

# Public Goods and Regime Support in Urban China

Bruce J. Dickson<sup>\*</sup>, Pierre F. Landry<sup>†</sup>, Mingming Shen<sup>‡</sup> and Jie Yan<sup>§</sup>

## Abstract

Why do authoritarian regimes try to improve the quality of their governance? In the absence of democratic institutions to monitor, reward and punish their performance, authoritarian politicians are normally expected to seek their self-interest through corruption and rewards to cronies, rather than providing for the public welfare. However, the Chinese state has actively promoted improved governance in recent years, with greater attention to quality of life issues to balance the primary focus on sustaining rapid economic growth. This paper analyses intra-national variation in the provision of public goods in urban China and the impact of public goods on regime support. Does better governance lead to higher levels of public support for the regime, even in the absence of democratic elections? Our evidence suggests that it does, with a greater impact for the local level than for the centre.

**Keywords:** China; public goods; legitimacy; governance

---

Does better provision of public goods produce popular support in authoritarian regimes? The positive link between this type of governance and popular support is conventional wisdom in democratic polities, where elected officials seek to provide more public goods in order to be re-elected.<sup>1</sup> Leaders in authoritarian regimes also want to remain in power, but they face different incentives for achieving that goal. Because they are not disciplined by the threat of losing elections, they have less need to court popular support. Therefore, in most authoritarian regimes, politicians more typically distribute private goods – such as plum jobs and access to scarce goods and services – to their elite supporters rather than to the public at large. In the words of Bruce Bueno de Mesquita and his co-authors, “bad policy is good politics” for authoritarian leaders.<sup>2</sup>

\* George Washington University. Email: [bdickson@gwu.edu](mailto:bdickson@gwu.edu) (corresponding author).

† NYU-Shanghai.

‡ Peking University.

§ Peking University.

1 There is a vast literature on regime types and the provision of public goods. See, e.g., Lipset 1959; Przeworski et al. 2000; Bueno de Mesquita et al. 2003; Sen 2004; Haggard and Kaufmann 2008; Gerring, Thacker and Alfaro 2012.

2 Bueno de Mesquita et al. 2003.

Although analysing the provision of public goods is a common feature of the literature on democratic regimes, it has not received nearly as much attention in the literature on authoritarian and hybrid regimes. What little research has been done on non-democratic regimes is mostly in the context of elections: in order to ensure a convincing electoral victory, even autocrats will increase spending on public goods.<sup>3</sup> But, in one-party regimes that do not have national elections or even the semblance of political competition, such as the current regime in China, increased spending on public goods must have other explanations.

China's leaders are not following the "bad policy is good politics" strategy of political survival. While it is true that the main beneficiaries of economic development have been political insiders, the regime has also been providing greater amounts of public goods such as education, health care and poverty alleviation in recent years. The primary threat to the regime comes not from alternative groups of elites but from political discontent among the population at large. As a result, efforts to govern better are derived from the regime's recent emphasis on building a "harmonious society," which emphasizes both economic growth and political stability. The implicit bargain is that more public goods will generate more public support, which in turn produces more stability and reduces protests, and ultimately contributes to the primary goal of economic growth.

Alternatively, the relationship between growth, public goods and the regime may be quite different: if the desired goal of rapid growth is not simply modernization but legitimacy for the ruling party, then providing more public goods may be an alternative means of achieving that goal. Although most discussions of legitimacy in contemporary China are premised on the notion that economic growth is the primary basis for the regime's legitimacy, the regime itself has a more varied strategy.<sup>4</sup> Providing public goods addresses societal needs not met by growth alone, potentially benefits a wider range of the population, and may provide an alternative and more durable source of regime support. While post-Mao leaders pursued the twin goals of wealth and power, they also reduced the state's commitment to equality and the welfare needs of its people, making the Chinese Communist Party's (CCP) official slogan – "serve the people" – increasingly hollow and hypocritical. When the corrupt practices and heavy-handed tactics used by local officials to promote growth threaten to de-legitimize the regime, providing public goods may help restore legitimacy.

