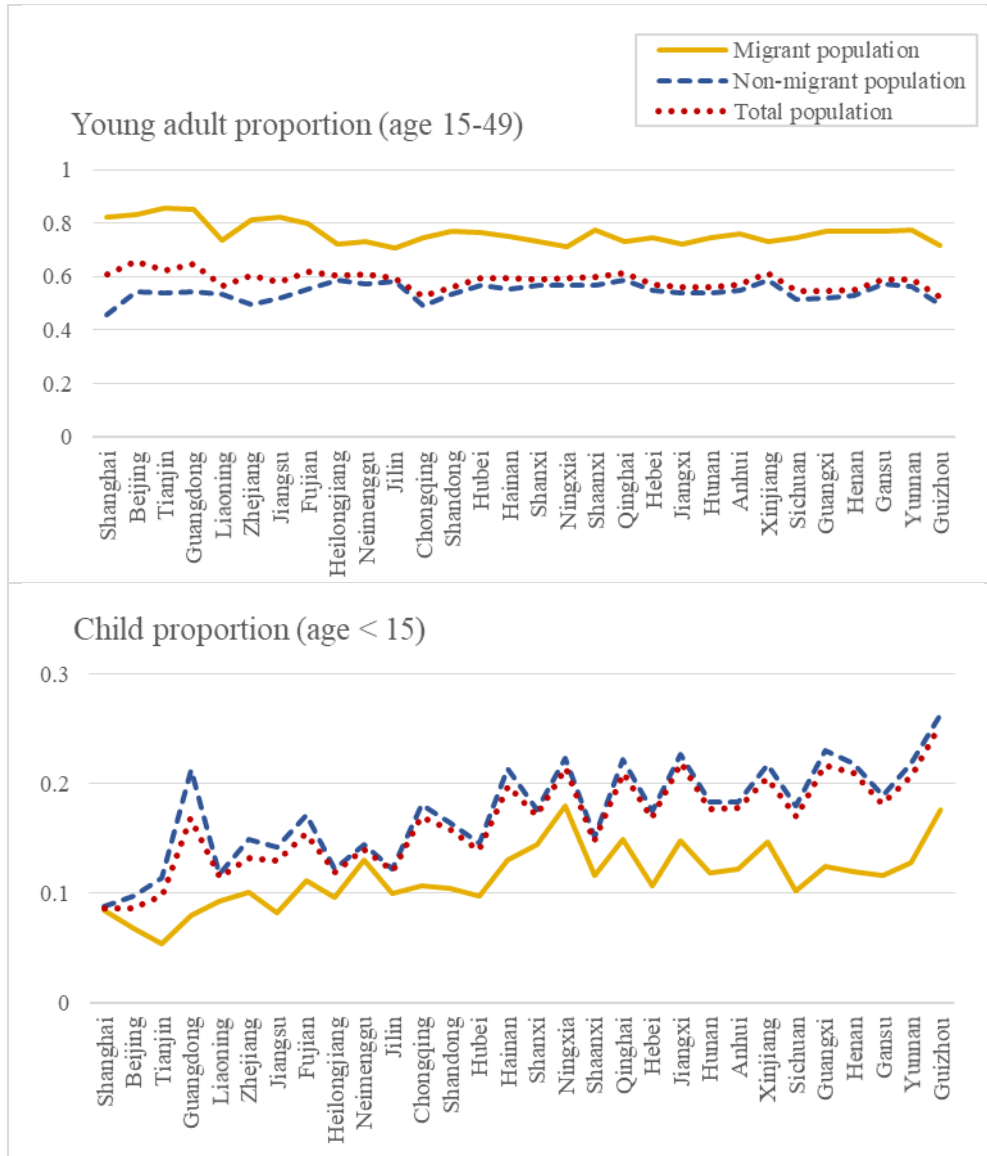
• Total population of a place equals to the sum of migrant population and non-migrant population.

Figure 4. Expected age regularities of migration destinations and origins in China, indicated by the share of three age groups (young adults, children, and the elderly) and total dependency ratio of three population communities (migrant, non-migrant and total population)

With the four indicators set up, Figure 4 graphically shows a detailed version of expectations of age patterns of migrant, non-migrant and total population, contrasting those of the destinations and origins. The age patterns hinge on three influencing factors, including migration, fertility rate, and population aging, denoted by plus and minus signs in Figure 4. I use “population aging” instead of mortality rate because aging is a more inclusive subject. It reflects not only mortality rate, but also fertility rates of earlier cohorts (e.g. when baby boomers become old they can greatly intensify population aging), health care quality of a place, and many other elements. Overall, economically better-off places are expected to be more aged and have lower fertility rate among non-migrant population. Additionally, the age pattern of non-migrant population is decided by population aging and fertility rate, while that of migrant population is mainly a function of the selectivity of migration.

Being more developed, the destinations are expected to have lower proportion of children and higher proportion of seniors among non-migrant population. By contrast, the origins are expected to have higher proportion of children and lower proportion of seniors among non-migrant population. And since the destinations actively select young adult migrant population, their proportion of young adults is expected to be higher and that of children and seniors are expected to be lower among migrant population compared to those of the origins. Having predicted the age patterns of migrant and non-migrant population individually, I am now ready to turn to the total dependency ratio. Children take a larger share of the population than the elderly and are expected to be more influential in calculating the total dependency ratio. Normally, non-migrant locals take the larger share of total population of a place, so the age pattern of total population should be closer to that of non-migrant population. Since the proportion of children in the destinations is low among both migrant and non-migrant population in the destinations, the

proportion of children of total population of the destinations should be quite low. As such, given children are more influential than the elderly, the total dependency ratio of the destinations is expected to be significantly lower than that of the origins (Figure 4).



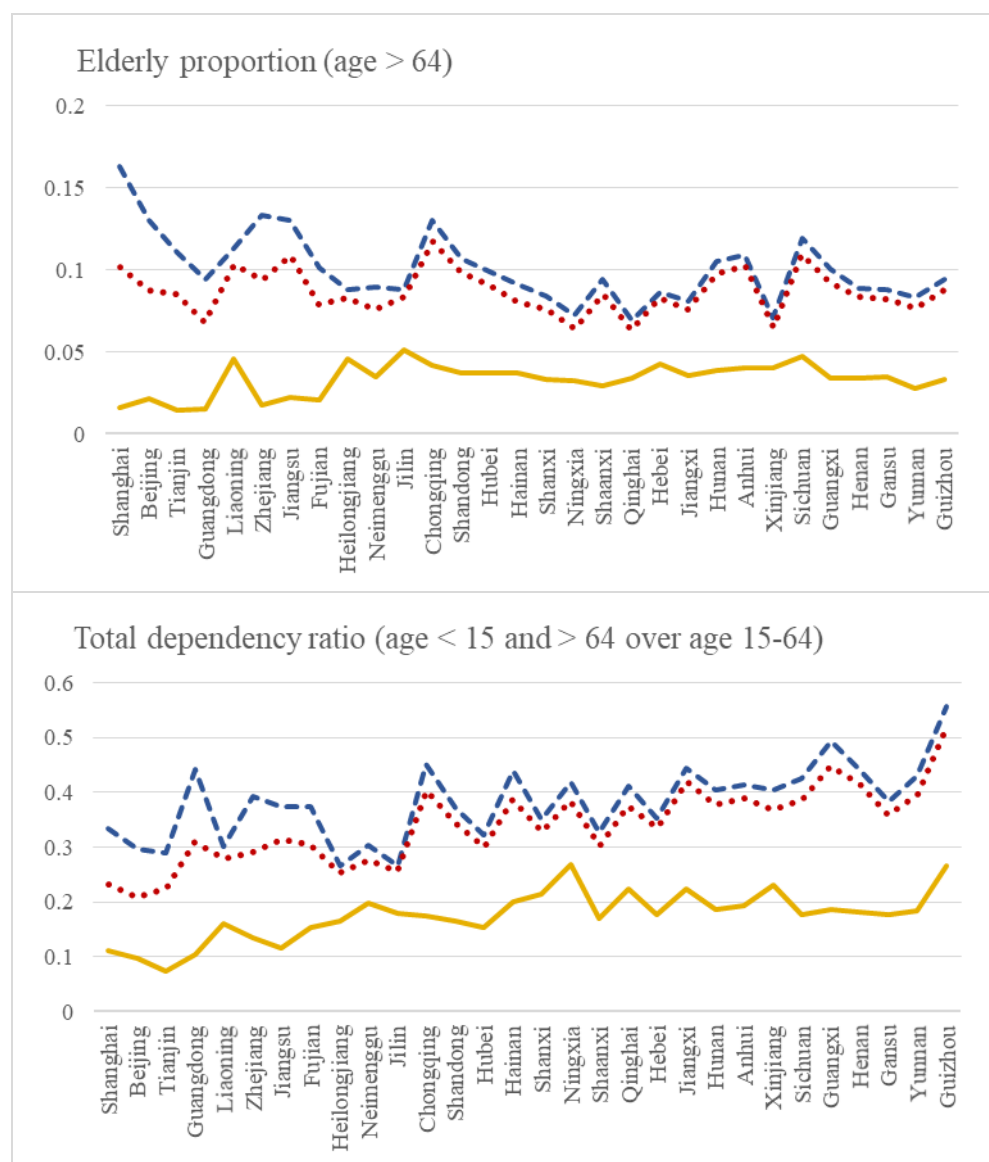


Figure 5. Share of three age groups (young adults, children, and the elderly) and total dependency ratio of 30 provinces in mainland China (excluding Tibet), ordered by proportion of urban population of the provinces from high to low, 2010

After outlining the expectations, empirical data are examined in Figure 5. I use the proportion of urban population of a certain province¹⁶ as an approximation to the likelihood of the province being a destination of migration (versus an origin of migration), since places of higher urbanization rate tend to be more attractive to migrants¹⁷. In this way, provinces on the left side of the horizontal axis are major destinations and provinces on the right side are major origins. In all four charts of Figure 5, the lines of total and non-migrant population stay close to each other, indicating non-migrant population constitute the majority of total population, which conforms to the expectation. Most importantly, the general trends of the four charts in Figure 5 are in line with the expectations set in Figure 4, suggesting that young adults are selected to move to the destinations while children and the elderly are left behind in the origins, and that the total dependency ratio of the destinations is lower than the origins. Consequently, I can conclude the destinations possess age advantage over the origins and bears less economic burden.

