

# Just-in-Time Urbanization? Managing Migration, Citizenship, and Schooling in the Chinese City

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## Abstract

In this article I argue that the Chinese state is responding to tensions wrought by high-speed growth by attempting to develop a form of technocratic biopolitics I refer to as ‘just-in-time (JIT) urbanization’. Mirroring techniques of the Toyota Production System (of which JIT is a constituent element), large Chinese cities have sought to avoid the costs associated with the production and warehousing of surplus populations. Under this system, migrants are granted access to local citizenship and public education for their children if they fulfill a specific, state-determined, need in the labor market. The hope is to be able to precisely deploy specific kinds of labor power as needed, at as low a cost as possible, while avoiding waste, overpopulation, and (presumed) attendant political chaos. The social consequence of this approach is that nominally public resources such as education have been funneled to elites in what I term an ‘inverted means test’.

## Keywords

biopolitics, China, citizenship, education, migration, urbanization

## Introduction

In 2014, some of China’s megacities initiated a wide-ranging effort to expel rural migrants. Shanghai’s Minhang and Pudong districts incorporated population reduction quotas as a key metric for appraising the work of street-level cadres, while Baoshan district demanded that officials reduce population within their jurisdiction by 5 to 10 percent.<sup>1</sup> In Beijing, Mayor Wang Anshun commented, ‘Beijing is not at present a livable city. But there is still a mad scramble of people to come here, so controlling the population is the single biggest problem for the government.’<sup>2</sup> In order to support urban districts with this task, the municipal government promised more than one billion yuan (≈US\$160m) to promote industrial restructuring and population control, and nearly 10.4 billion yuan (≈US\$1.7b) for ‘slum redevelopment’.<sup>3</sup>

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Cities adopted various strategies to reduce their migrant populations, including adjustments to housing policies and forcing labor-intensive industries to relocate. But perhaps most troubling was a strategy pursued with great zeal in the capital: 'using education to control the population'.<sup>4</sup> Children of rural-to-urban migrants in Beijing had never enjoyed the right to public education, and tens of thousands had long been relegated to a wildly inferior system of private education. But migrant parents whose children had been lucky enough to get into public schools suddenly found that the bar for entry had been raised. The result was that thousands of parents had the impossible decision of whether to send their children back to the village alone, or accompany them and forsake their jobs in the city.

This effort to remove migrants from the city would seem to be at odds with recent central government policy. Indeed, the government has in recent years talked about shifting from a model of growth dependent on low-cost exports and debt-financed investment to one based on increased urbanization, which is seen as likely to catalyze domestic consumption and growth in the service sector. But on closer inspection it is apparent that the state is developing a highly variegated system whereby certain kinds of people are encouraged to move to certain kinds of cities. State policy in recent years has been oriented towards institutionalizing a socio-spatial citizenship regime in which large wealthy cities can selectively pull in specific kinds of labor power from smaller cities and the countryside to respond to labor market demands, while relegating less desirable people to less desirable places. The 2014 population control campaigns in Beijing and Shanghai were aimed at removing this latter population.

All processes of capitalist urbanization involve a dilemma: on the one hand, cities need to pull in labor power in order to fuel their factories and construction sites, to take care of children and the elderly, to prepare and serve meals – in short to *work*. But on the other hand, urban elites fear overcrowding, social chaos, and the costs associated with reproducing the workforce. In other words, the pursuit of rapid economic growth almost always implies growth of population, but there are contradictory imperatives to both draw in and expel workers. Although this urban growth dilemma is a general tendency under capitalist urbanization, the specific politics are of course shaped by a huge array of historically, culturally, and spatially specific conditions.

In this article I argue that the Chinese state is responding to the tensions generated by the urban growth dilemma by attempting to develop a form of technocratic biopolitics I refer to as 'just-in-time (JIT) urbanization'. As with the Toyota Production System (TPS), of which JIT is a constituent element, large Chinese cities have sought to avoid the costs associated with the production, warehousing, and social reproduction of workers. Under this system, migrants can be granted access to urban citizenship if they fulfill a specific, state-determined, need in the labor market, thereby giving them access to subsidized reproduction (e.g. public education, social insurance). The hope is to be able to precisely deploy specific kinds of labor power as needed, at as low a cost as possible, while avoiding waste, overpopulation, and (presumed) attendant political chaos.

But this attempt to prevent over-accumulation of people in the spaces of rapid capital accumulation encounters limits. While the Chinese state exercises impressive capacity and a willingness to use highly coercive means to achieve its ends, human movement inevitably exceeds the logic of technocratic biopolitics embodied in JIT urbanization: peasants from impoverished areas need jobs, and capital in the cities needs cheap labor. And while the right to state-subsidized reproduction remains tied to specific places, migrants are free to sell their labor anywhere in the country. The question then becomes: in what specific way is inclusion in the city socially segmented? I have found that urban governments have developed relatively predictable sorting mechanisms, characterized by a positive association between migrants' levels of economic, social, and cultural capital and their access to public goods. In focusing on primary education, I find that the consequence of

this politics of urbanization is deepening educational inequality and reconstitution of an increasingly rigid class structure.

## The Specificity of Chinese Urbanization

For the purposes of this research, scholarship on the process of urbanization can be broadly categorized into two currents: that which sees a tendency towards progressive inclusion of rural migrants into the economic, political, and social life of cities, and that which sees ongoing forms of exclusion. The former we can call, somewhat imprecisely, a ‘modernization’ perspective, which emerged in the 19th century and was dominant until the mid-late 20th century. ‘Southern urbanism’, on the other hand, grew out of late 20th century studies of the former colonies in Africa, Asia, and Latin America, which emphasized the distinct historical trajectories of the South. As descriptive approaches, at least, each of these perspectives captures some of the dynamics of contemporary China.