That is the proposition that we examine in the rest of this paper. In the following sections, we will first review the literature on the provision of public goods in China, analyse intra-national variation in the provision of three types of public goods (health care, education and social welfare), and then present data from an original nationwide survey of urban areas to evaluate the link between the provision of public goods and levels of regime support (see the Appendix for survey details). We will show that intra-national variation in the provision of public

3 Gandhi 2008; Magaloni 2008; Gibson and Hoffman 2013.

4 Shue 2010; Gilley 2008; Gilley and Holbig 2009; Wright 2010; Schubert 2014.

goods is a result of differences in levels of prosperity, local state capacity and fiscal transfers; and that public goods do enhance regime support but bring more benefit to localities than to the centre.

### The Politics of Public Goods Provision in Contemporary China

The quality of governance in China has drawn increased attention from scholars and international organizations. In the early post-Mao era, many scholars examined the potential for democratization. As years passed, and the regime remained in place, more scholars began to examine the reasons for the regime's continued survival rather than the potential for regime change. These include greater institutionalization of the political system;<sup>5</sup> cosy relations between government and business;<sup>6</sup> demobilization of labour;<sup>7</sup> control over the media;<sup>8</sup> and even popular support.<sup>9</sup> The quality of governance was another potential source of regime continuity, but while some studies focused on explaining variation in the provision of public goods, and others focused on evaluating levels of popular satisfaction with those public goods, few studies integrated both the causes and consequences of governance in China.

Previous studies on governance in China have highlighted several key findings. First of all, as Lily Tsai has shown, the provision of public goods varies widely at the local level. Otherwise similar communities have vastly different amounts of public goods, such as paved roads and schools in good repair. She argues that “solidary” groups, such as clans and temple associations, are the key to understanding which communities enjoy better public goods.<sup>10</sup> Although local officials provide public goods in order to remain in good standing with the solidary groups to which they belong, whether that social support is translated into popular support for the regime as whole is not addressed. And while solidary groups may be influential in China's villages, they are unlikely to play a similar role in China's cities, which are too large to be dominated by a single group.

Ethan Michelson makes a converse argument: whereas Tsai found that the local social context determines the provision of public goods, Michelson concludes that better governance leads to improvements in the social and political environment.<sup>11</sup> He compares two surveys – one before the 2008 international financial crisis and one after – to show how stimulus spending initiated by Beijing in the midst of the crisis changed state–society relations. More specifically, “*perceived change* in government investment in public goods is positively associated (1) with *perceived improvements* in local state–society relations ...

5 Nathan 2003; Shambaugh 2009.

6 Tsai, Kellee S. 2007; Dickson 2008.

7 Gallagher 2005.

8 Brady 2008; Stockmann 2012.

9 Chen 2004; Wright 2010; Tang 2016.

10 Tsai, Lily Lee 2007, 4; see also Lu 2015.

11 Michelson 2012.

and (2) with *perceptions* of the state's degree of care for villagers."<sup>12</sup> Although respondents were more satisfied with the central government than with local governments, perceived improvements in the provision of public goods had a bigger impact on attitudes towards village and township governments. Although Michelson relies on perceptions of change rather than objective indicators, his conclusions are clear: improved governance leads to improved relations between state and society in rural China.

Tony Saich compares governance in both urban and rural China.<sup>13</sup> He analyses both the degree of satisfaction and the perceived importance of policy issues. Like Michelson, his attention is on perceptions of governance rather than objective measures, and he also finds that levels of satisfaction are higher for the central government than for local governments. Studies by the World Bank, OECD, Unirule and other organizations have provided detailed descriptions of how some cities are governed better than others.<sup>14</sup> Other studies have looked carefully at specific public goods, such as education, health care and pensions.<sup>15</sup> They focus on the politics behind the policy decisions, their implementation and their social consequences, but do not systematically address the public's evaluation of these policies.

In short, existing studies on the provision of public goods in China are diverse but have left a gap. While some studies have focused on the causes of local variation, and others have focused on levels of satisfaction, most do not link the causes and consequences together. Those that do emphasize the link rely on the impressions of survey respondents rather than on direct measures. In this paper, we attempt to fill this gap by examining local variation in the provision of public goods and analysing the link between that provision and regime support. Together, these data allow us to see what factors are correlated with the provision of public goods and whether public goods generate regime support.

