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State infrastructure and neighborhood well-being in urbanizing China

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ABSTRACT
Urbanization involves a process of state building. As manifest in its infrastructure, the state shapes its interactions with citizens. In this study, we link fine-grained geo-referenced points-of-interest (POI) data of government agencies with the 2018 Urbanization and Quality of Life Survey conducted in 40 localities experiencing rural-urban transition, and investigate how the presence of state infrastructure is associated with neighborhood well-being in China during a period of rapid urbanization. Our findings confirm that urbanization contributes to the expansion of local state: there is more evidence of state infrastructure per capita in newly urbanized areas than in potential sites of urbanization. Moreover, the association between state infrastructure and neighborhood well-being varies based on the type of government institution and the type of neighborhood. The presence of administrative infrastructure is positively associated with neighborhood satisfaction, which is likely due to residents' easier access to public services. In contrast, there is a negative association between coercive infrastructure and neighborhood satisfaction, but less so for urban neighborhoods than rural villages. The research provides nationwide evidence that the process of urbanization increases the state reach as well as its influence on local governance, but the effects of this influence vary considerably.

KEYWORDS
Urbanization; state building; state infrastructure; neighborhood well-being; China

Introduction

Urban growth has characterized developing countries, and China's urbanization process has accelerated dramatically since the reform era (Chen et al., 2014). Between 1978 and 2018, the urbanization rate surged from 17.9% to 59.6%, jumping to 63.9% in 2020 (National Bureau of Statistics of China, 2021). By 2018, urban centers and their outskirts took up more than eight times the area they occupied in 1981 (Ministry of Housing and Urban-Rural Development of China, 2019; Yeh et al., 2011). Although there are over 200 million rural-to-urban migrants, another 200 million rural residents became in-situ urbanites without even leaving their home villages or towns (Chen et al., 2015; Wu et al., 2019).

China's massive urbanization involves not only land change, property development, and population transformation but also the expansion of the state through administrative redistricting and rural-to-urban reclassification (Chen et al., 2021; Kan & Chen, 2022; Wong, 2015). Between 1999 and 2018, the number of rural counties (*xian*) declined from 1,510 to 1,335, while the number of urban districts (*qu*) grew from 749 to 970. During the same period, the number of rural townships (*xiang*) dropped from 24,745 to 10,253, while the number of urban streets (*jiedao*) climbed from 5,904 to 8,393 (National Bureau of Statistics of China, 2020). The Chinese state has increased its presence in local governance as the political decisions and policy agendas associated with urbanization are being implemented (Chang & Wang, 2021; Wong et al., 2021).

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Social science scholars have long considered state infrastructure, the physical presence of state institutions (government organizations and agencies), as a source of power to implement political decisions within the territory (Mann, 1984). The existence and extent of state infrastructure in a particular location signify the state's reach and capacity and its influence on society (Soifer, 2008). Studies have shown that a strong state presence promotes economic development (Dincecco, 2017; North, 1981), prevents political violence (Fearon & Laitin, 2003; Kalyvas, 2006), and facilitates the delivery of public goods (Rothstein, 2011). However, the presence of state power is uneven: more institutions are placed in some regions than others (Soifer, 2008; Steinberg, 2018). Even within the same geographical territory, state infrastructure varies substantially across sectors (Skocpol & Finegold, 1982) and functions (Fukuyama, 2013), which may lead to differing effects of the state on societal well-being.

The process of urbanization in China has significantly transformed its grassroots neighborhoods (Chen et al., 2021; Meyer-Clement, 2020). Studies have shown that, at the neighborhood level, in-situ urbanized rural residents are generally happy with their improved living conditions and residential environments but report greater neighborhood conflicts (Chen et al., 2021). However, it remains unclear whether the increased state infrastructure encourages or thwarts "neighborhood well-being," which is one of the indicators of the success of the national policy goal to provide a good life for all citizens through "human-centered" urbanization (Chen et al., 2017; Phillips & Wong, 2017; Qiao et al., 2019; Topcu, 2014).

Researchers have applied various measures to state infrastructural power, its determinants and effects (Chang & Wang, 2021). In this study, we follow the lead of Hillel D. Soifer (2008), who examined the physical presence of the state infrastructure at the local level because variations in these physical manifestations indicate variations in the state presence (Steinberg, 2018). To assess the unevenness of the state presence in urbanizing China, we obtained geo-referenced points-of-interest (POI) data on the location of state agencies nationwide provided by map service companies. We coded the total number of local government agencies at the county level or below in each county and categorized these agencies according to the core functions of the state in the Chinese government structure and political system: administrative, coercive, legal, or fiscal (Chang & Wang, 2021; Hanson & Sigman, 2021). Specifically, government administration represents the executive branch and its various departments (labor, education, environmental protection, etc.). The coercive function of controlling and repressing social unrest is undertaken by the police and "stability maintenance"—a dispute resolution institution established in the early 1990s to arbitrate civil disputes. Legal institutions include the procuratorate, courts, and notaries. Fiscal institutions cover licensing agencies that regulate the economic activities of industry (Chang & Wang, 2021).

Recent studies demonstrate that a large state presence promotes economic growth by reducing transaction costs and strengthens communities by enforcing property rights and building social capital (Luna & Soifer, 2017; Rogowski et al., 2021). Citizens also express more satisfaction with public services in localities where the state has more influence (Harbers, 2015). However, existing literature discussing whether and the mechanisms through which increased state infrastructure may encourage or thwart neighborhood well-being is rather limited, both in terms of theoretical deliberation and empirical testing. The above questions, however, are crucial for understanding the process of urbanization and state building. They also have important policy implications for allocating government resources and developing effective means to improve citizens' well-being, particularly in China, where the central government continues to stress the primary policy goal of achieving human-centered urbanization.

This study seeks to fill the scholarly gap. In the following sections, we first synthesize relevant literature on urbanization, expansion of the state, and neighborhood well-being during the process of China's rural-urban transformation, and propose our central hypotheses. Building upon research approaches suggested by other scholars (Chang & Wang, 2021; Soifer, 2008; Steinberg, 2018), we further link the 2017 state infrastructure measures developed based on POI data with the 2018

Urbanization and Quality of Life Survey to determine empirically how the presence of local state infrastructure is associated with citizens' reported neighborhood well-being.

Our study is the first to link detailed geo-referenced POI data on state agencies to a nationwide survey conducted in 40 localities experiencing rural-urban transition. As the empirical work on state building continues to expand from cross-country comparison to examination of within-country variations (Soifer, 2015; Harbers, 2015; Koss, 2018), our research contributes to the relevant literature by looking into the impact of state infrastructure on citizens' neighborhood well-being in the context of China's ongoing urbanization and state building. Our study also illustrates the innovative research approach of modeling local state parameters developed using POI data in analyses of individual outcomes based on national samples.

Urbanization as a process of state building

Scholars have argued that, since the Enlightenment, there have been close links between urbanization and expansion of the state (Jennings & Earle, 2016). Population movement and migration play an essential role in urban expansion and development; state-building is another driving force of urbanization, together with economic production and trade (Fields, 1999). The process of state formation is faster and more effective in places where citizens move from dispersed to concentrated environments (Jennings & Earle, 2016). In addition to being hubs of economic development, employment opportunities, education, innovation, social mobility, and cultural exchange, cities are also the sites of government organizations and agencies signifying the existence and extent of the state's power (Cohen, 2006).