Cold War-era scholars in the Durkheimian tradition theorized a basically universal tendency for progressive inclusion of the working class into the market, which they saw as causally linked to emergent citizenship rights. T.H. Marshall (1950) famously delineated a teleology of rights, in which all citizens were gradually granted civil, political, and then, in the 20th century, social rights. Parsons (1964: 353–6) saw democracy and civil society organizations as playing a key role in politically integrating the working class, while Lipset (1959) was confident that increased economic growth would result in a full extension of democratic rights. In each of these cases, the economic process of the universalization of wage labor was directly linked to the extension of citizenship rights. While this literature is not concerned with the urban per se, it is assumed that modernity and urbanization are parallel processes.

Since at least the 1970s, scholars have worked to identify the distinctive features and dynamics of Southern urbanization and proletarianization. Early work on Africa and Latin America identified informality as a distinctive feature of the economy (Hart, 1973; Tokman, 1978), a phenomenon that defied expectations about a progressive absorption into wage labor (Bradshaw, 1987: 224). It is now beyond doubt that the former colonies have experienced a radical disjuncture between the production of proletarians, i.e. those dispossessed of non-market forms of reproduction (Denning, 2010), and capital’s demand for labor power. This shift in the socio-economic dynamic of capitalist development has resulted in growth of urban population without a concomitant growth in formal market opportunities in the city. Durable informality – be it in the labor market, housing, or social services – suggests *exclusion* as a fundamental political dynamic of the Southern city.

In recent years, scholars have turned to a synthesis of Foucault and Marx in thinking about the politics of inclusion and exclusion. In his lectures at the Collège de France, Foucault defined biopower as ‘the power to “make” live and “let” die’ (Foucault, 2003: 241). In his formulation, ‘race’ is the axis of differentiation by which certain social groups are ‘made’ to live, while others are ‘allowed’ to die. In synthesizing Marx and Foucault, scholars such as Michael McIntyre and Heidi Nast (2011) have elucidated the racialized delineation of population and surplus population – the former becoming the object of an affirmative biopower while the latter is condemned to what Achille Mbembe (2003) has called the ‘necropolitical’. Tania Li (2010) provides an explanation for why this racialized differentiation is a feature of Southern urbanization: contemporary dynamics of capital accumulation favor (largely rural) dispossession over (largely urban) exploitation. The result has been the production of a population that is simply superfluous to the needs of capital, either as workers or consumers. The vision we are left with is of a mass of humanity accumulating in the cities that are treated as ‘waste’ (Bauman, 2004; Yates, 2011), and subject to myriad forms of state-sponsored violence and expulsion (Sassen, 2014).

But when we turn to China, some very different dynamics are at play. To begin with, the politics of racialization are not quite what this literature might lead us to expect.<sup>5</sup> In China, the biopolitical distinction between population and surplus population is interpreted primarily through the lens of space, not race (Wang, 2005; Zhang, 2001). From the perspective of the urban state, it is the rural migrant worker who is seen as expendable and is excluded from life-affirming biopower. The overwhelming majority of such workers are Han, as are urban elites. Certainly racism plays a fundamental role in the Chinese state's efforts to control and urbanize peripheral regions such as Tibet and Xinjiang (Fischer, 2008; Joniak-Luthi, 2013). But in the eastern megacities it is place of origin and access to property – not race – that divide population from surplus population.<sup>6</sup>

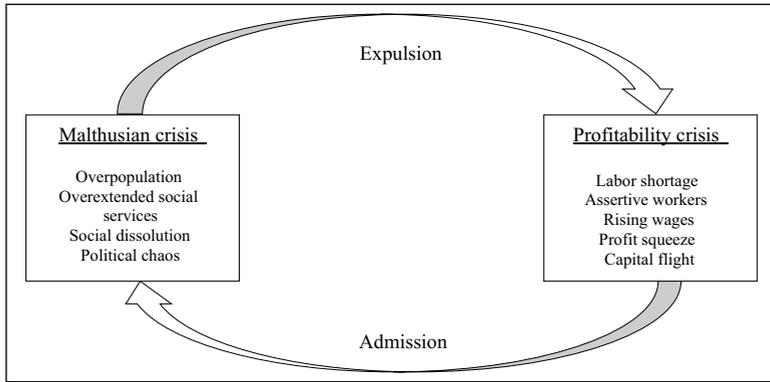
When we look at economic processes, each body of thought has something to contribute to accounting for China's experience. Modernization theory has been rightly maligned for decades, and there is no need to rehash why an evolutionary approach cannot explain the politics of contemporary capitalist development. But we should not overlook the fact that among countries in the South, China's developmental experience comes the closest to repeating the historical trajectory of the North. Indeed, hundreds of millions of people have left agriculture and have been absorbed by industries such as manufacturing and construction. The Chinese state has enacted a raft of labor legislation to regulate and formalize employment relations and extend social insurance coverage. Chinese cities have relatively few slums (Wallace, 2014). Scholars and government officials may grossly underestimate the scope of the informal economy (Huang, 2009), but it certainly pales in comparison to other large Southern countries. While there are some very important ways in which China differs significantly from the North, most importantly with regards to the delinking of the market and liberal democracy, the 'Southern urbanism' vision doesn't quite comport with China's reality.