## Overview of the Provision of Public Goods in China

During the Maoist era, men and women who worked for state-owned enterprises (SOEs) became the aristocracy of Chinese labour, enjoying well-paid jobs, lifetime job security and generous benefits, including housing, health care, education, various other subsidies and welfare benefits for themselves and their families, pensions when they retired, and the right to pass on their jobs to their children. Not all of China's workers were so fortunate. Those who had temporary or part-time contracts were not entitled to the same pay and benefits as permanent, full-time workers. Even those with full-time jobs in collective enterprises had lower wages and fewer benefits than SOE workers.<sup>16</sup> Those who lived in the

12 Ibid., 147, emphasis added.

13 Saich 2008.

14 World Bank 2006; OECD 2005; Unirule 2012.

15 Lin 2013; Kipnis 2011; Kaufman, Kleinman and Saich 2006; Frazier 2010.

16 Walder 1986; Perry 1994.

countryside were further disadvantaged. Education was provided in schools that were often distant, poorly funded and staffed with unqualified teachers. Health care was largely in the hands of minimally trained “barefoot doctors.” And, because the household registration system (*hukou* 户口) determined where people could live, where they could work and what public goods they had access to, mobility was sharply circumscribed.<sup>17</sup> Despite these discrepancies, China experienced marked progress in human development. Between 1950 (the year after the CCP took power) and 1982 (early in the post-Mao era), life expectancy rose from 35 to 67.5 years, and adult literacy rose from around 20 per cent to 65.5 percent.<sup>18</sup>

With the beginning of the economic reforms in the late 1970s, the Chinese state searched for ways to boost economic growth and reduce its welfare commitments. Heavily dependent on state subsidies in order to operate, China’s SOEs were a perpetual drain on the state’s finances. Most of them operated at a loss. Not only did they have obsolete technology, excess capacity and the inefficiencies that often accompany monopolies, they were also responsible for paying high wages and providing generous benefits to their workers. The Chinese government tried a number of reforms to improve the performance of SOEs, including new incentives for managers, shifting the burden of benefits and pensions from the enterprises to the local governments, making SOEs responsible for their own profits and losses, and eventually allowing them to lay off workers, but none of these initiatives made SOEs profitable. Beginning in the mid-1990s, the CCP adopted the slogan of “grasp the large, release the small,” meaning that the state would maintain ownership and management control over the largest SOEs, especially those in strategic industries like energy, telecommunications and aviation, but allow smaller firms to be sold off, merged with other firms or even closed.<sup>19</sup> Tens of millions of industrial workers lost their jobs and the accompanying benefits, and many found that the pensions they were promised were cut or eliminated altogether.<sup>20</sup>

During this time, China’s private sector was the source of most new jobs and economic output. Many workers in the rapidly expanding private sector did simple assembly jobs which required few skills and provided low pay without benefits. Working conditions were often harsh and turnover was high. But, with upwards of 150 million workers migrating from the countryside to the cities in search of jobs, China’s private owners were quickly able to replace workers who quit their jobs. This is also what made China attractive to foreign investors and exporters: workers were abundant, wages were low and work benefits were few.

As a result of both SOE reform and the expansion of the private sector, many workers lost their well-paid jobs and the benefits that went with them. Newly

17 Parish and Whyte 1977; Chan, Madsen and Unger 2009.

18 Numbers for 1950 come from Hu 2011; for 1982, from the World Bank’s *World Development Indicators*, <http://databank.worldbank.org/data/home.aspx>. Accessed 16 July 2013.

19 Steinfeld 1998; Yusuf, Nabeshima and Perkins 2006.

20 Lee 2007; Hurst 2009; Frazier 2010.

created jobs did not pay as well, were less secure, and did not provide the same range of benefits as the SOE positions that had been eliminated.