3.5 Measuring the age selectivity of each provincial region

The selective migration thesis proffers an exemplar of spatial exploitation, characterized by the overrepresentation of labor-age migrants, i.e. the working-age migrants, and underrepresentation of pre- and post-labor-age migrants, i.e. the child and elderly dependents. This section intends to specify the most selective provincial regions of age, and hence they are

¹⁶ The urban-rural division in China is a complex topic (Chan, 2007). Here I adapt the dividing method of the National Bureau of Statistics of China in the 2010 census. I combine “cities” and “towns” from the census to represent urban areas and use “villages” from the census to represent rural areas.

¹⁷ There are other ways to order destinations and origins, especially by the scale of in-migration that flows into a province during the decennial census cycle. But I choose to use the proportion of urban population as the ordering method because it is a percentage, rather than an absolute value. This is because the four indicators I use to examine age pattern, including proportions of young adults, children and the elderly, and total dependency ratio, are percentages or ratios, too. Thus, a percentage ordering method fits the context better.

the most exploitative areas of migrant labor. An “age selectivity index” (ASI) is created to measure the extent of migration age selectivity of the 30 provinces in mainland China (again, excluding Tibet). I expect the most selective provincial regions of age to be the most economically developed areas, and meanwhile they wield the institutional power to single out the migrants they want. Geographically, as noted by the selective migration thesis, I expect these regions are coastal urban areas. After getting the most selective provinces, I check how their age profile of migrant population deviate from that of the national average migrant population and outline the institutional factors behind the deviation.

To derive the ASI, I first inspect how far a province’s migrant age structure differs from the national average migrant age structure through calculating a “deviation” value d :

$$d_{ij} = \frac{m_{ij}}{l_i} - 1$$

in which l_i is the proportion of migrant population aged i out of total population for the whole country, and m_{ij} is the counterpart for province j . d_{ij} is derived by subtracting 1 from the ratio of m_{ij} to l_i . When $d_{ij} < 0$, I know $m_{ij} < l_i$, which means there are less migrant population at age i for province j compared to the national average migrant population, and vice versa. Next, I add up d_{ij} to get a total “deviation” value for pre-labor-age migrant population:

$$MC_j = \sum_{i=0}^{14} d_{ij}$$

When pre-labor-age migrant population are not welcome in province j , a negative MC_j far from 0 will be produced. Same thing for post-labor-age migrants:

$$MO_j = \sum_{i=65} d_{ij}$$

And for labor-age migrants I have:

$$MA_j = \sum_{i=15}^{64} d_{ij}$$

By the same token, when a province absorbs slews of young adult migrant population, it has a high positive MA_j . Based upon the three accumulated “deviation” values, the ASI is:

$$ASI_j = (MA_j - MC_j - MO_j) \cdot \frac{n_j}{k_j}$$

This function first aggregates the “deviation” values of the three age groups MA_j , MC_j and MO_j , and the higher the aggregate is, the more adult migrant population and the less child and elderly migrant population province j takes in. Next, the aggregate value is weighted by the proportion of migrant population, with n_j signifying the migrant population in province j and k_j indicating the total population in province j . Thus, the ASI has two constituent parts, one is the “deviation” of age structure from the national average, by which I underline the dominance of working-age adults among migrant population; the other is the migrant proportion weight, by which I bring the major migration destinations to the front. A high positive ASI suggests that, in contrast with the national average, the place positively takes in labor-age migrant population while excluding pre- and post-labor-age migrant population and has a big proportion of migrant population. An ASI close to 0 suggests the place’s age structure is close to the national average, and a low negative ASI indicates the reverse to that of a high positive ASI, which I am less interested in. The calculated ASI of the 30 provinces are plotted in blue bars in Figure 6, sorted in descending order. Further, I fine tune the ASI index to measure the selectivity extent of urban areas of the provinces¹⁶. To calculate urban ASI, the d , m , l , n , and k variables above will be substituted by the corresponding values for urban areas only. Urban ASI are plotted in yellow bars in Figure 6, next to the blue bars (For specific ASI and urban ASI values see Appendix B, Table 1).

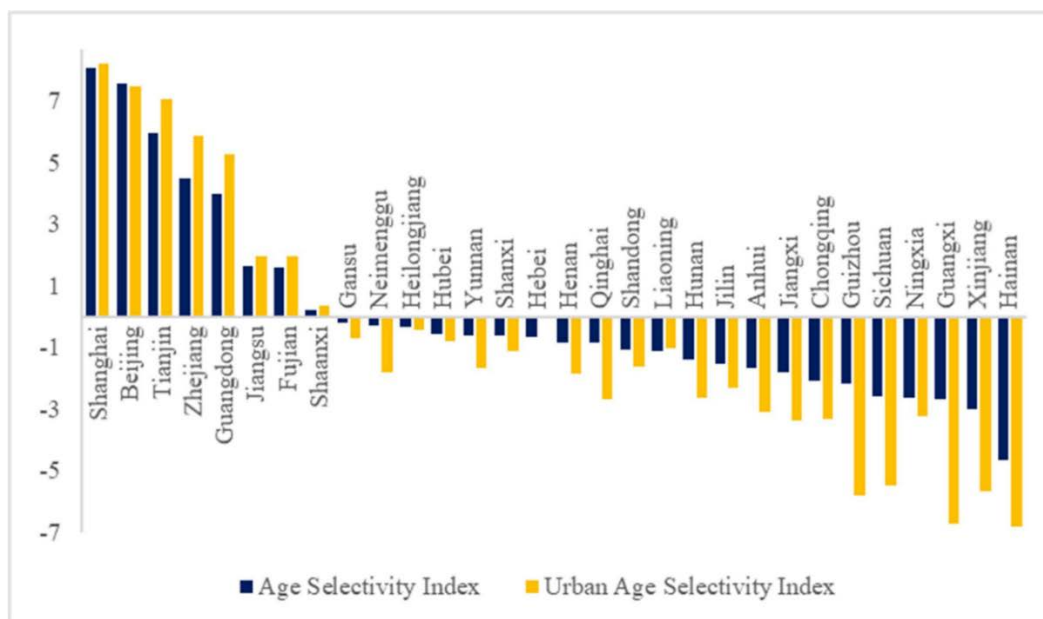


Figure 6. Age selectivity index of 30 provinces in mainland China (excluding Tibet) and their urban areas, 2010

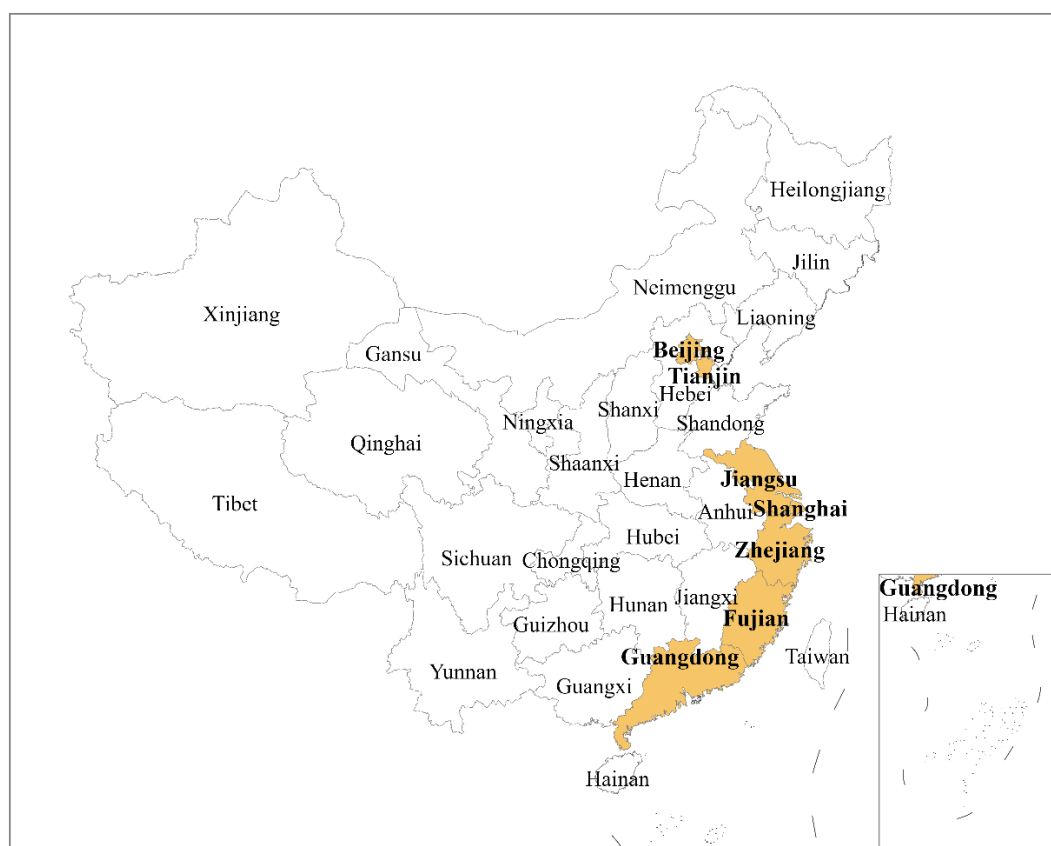


Figure 7. Geographic location of the most selective provinces of migration regarding age in China, 2010

In Figure 6, there are eight provinces with positive ASI. Although the ASI of Shaanxi is positive too, I rule it out as it is close to 0. Consequently, I obtain a list of 7 provinces as the most selective provinces regarding age, including Shanghai, Beijing, Tianjin, Zhejiang, Guangdong, Jiangsu, and Fujian. These provinces sit on the coast¹⁸ (Figure 7) and are among the richest. Despite there are only 7 of them (out of the 30 provinces in mainland China), their gross domestic product (GDP) accounted for 41.35% of that of entire mainland China in 2010. Also, the rank of ASI values very likely signifies the stringency of the policy tools local governments apply to drive out “unnecessary” migrants. Beijing and Shanghai have been implementing the harshest *hukou* and educational policies towards migrants (Huang, 2014), and their ASI rank the top two. Lastly, the provinces’ urban ASI are generally higher than their ASI. This confirms the expectation of the selective migration thesis that urban areas are more selective. In brief, China’s most selective areas are the coastal urban regions.

¹⁸ Beijing is not a coastal provincial unit, but it is not far from the sea and right next to the largest port in northern China, Tianjin.