But when we leave the sphere of production and move to an analysis of social reproduction and politics, we do see ongoing forms of exclusion. And while it is true that vast swathes of the population continue to be treated as potentially, or imminently, surplus, excluded from the full benefits of urban citizenship, we also see that dynamic capitalist growth has required huge volumes of labor power. Thus, a rigid inclusion/exclusion binary cannot account for the experience of migrant workers in China. Building on the work of Mezzadra and Neilson (2013),<sup>7</sup> I am interested in the particular way in which migrants' insertion into urban space is segmented. While modernization presumes progressive inclusion and literature on Southern urbanism and surplus population focuses on ongoing exclusion, the perspective of segmented inclusion highlights the peculiar ways in which Chinese migrants are tethered to the city as labor power and expelled as social beings. From this perspective, then, we must ask how and why the urban state attempts to enforce a particular segmentation of inclusion of various social groups.

## The Urban Growth Dilemma

In his classic formulation, Harvey Molotch argued that cities are, 'for those who count, a growth machine' (1976: 310). For Molotch, 'growth' is a category that encompasses both economic expansion and population increase, and these two goals constitute the decisive orientation of urban elites. But when we look at China's cities – and, I suspect, many other cities – it is not apparent that these two types of growth can be neatly categorized together. If we are to assume that the capitalist urban state is oriented towards the inter-related goals of accumulation and domination, then it follows from this that the state faces some tension in managing economic and population growth.

Clearly, cities must admit populations if they are to grow economically. Labor-intensive manufacturing is still the most reliable route to development, even in the 21st century. In order to attract such industry, urban governments must be able to pull in large volumes of cheap and docile labor.



**Figure 1.** The urban growth dilemma.

As was shown to be the case over the past 35 years, this capacity has proven decisive in allowing China to industrialize and post historically unprecedented rates of growth year after year (Chan, 2009).

But admission of newcomers is not without its drawbacks from the perspective of the state. Given that the wage rarely constitutes the full cost of labor power, the state is almost always on the hook for some of the costs of social reproduction of the workforce. City governments may be reluctant to provide major new fiscal outlays for public housing, health, and education for recent arrivals. Politically, urban elites may fear that new arrivals will undermine the social fabric of the community, bringing with them crime, drugs, and disease. The possibility for social dissolution or political chaos looms large in the consciousness of the urban state – particularly so in China where concerns about the ‘carrying capacity’ (*chengzaili*) of cities are a key feature of state discourse. The state’s perception of economic and political pressures owing to overpopulation constitutes what I refer to as the ‘Malthusian crisis’.<sup>8</sup> It is precisely this sense of crisis that has led cities like Beijing to employ various methods to eject migrants.

Expulsion of populations, while perhaps effectively responding to nativist sentiment, engenders other problems for capital and the state. Aside from the obvious point that this process itself can trigger social unrest, an effective reduction in population poses risks to profitability. With a tighter labor market, capital may face rising wages and more assertive workers. While these dynamics are certainly sectorally uneven, inability to pin down sufficient labor could lead capital to flee to areas in which labor is more abundant. This in turn would lead to falling tax revenue for the state. This ‘profitability crisis’ may then push the state back in the direction of admitting populations.

The urban growth dilemma refers to the competing imperatives faced by the state in managing high-speed economic growth and urbanization (see Figure 1). Over-accumulation of people in the cities raises the specter of a fiscal crunch and social chaos. But every attempt to address the Malthusian crisis simultaneously hastens a profitability crisis by depriving capital of its lifeblood – labor. These are crisis *tendencies*, and are not necessarily discrete and diachronic events. But urban governments must constantly negotiate this uncertain terrain, pulled in one direction by fear of chaos and nativist sentiment, and pulled in the other by capital’s demands for an abundant and pliable workforce. While cities face widely heterogeneous local political arrangements, as well as a differential capacity to respond, this tension is a central motor force of the politics of urbanization.

The question then becomes, how specifically have Chinese cities responded to this dilemma? What sorts of strategies have they developed in an attempt to reduce human waste and overcome

spatio-temporal disjunctures in the distribution of capital and labor? And what are the social consequences of these practices?

### **Just-in-Time Urbanization?**

My central claim is that Chinese megacities are pursuing a JIT approach to urbanization in an attempt to overcome the political and economic problems posed by the urban growth dilemma. In what ways does this constitute a JIT approach? Taiichi Ohno, the person most responsible for the development of TPS,<sup>9</sup> provides the following definition: ‘Just-in-time means that, in a flow process, the right parts needed in assembly reach the line at the time they are needed and only in the amount needed’ (1988: 4). When considering urbanization, of course, the parts in question are not material objects, but labor power. This raises a particular concern, as labor power is inalienable from the worker. So rather than thinking about how companies organize the production and movement of commodities through the supply chain, here we are concerned with how cities (and especially China’s wealthy megacities) regulate the movement of workers into urban space. While the analogy with auto production is imperfect in a number of respects, the basic impulse remains the same: megacities are attempting to develop a technocratic apparatus capable of regulating the flow of workers in accordance with demands of the market, such that specific labor power can be delivered in the right quantity at the right time to capital.

Aside from these general similarities, there are some more specific parallels between JIT production and JIT urbanization. To begin with, there is a similar focus on a reduction of warehousing. JIT production sees warehousing of parts as wasteful and costly, as it requires additional expenditures on space as well as labor to maintain the stores. ‘Warehousing’ of people is also costly, and includes housing as well as other costs associated with social reproduction. But JIT urbanization aims not just for economic efficiency, but also to address the potential political problems associated with warehousing people. As is well-established in the literature, Chinese urban elites have long subscribed to a neo-Malthusian worldview which associates overpopulation with political chaos (Anagnost, 1997; Wallace, 2014). By keeping surplus population at bay in the countryside or smaller towns, megacities intend to draw in workers on a strictly as-needed basis, thereby serving both economic and political ends.