Beginning in the early 2000s, two inter-related changes occurred that changed China's labour market and the state's provision of public goods. First, the numbers of new workers entering the labour market declined, which led to labour shortages in many cities. Private and foreign-invested firms became willing to offer higher wages and some benefits in order to keep workers. Second, the CCP turned its attention from growth as its primary goal to balancing growth with equity. After laying off millions of SOE workers, and thereby reducing the number of workers who received health care, housing, education and pensions, the Chinese state began stitching together a new social safety net.

Beginning in the 1980s, the central government launched several initiatives designed to enforce the nine-year compulsory education system, but placed the burden of financing education on local governments. Additionally, local governments promoted pre-school and high school (grades 10–12) education, so that the norm would be 15 years of education instead of nine.<sup>21</sup> The number of new high school graduates rose from 3 million in 2000 to 7.9 million in 2010. These efforts required increased spending on teaching salaries and the construction and renovation of schools.

In both the countryside and the cities, the Chinese state tried to improve the quality, availability and affordability of health care. It created new insurance programmes for rural residents, although they were only available in the countryside. Migrant workers who became sick or injured had to return to their villages for treatment rather than receive care in the cities where they lived. Urban residents were offered a variety of health insurance options, in some cases by city governments or community (*shequ* 社区) offices, and by some employers facing labour shortages. In 2009, Beijing announced a sweeping reform of the national health care system. Those covered by health insurance more than doubled, from 43 per cent in 2006 to 95 per cent in 2011.<sup>22</sup> Nevertheless, the poor quality and high cost of medical care, compounded by the minimal coverage provided by many health insurance programmes, remained a common complaint.<sup>23</sup>

The Chinese government also began to pay renewed attention to inequality and poverty. China's Gini coefficient rose from 29.1 at the beginning of the reform era in 1981 to a peak of 49.1 in 2008, and an officially reported 47.4 in 2012.<sup>24</sup> Poverty was most common in rural areas and minority regions, and while the number of rural people living in poverty sharply declined during the post-Mao

21 Kipnis 2011; Lin 2013.

22 McKinsey and Company. 2012. "Healthcare in China: 'entering uncharted waters,'" <http://www.mckinseychina.com/2012/09/03/healthcare-in-china-entering-uncharted-waters-2/>. Accessed on 17 July 2013.

23 Eggleston 2010; Duckett 2010.

24 Xinhua. 2013. "China Gini coefficient at .474 in 2012," 18 January, [http://news.xinhuanet.com/english/china/2013-01/18/c\\_132111927.htm](http://news.xinhuanet.com/english/china/2013-01/18/c_132111927.htm). Accessed 16 July 2013.

era, it was not fully eradicated.<sup>25</sup> In urban areas, poverty was also a growing concern, especially among the long-term unemployed, retirees who had lost their pensions, and the handicapped who could not find steady employment. The Chinese government decided that all urban residents were entitled to a minimum guaranteed stipend (*dibao* 低保), but like many policy decisions emanating from Beijing, it was a largely unfunded mandate. Many individuals did not get the money they were entitled to, either because they were unable to prove that they fulfilled the requirements of the programmes or because city governments simply did not have the necessary funds.<sup>26</sup>

This new priority on public goods has been partial and inconsistent, however. Access to public goods is still dependent on where people are registered, where they reside and where they work. Those with a rural *hukou* are often denied access to the public goods available to urban residents, even when they are living and working in urban areas. Even for those who have urban *hukou*, the provision of public goods varies dramatically across China's cities. This presents two questions. First, what explains the variation in the provision of public goods in urban China? Second, what are the consequences of that variation? Specifically, how does the provision of public goods affect popular attitudes towards both the central and local governments?

### Explaining Variation in the Provision of Public Goods in Urban China

In our analysis of public goods in urban China, we concentrate on three specific types of public goods. Two of them, health care and education, are key to a country's economic and social development. They are standard public goods used for cross-national comparison. The third type of public good is poverty alleviation, specifically the social welfare payments and subsidies provided to low-income and unemployed people.