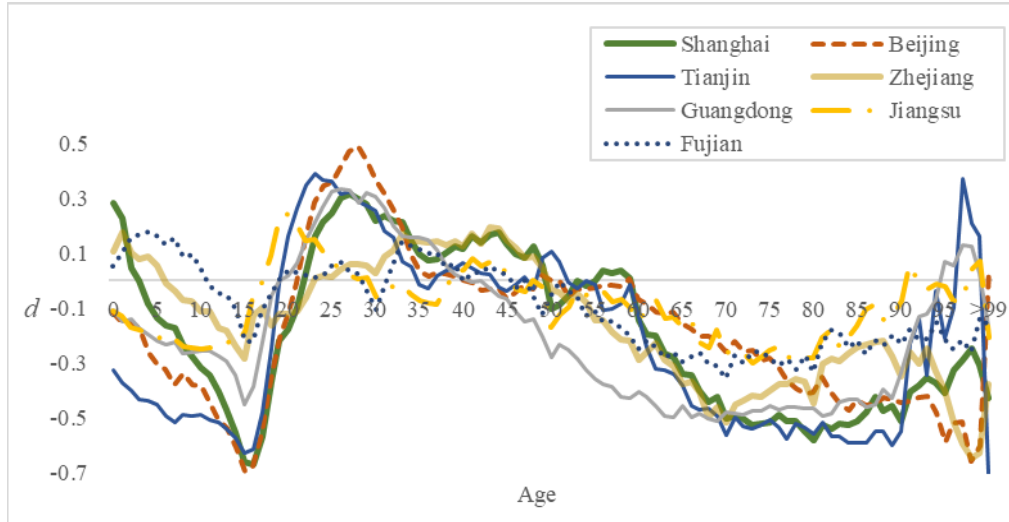


Figure 8. Age-specific “deviation” value d of the most selective provinces of migration regarding age, 2010

After figuring out the most selective provinces, I seek to scrutinize the difference of age pattern of their migrant population from the national average migrant population. This is done by checking the “deviation” value d extracted from the procedure of computing ASI. Figure 8 plots d values of the top 7 selective provinces, whose general patterns are similar. The most prominent regularity is a hump somewhere between age 20-40 (same to the observation in Section 2) and two troughs before and after the range, once again verifying the overrepresentation of young adults and the underrepresentation of children and the elderly in these provinces. Besides, it is noteworthy that for the pre-labor group, a decreasing trend of d persists until age 15, illustrating that school-age children find it increasingly hard to remain in these destinations as they approach age 15. This echoes the educational policies these provinces impose that advance the difficulties in accessing public education for child migrant population as they grow older. Considering the legal working age in China is 16, the rise since 15 is understandable, and many actually start

working illegally at 15. Put it another way, when a child is given birth, their chance of remaining together with their parents is relatively larger; as they grow older and request increasingly more educational resources, they face surging risk of being sent back to the origins.

3.6 Conclusions: The spatial exploitation resulted from China's migration regime

By tapping into age data, this chapter examines the exploitation of migrant labor at the provincial level of China and investigates the spatial patterns. The central claim is that there exists an unequal exchange between destinations and origins of internal migration in China. Typically, the destinations are urban areas of coastal provinces that manufacture industrial products and import migrant labor power, while the origins are rural areas of inland provinces that grow agricultural products and export migrant labor power. Like other migration destinations around the world, those in China appeal to migrants because of ample economic opportunities, but what is special for these places is they have the ability to take in workforce migrants only and leave out dependents of the migrants. This is achieved through a set of institutional and administrative methods, among which the *hukou* system and educational policies emerge as the key tools in local governments' efforts to exclude the "unwanted" population.

The chapter shows that China's internal migration extraordinarily concentrates in young adults, and children and the elderly are underrepresented in it. Due to the inflow of young migrants, destinations have higher proportion of young adults and lower proportions of children and the elderly. As such, the total dependency ratio of the destinations is lower than that of the

origins, meaning that the destinations possess age advantage over the origins and are the main beneficiary of China's demographic dividend. Moreover, characterized by the dominance of young adults among migrant population, the most "selective" provincial regions of migration regarding age are the richest places in China, and their *hukou* and educational policies are also the most draconian ones in expelling dependent population. Age-wise analysis implies that children of migrant population in these provinces find it increasingly difficult to remain together with their parents as they grow older and request more educational resources, and they were forced to be sent back to the origins for schooling.

In theorizing the selective migration process in China, the chapter reveals the continuity of China's "low-cost" model of development from the Mao to the post-Mao era. Under Mao, China bolstered the industrial sector at the price of sacrificing the agricultural sector. The social reproduction costs of urban labor power were borne by the state whereas that of rural labor power were shouldered by peasant communities themselves. In post-Mao's time, China embraced a growth model that relies on export-oriented manufacturing industry. Migration destinations bring in migrant labor yet transfer the substantial portion of social reproduction of migrant labor power to the origins, by means of which they reduce industrial production costs and create a competitive "China's price" in global market. Corresponding to the development priority of the two stages, there are two paradigms of spatial exploitation in China, first between urban and rural areas, and later between coastal urban areas and inland rural areas.

China's rise into the "world's factory" undoubtedly owes its debt to the selective migration regime. Nevertheless, the often-ignored flip side of fast growth is increased social inequality as well as ubiquitous disruption of family integrity. The origins take the most burden of dependent care, yet their economic development level trails that of the destinations. Consequently, the

regional economic disparity is exacerbated, and the inequality between population in the origins and the destinations is aggravated accordingly. Additionally, children are separated from migrant parents on a regular basis. This has long-term detrimental effects on their psycho-social development, so that it poses a serious risk to China's future. Further analysis may follow this line to uncover the systematic impacts resulted from the selective migration regime.

Appendix B

Table 1. Age selectivity index of 30 provinces and their urban areas in mainland China
(excluding Tibet)

Province	Age selectivity index	Urban age selectivity index
Shanghai	8.1	8.2
Beijing	7.6	7.5
Tianjin	6.0	7.1
Zhejiang	4.5	5.9
Guangdong	4.0	5.3
Jiangsu	1.7	2.0
Fujian	1.6	2.0
Shaanxi	0.2	0.4
Gansu	-0.2	-0.7
Neimenggu	-0.3	-1.8
Heilongjiang	-0.3	-0.4
Hubei	-0.5	-0.8
Yunnan	-0.6	-1.7
Shanxi	-0.6	-1.1
Hebei	-0.7	NA ^[1]
Henan	-0.8	-1.8
Qinghai	-0.8	-2.7
Shandong	-1.1	-1.6
Liaoning	-1.1	-1.0
Hunan	-1.4	-2.6
Jilin	-1.5	-2.3
Anhui	-1.6	-3.1
Jiangxi	-1.8	-3.3
Chongqing	-2.1	-3.3
Guizhou	-2.2	-5.8
Sichuan	-2.6	-5.5
Ningxia	-2.6	-3.2
Guangxi	-2.7	-6.7
Xinjiang	-3.0	-5.6
Hainan	-4.7	-6.8

Notes: Census data of Hebei does not provide age information of migrants for urban and rural areas separately.

Chapter 4. *Hukou* and educational policies in Shanghai: Selective incorporation of migrant children in big cities of China

4.1 Introduction

The Trump administration took a series of immigration enforcement actions from 2017 to 2020 that separated immigration families, announced to the public as a “zero tolerance” approach to crack down unauthorized immigration. Thousands of children were separated from their parents who were apprehended as they entered the United States (Edyburn & Meek, 2021). The family separation policy in the US has drawn widespread criticism, while less so in English literature is the Chinese counterpart. Institutions in China, especially the *hukou* system and its derivatives, limit access to education at the destinations for children of domestic migrants, resulting in the children’s being left behind in the origins and separated from their parents, usually many thousands of miles away. As distinguished from the American case, first, family separation of the Chinese one happens within the same country. This resonates with existing research in suggesting that institutions affecting migration in China function in a similar way as international border controls (Roberts, 1997; Solinger, 1999). Second, the size of child population impacted by the Chinese institutions is humongous compared to the number of children affected by Trump’s immigration policy. According to Chan's (2019) tabulations, in 2015, there were as many as 88 million left-behind children separated from their migrant parents in China!

The *hukou* system basically divides the population into two groups, migrant population and non-migrant, or “local” population. Non-migrant local population are entitled to the complete package of urban benefits, whereas migrant population do not have full access to them,

especially the most essential public services including education and medical care. Without adequate public services, migrant population have great difficulties in settling in the destinations and bringing in their families. Geographically, the urban regions in Eastern China attracted the majority of migrant population owing to the prosperous economy and abundant job opportunities, and Shanghai is a typical example of those regions. It is a major financial and commercial center and one of the four first-tier cities in China. In 2015, there were 9.8 million migrant population in Shanghai, accounting for 41% of the city's total population (SMBS, 2015). Many of them have stayed there for decades, yet they still cannot transfer their *hukou* and become an “official” citizen of Shanghai. The lack of full citizenship restrains migrant parents from easily registering their children in public schools. Shanghai has pioneered the adoption of the Residence Card (*juzhuzheng*) (Peng et al., 2009) and the inclusion of migrant children in public schools (Yu & Crowley, 2020), and local *hukou* and educational policies of Shanghai often become the model other places would follow. In this way, what migrant children experienced in Shanghai is indicative of their general situation in big cities of China.

As will be demonstrated, the partial inclusion of migrant children in the urban educational system is not accidental or sporadic; it is part of the national economic development strategy of China in the reform era, which is also shaped by the central-local government relations. This development strategy saves costs for the destinations in the social reproduction of migrant labor power through separating the processes of consumption and social reproduction across space (Ling, 2019). Using the case of Shanghai, this chapter explores how that strategy is run, perhaps manipulated, at local level in education, and how it has significantly impacted, mostly negatively, the life of migrant children. Among the administrative tools local governments exploit in partially including migrant children in their educational system, the *hukou* and

educational policies are the most far-reaching, effective and “efficient” ones. Combined with other policy instruments and campaign-style programs in selectively incorporating migrant children into the urban setting, those policies eventually generated unequal educational opportunities and life trajectories therefrom. Borrowing the words of Lan (2014), this is an approach by which “systematic exclusion has given way to more subtle forms of segregation, channelling and segmentation” (p. 263). And by “selective incorporation”, I mean to depict the hierarchical approach of admitting migrant children into Shanghai’s educational system based on their parents’ “contributions” to the city, the criteria of which is both prescriptive and fickle. Only a small number of them are “integrated” into the educational system, while the vast majority of migrant children are excluded, especially after the compulsory education years (grades 1-9). The approach has posed big challenges to migrant families in Shanghai and thus generated scores of left-behind children. In Chan and Ren's (2018) estimation, in 2015, up to 3.8 million left-behind children were generated, whose parents were migrant population working in Shanghai.