A second parallel is a concern with the reduction of waste (Womack and Jones, 2010). For TPS, Ohno holds that, “‘waste’ refers to all elements of production that only increase cost without adding value – for example excess people, inventory, and equipment’ (1988: 54). Both JIT production and urbanization are oriented towards reducing costs and improving productivity ‘through the elimination of various wastes such as excessive inventory and excessive workforce’ (Monden, 2011: 4). Michelle Yates postulates the emergence of the ‘human-as-waste’ under late capitalism, suggesting that huge swathes of the population are ‘structurally and biologically redundant to global accumulation and the corporate matrix’ (2011: 1679). But again, China is somewhat different from much of the South in that capital actually has employed hundreds of millions of people. So in this case, a human that was ‘waste’ yesterday may be the bearer of a viable labor power today. The point, from the perspective of JIT urbanization, is to eliminate any responsibility on the part of capital or the urban state to underwrite social reproduction for that person during a ‘waste moment’. When workers are deemed superfluous – a fundamentally political rather than economic designation – the state reserves the right to expunge them.

A final related similarity is the tendency towards maintaining flexibility through dualization. While more associated with TPS and Japanese employment relations in general rather than JIT in particular, workforce flexibility is central to achieving JIT production (Monden, 2011: 311). Toyota and other Japanese firms were at the forefront in dividing the industrial workforce into a stable,

unionized core, which enjoyed strong job security and generous benefits, and a contingent, temporary workforce that could be utilized and discarded with minimal friction. JIT urbanization envisions a core group of citizens who enjoy a variety of rights (most notably for this study, the right to public education), surrounded by a contingent workforce that may be included in certain spheres of social and political life and not others. This latter group experiences access to social services as a revocable privilege rather than a right. This rupture in the citizen-worker nexus (Barchiesi, 2011; Mezzadra and Neilson, 2012: 62) gives cities greater flexibility in deploying the right kinds of labor power at the right time, without having to bear the costs associated with maintenance and regeneration of workers. Furthermore, as denizens, these expendable workers have no right to political representation or participation in the city.

But there are some important differences between JIT production and JIT urbanization, a brief discussion of which will be useful in highlighting the specificity of the latter. The fundamental difference owes to the different character of the commodities in question. According to Yasuhiro Monden, author of the definitive work on TPS, 'it is the principle aim of the Toyota Production System to control overproduction – to ensure that all processes make products according to the sales velocity of the market' (2011: 6). But cities' biopolitical capacity, i.e. the ability to regulate the production, maintenance, and circulation of people, is inevitably much more constrained than would be the case in material production. The Chinese state has developed a highly competent biopolitical machinery, the chief example of which is the notorious birth control policies (Greenhalgh and Winckler, 2005). But despite megacities' position at the apex of the Chinese political economy, they do not have the capacity to actively control the production of labor power, to say nothing of determining the appropriate quantities, qualities, and circulation thereof. Cities are dependent on the hinterlands to produce workers for them, and unlike the lead firm in JIT production, they exercise little control over their suppliers. So while cities will still try to regulate the flow of people according to demand in the local market, they cannot directly control production.

The second related difference is that the object of JIT urbanization is people rather than things. Workers' place-specific sociality and frequent demands for respect and autonomy pose a whole host of problems that are irrelevant for JIT production. Since there will always be a coordination problem between the production of proletarians and capital's need to employ human labor, inevitably some labor powers will be underutilized – and given nearly universal market-dependence, this can create social friction. In short, when we consider urbanization as the process of condensation of human settlement under conditions of capitalist transformation of both city and countryside, *politics* matter in a way that is simply not the case for JIT production. Workers are not merely objects, and their subjectivity and need for community and survival pose a challenge to JIT principles.

It is precisely for this reason that JIT urbanization refers to a utopian vision rather than an empirical reality. And yet, even if this vision can never be fully realized in practice, the state's pursuit of JIT urbanization has major social consequences. I will now turn to a discussion of the tools the state has at its disposal, as well as the social consequences.

## **From Rigid Exclusion to Segmented Inclusion**

Following the 1949 revolution, Chinese cities experienced a major population influx from the countryside. Although the peasantry had been the social foundation of the revolution, the Communist Party quickly moved to a Soviet-inspired model of development predicated on extraction of surplus from the countryside and investment in heavy industry in the cities (Hung, 2015: 43–50; Naughton, 1992). But on the eve of the Great Leap forward, the government established the *hukou* system in 1958. Although household registrations had historical precedent under the

imperial system, the modern incarnation was much more specifically focused on a particular end: controlling the mobility of the population (Dutton, 2006) and keeping peasants out of the cities.

Taking its cues from the Soviet internal passport *propiska* system (Chan, 2009: 199), *hukou* status is passed from parents to children and can only be changed with official approval. *Hukou* controls movement by tying the provision of a variety of goods to a specific place. During the period of the command economy, this included nearly everything someone would need to survive: not only health care and education, but also housing and even food. Leaving one's place of registration without official approval would imply forsaking access to state-provided goods. A rural resident that wandered into the city could face police harassment, detention, and even deportation back to the countryside. From its inception in 1958 until the initiation of market reforms, the consequence of the *hukou* was an almost complete demobilization of labor.