In assessing the provision of public goods in urban China, two observations are immediately apparent. First, there is tremendous regional variation in public goods spending.<sup>27</sup> On average, urban governments spent 1,384 yuan per capita on public education in 2007, but the lowest level was only 344 yuan per person whereas the highest was 5,225 yuan per person. Spending on health care averaged 409 yuan per person, ranging from a low of 77 yuan to a high of 1,610 yuan. Spending on social welfare subsidies is even more varied: the city with the highest spending spends over 30 times more than the city with the lowest spending, ranging from 111 yuan to 3,763 yuan per person, with an average of 1,018 yuan.

The second observation is that spending on some types of public goods is very highly correlated. For example, the correlation coefficient for local government spending on health care and education is 0.95. In other words, governments

25 Donaldson 2011; World Bank 2000; Ang 2016.

26 Solinger and Hu 2012.

27 Data on public goods spending are taken from Ministry of Finance 2010.

that spend high amounts on one tend to spend high amounts on the other. But, social welfare subsidies are less correlated with the other public goods, about 0.72. Combined with the first observation that spending on public goods varies considerably across China's cities, the implication is clear: some cities deliver much more public goods to their residents than others.

What explains this variation in the provision of public goods in urban China? One common explanation for cross-national variation in the provision of public goods is regime type: democracies typically provide more public goods for their citizens than do autocracies.<sup>28</sup> This explanation does not hold here: since these are all sub-national governments, regime type is held constant. Similarly, each city is governed by members of the CCP, so party ideology cannot explain the variation in amounts of public goods.<sup>29</sup> Another explanation concerns ethnicity: areas that are ethnically diverse have lower levels of public goods.<sup>30</sup> This also does not explain the variation in our sample, because the population in all of these cities is predominantly Han.<sup>31</sup> With regime type, ruling party and ethnicity held constant, we must search elsewhere for explanations of public goods variation.

We consider the importance of several determinants of public goods spending in urban China:

- Level of prosperity (per capita GDP): higher levels of development provide resources for local governments to tap into.
- State capacity (local government income [not including subsidies and transfers from higher levels] as a share of local GDP): specifically, the local state's capacity to extract resources from the local community in the form of tax revenue. Higher levels of prosperity provide more resources for local governments to tap into, but state capacity measures how effective local governments are in actually doing so. Greater extractive capacity is no guarantee that the state will actually provide more public goods; extractive capacity is a hallmark of predatory states as well.<sup>32</sup>
- Subsidies and transfers from higher levels: in China's fiscal system, tax revenue is collected at the local level and transferred to the centre. The centre then returns a negotiated portion of these revenues to provincial and sub-provincial governments.<sup>33</sup> The more city governments receive in various subsidies and transfer payments from the provincial and central governments, the more they have available to spend on public goods.

These variables concern the ability to spend on public goods, but local leaders may also vary in their willingness to do so. China's local leaders are appointed,

28 See Fn. 1.

29 Huber and Stephens 2001.

30 Alesina, Baqir and Easterly 1999; but see also Singh 2011.

31 The survey was not conducted in the provinces of Tibet and Xinjiang, where ethnic tensions in recent years have limited opportunities for research, especially surveys of public opinion.

32 Evans 1992; Pei 2006.

33 Naughton 2007; Wong and Bird 2008.



not elected, so their priorities are different from those held by leaders elected by their constituents. Local leaders are expected to meet various targets in order to be promoted. The provision of public goods is important, but secondary to the “hard targets” of achieving economic growth, enforcing the one-child policy and maintaining stability.<sup>34</sup> On the other hand, newly appointed leaders may wish to initiate new programmes in order to make their mark. Because China’s mayors have primary responsibility for the economy, we look at how long they had been in office as of 2007.<sup>35</sup> Cities with newly appointed mayors may spend relatively more on public goods.

We also control for two contextual variables:

- Population size: larger populations create economies of scale for public goods and government services but also present challenges for effective governance.<sup>36</sup>
- Labour structure: although workers in urban areas are predominantly employed in secondary and tertiary sectors (industry and services), some remain engaged in agriculture and other primary sector jobs. We use the tertiary sector as a proxy for urbanization.