This chapter analyzes the *hukou* and educational policies related to migrant children’s educational chances in Shanghai, considering central and local governments as the stakeholders involved in formulating the policies. The policies are situated in a broader political, institutional, and practical context that they work in concert to “others” and excludes the great majority of migrant children in the receiving society. Policies are more than just texts; they represent the discursive processes by which the authoritative strengthen their control through normalizing some social practices yet marginalizing the others. Through inquiring the levers, drivers, and discourse of the *hukou* and educational policies in Shanghai, this chapter aims at sorting out the direct and indirect state agendas that are consistent over time behind the seemingly fragmented

and sometimes even contradictory policy narratives. The analyses in the chapter mainly rely on public-accessible policy papers at the city level, with references also made to those at national and district levels. And the policy analyses are supplemented by field notes the author took between 2017 to 2019 during visits to private migrant schools (*mingong zidi xuexiao*) and public schools in Shanghai. The chapter is organized in the following sequence. Section 2 provides the historical backgrounds about China's "low-cost" development strategy and its relationship with population control. Section 3 focuses on the specifics about the *hukou* and educational policies of Shanghai and their changes over time. Section 4 examines the central and local actors in the enactment of the policies and the discursive construction of a "graduated" public service supply system. Section 5 presents the selective incorporation process of migrant children resulting from that system and how they are trapped in a predicament of unrooted life therefrom. Finally, section 6 summarizes the main points of the chapter.

4.2 Contextual background: China's special development strategy and population control in Mao's and post-Mao's era

China's economic reform in the 1980s does not truly mark a clean break from past traditions under Mao, as it is popularly believed (e.g. C. X. G. Wei, 2011); instead, it just has refashioned the socialist command system and strategy in different ways (Chan & Wei, 2019). Against this background and above all, social control, especially population control, serves the state developmental priorities in Mao's and post-Mao's times. The national goal in Mao's era was to develop heavy industries in urban areas. In achieving that goal, an urban-rural dual system was established, and the *hukou* institution was created to maintain that system (Chan &

Wei, 2019). Rural *hukou* population were bound to the collective farms and banned from free mobility. The state procured grains from the rural agricultural sector at low prices to generate capital to finance the urban industrial sector (Chan & Wei, 2019; Naughton, 2007). To further illustrate such an unequal sectoral exchange (Buckingham & Chan, 2018), I draw on the Marxist term labor power, which indicates the worker's capacity to work. The social reproduction of labor power, as also expounded by feminist theorists, consists of the sustainment of daily life of current workers and the rearing of their next generation (Katz, 2001). Rural population were self-reliant regarding the necessities of social reproduction at low or unstable level, whereas urban *hukou* population enjoy state-provided housing, education, and many other benefits. In short, rapid industrialization at this time was achieved by direct transfer of wealth from rural areas to urban areas on the one hand, and by lowering state-borne social reproduction costs of rural labor power on the other hand.

Moreover, during Mao's time, residents in the cities were divided into two groups by urban planners, "productive" and "unproductive" population (Cheng & Selden, 1994). "Productive" population refers to those employed in material-production sector of the economy, while "unproductive" population include those employed in service sector, the dependents of laboring population (children and the elderly), and the unemployed (Cheng & Selden, 1994; Deng, 2017; Noah, 1965). This dichotomy hinges on whether people are directly involved in making industrial or agricultural products, so even teachers were considered "unproductive" population (Noah, 1965). To maximize industrial productivity, big cities like Shanghai were dedicated to increasing the proportion of productive population and reducing that of unproductive population. In the 1950s, the city governments urged relocation of wartime refugees and the unemployed to the countryside, and also encouraged workers to keep their families in the countryside (Cheng &

Selden, 1994; Deng, 2017). In this case, a considerable share of social reproduction costs was outsourced from urban areas (which limited to the big cities only) to rural areas, and thus passed on from the state to rural communities. Accordingly, the gross social reproduction costs of the entire country shouldered by the state were further dampened down.

Compared with the direct state interference during Mao's regime, in the post-Mao era, population control was done in a much more indirect way. The national goal was shifted to developing export-oriented economy, and the manufacturing centers on the coastline became in great need of massive cheap labor (Lee, 1998). Rural-to-urban mobility was no longer curbed so as to facilitate the inflow of rural migrant workers, and compulsive urban-to-rural relocation was also terminated. However, the *hukou* system still acts as a wall to the unemployed and the dependents. In the absence of a local *hukou* in the destinations, child and elderly dependents of the rural migrant workers as well as the freak who urgently need social support have no choice but to stay in their *hukou* origins. In other words, rural population can move to become laborers only, but not consumers of urban public resources. This is in line with the spatial separation of consumption and production processes under Mao. The differences are that the phenomenon in Mao's time limited to a few big cities, and it was totally ordered by the state; while during the reform era, the phenomenon happened *en masse*, as the migrant population reach 247 million in 2015 (NBS, 2015), and it was "spontaneous" on the surface, as physical mobility was no longer restricted or imposed by the state. Nonetheless, state interference remains heavy, just done in an indirect way - that is, by limiting the provision of social services, the urban destinations selectively incorporate the most wanted people yet exclude the great majority from permanent settlement.

Another vital contributor to the selective incorporation phenomenon in post-Mao's time is administrative and financial decentralization. Local governments were given much more discretion over local administrative affairs including *hukou* conversion, and the financial responsibility of providing public services was also largely shifted to local governments. However, reform on the fiscal system in the mid-1990s enhanced the share of locally collected tax paid to the central government at the expense of local governments. These administrative changes made local governments more reluctant to provide public services to migrant population, as they bear more public expenditure yet receive less revenue. And the *hukou* system has acted just in time as a potent tool for local governments of the urban destinations to shun the responsibilities for the social reproduction costs of non-locals. As such, the central and local governments work hand in hand on "economizing" the costs of social reproduction of migrant labor power (Chan, 2010c), and migrants can merely stay in the destinations on a temporary basis.

In a nutshell, China has been adopting a "low-cost" development strategy throughout the post-1949 history (Chan & Wei, 2019). Under that strategy, dependents have always been unwelcomed in migration destinations because they raise the social reproduction costs borne by the central and local governments. As a result, migrant children face various institutionalized discriminations in their school experiences. The following sections examine how the various policies work to achieve this goal in this development model, using the education of migrant children in Shanghai as a case study.

4.3 The changes of the *hukou* and educational policies in Shanghai since the late 1990s

Having set up the contexts, this section analyzes Shanghai's *hukou* and educational policies about migrant children, teasing out their key points and changes over time. To begin, these two categories of policies are situated in a network of other relevant policies made by different levels of governments (Figure 1). As shown in Figure 1, policies about education of migrant children can be subdivided into several categories. At city level, the school management policies are about standards of school sanitation, fire safety, and facilities (e.g. the minimal size of school playground), and qualifications of the teachers, etc. The housing policies are mostly about the "legitimacy" of rental housing and the formal registration of residential leases at designated government agencies (*fangwu zulin bei'an*). At both national and city levels, the *hukou* policies refer to the "citizenship" policies in relation to migrant children's eligibility for education. At national, city and district levels, the educational policies demonstrate the changing governments' responsibilities on migrant children's education, and the requirements migrant parents need to meet to be eligible to send their children to local schools and to take the entrance exams of high schools and colleges (*shengxue kaoshi*). At national level, the urbanization policies are about planning of population growth based on the administrative hierarchy of cities¹⁹. Lower ranked cities have less or no limit on its population size, while higher ranked cities are told to implement population caps to avoid "big city diseases" such as traffic congestion and increasing environmental pressure (X. R. Wang et al., 2015). In 2013, megacities especially Beijing and

¹⁹ The administrative hierarchy of cities refers to the fact that China has been distributing fiscal resources as well as administrative powers according to the rank of cities. On that hierarchy, provincial level cities receive the most resources and powers, followed by deputy-provincial level, provincial capital level, prefecture level, and county level cities. More details on this can be found in Chan's (2010a) work.

Shanghai, which are provincial-level cities, were given express targets of population size ceilings. Since then, both cities have initiated intensive campaigns to curb migrant population in their jurisdictions.

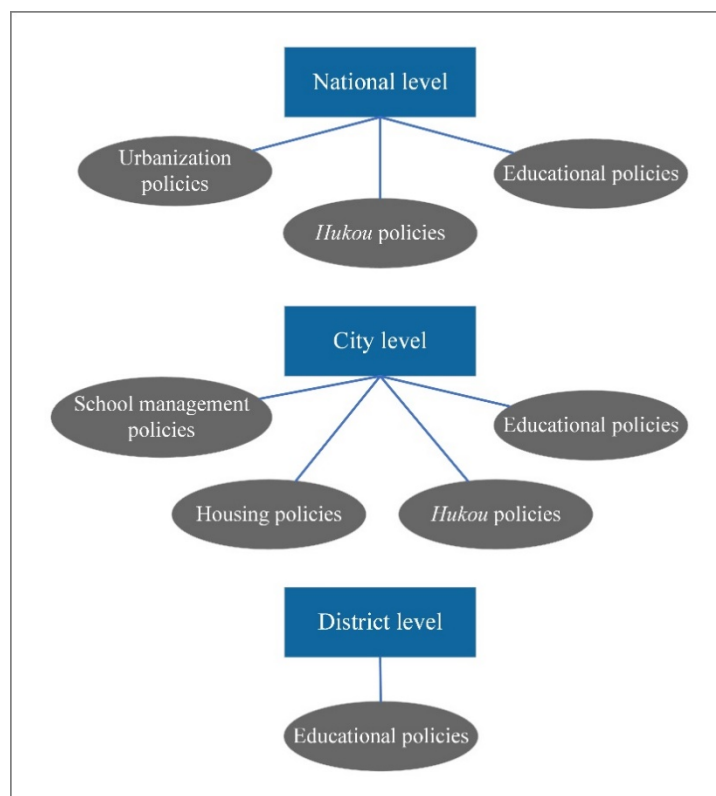


Figure 1. Policies affecting the education of migrant children in Shanghai made by national, city, and district level governments

It is worth noting that the policy classifications in Figure 1 should be considered a simplified multi-scalar schema. The policy categories are neither mutually exclusive nor exhaustive, which means the demarcation among them are sometimes vague. Yet overall, they reflect the general collaboration of different levels of governments - though sometimes discrepancies of central directives and local compliance - on the issue of education of migrant children. As can be seen from Figure 1, in comparison to those in other places of China, local

policy system in Shanghai is more complicated, with more varieties of policies and more detailed provisions. After showing the network of relevant policies, I proceed to focus on the specifics of *hukou* and educational policies at city level of Shanghai, respectively. I tease out the changes of these two categories of policies over the recent decades, while also look at housing policies at city level and educational policies at national level to better contextualize the analyses. A caveat to the below analyses is that the listed policies are a summary of what were issued by the authorities, while the actual provisions and changes over time are way more complicated than can be all reported here.