But with the introduction of foreign capital and private enterprise beginning in 1978, the government initiated a gradual process of relaxing controls on internal movement. The export-oriented firms popping up in special economic zones such as Shenzhen needed workers, and the low cost of labor had been a primary point of attraction. Surplus workers from the countryside were able to secure temporary permits to live and work outside their area of *hukou* registration, provided that the firm was willing to provide proof of employment. As during the Mao era, those who wandered away from their workplace without their papers were frequently subject to police harassment, and even deportation. Such a system has been compared to the apartheid 'pass laws' in South Africa (Alexander and Chan, 2004), and as in South Africa it was crucial in the production of a low wage, pliable workforce (Wolpe, 1972).

Throughout the 1990s and 2000s, however, this system came to be increasingly relaxed. Whereas in the 1960s it would have been very difficult to survive without state approval, by the turn of the millennium, market exchange and dependence were nearly universal. This meant that people could now survive outside of their area of *hukou* registration, as they were less dependent on state-provisioned goods. However, leaving one's area of registration also implied forsaking any rights to said state-provisioned goods, including education, subsidized housing, health care, and pensions. Given the highly uneven economic geography of contemporary Chinese capitalism, most ruralites had to go to the cities to find work. The consequence of these various developments was, in effect, a passive privatization of social reproduction for 270 million migrants. While there is no longer the rigid exclusion that characterized the era of the command economy, rural residents face the choice of subpar public services and poverty in the countryside, or marginally better economic opportunities without access to public services in the cities.

It is important to remember that *hukou* affects not only poor migrants but elites as well. Most of the time this will not pose a problem for someone with the resources to purchase high-quality education, housing, and insurance on the market. But there are certain decisive moments, notably the university entrance exam, which have been subject to rigid status-based closure by those with full urban citizenship. Thus, the state has been moving to refine the citizenship regime, not necessarily to make it more inclusive, but to incorporate market-based metrics in distributing nominally public goods. The consequence is that processes of sorting the population are increasingly predicated on the basis of class rather than status.

### *The New Urbanization Plan and Point-Based Citizenship*

2014 was an eventful year in the development of migration policy in China. The National New Urbanization Plan (2014–2020), intended as a blueprint for China's shift to urbanization-driven development, was unveiled in March. The plan aimed to move 100 million people to cities by 2020, under the belief that this would reduce inequality, increase domestic consumption, and

promote higher-value-added production and ecologically sustainable development. In addition to encouraging people to move to cities, with the stated goal of a national urbanization rate of 60 percent by 2020, the new plan aimed to reduce the percentage of people living in cities without local *hukou*.<sup>10</sup> The plan was also quite forthcoming in acknowledging inequalities that had emerged over the previous decades:

Disparities in access to public services between local and migrant populations have produced ever more apparent contradictions in cities' dual structure. The model of primarily relying on unequal public services to minimize expenses and promote rapid urbanization is not sustainable.<sup>11</sup>

Then in July, the State Council released the 'Opinion on Promoting Reform of the Residency System', a document intended to complement the move to urban-led development. The key feature of the Opinion was a call to 'unify the rural and urban *hukou* registration system' and 'comprehensively implement a residential permit system'.<sup>12</sup> The former was hailed as an indication of the end of the apartheid-like features of the system that made transferring from rural to urban *hukou* (*nong-zhuanfei*) particularly difficult. The residential permit was intended to replace the 'temporary resident permit', a designation that allowed migrants to stay and work in the city while denying them access to social services. The residential permit, on the other hand, was supposed to allow for migrants to enjoy similar (though not necessarily identical) rights to those of people with local *hukou*.

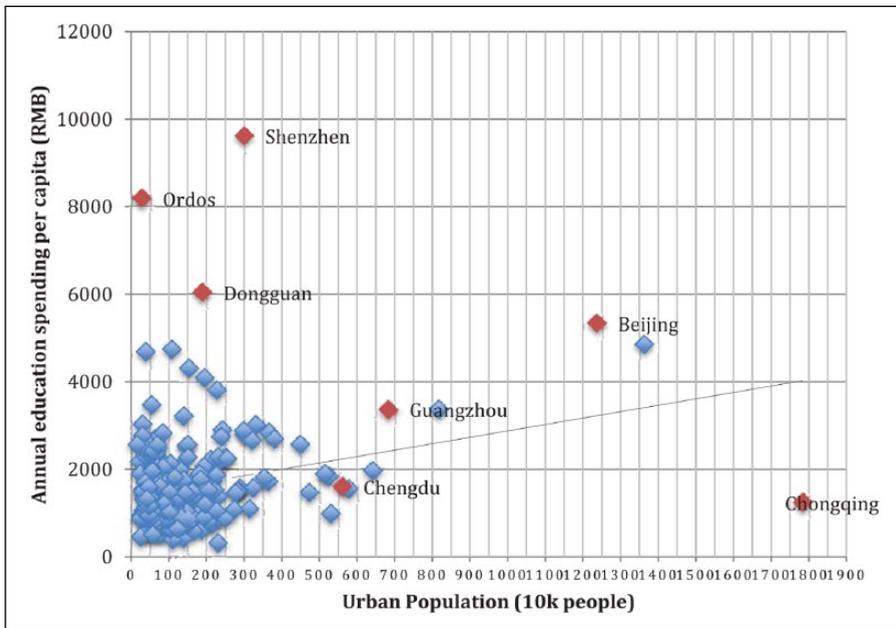
Yet, a closer analysis of these and related policies points to an important nuance: the government was encouraging certain kinds of people to move to certain kinds of cities. Item Six of the urbanization plan is titled, 'promoting the transfer of rural to urban *hukou* for *those who meet certain conditions* [emphasis added]'.<sup>13</sup> As had been the case previously, the central government was not going to dictate to the municipalities any specifics as to the conditions for accessing local *hukou*. But the types of conditions that were generally applicable included 'number of years of employment, number of years of residence, and number of years of participation in urban social insurance', adding that both employment and residence should be 'stable and legal'. Crucially, the central government did not promise any fiscal restructuring to accommodate these new arrivals. Given that municipalities would largely be on the hook for increased outlays in social services, there was reason to doubt their willingness to embrace full integration of new migrants.