The process of urbanization involves the establishment of state infrastructures. In the context of China's fast-track urbanization, rural-urban transition signifies not only land transition, property development, and changes in population composition and livelihoods but also rural-to-urban administrative reclassification (Chen et al., 2021; Kan & Chen, 2022). Few states have more levels of territorial governance than China: they include the governments of provinces, prefectures, counties (including regular counties, county-level cities, and urban districts), and towns (including regular towns, townships in rural areas, and streets in urban areas). While city expansion is commonly dealt with at the prefectural and county levels of government, urbanization via administrative reclassification—what Cartier (2015) calls "territorial urbanization"—is usually implemented at the various lower levels. Counties and county-level cities are converted to urban districts, towns are reclassified as streets, and rural townships are upgraded to towns. In addition to replacing the government of a county or a county-level city with that of an urban district or the government of a town or a rural township with that of a street, there have also been transferences of county-level or township-level units from the governance of one city to another, and the merging of rural townships into towns and of towns into urban districts within cities (Chen et al., 2021; Kan & Chen, 2022).

Scholars argue that urbanization in China has been accompanied by the decentralization of state power: local governments pursue economic growth by appropriating vast swathes of land, leading to "urbanization of place" rather than "urbanization of people" (Cartier, 2015; Heberer & Göbel, 2011; Ong, 2014). Studies have shown that China's urban expansion and development encourage the expansion of the state as local governments reshape their administrations and rationalize their actions by referring to reclassifications (Chen et al., 2021; Wong, 2015). When administrative bodies are reclassified, areas undergo boundary changes, mergers, and rescaling (from one level of government to another; Cartier, 2015; Liu, 2006). During this process, local governments strengthen their hold by converting existing organizations and agencies and creating new ones to facilitate economic growth, mitigate potential social unrest, reduce rural-urban inequalities in service and welfare provisions, and enhance the livelihood and well-being of urbanized rural residents (Kan & Chen, 2022; Wong et al., 2021).

Inevitably, China's fast-track urbanization has been uneven: regional disparities are significant, the allocation of government resources is haphazard, and the consequences of initiatives to increase urbanization vary vastly (Chen et al., 2022; Heshmati & Rashidghalam, 2020). The establishment and organization of local state infrastructure also vary according to its function. Recent studies demonstrate that the Chinese state maximizes the efficiency of coercive institutions by locating them where potential threats to regime stability are suspected (Chang & Wang, 2021; Liu & Chang, 2021; Xu, 2021). Still, we know very little about whether and how the expansion of the state locally during the process of urbanization enhances or hinders citizens' well-being. Following other scholars who have examined the extent of state reach and control (Soifer, 2015; Harbers, 2015; Koss, 2018; Pepinsky, 2019), in this study, we examine the effect of state infrastructure on citizens' well-being at the neighborhood level, using detailed data on the location of state institutions in places undergoing rural-urban transition in China.

State infrastructure and neighborhood well-being

Chinese citizens often describe their ideal life as one in which they "live and work in peace and contentment" (*anju leye* in Chinese). It is also a goal to which the Chinese government claims to devote itself. *Neighborhood well-being* is a term used to describe the good life and satisfaction of a network of people sharing an area of residence, covering living conditions and neighborhood environment, transportation, access to health-care and service facilities, access to primary and secondary schools, neighborhood safety, community management, etc. (Phillips & Wong, 2017; Qiao et al., 2019; Topcu, 2014). Urbanization has been a primary force driving the transformation of Chinese grassroots neighborhoods. As rural villages transition to urban neighborhoods, it is worth investigating whether urbanized rural residents are satisfied with the consequent changes and the role of increased state infrastructure during this process.

Case studies of various urbanized localities of China have found considerable support for the changes: residents generally report their satisfaction with the physical improvements in their living conditions (Jiang et al., 2018; Li et al., 2016; Qiao et al., 2019; Zhang et al., 2018). Some rural residents who have moved to high-rise apartments see the relocation as bringing them a step closer to the "ideal" urban lifestyle, with easy and stable access to basic living facilities, public transportation, health care, and primary and secondary schools (Yep & Forrest, 2016). The residential environment is also better managed and maintained (Chen et al., 2021).

However, the transition from rural villages to urban neighborhoods is not always welcome or fortuitous. Modernized high-rise buildings represent a totally different economic and social milieu. While, in the past, access to land would guarantee a high level of self-reliance for food and other daily necessities, these formerly rural residents now must rely on commercial transactions to obtain their staples, leading to an immediate increase in the cost of living (Yep & Forrest, 2016; Zhang et al., 2018). More neighborhood problems and conflicts are reported in localities undergoing the transition (Chen et al., 2021). Still, in policy discourse, in-situ urbanization has been promoted as a more "human-centered" form of urbanization, enabling villagers to gradually transition into urban ways of living through occupational change and improvements in their living environments (Chen et al., 2017; Meyer-Clement, 2020).

Along with changes in living conditions and neighborhood environments, administrative reclassification and in-situ urbanization also increase the physical presence of the state infrastructure. Scholars argue that the process of state building can enforce property rights and build social capital and, consequently, promote better communities (Luna & Soifer, 2017; Rogowski et al., 2021). Citizens will be more satisfied when public services provided by the state are easily accessible (Harbers, 2015). Since, in China, rural-to-urban redistricting and administrative reclassification are accompanied by state expansion, we postulate that more evidence of state infrastructure per capita will be observed in newly urbanized areas than in potential sites of urbanization. We further hypothesize that an increase in the physical evidence of state infrastructure per capita will be positively associated with neighborhood well-being—measured by an index of residents' reported satisfaction with various aspects of their neighborhood. Such an association is likely to be expected for two reasons. First, increased state reach can foster economic development, maintain social stability, and enhance welfare and public service provisions in the localities (Kan & Chen, 2022; Wong et al., 2021), which will enhance citizens' general satisfaction with their residential neighborhoods. Second, localities with higher state infrastructure per capita are likely to be better planned or have high-quality residential neighborhoods with more greenspace coverage, easy access to transportation, public facilities, and services, and better community management, which will also promote residents' neighborhood satisfaction (Rohe, 2009).

Nonetheless, different types of state institutions—administrative, coercive, legal, and fiscal—may display distinct relationship patterns with neighborhood satisfaction. Because administrative infrastructure includes the government executive branch and its various functional departments, it constitutes the majority of state institutions (Chang & Wang, 2021; Hanson & Sigman, 2021). Our hypothesized positive association between the presence of state infrastructure and neighborhood well-being thus is likely to manifest in the relationship between administrative infrastructure and neighborhood satisfaction. In contrast, the association between coercive infrastructure and neighborhood well-being may follow a different pattern. Existing studies have shown that the coercive institutions are more likely to be located in places with potential social unrest and thus greater threats to regime stability (Chang & Wang, 2021; Liu & Chang, 2021; Xu, 2021). Although more coercive infrastructure may be useful for maintaining social stability, it may not help enhance the overall neighborhood well-being. On the contrary, when more government resources are allocated to the police and "stability maintenance" (Scoggins, 2016), neighborhood well-being may suffer as a result of poor urban planning and public service provision due to insufficient government resources and support. As for legal and fiscal institutions, because their shares are rather small in state infrastructure and their functions are not directly related to urban planning or service provision (Chang & Wang, 2021; Hanson & Sigman, 2021), we speculate that they may not present a distinct relationship with neighborhood well-being when examined separately in the analysis.