The hukou policies in Shanghai

Figure 2 presents timelines of major events of Shanghai's *hukou* and housing policies since the 1990s, respectively. The right panel of the timelines shows the hallmark events, and for the timeline of *hukou* policies, there are also stratified educational rights granted to different temporary *hukou* types on the right side. The left panel of the timelines shows brief explanations of the events, and the credential requirements for a certain paper document. The two timelines are connected by a dotted line, meaning that the two categories of policies are intimately related to each other. In fact, the proof of legal residence (stipulated in the housing policies) is a prerequisite of the Residence Card (stipulated in the *hukou* policies, the notion of which kept changing over time as will be explained), an identity document with segmented citizen rights associated with it. Migrant parents must hold the Residence Card along with other paper documents to have their children receive education in Shanghai. Besides education, the Residence Card acts as a system of citizenship stratification that determines the distribution of many other benefits (L. Li et al., 2010). The *hukou* policies have been subject to frequent

modifications in the past decades (Figure 2), just like many other regulations in Shanghai. Initially in the 1990s, population mobility was not as common as it was in the 2000s. The Temporary Residence Permit (*zanzhuzheng*) proposed in 1996 is merely a permit for legal temporary staying, without any attached citizen rights to it. In 2002, the Shanghai government began to grant Talent Residence Card (*rencai juzhuzheng*) to migrant population with special talents such as having a doctoral degree or having made large financial or property investments in the city. But the right to education was stratified according to the valid length of the Talent Residence Card, which had four types, 6 months, 1, 3 and 5 years. Only people whose Talent Residence Card was valid for 1, 3, or 5 years could receive local education. In 2004, the Temporary Residence Permit and the Talent Residence Card were integrated in one single Residence Card system. Still, only Talent Residence Card holders, but not Temporary Residence Permit holders, could send their children to local schools. In 2013, Shanghai first introduced the Comprehensive Points System (*jifen zhi*). The system is still in place nowadays. It assigns points to Residence Card holders according to their education and employment backgrounds, as well as direct “contributions” to the city – the amount of investment they made or the time length of social insurance they had submitted for. The points system replaced the “Talent Residence Card” with “Residence Card” with associated points. And the points threshold to receive education at all levels, including post-compulsory education, is 120. Residence Card holders with less than 120 points can only have their children receive compulsory education, provided that they also possess other official documents. As observed by Dong and Goodburn (2020), by sub-stratifying migrant population into groups of attached points, the system results in “new issues of fairness and more complex social segregation”. In 2017, the Residence Card rules were revised again. On the face of it, the new policy reduced the degree of difficulty to acquire a Residence Card, since

the proof of employment was no longer required. And the “Temporary Residence Permit” was abrogated since its function of proving legal residence was merged into that of the Residence Card. However, if a migrant child is to get education in Shanghai, his or her parents must still demonstrate employment proof. Considering other changes in 2017 such as the more demanding requirements on residence proof (Figure 2), it actually became harder for migrant children to acquire education.

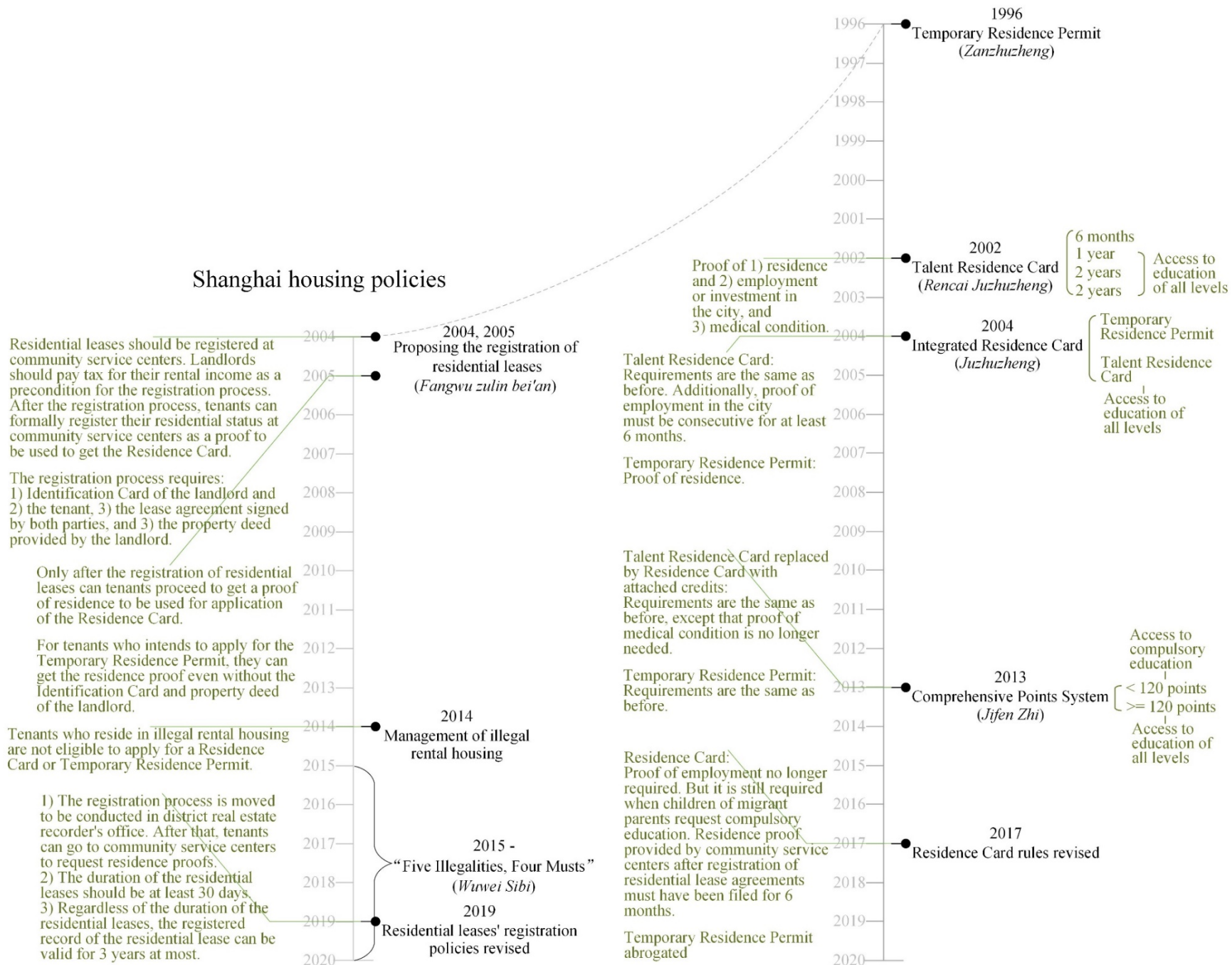
Shanghai *hukou* policies

Figure 2. Summary of the *hukou* and housing policies at city level of Shanghai

As aforementioned, the housing policies affiliate with the *hukou* policies given that they stipulate the residence proof used to apply for the Residence Card. Starting from 2004 and 2005, migrant population were asked to register their residential leases at community service centers. This means those who lived in “illegal” housing, namely housing without property rights issued by the government, lost the eligibility to apply for the Residence Card and thus could not send their children to schools. Despite having put this rule into practice for years, the housing policies overtly articulate this in 2014 (Figure 2), suggesting the government’s determination on rigorous enforcement of it. And in 2019, the residential lease registration process was further tightened (Figure 2), and thus it became more demanding for migrant tenants to meet the requirements. Besides promulgating housing policies, starting from 2015, Shanghai government launched the “Five Illegalities, Four Musts” (*wuwei sibi*)²⁰ campaign, which involved the demolition of illegal constructions and the shutdown of outdoor markets. The so-called “illegal housing” is usually low-rise, unauthorized constructions in the suburbs. They are built by local villagers and the rent is much lower than that of high-rise modern apartments in central Shanghai. As for the outdoor markets, they likewise mostly appear on the outskirts of the city. The small shops in the markets are typically run and owned by migrant population, sometimes not having a business license, and their customer base is also migrant population residing in nearby populated cheap housing. Hence it is clear that the campaign was aimed at excluding low-skilled migrant workers and their families, in which ways it has been coordinating with housing and *hukou* policies over the same

²⁰ The slogan of the campaign is an acronym in Chinese for 1) five types of illegal phenomena, including illegal land usage, constructions, businesses, pollution discharge, and residence, and 2) four types of must-dos, including the elimination of filthy surroundings, safety concerns, illegal constructions, and illegal business operations.

period. The campaign turned out to be quite successful in driving away migrant population. For example, in Xupu village of Minhang District, where hundreds of factories and many illegal constructions used to concentrate, migrant population reduced by half after the campaign (Nan, 2017).