Although the center did not directly dictate conditions for admission to various kinds of cities, the urbanization plan gave some indications about how cities of different sizes should proceed. Specifically:

... townships and small cities should comprehensively relax restrictions for attaining local *hukou*; cities with a population of 500,000–1 million residents should relax restrictions in an orderly manner; large cities with a population of 1–3 million should reasonably relax restrictions; large cities with a population of 3–5 million should reasonably establish conditions for attaining local *hukou*; extra-large cities with a population of more than 5 million should strictly control the scope of their population.<sup>14</sup>

What is clear is that the center did not envision significant *hukou* liberalization in large cities – precisely the places with the most dynamic economies and most generous social welfare provision (see Figure 2).

Of greatest relevance for our understanding of JIT urbanization has been the center's promotion of point-based *hukou* schemes (*jifen ruhu*). These schemes have been implemented in the extra-large cities that are the focus of our investigation. Cities in Guangdong province were early adopters of the point-based *hukou* application system, but other municipalities have recently been devising their own schemes. While there is significant variation between various cities' approaches, the basics are the same. Any citizen is eligible for consideration – there are no place-based exclusions.



**Figure 2.** Education spending in urban China, 2013.

Applicants accrue points based on various characteristics, and after meeting some point threshold they are then allowed to apply for local *hukou*. This gives cities a concrete administrative system for including certain kinds of migrants and excluding others.

As of the end of 2015, point-based *hukou* schemes existed in only a limited number of cities. Programs had been unveiled in the Guangdong cities of Guangzhou, Shenzhen, Dongguan, Zhuhai, and Zhongshan. Elsewhere, Tianjian and Shanghai had plans in place, while Beijing was in the process of drafting up guidelines. The State Council's Opinion had said that cities with a population over 5 million should establish point-based schemes. On the other hand, the Opinion says that cities with a population of 3–5 million 'can' establish point-based systems. Both Zhuhai and Zhongshan have fewer than 3 million people, but given their location in the Pearl River Delta they have a relatively high proportion of migrants. Clearly there is no prohibition on smaller cities developing such schemes, even if they are not yet required to do so.

In general, the intent of the programs is captured by the first article of Guangzhou's 'Measure on Point-Based *Hukou* Management', which states that the Measure has been established to 'reasonably control the scope of the population, improve the population structure, improve the quality (*suzhi*) of the population, and coordinate development between the population and the economy, society, resources, and the environment'.<sup>15</sup> The single most important criterion for accruing points is level of education. Although each city assigns different numbers of points for different types of degrees, in general the higher the academic accomplishment the more points an applicant can accrue. Guangzhou assigns points for technical degrees, while Shanghai's system favors those with PhDs as well as graduates of the prestigious '211' universities.<sup>16</sup> In general, cities assign points for various kinds of skills that are in demand in the local labor market.

The point-based systems contain a variety of other provisions that are oriented towards including specific kinds of people. As is recommended in the central government's Opinion, applying for local *hukou* will almost always require that migrants can produce labor contracts and leases

– thereby excluding anyone working in the informal sector or living in informal housing.<sup>17</sup> Most cities assign points based on the amount of income tax applicants have paid within the municipality. For instance, Guangzhou and Tianjin both assign points for applicants who have paid at least 100,000 yuan in income taxes over the previous three years, whereas Shenzhen has an elaborate system that awards progressively more points for more income tax paid. Most cities assign points for the number of years that applicants have paid into the local pension fund. As an increasing number of labor conflicts in recent years have demonstrated, migrant workers rarely receive (legally mandated) pension contributions from their employers. Guangzhou, Shenzhen, and Tianjin bar applicants who have any criminal record or who have violated the birth control policies. And people over 45 are either barred completely from applying or receive point demerits for each year over age 45. Cities are clearly only interested in extending social welfare privileges to young, educated, and relatively wealthy people who will presumably contribute to the economy for many years.

The point-based schemes are an attempt to formalize and make transparent the highly unequal methods large cities have used for distributing rights to local services for many years. And there is no doubt that these plans are emerging as key administrative tools in cities' efforts to get the right kind of labor power delivered, in the right quantity, and at the right time.<sup>18</sup> In conjunction with the more coercive measures to expel undesirable migrants, this suggests an urbanization strategy imbued with the logic of JIT. The problem, however, is that such a technocratic vision of perfect control over human movement can never be realized in practice, particularly in a country which already has a national labor market. By attending to one side of the urban growth dilemma, i.e. avoiding overpopulation, the state would simultaneously deprive capital of a cheap workforce. Furthermore, rural residents are no longer categorically bound to the countryside. But while a national labor market has been institutionalized, citizenship is still constituted at the local level. To put it another way, China has realized freedom of movement for labor power but not people. The consequence is there are more than 270 million migrants that are moving 'out of plan'. How then are these people included and excluded in urban social space? More specifically, for those who are living in the city but have no chance of securing local *hukou*, how do they go about getting access to education for their children?

## Inverted Means Testing

Shifting our focus from the labor market to the sphere of reproduction, we see massive spatial inequality in social spending. Again, in general, the larger the city, the more generous the social service provision (Chan, 2009: 214). As can be seen clearly in Figure 2, there is a clear positive correlation between the size of the city and education spending per capita. High land values in larger cities cannot account for this inequality, as schools occupy public land. Cities are simply spending much more on better teacher salaries, physical plant, educational technology, and recreation facilities.