To test these hypotheses, we use a standard regression model (see [Table 1](#)). For health care and education, the results are generally as expected. The local level of prosperity, the state’s capacity to tap into that prosperity, and the amount of subsidies and transfers are all correlated with higher levels of spending on these public goods (models 1 and 2). The coefficients of each of these independent variables are positive and statistically significant. The other explanatory variable – the mayor’s tenure – is a fixed effects variable, with mayors in their first year in office as the reference group. Mayor’s tenure is only statistically significant for mayors who have served three years in office.<sup>37</sup> Most mayors only spend three to four years in office before being transferred or promoted.<sup>38</sup> This finding indicates that most mayors spend more on health care and education at the end of their tenure and not at the beginning as expected.

Spending on social welfare has different correlates. Recall from above the observation that spending on this particular public good is less correlated with the others. The determinants are also different. The level of local prosperity, state capacity, and mayor tenure are not correlated with social welfare spending (model 3). Among our explanatory variables, only subsidies and transfers is correlated. This suggests that this form of public goods spending may be paid for with specifically ear-marked funds from higher-level governments. Unfortunately, we do not have direct information on levels of poverty or even inequality in these cities, so we cannot determine whether social welfare spending is primarily driven by need or by the amount of resources available to the local government. The two control variables are also

34 O’Brien and Li 1999; Edin 2003; Whiting 2004; Cai and Zhou 2013

35 For a comparative perspective on the importance of mayors, see Barber 2013.

36 Wallace 2014.

37 Separate tests for the mayors’ age and place of birth were also negative. We ran separate models with the Party secretaries’ tenure, age and place of birth; none were statistically significant.

38 Landry 2008.

Table 1: Variation in Public Goods Spending in Urban China

	1 Health Care	2 Education	3 Social Welfare Subsidies
Level of prosperity (GDP per capita)	2.577** (.840)	10.054*** (2.169)	1.220 (2.274)
State capacity (local government revenue as a share of GDP)	848.542*** (217.085)	2841.603.*** (560.576)	-430.303 (587.500)
Subsidies and transfers (per capita)	.085*** (.010)	.267*** (.025)	.271*** (.026)
Mayors' tenure (fixed effects for year in office)			
1	97.620 (66.177)	280.731 (170.889)	-188.730 (179.096)
2	111.585 (73.563)	210.874 (189.960)	147.690 (199.083)
3	191.588* (84.440)	417.347# (218.049)	-343.851 (228.520)
4	118.509 (93.009)	265.024 (240.175)	-391.810 (251.709)
5	63.462 (115.725)	502.153 (298.836)	-332.353 (313.187)
Population (millions)	.173 (.159)	.138 (.412)	.846# (.432)
Tertiary sector	.860 (2.033)	-2.561 (5.251)	-16.257** (5.503)
Constant	-302.630* (143.664)	-549.017 (370.981)	881.596* (388.797)
N	49	49	49
adjusted R2	.79	.86	.75

Notes:

OLS regression coefficients with standard errors in parentheses. #  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

statistically significant: per capita spending on social welfare is more likely to be higher in cities with larger total populations, and tertiary employment (a proxy for urbanization) is negatively correlated with social welfare spending.

In sum, intra-national variation in spending by city governments in China is largely explained by levels of prosperity, state capacity, and subsidies and transfers. These factors concern the ability of local governments to deliver public goods by supplying the resources necessary to do so. The characteristics of local leaders have little impact. In the next section, we turn to the other questions of this paper: how does the public evaluate the public goods it receives, and does public goods spending produce regime support?