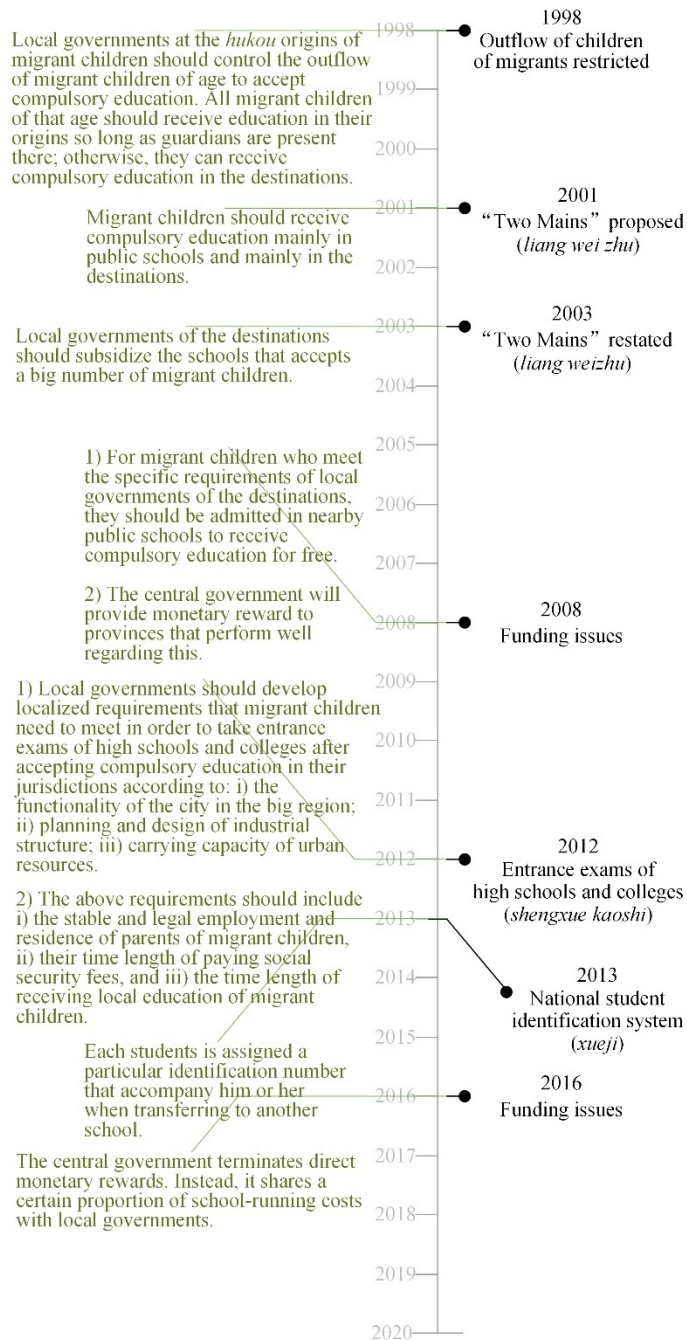
The educational policies in Shanghai

Figure 3 shows the parallel timelines of educational policies in Shanghai and those at national level, so as to show how central policies are implemented at local level. And the policies in Figure 3 are mostly about compulsory education (elementary and middle schools, grades 1-9) considering the limitation of space. In the 1998 national policy, children of migrant population were discouraged from leaving their *hukou* origins at national level (Figure 3). That said, the 1998 national policy was the very first one that proposed the possibility of having children of migrant population receive education in the destination cities²¹. With population movement becoming prevalent around the country and the resultant growing requests of education of migrant children, the central government proposed the “Two Mains” (*liang weizhu*) national scheme in 2001, marking the first time when the center requested local governments to take the responsibility of educating migrant children in their areas. Later in 2013, a national student identification system (*xueji*) was established to facilitate students’ registration and transfer between different schools. Local educational policies of Shanghai reflect the responses of the city government to these national policies, and Figure 3 shows such a correspondence, most prominently concerning the 1998 initial call-out policy, the 2001 “Two Mains” policy, the 2008

²¹ In 1996 there was a provisional regulation, which selected some test grounds on allowing migrant children to receive education in the destination cities. It was until 1998 that the policy applied to the whole country.

free compulsory education policy, and the 2012 policy on migrant children's eligibility to take high school and college entrance exams in the destinations (Figure 3).

National educational policies



Shanghai educational policies

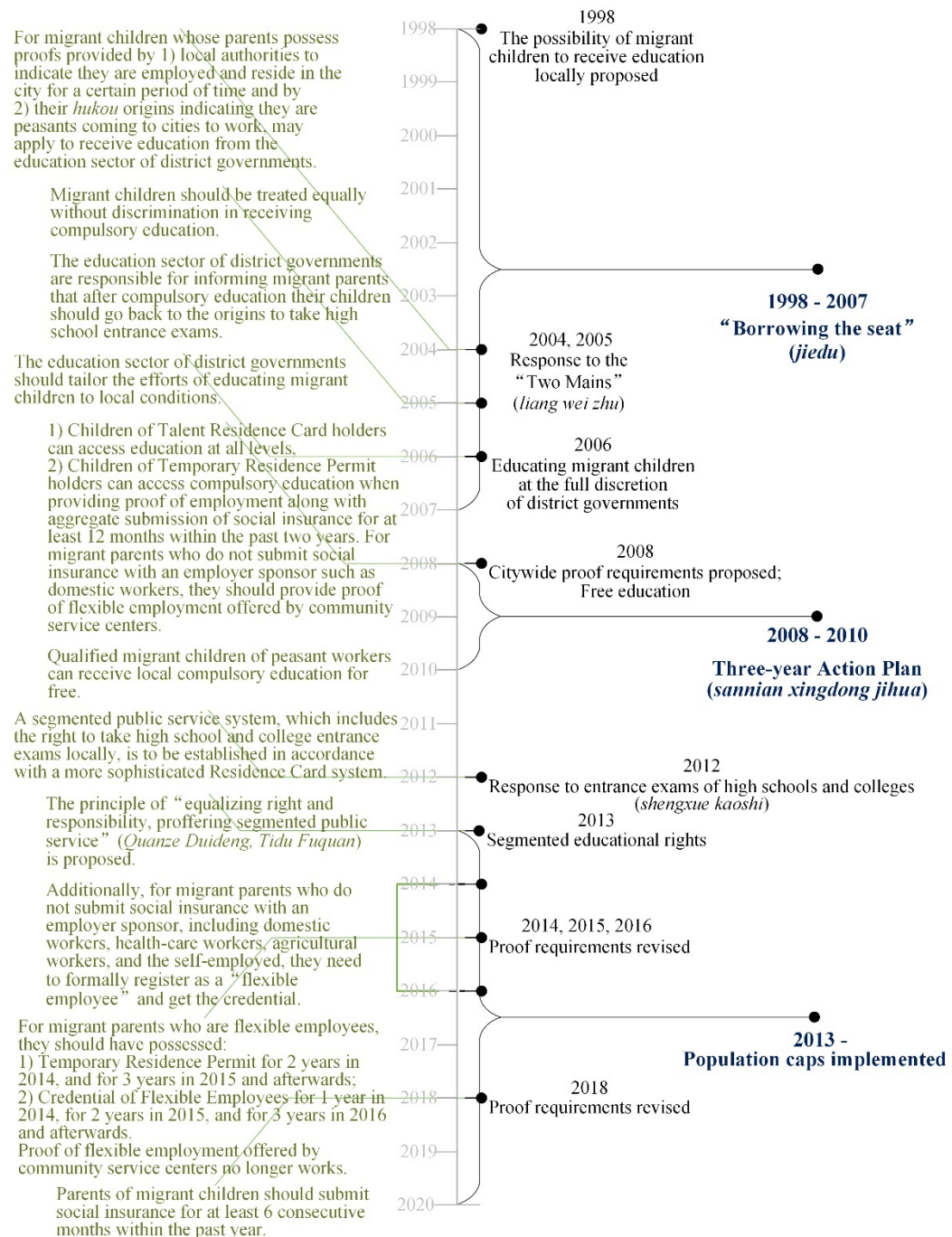


Figure 3. Educational policies at national and city level of Shanghai

For local educational policies in Shanghai, three important periods present on the timeline starting from 1998 (Figure 3). The first period is roughly from 1998 to 2007. To respond to the center's call on providing education to migrant children, in 1998, 2004 and 2005 the city government released local policies in a tone of compliance with the central call. However, these policies did not lead to sufficient actual actions, in that the city government passed the duty of educating migrant children to district governments (Figure 3). Knowing that these city-level policies are somehow merely "suggestions", district authorities did not take an active role in implementing them. The divergence between national directives and local executions was not unique in Shanghai, as it was a routine behavior of subordinate governments to some extent. As pointed by Pei (2006), against the background of decentralization, subordinate governments are given the space to maneuver the situation as expected. Consequently, during this period, migrant children were forced to "borrow the seat" (*jiedu*), i.e. paying extra fees to enter local public schools. If they could not afford that extra payment, which was quite high, another option was to attend private migrant schools. Those schools were outside of the local formal educational system; they are "informal" schools. They were targeted at migrant children, run by migrant principals, and taught mostly by migrant teachers. The teachers were not as professional as their counterparts in public schools, and many of them were just part-time and unlicensed. And the school facilities were also poor.

The second important period featuring the local educational policies is from 2008 to 2010, when the city government initiated the "Three-year Action Plan" (*sannian xingdong jihua*). The plan aimed at improving migrant children's education, and 2008 is the first year when citywide

uniform requirements for migrant parents were set (Figure 3). Those qualified were able to send their children to public schools to receive compulsory education for free. Another vital facet of the plan was to put all private migrant schools in Shanghai under the management and supervision of district governments by 2010, i.e. to somewhat “formalize” these schools, which led to the upgrade of their overall standards. At the same time, formalization means the closedown of some private migrant schools. From the outset of this period, the closedown of these schools in the name of not being up to standard gradually became a norm. The number of private migrant schools decreased from 272 in 2008 to 162 in 2010 (Liu et al., 2020), and thus they had better quality but became fewer. Additionally, to ensure those who attended private migrant schools receive free compulsory education just like those in public schools, the city and district governments co-funded the private migrant schools based on a certain ratio²². The funding these schools received were much less than those distributed to public schools, but at least education for children of “qualified” migrant parents became totally free. The free education policy in Shanghai was in line with the central policy in 2008, wherein the center urged the destinations to provide free education to migrant children (Figure 3).