The relationship between state infrastructure and neighborhood well-being may also vary according to neighborhood status, whether it is urban, including newly established urban neighborhoods and those converted from rural villages or still rural but located in an urbanizing locality. In particular, we speculate that the association between state infrastructure and neighborhood well-being will be stronger in rural neighborhoods located in urbanizing localities than in urban neighborhoods, because the establishment and organization of local state infrastructure is likely to pose greater impact on rural residents who may anticipate dramatic changes with their villages including demolition and relocation as the places where they reside are transforming from rural to urban (Meyer-Clement, 2020).

Data and methods

Measuring state infrastructure

To measure state infrastructure, we obtained geo-referenced points-of-interest (POI) data on the location of state agencies provided by map service companies and used it to construct a unique spatial dataset. We used Python to scrape the POI data from Amap.com—a navigation and location-based service provider in China and one of the largest in the world. Amap provides the most detailed POIs in China compared to other map service companies. We used the code provided by Amap to identify all government organizations. To ensure reliability and validity, we repeated the data construction procedure for various years and different sources and checked the correlations between different measures (for details please see, Chang & Wang, 2021).

We coded the total number of state agencies at the county and local levels, categorizing these according to the four previously elaborated state functions: administrative, coercive, legal, and fiscal. We calculated the total number of these institutions and the number in each of the four categories per 100,000 people in 2017. We then linked these measures of state infrastructure with individual data from the 2018 Urbanization and Quality of Life Survey.

The 2018 Urbanization and Quality of Life Survey

Sample and data collection

Our individual-level data came from the 2018 Urbanization and Quality of Life Survey. The survey covers 40 primary sampling units (PSUs). These included 32 township-level administrative units in newly urbanized areas (i.e., areas classified as rural before 2000 and incorporated into urban districts or urban centers after 2000; at the township or village level, the selected localities may or may not have been reclassified as urban) and eight townships considered potential sites of urbanization as they are a short distance from a prefectural center. Half of the 40 PSUs were drawn from the list of townships in the 2014 National New Urbanization Comprehensive Pilot Program. We employed the Coarsened Exact Matching (CEM) technique (Iacus et al., 2011) to select the other half from non-pilot areas. Each PSU (township-level administrative unit) was located in a different county, county-level city, or urban district. Thus, the 40 PSUs were linked to 40 county-level administrative units, distributed over 37 prefectures in 17 provinces (12 in eastern China and five in central and western China).

We created a detailed geographical information system (GIS) that aggregates information at the arc-minute level and organizes spatial sample frames of physical areas to further select secondary sampling units (SSUs) and households (Landry & Shen, 2005). Within each PSU, we randomly selected four SSUs that were half square minutes (HSMs) of latitude and longitude—about the size of a rural village or urban neighborhood. Because one of our PSUs only contained three SSUs, a total of 159 SSUs were included in the sample. Within each SSU, we further selected households to be interviewed. The target population was adults aged 18 to 75, regardless of their hukou status, who had been residents of the township for more than six months and in the sampled household for at least 30 days. One eligible respondent was randomly selected from each household using the Kish grid. The survey fieldwork was carried out between April and June 2018 through face-to-face interviews enabled by the computer-assisted personal interviewing (CAPI) system. We sampled a total of 4,949 valid household addresses. After data checking and cleaning, the final valid sample size was 3,229 (response rate = 65.2%). Post-stratification weights were generated to adjust the individuals in the study sample to the 2010 China Township Population Census Data on key variables, including gender and migration status.

Measures

To measure neighborhood well-being, we asked respondents how satisfied they were with the following aspects of their neighborhood: landscaping and community centers, transportation, access to service facilities, access to health-care facilities, access to primary and secondary schools, neighborhood safety, and community management (Phillips & Wong, 2017; Qiao et al., 2019; Topcu, 2014). The answers rated respondents' views using a scale of 1 to 7, with 1 indicating very unsatisfactory and 7 very satisfactory. Cronbach's α was 0.911 for the study sample. We calculated the mean of respondents' answers on the seven items and used this to measure neighborhood satisfaction. Other individual-level covariates covered respondents' demographic and socioeconomic characteristics as identified in existing research (Qiao et al., 2019), including age, gender, marital status, education, occupation, party membership, household wealth, homeownership, hukou, and migration status.

To control for variations in local economic development, government expenditure, and public service provision, we collected data indicating the county GDP, the public expenditure, and the number of medical beds for the 40 PSUs covered in the survey from 2014 to 2017. The National New-Type Urbanization Plan was implemented in 2014, and 2017 precedes the year the household survey was implemented. The natural logarithm of county GDP, public expenses, and number of medical beds per capita in 2014 were included in the analysis.

Two variables were coded and controlled in the analysis to take account of the survey sampling design effects: the townships' status as newly urbanized areas or potential sites of urbanization, and the townships' participation (or nonparticipation) in the 2014 National New Urbanization Comprehensive Pilot Program.

We also collected and coded neighborhood-level variables for the 159 SSUs covered in the survey, including neighborhood types (urban [including newly established urban neighborhoods and those converted from rural villages] or rural) and the physical distance between each neighborhood and the nearest primary school, middle school, police station, hospital, train station, and bus stop.

Analytical strategies

We then examined the associations between the 2017 state infrastructure measures and the 2018 Urbanization and Quality of Life Survey. Given the hierarchical structure of the data, we estimated three-level mixed-effects models with random intercepts, which allow each PSU (township) to have its own intercept and each SSU (neighborhood) to have its own intercept relative to the PSU in which it is situated. The model is specified as follows:

$$y_{ijk} = \beta x_{ijk}^{T} + \gamma_k + \mu_{jk} + \varepsilon_{ijk} \,,$$

where y_{ijk} represents neighborhood satisfaction of individual i in SSU j and PSU k. The covariate vector x_{ijk} includes potential explanatory variables at all three levels, and β is the corresponding vector of regression coefficients. γ_k denotes the level-three random intercept of PSUs, μ_{jk} indicates the level-two random intercept of SSUs, and ε_{ijk} presents the first-level individual disturbance.

Neighborhood satisfaction was the dependent variable. Ordered logistic regressions were estimated. The baseline model included individual-level covariates and controls for sampling design effects. We then added the measure of all state infrastructure per capita in the model estimation. To determine whether the four categories of state infrastructure show different relationship patterns with neighborhood satisfaction, we included the four separate measures (for administrative, coercive, legal, and fiscal institutions) per capita in the model. To determine whether the relationship between state infrastructure and neighborhood satisfaction is related to local economic development or welfare and public service provision, we included controls of county economic development, government fiscal capacity, and public service provision. We further controlled distance measures to determine whether the relationship is influenced by neighborhood access to public infrastructure and services. Finally, we compared urban and rural neighborhoods, and their interactions with the four types of state institutions, in the model estimations to discover whether the relationship differs according to the type of neighborhood.