## Public Goods and Regime Support

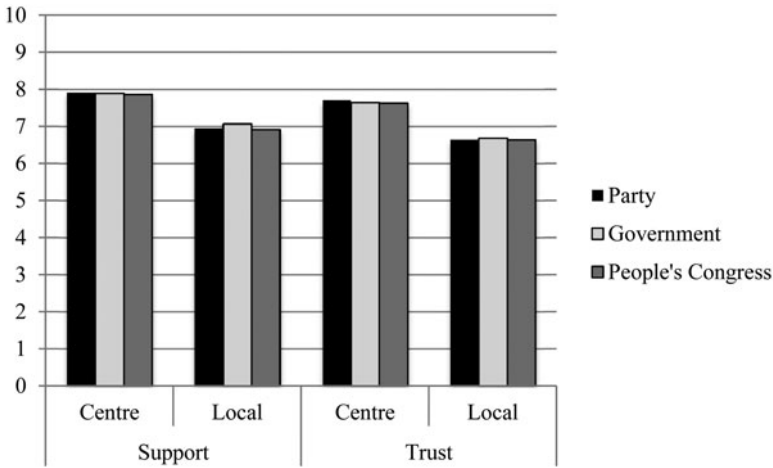
Is intra-national variation in the provision of public goods in urban China related to variation in levels of regime support? The link between public goods and public support is axiomatic in democratic countries: politicians provide public goods in exchange for votes. Is there a similar connection in authoritarian regimes like China, despite the absence of electoral institutions for selecting top leaders?

We define regime support in terms of what David Easton referred to as “diffuse support.” Whereas a country’s citizens may be unhappy with incumbent officials and the policies they are currently pursuing (what he refers to as “specific support”), diffuse support concerns the political institutions of the regime itself. “[I]n spite of widespread discontent, there appears to be little loss of confidence in the regime – the underlying order of political life – or of identification with the political community. Political discontent is not always, or even usually, the signal for basic political change.”<sup>39</sup> According to this logic, while people in China frequently complain about corrupt officials, the social dislocation associated with economic modernization, growing inequality, food safety, pollution and other unpopular consequences of reform policies, they do not necessarily favour regime change. People can be – and are – unhappy about policies and incumbents, yet they still prefer political change to occur within the existing political system rather than switch to an alternative regime. This may give the regime legitimacy, despite often intense dissatisfaction with the regime’s leaders and the policies they pursue.

With this distinction in mind, we asked respondents about their levels of support and trust in the most important political institutions: the CCP, the government and the people’s congress. Respondents in our survey indicated their levels of support and trust in these three state institutions using a 0–10 scale, ranging from no trust to high levels of trust. Furthermore, respondents gave separate responses for state institutions at the central level and in the cities where they currently lived (including migrants). As shown in [Figure 1](#), two observations are apparent. First, there is a notable difference between levels of support and trust for central institutions and their local counterparts. This is consistent with past survey research, which has consistently found this gap.<sup>40</sup> Consequently, assessments of regime support must account for differences between levels of the state in China. Second, levels of support and trust are generally consistent across the three state institutions ( $r = .75$  and above). This allows us to combine the responses on support and trust into two indices, one for central state institutions and the other for local ones. The logic underlying this index is that survey respondents viewed these state institutions in a highly similar fashion. This is what makes the support “diffuse,” in Easton’s terms: it is not that spending on health care influences support in the legislature directly, but that it influences support for the regime as a whole, and in turn each of its constituent parts.

39 Easton 1975, 436.

40 Shi, Tianjin 2001; Saich 2008; Shi, Fayong, and Cai 2006; Li 2008.

Figure 1: **Levels of Support and Trust for China's Political Institutions**

Notes:

0–10 point scale, higher scores represent higher levels.

Our main explanatory variable is spending on the public goods analysed above. We expect a positive correlation between public goods and regime support: higher spending should produce higher levels of support and trust in state institutions. Regime support is not one dimensional, of course; other variables can be expected to bear influence. The main alternative explanation concerns economic prosperity. Indeed, the conventional wisdom holds that economic growth is the primary source of the CCP's legitimacy. To test this, we include both aggregate and individual indicators of prosperity. First, the level of per capita GDP should be positively correlated with regime support. Second, two measures of personal prosperity – the level of respondents' family income relative to others in their communities and changes in respondents' incomes over the previous five years – should also be positively correlated with regime support.

In addition to these explanatory variables, we also control for several variables that may also influence regime support. At the individual level, we control for CCP membership, age, gender, years of education, ethnicity (a dummy variable, with the majority group, Han = 1), and whether a respondent was a rural migrant worker. City-level factors may also influence regime support. Large and politically important cities are more likely to be sites of protest.<sup>41</sup> We therefore control for size of population and the administrative hierarchy of cities (centrally administered cities such as Beijing, Tianjin, Shanghai and Chongqing, provincial capitals, and other prefecture-level cities). Finally, we control for differences between coastal, north-eastern, central and western regions.