The third important period characterizing local educational policies is a radical plan to cap the population of Shanghai since 2013. This local plan was made in accordance with the national urbanization policy of controlling population growth in megacities. And the local plan has several dimensions. One is to crack down illegal constructions and outdoor markets, known as the “Five Illegalities, Four Musts” campaign, another is to raise the bar on granting Residence Card through revisions of *hukou* and housing policies, and yet another is to tighten educational

²² For example, in 2013, that ratio for tuition subsidy was 2:3, with the district governments bearing the bigger share of monetary support to private migrant schools (Shanghai Municipal Finance Bureau 2013).

and school management policies. All these dimensions serve to push migrant population out of Shanghai – either from the demolition of their residence, the deprivation of their means of livelihood, or the exclusion of their children from local schools. Specifically for the third dimension, strict school management policies were enacted, and a considerable number of private migrant schools were shuttered because of not satisfying some expectations of the government. In 2020, only 48 private migrant schools still survived in Shanghai (Liu et al., 2020). And the government made revisions to educational policies intensively after 2013, each time adding some additional requirements for migrant parents to fulfill (Figure 3). It became increasingly hard for migrant children to get enrolled in local schools not only at compulsory education stage, but also before (preschools) and after (high schools) that stage.

4.4 The city government with partial discretionary power in policy making, and the discourse of “graduated” citizenship

The above descriptive analyses exhibit the complications involved in the *hukou* and educational policies in Shanghai. Corresponding to the three important stages of policy changes, from the view of migrant workers, there are also three palpable stages. In the early 2000s, they paid extra fees to let their children attend public schools, or put their children in crowded, substandard private migrant schools if unable to pay. During the 2008 - 2010 “Three-year Action Plan” and a few years afterwards, they rushed to meet the credential requirements to have their children receive education locally. While the plan did improve the standards of all private migrant schools and waive the tuition for migrant children, for the “unqualified” parents who cannot provide the specified paper documents, there was not much leeway to have their children

go to school locally. Thus, those working in informal sectors were largely excluded from school opportunities for their children in Shanghai. From 2013 to 2020, they found it more and more difficult to acquire seats for their children in local schools due to the rapidly rising bar of credential requirements. Meanwhile, owing to several rounds of campaigns conducted by the regulators, they could hardly secure affordable housing and find low-skilled jobs suited for themselves. This section first gets into how policy decisions are made by local authorities in these three stages and points out the underlying state agenda throughout the three stages. The next part examines how the discursive power of policy is exerted on the provision of public services to migrant population.

The city government with partial discretionary power in policy formulation and implementation

The roles of central and local actors in the making and enforcing processes of local policies are not fixed. But in a top-down administrative setting like China, it is the superior's determination that plays the decisive role in most cases. When the center issues a directive, sub-national governments make their own regulations accordingly by reinterpreting the central policy. The extent of policy deviation after the reinterpretation depends on the level of discretion sub-national governments are given regarding the specific issue. Similarly, regulations enacted by sub-national governments are sometimes reinterpreted again before being implemented by lower levels of governments. All subordinate governments weigh up their own interests and the room of maneuver they are granted by the time they take any actions.

In the case of the *hukou* and educational policies in Shanghai, during the aforementioned first important stage, the center asked local governments to include migrant children in their

educational system, but the central policies were nearer “recommendations” than requirements. Thus, the inaction of the local governments of Shanghai at this stage was no surprise, as reflected by their cosmetic policy responses. In the second stage, the “Three-year Action Plan” was a relatively thorough implementation of the center’s free education policy, and Shanghai was praised by the Ministry of Education of China (2010) as a good model of doing that. Besides, substandard private migrant schools, the criteria of which was determined by district governments, began to be shut down at this time. In the third stage, the center issued strict population control orders to megacities, and local authorities of these places were under the pressure of doing all they could to limit migrant population. The tightening of local *hukou* and educational policies were among local governments’ response to meet the population cap target, while another tactic was to sweep away more private migrant schools. To comply with the most urgent central directives, local governments would leverage other less pressing central policies in a way that fits current needs. For example, during the third period, the central instruction on the initiation of the national student identification system (Figure 3), originally meant to facilitate school transfer, was utilized as an extra administrative mechanism to exclude migrant children. Migrant families had to travel back and forth between their *hukou* origins and the destinations to prepare the required documents and request endorsements of various government agencies. Because of the intricate and arduous procedures, it was easy to miss some important deadlines so that their children could not go to school.

Up to the point, it is clear that the central government has issued “recommendation” policies in the first and second stages and rigid population control orders in the third stage. Besides, it has also issued some financial directives (Figure 3). For example, in 2008, the center promised to provide monetary rewards to destinations who did a good job in providing free compulsory

education to migrant children. And in 2016, the rewards were substituted by the center's sharing part of school-running costs with local governments. However, whether direct rewards or part of school-running costs, they only took a very small proportion of the actual expenses of educating migrant children (S. Wang et al., 2015). The substantial part was paid by local governments.

Despite the policy shifts through the three stages, one thing unchanged is the “low-cost” development strategy employed by central and local governments. In the first stage, Shanghai local governments basically did not pay for any expenses of migrant children's education. Migrant families paid for tuition and other fees on their own. In the second and third stages, the local governments offered free education to migrant children, but they used institutional instruments in excluding those whose parents cannot provide the precise paper documents. In this way their public expenditure on education was reduced. Also, private migrant schools were no longer allowed to charge tuition from migrant students during this time, and they must wait for government support. So, the decrease of number of these schools also cut down local government spending. As to the central government, it has refused to assume responsibility of the bulk of educational costs for migrant children. Therefore, the central and local governments in effect work hand in hand in lowering the social reproduction costs associated with migrant children's education. The entangled policies at different administrative levels together entrap migrant children into a situation where they are left with few choices about their educational opportunities, living arrangements, and the resultant future career paths.

The discourse of “graduated” citizenship and the discursive functioning of hukou and educational policies in Shanghai

The discourse of “graduated” citizenship has its origins in educational policies in Shanghai, and later the governing idea was embraced by other cities of China. It was first proposed in 2012 in a policy response of Shanghai to the central directive on allowing migrant children to take entrance exams of high schools and colleges in the destinations (Figure 3). The 2012 educational policy of Shanghai that a “graduated public service supply system” is to be established in collaboration with a more sophisticated Residence Card system, with emphasis on the right to take these two exams locally. In China, this right indicates one’s access to local education at all levels, including post-compulsory education, which is typically reserved to non-migrant local population only. By “graduated public services”, it is suggested that migrant children’s educational rights are not equal; rather, they are stratified.

Although local policies of Shanghai did not explicitly state the idea of “graduated” citizenship until 2012, the practice of granting stratified educational rights to migrant population can be traced to 2002. As covered before, the 2002 *hukou* policy stipulates that only those whose Talent Residence Card was valid for 1, 3 or 5 years, but not 6 months, can have their children receive local education. Later in 2013, this practice was formally codified in the educational policy of Shanghai (Figure 3). Since then, only Residence Card holders with at least 120 points have access to post-compulsory education for their children. The keystone of the 2013 policy is the principle of “matching right and responsibility, proffering graduated public services” (*quanze duideng, tidu fuquan*) (Figure 3), which marked the legalization of the practice that migrant children would be granted educational rights according to their parents’ “contributions” to the city. The definition of “contributions”, as measured by the points attached to one’s Residence Card, is of course up to local authorities to decide. Moreover, it is subject to frequent changes, reflected in the swiftly modified *hukou*, educational, and other related policies.

At first glance the “matching” of contributions and rights seems to be a fair exchange between migrant population and the local authorities. Yet the contribution-based mindset ignores the basic fact that children should stay together with their parents, and they should get equal opportunity in education, as stipulated in the Educational Law. It neglects the children’s key needs and introduces persisting structural inequalities. On the other hand, Shanghai has enjoyed the cheap labor of migrant parents, and the development of the city into a global trade center would be impossible without migrant population performing construction, manufacturing, service, and many other low-skilled jobs. From this perspective, the approach to measure one’s “contributions” by rules set by the city government through a series of *hukou* and educational policies and supply education to his/her children accordingly, is fundamentally unequal and discriminative due to its top-down, prescriptive, and coercive essence. As such, the discursive function of the “graduated” public services statement lies in granting full citizenship to the tiny minority who possess top “talents” (*rencai*) while excluding the vast majority. Also, it lies in the formalizing and rationalizing of various behaviors of the government in disintegrating migrant population in their public service system, so that the campaign-style programs like the “Five Illegalities, Four Musts” become lawful and thus reasonable. Ultimately, the social reproduction costs of migrant labor power borne by both local and central governments are greatly reduced in an institutionalized, systematic way. Conceivably, this approach has resulted in the selective incorporation of migrant children into the local educational system, as will be examined in the next section.

4.5 The selective incorporation and the predicament of migrant children

As previously introduced, by “selective incorporation”, I mean the local governments selects a small group of migrant population and provide educational resources to them, while excluding the vast majority. The selection criteria are the migrant parents’ “contributions”, whether contributions that have been already made, like large financial or property investments, or potential contributions they are capable to make, preconditioned on qualifications such as having a doctoral degree. This section presents how the selective incorporation process functions throughout migrant children’s school life as they grow older, and how that process has put them into a predicament of a lot of uncertainties in their living arrangements and educational well-being, as well as diminished career expectations.

The educational opportunities of migrant children and the role of district governments

To explain the selective incorporation of migrant children in Shanghai’s educational system, Figure 4 shows the educational opportunities and paths of migrant children from preschool to higher education levels in Shanghai after 2013, namely in the third important stage of policy changes. While previous sections mainly look at policies at city and national levels, this section incorporates district-level policies and regulations. As said before, district governments share a certain proportion of expenses of education with the city government, so they also intend to reduce that costs by “cherry-picking” a handful of migrant children and provide local education to them while excluding the vast majority, just like the city government does.