Results

Descriptive statistics

We first present the descriptive statistics of county/township-, neighborhood-, and individual-level variables. Table 1 shows that state administrative infrastructure has the highest number of institutions per capita (75.866 per 100,000 people), followed by coercive infrastructure (10.447 per 100,000 people), whereas the numbers of legal and fiscal institutions per capita are much lower (4.683 and 6.063 per 100,000 people, respectively). More state infrastructure per capita—total and all four types—can be overserved in newly urbanized areas than in potential sites of urbanization. From 2014 to 2017, newly urbanized areas also had higher county GDP per capita, higher county public expenses per capita but a lower growth rate, and higher growth in the number of medical beds per capita.

Table 2 shows that about 30% of the SSUs are administratively classified as urban neighborhoods, including those newly established and those converted from rural villages. Compared to rural neighborhoods, physical distances in urban neighborhoods to the nearest primary school, middle school, police station, hospital, train station, and bus stop are generally shorter.

Table 1. Descriptive statistics of county/township-level variables and descriptions.

Variables	Whole sample (N = 40)	Newly urbanized areas (N = 32)	Potential sites of urbanization (N = 8)	Variable descriptions
All state infrastructure (mean)	97.058 (55.618)	103.724 (59.838)	70.398 (19.034)	Number of institutions per 100,000 people: min = 27.893, max = 259.335
Administrative (mean)	75.866 (45.013)	80.957 (48.557)	55.500 (15.946)	Number of institutions per 100,000 people: min = 21.107, max = 196.622
Coercive (mean)	10.447 (7.883)	11.422 (8.489)	6.547 (2.317)	Number of institutions per 100,000 people: min = 3.099, max = 45.468
Legal (mean)	4.683 (3.334)	5.093 (3.574)	3.040 (1.227)	Number of institutions per 100,000 people: min = 1.305, max = 16.279
Fiscal (mean)	6.063 (3.700)	6.251 (4.046)	5.310 (1.717)	Number of institutions per 100,000 people: min = 1.459, max = 23.151
County GDP per capita in 2014 (CNY, mean)	60,047 (36,946)	61,981 (38,330)	52,316 (31,834)	County gross domestic product (GDP) per capita in Chinese Yuan (CNY): min = 8,998, max = 181,370
County GDP per capita in 2014 (ln, mean)	10.809 (0.659)	10.836 (0.677)	10.704 (0.611)	Natural logarithm of county GDP per capita: min = 9.105, max = 12.108
County GDP growth 2014–2017 (mean)	28.268 (9.324)	28.106 (9.759)	28.916 (7.878)	Percentage of county GDP growth from 2014 to 2017: min = 8.934, max = 46.274
County public expenses per capita in 2014 (CNY, mean)	7,684 (6496)	7,922 (7,077)	6,733 (3,471)	County public expenses per capita in CNY: min = 2,357, max = 42,120
County public expenses per capita in 2014 (ln, mean)	8.763 (0.560)	8.779 (0.576)	8.698 (0.519)	Natural logarithm of county public expenses per capita: min = 7.765, max = 10.648
County public expenses growth 2014–2017 (mean)	36.644 (26.562)	34.630 (26.736)	44.702 (25.933)	Percentage of county public expenses growth from 2014 to 2017: min = −15.695, max = 99.724
County medical beds per 10,000 residents in 2014 (mean)	43.551 (19.315)	43.850 (21.281)	42.356 (8.409)	Number of medical beds per 10,000 residents:min = 8.859, max = 104.260
County medical beds per 10,000 residents in 2014 (ln, mean)	3.675 (0.470)	3.662 (0.517)	3.727 (0.215)	Natural logarithm of medical beds per 10,000 residents: min = 2.181, max = 4.647
County medical beds growth 2014–2017 (mean)	24.469 (33.298)	25.857 (36.95)	18.916 (9.318)	Percentage of medical beds growth from 2014 to 2017: min = −22.677, max = 154.502
Townships in newly urbanized area (%)	80	100	0	Dichotomous: 1 = townships in newly urbanized areas, 0 = townships that are potential sites of urbanization
Townships in the 2014 Pilot Program (%)	50	50	50	Dichotomous: 1 = townships in the 2014 Pilot Program, 0 = townships not in the 2014 Pilot Program

Data source: POI data from Amap.com; China County Statistical Yearbook.
Note: Means or percentages are reported. Standard deviations are in parentheses.

At the individual level, as shown in Table 3, respondents reported a mean neighborhood satisfaction of 4.639 (standard error = 0.026) on a scale of 1 to 7. About 86% of respondents own their home. More than 80% are rural hukou holders, and about 16% are cross-town migrants.

State infrastructure and neighborhood satisfaction

Table 4 shows the regression results from our three-level mixed-effects models of state infrastructure and neighborhood satisfaction. According to Model 2, the measure of all state infrastructure is not significantly associated with neighborhood satisfaction. Interestingly, the four categories of state infrastructure show different patterns of relationship with neighborhood satisfaction: administrative infrastructure is positively associated with neighborhood satisfaction (coefficient = 0.606, $p < .001$), coercive infrastructure is negatively associated with neighborhood satisfaction (coefficient = −0.863, $p < .001$), and the coefficients for legal and fiscal infrastructure are not significant. The coefficients for administrative and coercive infrastructure remained stable and significant after measures of county

Table 2. Descriptive statistics of neighborhood-level variables and descriptions.

Variables	Whole sample (N = 159)	Urban neighborhoods (N = 49)	Rural neighborhoods (N = 110)	Variable descriptions
Urban neighborhoods (%)	30.818	100	0	Dichotomous: 1 = urban neighborhoods (including newly established ones and those converted from rural villages), 0 = rural neighborhoods
Distance to the nearest primary school (km, mean)	1.947 (1.981)	0.863 (0.676)	2.430 (2.173)	Continuous: min = 0.072, max = 10.473
Distance to the nearest middle school (km, mean)	3.133 (2.767)	1.792 (2.089)	3.730 (2.831)	Continuous: min = 0.023, max = 14.086
Distance to the nearest police station (km, mean)	3.161 (2.286)	1.634 (1.443)	3.841 (2.268)	Continuous: min = 0.088, max = 9.357
Distance to the nearest hospital (km, mean)	5.914 (5.464)	4.399 (6.47)	6.589 (4.833)	Continuous: min = 0.067, max = 29.521
Distance to the nearest train station (km, mean)	19.269 (16.187)	14.901 (20.21)	21.214 (13.695)	Continuous: min = 0.481, max = 68.986
Distance to the nearest bus stop (km, mean)	4.579 (9.524)	2.205 (7.778)	5.637 (10.059)	Continuous: min = 0.029, max = 43.964

Data source: GIS data from Amap.com.
Note: Means or percentages are reported. Standard deviations are in parentheses.

Table 3. Descriptive statistics of survey respondents and variable descriptions.