Gaining local *hukou* guarantees access to local public education; but many – most, perhaps – migrants in the megacities must earn the *privilege* to send their children to public schools. Since 2001, central government policy has been captured by the slogan 'the two primaries', meaning that receiving areas are primarily responsible for paying for migrant children's education, and that these children should primarily be placed in public schools. The 2006 revision of the Compulsory Education Law reaffirmed that receiving areas should 'provide conditions for equal education' for migrant children (Ge, 2009: 1). The government claims that 70 percent of migrant children nationwide are in fact enrolled in public schools. While this number is suspect for a variety of reasons, it is certainly true that many migrants do end up in public schools. The question then becomes, what

is the sorting mechanism whereby some people can access public education while others are relegated to the free market?

In general, the greater a family's access to cultural, economic, and social capital, the better the chance that they will be able to obtain the public good of primary or middle school education. It is important to remember that the population of non-*hukou* holding residents in the megacities is highly heterogeneous in terms of class composition. Although there are different procedures in various cities, there are some common requirements used to exclude working-class migrants. The first requirement is that parents produce a *hukou* for their children from their home region. This seems like a simple enough request as all Chinese citizens are supposed to have *hukou*. However, this requirement ends up excluding a group known in Chinese as 'surplus children' (*chaoshengzi*), which refers to those born in violation of the birth control policies. These children are denied *hukou* unless their parents pay a fine, the amount of which is determined (seemingly arbitrarily) by local birth control officials. Although surplus children are a relatively small portion of the population, they are severely overrepresented in migrant schools.

The second item public schools will typically demand of applicants with non-local *hukou* is a legal employment contract from the parents. Some cities demand multiple years of contracts within the city. Once again, this excludes the poorest migrants, namely those employed in the informal sector. Since the implementation of the Labor Contract Law in 2008, an increasing share of workers has received employment contracts. However, huge swathes of the lower end of the labor market remain fully unregulated. As just a few examples, construction workers, domestic workers, sex workers, street hawkers, drivers, and own-account workers would be very unlikely to be able to produce any kind of labor contract.

The final item that is formally required in most places is a lease or deed to an apartment within the city. China certainly does not have slums on the scale of many countries elsewhere in the global South (Wallace, 2014), and city governments have not shied away from mass evictions and demolitions (Zhang, 2005). Nonetheless, informal housing has persisted in many peri-urban spaces. And it is precisely those migrants with the fewest social or economic resources who are most likely to end up in such informal housing (Logan et al., 2009). Securing a legal lease is thus not a straightforward proposition.

More recently, a number of cities have been experimenting with point-based systems for public school admissions. This approach is not yet widespread, but they are in broad terms similar to the point-based *hukou* schemes. As with the *hukou* schemes, applicants accrue points based on their years of legal residence, property ownership, payments to local insurance system, and receiving official state awards (e.g. being a 'model worker'). Such plans have emerged in Pearl River Delta cities such as Guangzhou, Shenzhen, and Dongguan, but also in Yangzi River Delta cities including Suzhou and Kunshan. Such systems allow public schools to attach numerical scores to each student, thereby giving them a quantitative basis for ranking and admitting students based on the number of openings.

Aside from these formal procedures, there are a number of informal factors that impact migrant children's ability to get into public schools. The first is the practical necessity to bribe school administrators. Since 2010, public schools have been banned from charging educational fees (*jiedufei*) to non-locals. But this formally discriminatory practice has by all accounts persisted in less overt manners. Parents I interviewed in Beijing reported having to pay at least 20,000 yuan (≈US\$3000) to get into public schools. This is a sum equivalent to one year's salary for many migrants.<sup>19</sup> And 20,000 is merely entry-level: the better the school, the higher the cost, with some schools running as high as 60–100,000 yuan for entrance. In many cases personal connections with education department officials or school administrators prove decisive in securing admission. Given that working-class migrants do not travel in the same circles as school administrators, few have the social capital necessary to gain an audience.

In sum, we have two distinct moments in the process of sorting migrants. First, there is the question of whether migrants will be integrated as full citizens (or ‘core’ members, in the language of JIT). Those places with the most generous social services are also the places that have the highest bar of entry. The second moment consists of contingent admission of those migrating out of plan (or the ‘flexible’ members), where certain children can gain access to public schools while others are relegated to the market. These administrative processes can be considered an inverted means test in that accessing publically provided goods is facilitated by an accumulation, rather than a deficit, of means. This is one of the key measures urban governments have to incorporate some migrants in the sphere of social reproduction while excluding others. Whether those excluded will return to the countryside is another matter – they are not categorically *compelled* to leave. But the state has developed a set of market-based metrics to ensure that life in the city will be incredibly difficult for those included only as labor power.

## Conclusion

This article has been centrally concerned with assessing the urban state’s attempts to manage the flow of people during a period of rapid economic growth. Chinese cities have required huge volumes of labor power and hundreds of millions of people have been incorporated in the labor market. The urban growth dilemma refers to competing imperatives to pull people in as labor power but expel them as social beings. The urban state has responded to these contradictory impulses by employing JIT principles in managing the flow of people, with the intention of reducing economic costs and political risks associated with warehousing human waste. But the technocratic aspirations of such an approach can never be realized: while JIT is oriented to a temporality in which the commodity labor power is to be delivered according to fluctuations in the market, human sociality unfolds in a radically different spatio-temporal nexus. The social and political friction resulting from this disjuncture has resulted in cities taking ad hoc approaches to managing surplus population, and extending the public good of education on a contingent basis. Inverted means testing for inclusion in the sphere of social reproduction enhances educational and other forms of inequality, and will almost certainly lead to a rigidification of the class structure.