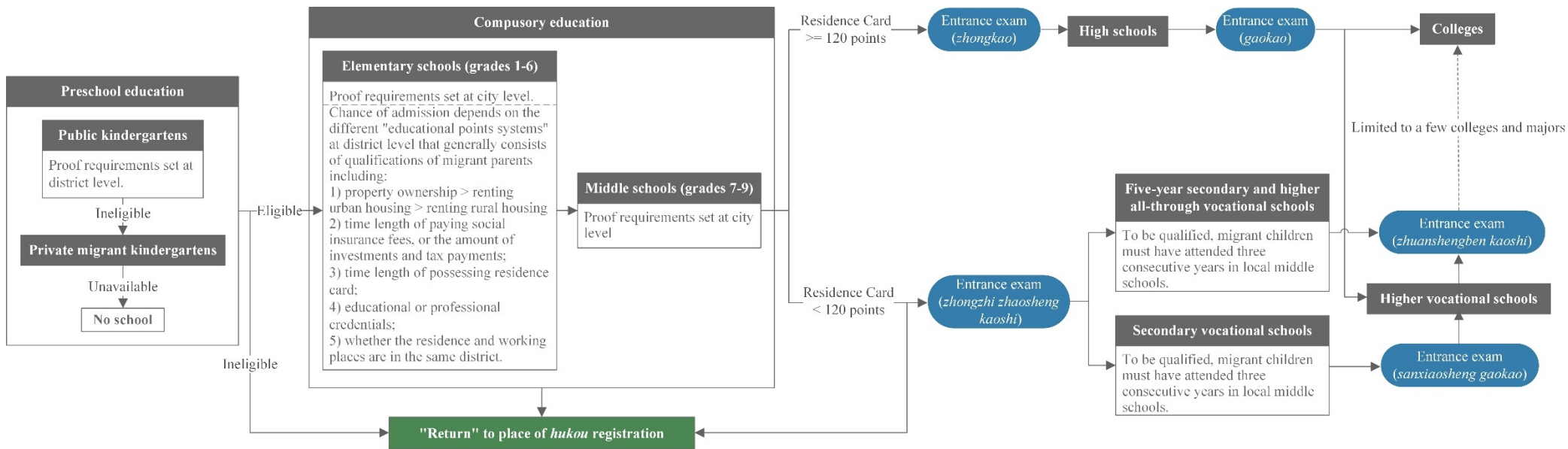


Figure 4. Educational opportunities and paths of migrant children in Shanghai after 2013

The credential requirements of attending public preschools are set by district governments, and therefore they vary from one district to another. For districts in need of large numbers of low-wage migrant workers, such as those focusing on labor-intensive industries, they would loosen the reins; otherwise, they keep a tight rein on the requirements. Migrant parents usually find the requirements for entering preschools even more demanding than those for entering schools for the compulsory education years. If they cannot meet the requirements, they may choose to send their children to private migrant kindergartens. However, the number of this type of schools were quite limited. This is because it is extremely hard to acquire a permit from the government to run a kindergarten specifically catering to migrant children, and many of these schools existing before have been closed by the authorities in the previously mentioned second and third important stages of policy changes. Hence many migrant children have no preschool to go at all. Some parents choose to leave their children as young as this age (before 6) in their *hukou* origins under the care of their extended family members.

As to compulsory education years, the above sections have examined the credential requirements set at city level. Migrant parents who are unable to meet the requirements are forced to send their children back to, or keep leaving them behind at their *hukou* origins (Figure 4). Beyond the city-level uniform proof requirements, district governments possess the power to dictate the priority order of matriculating migrant children using their own “educational points systems” (Figure 4). The design of the district-level educational points systems is similar to that of the city-level Residence Card points system. There are a series of indicators, such as property ownership, time length of paying social insurance fees, etc. Again, the governing logic behind the delicate educational points systems is the same, i.e. granting public service according to

migrant population's "contributions", but this time the "contributions" must directly benefit the specific district that offers school opportunities, such as property ownership within the district.

After compulsory education, a small minority of migrant children whose parents have accumulated 120 points with their Residence Card can participate in the high school entrance exam (*zhongkao*) first and the college entrance exam (*gaokao*) later when they finish high school. By contrast, the overwhelmingly majority must return to their *hukou* origins to take the entrance exam and attend high schools, or they can take the vocational school entrance exam as a way to remain with their parents in Shanghai. The second option is much inferior, and it basically leads to a low-skilled job in the future (Ling, 2015). For migrant parents determined to have their children go to high schools instead of vocational schools, many of them choose to send their children back to the *hukou* origins before they complete compulsory education, with the intention of giving them enough time to get used to the new environment. However, the textbooks, syllabi and teaching styles are different in the origin provinces, which brings a lot of difficulties to the children to adapt to them, not to mention the pain to get separated from their parents. If they choose to stay and receive vocational education in Shanghai, there are two tracks. One is five-year all-through schools, and the other is secondary schools followed by an optional entrance exam leading to higher schools (Figure 4). The graduates of these schools do have a chance to go to college through a tailored entrance exam, yet the odds are slim. For instance, the college admission rate for vocational school graduates is 3.2% in 2018²³, whereas that for high school graduates lingers around 80% annually²⁴ (Qi & Yang, 2012; H. Wang, 2011). In addition

²³ This number is calculated from public-accessible individual colleges' admission plans.

²⁴ This number is an estimate for the 2000s found from peer-reviewed articles. For the 2010s it likely remains similarly high according to field notes.

to the low admission rate, the colleges open to vocational school graduates are restricted to the lower ranked ones, and the majors are limited to the less popular ones (Figure 4).

The predicament of migrant children and their parents' efforts in navigating local rules

So far it is clear that local governments have made policies and regulations that offer “graduated” school chance to migrant children according to their parents’ “contributions”. And the “graduated” school chance is induced by multilevel rules - at the city level, there is the Residence Card points system, and at the district level, there are educational points systems that vary across different districts. Additionally, individual schools, especially the most popular schools, even have their own “points” system that further classify the “eligibility” of migrant parents. These rules together form a delicate “points” hierarchy by which educational sources are distributed unequally. In that hierarchy, the more educated, higher-income migrant population are given more “points” and thus are prioritized, while the less educated, low-paid migrant population, who are also the majority, are given less “points” and thus are marginalized or even completely excluded.

The rules set in the city and district policies and regulations are so complex that it is basically impossible for migrant parents to easily comprehend and navigate as their children grow up and proceed to the next school level. A big number of migrant parents, especially those less educated, only get to know the rules based on hearsay or secondhand knowledge from their relatives or friends, who are usually also migrants and often not so educated themselves too. Moreover, the frequent and somehow arbitrary changes made by local governments to these rules only exacerbate their tough situation. Should the migrant parents fail to meet any single term, their children are under the risk of being sent back to their *hukou* origins and become left-behind

children anytime in their school life, especially when they are about to advance to the next school level (Figure 4). For example, during my field observations, one migrant child got turned down from entering elementary school in Shanghai because her birthday was one day over the specified age range for first-year elementary-school students, and she eventually went to a boarding elementary school in her *hukou* origin away from her parents. Such experiences of migrant children echo Zhang's (2015) work, wherein she wrote that, “from the very moment of their parents’ migration, rural migrant children are also pushed into a reactive migration chain. Moving between villages and cities, home becomes a contested space for migrant children, whether they are left behind in the village or live in the city” (p. 390). The limited educational opportunities not only determine the living arrangements of migrant children, i.e. whether then can stay with their parents in the migration destination, but also direct migrant children into disparate life trajectories due to the differences in their human capital. One instance is that those who choose to attend vocational schools in Shanghai usually ends up in a low-skilled job after graduation.

Facing the difficulties in accessing educational resources in Shanghai, migrant parents make various efforts to navigate the strict rules made by local governments. To access compulsory education, if they miss one or two paper documents, some may have their children attend school at *hukou* origins for half a year or longer and transfer to schools in Shanghai when they are fully prepared. Others resort to the black market. For example, there are shell companies in Shanghai pretending to have hired migrant parents so that they can provide proof of employment to be used for accessing local education. For post-compulsory education, since migrant parents need 120 points to be eligible for high school education for their children, some of them try hard to acquire technical certificates, or even another degree, so that they can earn more points. Despite

fighting tooth and nail, most migrant population are vulnerable and disadvantaged with low socioeconomic status in the receiving society, and they have no choice but to send their children “back” to the *hukou* origins at some point in their school life. Increasingly, more and more migrant children were born in Shanghai, and the *hukou* origin for them is an entirely unfamiliar place. For these children it is not “going back”, but to explore a new place without the company of their parents. Also possibly, some migrant parents forsake their jobs in the destinations and return to the *hukou* origin together with their children. In that case the income of the whole family is inevitably affected.

4.6 Conclusions

This chapter explains the key points and changes over time of the *hukou* and educational policies in Shanghai pertaining to the education of migrant children. There are three important stages of local policy changes. Before 2008, there were only cosmetic policies that did not claim any essential responsibility of local governments of Shanghai. Migrant families self-financed their children’s education. Between 2008 and 2010, the local governments began to provide free education to migrant children in the compulsory education years provided that their parents possessed the stipulated paper documents, but for fewer children of migrants. Ineligible migrant parents were forced to send their children back to, or keep leaving them behind at their *hukou* origins. After 2013, under the pressure of limiting population size from the central government, local policies of Shanghai became increasingly draconian. More migrant children were driven away from the city.

Notwithstanding the variations of local policies through the three stages, the dominant principle of the policies of remains constant. That is, citizenship, especially the access to

complete education at all levels, is only granted to the top “talents”, while excluding the vast majority. In this way, migrant children are selectively incorporated into the local educational system. This principle is textualized in local policies as a “graduated public service supply system” in 2012, by which stratified educational resources are given to migrant children according to their parents’ “contributions”. It marks the formalization and institutionalization of the principle that has been put in practice in Shanghai for many years. The principle is achieved through multiple schemes at different geographic scales, which encompass policies made by national, city and district governments, and campaign-style programs led by local authorities. These schemes together develop a sophisticated mechanism that determines migrant children’s school chance. As a result, migrant families are faced with hard choices throughout their children’s school life - whether to have them receive complete education at their *hukou* origins or to let them stay in Shanghai having to deal with the lack of access to proper schooling chance. This puts the children in a predicament of being sent away from their parents anytime during their school life, from where they are directed into different educational opportunities and life trajectories.

The local policies and practices are the outcome of central state’s dictations combined with local governments’ own interests, with the former playing the decisive role. Against the background of administrative and financial decentralization, local governments lack the motivation to include migrant population in their public welfare system. For the country as a whole, it is “economical” (in a narrow sense) to separate the processes of consumption of public resources and production of economic values across space. Hence migrant children are generally unwelcomed in the destinations, especially in big cities where migrant population concentrate. This is a “low-cost” development strategy adopted in the post-Mao era, and it is consistent with

the national development strategy under Mao in its essence. In both periods, the dependents of the laboring population are unwelcomed in the major cities. Despite short-term economic gains, the “low-cost” strategy incur greater long-term costs. The children left-behind in the countryside are experiencing severe psychological and physical health problems, well documented by many (e.g. Ye, 2011), which results in inferior human capital of the country and would eventually threaten China’s future growth (Hongbin Li et al., 2017). The current chapter provides a case study to this claim through examining the policies affecting the education of migrant children in Shanghai. Future research may explore more in this direction to analyze the structural inequalities suffered by migrant population.

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