Variables	Means or percentages	Variable descriptions
Neighborhood satisfaction (mean)	4.639 (0.026)	Continuous: min = 1, max = 7
Age (mean)	51.090 (0.283)	Continuous: min = 18, max = 75
Gender (female, %)	49.373 (0.911)	Dichotomous: 1 = female, 0 = male
Marital status (married, %)	79.624 (0.734)	Dichotomous: 1 = married, 0 = others
Years of schooling (mean)	7.068 (0.079)	Continuous: min = 0, max = 20
Occupation (professional/managerial, %)	8.417 (0.506)	Dichotomous: 1 = professional/managerial, 0 = other
CCP member (%)	6.260 (0.442)	Dichotomous: 1 = Chinese Communist Party (CCP) member, 0 = not a CCP member
Household wealth (mean)	2.352 (0.030)	An index based on ownership of a number of consumer items, such as an LCD TV and a car: min = 0, max = 7
Homeowner (%)	86.146 (0.630)	Dichotomous: 1 = homeowner, 0 = non-homeowner
Hukou (%)		Categorical:
Rural hukou	83.784 (0.672)	0 = rural hukou (reference)
Urban hukou	6.853 (0.461)	1 = urban hukou
Jumin hukou	9.363 (0.531)	2 = jumin hukou
Cross-town migrant (%)	16.173 (0.671)	Dichotomous: 1 = cross-town migrant, 0 = non-migrant

Data source: 2018 Urbanization and Quality of Life Survey.
Note: *N* = 3,011. 218 cases with missing data were excluded. Data were weighted. Means or percentages are reported. Standard errors are in parentheses.

economic development, government fiscal capacity, and public service provision were controlled in Model 5. The results indicate that the relationship between state infrastructure and neighborhood satisfaction is not affected by local economic development or welfare and public service provision. In terms of control variables, county GDP growth was negatively associated with residents' neighborhood satisfaction. Individuals who were older, had fewer years of education, and owned more household wealth were more satisfied with their neighborhoods.

Table 4. Three-level mixed-effects models of state infrastructure and neighborhood satisfaction.

	Neighborhood satisfaction				
Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Township/county-level variables					
State infrastructure					
All state infrastructure		−0.073			
		(0.214)			
Administrative			0.606***		0.523**
			(0.156)		(0.190)
Coercive			−0.863***		−1.092***
			(0.224)		(0.231)
Legal			0.308		0.496
			(0.308)		(0.372)
Fiscal			−0.369		−0.284
			(0.222)		(0.270)
County GDP per capita in 2014 (ln)				0.034	0.153
				(0.190)	(0.196)
County GDP growth 2014–2017				−0.422*	−0.430*
				(0.185)	(0.196)
County public expenses per capita in 2014 (ln)				0.410	0.178
				(0.308)	(0.213)
County public expenses growth 2014–2017				0.174	0.055
				(0.223)	(0.139)
County medical beds per 10,000 residents in 2014 (ln)				−0.050	0.084
				(0.138)	(0.168)
County medical beds growth 2014–2017				−0.218	−0.281
				(0.216)	(0.201)
Townships in newly urbanized areas	0.583	0.627	0.679	0.585	0.729
	(0.532)	(0.551)	(0.527)	(0.462)	(0.446)
Townships in the 2014 Pilot Program	−0.405	−0.384	−0.410	−0.220	−0.146
	(0.403)	(0.396)	(0.376)	(0.375)	(0.327)
Individual-level variables					
Age	0.272***	0.272***	0.275***	0.270***	0.273***
	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Female	0.019	0.019	0.022	0.018	0.020
	(0.079)	(0.079)	(0.079)	(0.079)	(0.079)
Married	0.132	0.131	0.132	0.131	0.132
	(0.110)	(0.110)	(0.109)	(0.110)	(0.109)
Years of schooling	−0.138*	−0.137*	−0.137*	−0.140*	−0.140*
	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Professional/managerial occupation	0.180	0.180	0.178	0.179	0.176
	(0.165)	(0.164)	(0.165)	(0.164)	(0.164)
CCP member	−0.058	−0.058	−0.062	−0.058	−0.062
	(0.144)	(0.144)	(0.145)	(0.144)	(0.144)
Household wealth	0.234**	0.234**	0.237**	0.234**	0.237**
	(0.079)	(0.079)	(0.079)	(0.078)	(0.078)
Homeowner	−0.094	−0.095	−0.104	−0.094	−0.106
	(0.251)	(0.251)	(0.253)	(0.251)	(0.252)
Hukou (ref.: Rural hukou)					
Urban hukou	−0.233	−0.232	−0.230	−0.232	−0.231
	(0.145)	(0.145)	(0.143)	(0.145)	(0.144)
Jumin hukou	−0.152	−0.151	−0.147	−0.152	−0.153
	(0.176)	(0.176)	(0.180)	(0.175)	(0.177)
Cross-town migrants	−0.051	−0.051	−0.040	−0.053	−0.048
	(0.186)	(0.186)	(0.186)	(0.185)	(0.186)
Random-effects parameters					
Variance (township/county)	1.346***	1.341***	0.974**	1.110***	0.709**
	(0.373)	(0.370)	(0.339)	(0.318)	(0.242)
Variance (neighborhood | township/county)	0.587***	0.587***	0.583***	0.587***	0.582***
	(0.165)	(0.165)	(0.164)	(0.165)	(0.164)
Intraclass Correlation Coefficient (ICC)					
Township/county	0.258	0.257	0.201	0.223	0.155
Neighborhood | township/county	0.370	0.369	0.321	0.340	0.282
Observations					

(*Continued*)

Table 4. (Continued).

Variables	Neighborhood satisfaction Model 1	Model 2	Model 3	Model 4	Model 5
Number of county/townships	40	40	40	40	40
Number of neighborhoods	159	159	159	159	159
Number of respondents	3,011	3,011	3,011	3,011	3,011
Model fitting					
Log pseudo likelihood	−4449.1	−4449.0	−4443.6	−4445.8	−4438.5
AIC	8940.1	8942.0	8937.2	8945.5	8938.9
BIC	9066.3	9074.2	9087.5	9107.8	9125.2

Note: Data were weighted. Ordered logistic regressions were estimated.
Standardized coefficients are reported. Robust standard errors in parentheses. *** p < 0.001, ** p < 0.01, * p < 0.05.

Table 5. Three-level mixed-effects models of state infrastructure and neighborhood satisfaction with neighborhood-level variables.

Variables	Neighborhood satisfaction Model 1	Model 2	Model 3	Model 4
Township/county-level variables				
State infrastructure				
Administrative	0.506**	0.278	0.075	0.257
	(0.184)	(0.204)	(0.298)	(0.212)
Coercive	−1.063***	−0.979***	−1.080***	−1.478***
	(0.231)	(0.243)	(0.259)	(0.280)
Legal	0.391	0.388	0.325	0.229
	(0.385)	(0.366)	(0.411)	(0.451)
Fiscal	−0.223	−0.181	−0.056	0.024
	(0.280)	(0.311)	(0.376)	(0.346)
Neighborhood-level variables				
Urban neighborhoods	0.431	0.408	0.501	0.431
	(0.297)	(0.296)	(0.280)	(0.308)
Urban neighborhoods × Administrative			0.530	
			(0.417)	
Urban neighborhoods × Coercive				0.712*
				(0.299)
Distance to the nearest primary school		−0.146	−0.183	−0.141
		(0.159)	(0.167)	(0.151)
Distance to the nearest middle school		0.114	0.106	0.089
		(0.128)	(0.128)	(0.131)
Distance to the nearest police station		−0.025	−0.024	−0.037
		(0.090)	(0.087)	(0.093)
Distance to the nearest hospital		−0.283*	−0.193	−0.210
		(0.138)	(0.128)	(0.130)
Distance to the nearest train station		0.630*	0.585*	0.624**
		(0.248)	(0.240)	(0.236)
Distance to the nearest bus stop		−0.346	−0.335	−0.420*
		(0.180)	(0.185)	(0.181)

Note: Data were weighted. Ordered logistic regressions were estimated. Individual- and county/township-level covariates were controlled.
Standardized coefficients are reported. Robust standard errors in parentheses. *** p < 0.001, ** p < 0.01, * p < 0.05.
The full table is available upon request.