The question remains as to why Chinese cities are pursuing JIT urbanization. I do not claim that there has been a conscious attempt on the part of state actors to emulate TPS. There are similar pressures coming to bear on the managers of capitalist firms and capitalist cities to reduce costs and foreclose political contestation, and it is possible to imagine that broadly similar techniques would be applicable in both settings. But if these pressures are more or less general in nature, the capacity to manage the flow of people is remarkably uneven in different national settings. Certain historical anomalies have endowed Chinese urban managers with much greater capacity to regulate human movement than is the case in other countries. Most importantly, the state-socialist *hukou* combined with a highly rationalized bureaucracy oriented primarily, if not exclusively, towards economic growth are highly effective tools in pursuing JIT urbanization. But these tools are constantly being refined: the state has also increasingly moved towards regulating inclusion in urban space on the basis of class rather than status.

Is this indicative of a broader historical trend in managing the movement of labor? While these comments must remain speculative, there is growing evidence that JIT-like strategies are emerging in other post-Fordist cities. With the massive expansion of guest worker programs globally (Surak, 2013), it is clear that political, social, and even civil rights have been peeled away from the right to work in a variety of national settings. Led by rapidly growing cities in the South (particularly city-states such as Singapore and Hong Kong along with the Gulf states), these workers now constitute absolute majorities of the workforce in certain sectors. Other places in Asia such as South Korea,

Taiwan, and Japan have implemented sizable guest worker or ‘training’ programs, although these account for a smaller relative share of the workforce. But in all cases, inclusion in production is paired with ongoing exclusion in the spheres of politics and reproduction. As in China, the state reserves the right to expel such workers should they be deemed extraneous. China is somewhat unusual in that the expendable portion of the workforce is recruited domestically and is generally part of the dominant race. But in all cases the common and decisive element is that cities have enhanced their technocratic capacity to reduce waste by admitting and expelling workers in response to labor market dynamics. In contrast to the 20th century Fordist city, a growing share of the workforce now has no value as either consumer or citizen.

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### Notes

1. 20 November 2014. Renkou tiaokong zhengce chujian chengxiao, lai hu ren yuan zengsu mingxian xia-jiang. *Laodong Bao*.
2. 24 January 2015. Beijing shizhang Wang Anshun: yiju zhi du shi women de mubiao. *Zhongguo Qingnian Bao*.
3. 24 January 2015. Beijing shizhang Wang Anshun: yiju zhi du shi women de mubiao. *Zhongguo Qingnian Bao*.
4. Zhao Han (2015). Beijing jinnian de ‘jiaoyu kong ren’ you jiang lakai xumu, ranhou ne? *Caixin*. 10 February.
5. In my view, Foucault’s conception of race is so capacious as to be vacuous. By including both colonialists and socialists as ‘racist’ (the latter because of their advocating violence against the bourgeoisie), he robs the term of any analytical specificity. His conception of racism, then, is really no different from what would typically be thought of as a generic othering.
6. It is true that othering of migrant workers can take on racialized undertones, as they can be described as dirty, of ‘low quality’, or backward. While recognizing the porousness of all racial categories, ‘migrant’ is a relatively escapable form of social designation, and therefore should not be considered a race.
7. I would like to acknowledge that Mezzadra and Neilson use the term ‘just-in-time migration’ in *Border as Method*. I employ the term ‘urbanization’ to draw attention to processes of capitalist transformation and the reconfiguration of the urban welfare state and politics more broadly.
8. It is important to emphasize that this is a *perception* on the part of the state. I am not making any claim about the actual carrying capacity of the city.
9. The relationship between JIT, TPS, and lean production is complicated. Lean and TPS are broadly similar, though the former is concerned with all sorts of production, not just autos. JIT refers more precisely to coordinating the quantity and movement of products in space and time, i.e. managing *flow*, and is a component feature of lean and TPS.
10. Guojia xinxing chengzhenhua gui Hua (2014–2020) at: [http://www.gov.cn/zhengce/2014-03/16/content\\_2640075.htm](http://www.gov.cn/zhengce/2014-03/16/content_2640075.htm)
11. Guojia xinxing chengzhenhua gui Hua (2014–2020) at: [http://www.gov.cn/zhengce/2014-03/16/content\\_2640075.htm](http://www.gov.cn/zhengce/2014-03/16/content_2640075.htm)

12. 30 July 2014. Guowuyuan guanyu jin yi bu tuijin huji zhidu gaige de yijian.
13. Guojia xinxing chengzhenhua guihua (2014–2020) at: [http://www.gov.cn/zhengce/2014-03/16/content\\_2640075.htm](http://www.gov.cn/zhengce/2014-03/16/content_2640075.htm)
14. Guojia xinxing chengzhenhua guihua (2014–2020) at: [http://www.gov.cn/zhengce/2014-03/16/content\\_2640075.htm](http://www.gov.cn/zhengce/2014-03/16/content_2640075.htm)
15. Guangzhou shi jifen ruhu guanli banfa at: <http://gz.bendibao.com/life/20141223/177706.shtml>
16. This refers to a group of over one hundred elite universities in China that receive additional government support.
17. Phillip Huang (2009) has estimated that there are 168 million informal workers in China's cities.
18. The definition of what counts as the right qualities and quantities of labor is flexible, and cities can continually adjust in response to labor market or political demands.
19. Minimum wage in Beijing for 2016 is 1720 yuan/month, which equals 20,640 per year.

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