Controlling neighborhood characteristics

When determining neighborhood satisfaction, we must consider that the effect of state infrastructure may manifest itself through neighborhood access to public institutions and services. In Table 5, we present models controlling neighborhood type (Model 1) and neighborhood distances to the nearest primary school, middle school, police station, hospital, train station, and bus stop (Model 2). The positive coefficient on administrative infrastructure in Model 2 decreases and becomes insignificant, whereas the coefficient on coercive infrastructure remains negative, strong, and significant. The results indicate that the association between the presence of local administrative infrastructure and residents' neighborhood satisfaction can be partially explained by access to public institutions and services in the neighborhood.

We included the interactions of neighborhood type with administrative and coercive state institutions, respectively, to investigate any differences in the relationship between state infrastructure and neighborhood satisfaction between urban and rural neighborhoods. According to Model 3 in Table 5, the association between administrative infrastructure and neighborhood satisfaction does not differ by neighborhood type. Model 4 shows the effects of coercive infrastructure: while the negative coefficient for coercive infrastructure (coefficient = −1.478, $p < .001$) becomes stronger than that in Model 2, the coefficient for its interaction with urban neighborhood is positive (coefficient = 0.712, $p < .05$), which indicates that the negative association between coercive infrastructure and neighborhood satisfaction is stronger in rural neighborhoods. In urban neighborhoods, residents' neighborhood satisfaction is less negatively associated with the presence of coercive state infrastructure.

Robustness checks

One concern about the significant negative relationship between the presence of coercive institutions and neighborhood satisfaction is that there might be an omitted variable. Where there is more crime, there are more police stations and lower neighborhood satisfaction. Thus, the existence of more crime may be the original cause of lower satisfaction. To test this possibility, we controlled for the criminal

Table 6. Robustness checks of three-level mixed-effects models of state infrastructure and neighborhood satisfaction.

	Neighborhood satisfaction						
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Township/county-level variables							
State infrastructure							
Administrative	0.523**	0.525**	0.564**	0.488**	0.487**	0.808***	0.573***
	(0.190)	(0.187)	(0.186)	(0.186)	(0.159)	(0.212)	(0.168)
Coercive	−1.092***	−1.115***	−0.969***	−1.103***	−0.962***	−1.053***	−0.586*
	(0.231)	(0.243)	(0.160)	(0.216)	(0.181)	(0.190)	(0.267)
Legal	0.496	0.532	0.317	0.495	0.393	0.430	0.132
	(0.372)	(0.386)	(0.342)	(0.364)	(0.264)	(0.261)	(0.337)
Fiscal	−0.284	−0.317	−0.233	−0.164	−0.070	−0.130	−0.044
	(0.270)	(0.273)	(0.284)	(0.292)	(0.242)	(0.229)	(0.228)
Length of county WeChat public account			0.379*				
			(0.192)				
Tier of prefecture (ref.: tier 1)							
Tier 2				0.097			
				(0.642)			
Tier 3				−0.257			
				(0.431)			
Tier 4				−0.647			
				(0.517)			
East region					1.309***	1.396***	1.332***
					(0.398)	(0.363)	(0.351)
East region × Administrative						−0.538*	
						(0.261)	
East region × Coercive							−1.020**
							(0.363)
Individual-level variables							
Perceived neighborhood crime		−0.470*					
		(0.227)					

Note: Data were weighted. Ordered logistic regressions were estimated. Individual- and county/township-level covariates were controlled.
Standardized coefficients are reported. Robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.
The full table is available upon request.

activities in the neighborhoods reported by respondents. For easy reference, we presented Model 5 in Table 4 as the baseline Model 1 in Table 6 and added reported neighborhood crime in Model 2. The coefficient for neighborhood crime is negative and significant. Respondents who reported criminal activity in their neighborhood showed lower neighborhood satisfaction. Nonetheless, the coefficient for the coercive state infrastructure did not change and remained significant, indicating that the relationship between the presence of coercive institutions and neighborhood satisfaction is not a result of crime.

We also tested whether, and to what extent, the effect of the physical presence of local state infrastructure on residents' neighborhood satisfaction may be linked to the government's use of social media to promote accountability (Stamati et al., 2015) to check the robustness of our findings. We included the length of time (in months) since the establishment of the county WeChat public account in the model estimation (Pan, 2020). As Table 6, Model 3 reports, the coefficients for administrative and coercive state infrastructure remain stable and significant. The coefficient for the county WeChat account is positive and significant, which indicates that local government accountability also functions as a determinant of citizens' neighborhood well-being, although it does not account for the association between the physical presence of state infrastructure and neighborhood satisfaction.

Although we have controlled local economic development and public service provision in the mixed-effects models, there may still be some unadjusted heterogeneity due to, for example, city size, region, etc. Based on available data, we controlled the tier of prefecture in Table 6, Model 4. The results show that the city tier was not associated with residents' neighborhood satisfaction. In Model 5, we controlled the location of township/county, indicating whether it was in the eastern or the central and western region. Compared with residents in the central and western regions, residents in the eastern region reported higher neighborhood satisfaction. The association between the presence of state infrastructure and neighborhood satisfaction remains consistent. We added the interaction terms between region and administrative state infrastructure and between region and coercive state infrastructure in Model 6 and Model 7, respectively, to further check the moderation effect of region. The coefficients of the two interaction terms are both negative and statistically significant. The result indicates that, compared with the central and western regions, the positive association between the presence of administrative state institutions and neighborhood satisfaction in the eastern region is weaker, although the negative association between the presence of coercive state institutions and neighborhood satisfaction is stronger.

Discussion and conclusion

As manifest in its infrastructure, the state shapes its interactions with citizens (Mann, 1984). In this article, we examine how state infrastructure is associated with residents' neighborhood well-being in the context of urbanizing China. We linked the presence of government institutions in 2017 with the 2018 Urbanization and Quality of Life Survey implemented in 40 localities undergoing rural-urban transition. Our empirical analysis based on three-level mixed-effects models yielded several key findings. First, urbanization encourages the expansion of the state: a greater increase in state infrastructure per capita is observed in newly urbanized areas than in potential sites of urbanization. Second, the four types of state institutions show distinct patterns of relationship with neighborhood well-being: the presence of administrative infrastructure is positively associated with neighborhood satisfaction, the presence of coercive infrastructure is negatively associated with neighborhood satisfaction, whereas the association between the presence of legal or fiscal infrastructure and neighborhood satisfaction is not significant. In addition, the positive association between administrative infrastructure and neighborhood well-being can be partially explained by greater resident access to public services. Moreover, the negative association between coercive infrastructure and neighborhood well-being varies by neighborhood type: it is weaker in urban neighborhoods than in rural ones.

The extent of state infrastructure reflects the state's capacity and the effects of the state on society (Soifer, 2008). Our findings provide nationwide evidence for the argument that the past two decades of rural-urban transition in China have involved not only land appropriation and population transformation but also state expansion (Wong, 2015). The process of urbanization thus strengthens the state and its role in local governance. However, the effects of the state infrastructure on society vary according to type. Among the four categories, administrative infrastructure is represented by the highest number of institutions per capita and shows a positive relationship with neighborhood satisfaction. On the one hand, this suggests that the processes of urbanization and state expansion enforce property rights, build social capital, and, consequently, lead to overall happier communities (Luna & Soifer, 2017; Rogowski et al., 2021). On the other hand, our analysis shows that the positive association between administrative infrastructure and neighborhood satisfaction can be partially attributed to the fact that residents and neighborhoods also have better access to public services where there are more government administrative agencies. Such findings suggest that during the process of urbanization the local government can enhance neighborhood well-being through the delivery of public goods, particularly through improving neighborhood access to public institutions and services such as primary and middle schools, police stations, hospitals, train stations, and bus stops (Rothstein, 2011). Such a strategy aligns with the government's goal to provide a good life for all citizens through human-centered urbanization. Our analysis controlled for local economic development, but we did not find clear evidence that greater state reach enhances neighborhood well-being by fostering economic growth. Although the Chinese government has treated urbanization as an engine of modernization and economic growth, focusing solely on urban expansion and economic development will not achieve the eventual policy goal of improving well-being and quality of life of their citizens (Chen et al., 2022; Guan et al., 2018).

Unlike administrative bodies, coercive institutions are negatively associated with neighborhood satisfaction, and the negative relationship is stronger in rural villages than in urban neighborhoods. Our robustness tests show that the relationship is unlikely to be driven by more crime. The findings indicate that local governments establish more coercive institutions in urbanizing locales. As they try to optimize the efficacy of coercive institutions (Chang & Wang, 2021; Liu & Chang, 2021; Xu, 2021), the process does not help enhance neighborhood well-being by maintaining stability in places undergoing rural-urban transformation (Kan & Chen, 2022; Wong et al., 2021). In particular, the negative association between the presence of coercive state institutions and neighborhood satisfaction is stronger in the eastern region, with a higher level of urbanization, than in the central and western regions. Thus, as the process of urbanization continues in China, local governments should allocate more resources to enhance the reach and capacity of administrative infrastructure to ensure better urban design and planning, provide high quality public goods, and ensure neighborhood access to facilities and services.

To summarize, our research highlights that urbanization involves a process of state building, and the association between the presence of state infrastructure and neighborhood well-being varies according to the type of state institution, the status of the neighborhood, and the region. More resources should be allocated to enhance local governments' administrative capacity and effective service provision to achieve human-centered urbanization. In conclusion, we urge caution in interpreting the results of our study. First, the POI data indicate the location of state infrastructure but not the size of the institution. Therefore, the measure better signifies the reach of the state but may not accurately reflect the actual capacity of the local state. Future research could collect and apply additional measures on organizational resources, such as the number of staff and budget size, to complement the POI data. Second, although we used the 2017 measures of state infrastructure at the county and township levels when estimating neighborhood well-being reported in a 2018 survey, the nature of the relationship remains cross-sectional. Future studies should construct longitudinal data at both the individual and the local levels to better delineate the changes in urbanization, state building, and societal well-being, and their causal inferences.

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References

Cartier, C. (2015). Territorial urbanization and the party-state in China. *Territory, Politics, Governance*, *3*(3), 294–320. https://doi.org/10.1080/21622671.2015.1005125

Chang, C., & Wang, Y. (2021). The reach of the state. SSRN: http://doi.org/10.2139/ssrn.3736763

Chen, J., Chen, S., Landry, P. F., & Davis, D. S. (2014). How dynamics of urbanization affect physical and mental health in urban China. *The China Quarterly*, *220*, 988–1011. http://dx.doi.org/10.1017/S0305741014001465

Chen, J., Davis, D. S., & Landry, P. F. (2017). *Beyond hukou reform: Enhancing human-centered urbanization in China. Paulson Policy Memoranda*, Paulson Institute. https://www.paulsoninstitute.org/wp-content/uploads/2017/02/PPM_Beyond-Hukou_Chen_Davis_Landry_English.pdf

Chen, J., Davis, D. S., Wu, K., & Dai, H. (2015). Life satisfaction in urbanizing China: The effect of city size and pathways to urban residency. *Cities*, *49*, 88–97. https://doi.org/10.1016/j.cities.2015.07.011

Chen, J., Kan, K., & Davis, D. S. (2021). Administrative reclassification and neighborhood governance in urbanizing China. *Cities*, *118*, 103386. https://doi.org/10.1016/j.cities.2021.103386

Chen, J., Landry, P. F., & Davis, D. S. (2022). Implementing the national new type urbanization plan: Regional variations. In W. Wu & Q. Gao (Eds.), *China urbanizing: Impacts and transitions* (pp. 131–148). University of Pennsylvania Press.

Cohen, B. (2006). Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in Society*, *28*(1–2), 63–80. https://doi.org/10.1016/j.techsoc.2005.10.005

Dincecco, M. (2017). *State capacity and economic development: Present and past*. Cambridge University Press.

Fearon, J. D., & Laitin, D. D. (2003). Ethnicity, insurgency, and civil war. *American Political Science Review*, *97*(1), 75–90. https://doi.org/10.1017/S0003055403000534

Fields, G. (1999). Urbanization and the transition from agrarian to industrial society. *Berkeley Planning Journal*, *13*(1), 102–128. https://doi.org/10.5070/BP313113032

Fukuyama, F. (2013). What is governance? *Governance*, *26*(3), 347–368. https://doi.org/10.1111/gove.12035

Guan, X., Wei, H., Lu, S., Dai, Q., & Su, H. (2018). Assessment on the urbanization strategy in China: Achievements, challenges and reflections. *Habitat International*, *71*, 97–109. https://doi.org/10.1016/j.habitatint.2017.11.009

Hanson, J. K., & Sigman, R. (2021). Leviathan's latent dimensions: Measuring state capacity for comparative political research. *The Journal of Politics*, *83*(4), 1495–1510. https://doi.org/10.1086/715066

Harbers, I. (2015). Taxation and the unequal reach of the state: Mapping state capacity in Ecuador. *Governance*, *28*(3), 373–391. https://doi.org/10.1111/gove.12117

Heberer, T., & Göbel, C. (2011). *The politics of community building in urban China*. Routledge.

Heshmati, A., & Rashidghalam, M. (2020). Measurement and analysis of urban infrastructure and its effects on urbanization in China. *Journal of Infrastructure Systems*, *26*(1), 04019030. https://doi.org/10.1061/(ASCE)IS.1943-555X.0000513

Iacus, S. M., King, G., & Porro, G. (2011). Causal inference without balance checking: Coarsened exact matching. *Political Analysis*, *20*(1), 1–24. https://doi.org/10.1093/pan/mpr013

Jennings, J., & Earle, T. K. (2016). Urbanization, state formation, and cooperation: A reappraisal. *Current Anthropology*, *57*(4), 474–493. https://doi.org/10.1086/687510

Jiang, Y., Waley, P., & Gonzalez, S. (2018). 'Nice apartments, no jobs': How former villagers experienced displacement and resettlement in the western suburbs of Shanghai. *Urban Studies*, *55*(14), 3202–3217. https://doi.org/10.1177/0042098017740246

Kalyvas, S. N. (2006). *The logic of violence in civil war*. Cambridge University Press.

Kan, K., & Chen, J. (2022). Administrative restructuring and the territorial urbanization of rural China. *Journal of Contemporary China*, *31*(136), 626–643. https://doi.org/10.1080/10670564.2021.1985841

Koss, D. (2018). *Where the party rules: The rank and file of China's communist state*. Cambridge University Press.

Landry, P. F., & Shen, M. (2005). Reaching migrants in survey research: The use of global positioning system to reduce coverage bias in China. *Political Analysis*, *13*(1), 1–22. http://doi.org/10.1093/pan/mpi001

Liu, J. (2006). "Administrative region economy" phenomenon in China's transitional period. *Economic Geography*, *26*(6), 897–901. [in Chinese].

Liu, A. Y., & Chang, C. (2021). Standing by: The spatial organization of coercive institutions in China. *Social Science Research*, *94*, 102517. https://doi.org/10.1016/j.ssresearch.2020.102517

Li, J., Wang, F., Wuzhati, S., & Wen, B. (2016). Urban or village residents? A case study of the spontaneous space transformation of the forced upstairs farmers' community in Beijing. *Habitat International*, *56*, 136–146. http://doi.org/10.1016/j.habitatint.2016.04.009

Luna, J. P., & Soifer, H. D. (2017). Capturing sub-national variation in state capacity: A survey-based approach. *American Behavioral Scientist*, *61*(8), 887–907. https://doi.org/10.1177/0002764217720964

Mann, M. (1984). The autonomous power of the state: Its origins, mechanisms and results. *European Journal of Sociology*, *25*(2), 185–213. https://doi.org/10.1002/9780470755686.ch3

Meyer-Clement, E. (2020). Rural urbanization under Xi Jinping: From rapid community building to steady urbanization? *China Information*, *34*(2), 187–207. https://doi.org/10.1177/0920203X19875931

Ministry of Housing and Urban-Rural Development of China. (2019). *China's urban construction statistical yearbook 2018*. China Planning Press.
National Bureau of Statistics of China. (2020). *National data on administrative divisions*. https://data.stats.gov.cn/easyquery.htm?cn=C01
National Bureau of Statistics of China. (2021). *China statistical yearbook 2021*. China Statistics Press.
North, D. C. (1981). *Structure and change in economic history*. Norton.
Ong, L. H. (2014). State-led urbanization in China: Skyscrapers, land revenue and "concentrated villages. *The China Quarterly*, *217*, 162–179. https://doi.org/10.1017/S0305741014000010
Pan, J. (2020). Temporality alignment: How WeChat transforms government communication in Chinese cities. *Chinese Journal of Communication*, *13*(3), 241–257. https://doi.org/10.1080/17544750.2019.1679855
Pepinsky, T. B. (2019). The return of the single-country study. *Annual Review of Political Science*, *22*(1), 187–203. https://doi.org/10.1146/annurev-polisci-051017-113314
Phillips, R., & Wong, C. (2017). Introduction. In R. Phillips & C. Wong (Eds.), *Handbook of community wellbeing research* (pp. xxix–xxxviii). Springer.
Qiao, M., Wong, C., & Zheng, W. (2019). Sustainable urbanisation and community well-being in suburban neighbourhoods in Beijing, China. *International Journal of Community Well-Being*, *2*(1), 15–39. https://doi.org/10.1007/s42413-019-00019-9
Rogowski, J. C., Gerring, J., Maguire, M., & Cojocaru, L. (2021). Public infrastructure and economic development: Evidence from postal systems. *American Journal of Political Science*. http://doi.org/10.1111/ajps.12594
Rohe, W. M. (2009). From local to global: One hundred years of neighborhood planning. *Journal of the American Planning Association*, *75*(2), 209–230. https://doi.org/10.1080/01944360902751077
Rothstein, B. (2011). *The quality of government: Corruption, social trust, and inequality in international perspective*. University of Chicago Press.
Scoggins, S. E. (2016). *Policing China: Struggles of capacity, order, and organization*. University of California.
Skocpol, T., & Finegold, K. (1982). State capacity and economic intervention in the early New Deal. *Political Science Quarterly*, *97*(2), 255–278. https://doi.org/10.2307/2149478
Soifer, H. (2008). State infrastructural power: Approaches to conceptualization and measurement. *Studies in Comparative International Development*, *43*(3), 231–251. http://doi.org/10.1007/s12116-008-9028-6
Soifer, H. D. (2015). *State building in Latin America*. Cambridge University Press.
Stamati, T., Papadopoulos, T., & Anagnostopoulos, D. (2015). Social media for openness and accountability in the public sector: Cases in the Greek context. *Government Information Quarterly*, *32*(1), 12–29. https://doi.org/10.1016/j.giq.2014.11.004
Steinberg, J. (2018). 'Strong' states and strategic governance: A model of territorial variation in state presence. *Journal of Theoretical Politics*, *30*(2), 224–245. https://doi.org/10.1177/0951629817748204
Topcu, U. (2014). Neighborhood well-being. In A. C. Michalos (Ed.), *Encyclopedia of quality of life and well-being research* (pp. 4337–4340). Springer.
Wong, S. W. (2015). Urbanization as a process of state building: Local governance reforms in China. *International Journal of Urban and Regional Research*, *39*(5), 912–926. https://doi.org/10.1111/1468-2427.12250
Wong, S. W., Dai, Y., Tang, B. S., & Liu, J. (2021). A new model of village urbanization? Coordinative governance of state-village relations in Guangzhou City, China. *Land Use Policy*, *109*, 105500. https://doi.org/10.1016/j.landusepol.2021.105500
Wu, W., Zhang, M., Qing, Y., & Li, Y. (2019). Village resettlement and social relations in transition: The case of Suzhou, China. *International Development Planning Review*, *41*(3), 269–291. https://doi.org/10.3828/idpr.2018.27
Xu, X. (2021). To repress or to co–opt? Authoritarian control in the age of digital surveillance. *American Journal of Political Science*, *65*(1), 309–325. http://doi.org/10.1111/ajps.12514
Yeh, A. G. O., Xu, J., & Liu, K. (2011). *China's post-reform urbanization: Retrospect, policies and trends*. International Institute for Environment and Development and United Nations Population Fund. https://www.iied.org/10593iied
Yep, R., & Forrest, R. (2016). Elevating the peasants into high-rise apartments: The land bill system in Chongqing as a solution for land conflicts in China? *Journal of Rural Studies*, *47*(B), 474–484. https://doi.org/10.1016/j.jrurstud.2016.07.017
Zhang, M., Wu, W., & Zhong, W. (2018). Agency and social construction of space under top-down planning: Resettled rural residents in China. *Urban Studies*, *55*(7), 1541–1560. https://doi.org/10.1177/0042098017715409