The results are presented in [Table 2](#). Spending on health care, education and social welfare are all positively and significantly correlated with support and

41 Wallace 2014

Table 2: Impact of Public Goods Spending on Regime Support in Urban China

<b>A. Political Support and Trust in Central Political Institutions</b>			
	<b>4</b>	<b>5</b>	<b>6</b>
Health care	.005* (.002)		
Education		.001# (.001)	
Social welfare subsidies			.002** (.001)
GDP per cap (1,000 yuan)	-.061** (.023)	-.065** (.024)	-.055* (.022)
Family income level	.603*** (.108)	.604*** (.108)	.607*** (.108)
Changes in family income	.852*** (.221)	.853*** (.221)	.854*** (.221)
CCP	1.921*** (.485)	1.921*** (.485)	1.925*** (.485)
Age	.052*** (.013)	.052*** (.013)	.052*** (.013)
Years of education	-.140** (.053)	-.139** (.053)	-.141** (.053)
Male	-.453 (.337)	-.456 (.337)	-.456 (.337)
Rural migrant	2.058** (.759)	2.058** (.759)	2.054*** (.759)
Han	-.485 (.996)	-.459 (.996)	-.480 (.996)
Controls for population, hierarchy of cities, and regions	Yes	Yes	Yes
City effects	13.498 (3.043)	13.964 (3.137)	12.975 (2.929)
Constant	42.681*** (2.164)	42.822*** (2.231)	42.577*** (2.106)

*Notes:*

Mixed effects general linear model regression coefficients with standard errors in parentheses. Level 1 units: 3,304 individuals; level 2 units: 49 cities. LR test vs. linear model:  $\text{chibar2}(01) = 323.87$ ;  $\text{prob}(\text{chibar2}) < .0000$ . #  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

**B. Political Support and Trust in Local State Institutions**

	<b>7</b>	<b>8</b>	<b>9</b>
Health care	.006* (.003)		
Education		.002* (.001)	

*Continued*

**Continued****B. Political Support and Trust in Local State Institutions**

	7	8	9
Social welfare subsidies			.003** (.001)
GDP per cap (1,000 yuan)	-.016 (.028)	-.021 (.029)	-.008 (.027)
Family income level	1.037*** (.120)	1.039*** (.012)	1.042*** (.119)
Changes in family income	1.448*** (.245)	1.448*** (.244)	1.450*** (.245)
CCP	.991# (.534)	.991# (.534)	.995# (.534)
Age	.040** (.014)	.040** (.014)	.040** (.014)
Years of education	-.084 (.058)	-.084 (.058)	-.085 (.058)
Male	-.739* (.371)	-.741* (.371)	-.743* (.371)
Rural migrant	1.162 (.845)	1.162 (.845)	1.156 (.845)
Han	-.540 (1.111)	-.515 (1.110)	-.536 (1.110)
Controls for population, hierarchy of cities, and regions	Yes	Yes	Yes
City-level error variance	20.423 (4.458)	20.830 (4.541)	19.344 (4.241)
Constant	30.548*** (2.533)	30.534*** (2.607)	30.311*** (2.449)

*Notes:*

Mixed effects general linear model regression coefficients with standard errors in parentheses. Level 1 units: 3,304 individuals; level 2 units: 49 cities. LR test vs. linear model:  $\chi^2(01) = 469.00$ ;  $\text{prob}(\chi^2) < .0000$ . #  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

trust in both central and local institutions (although the coefficient for education is only significant at the .1 level for central institutions – see model 5). These data show that the more city governments spend on these types of public goods, the more their citizens support and trust central and local political institutions. This is a very tangible indicator of performance legitimacy.

Spending on health care, education and social welfare have bigger effects on support and trust in local institutions than on trust in the centre, as seen by the larger coefficients. This is important, because local governments receive less support and trust from their citizens than the centre does. Better governance, such as increased spending on public goods, may be one way of narrowing that gap. This is similar to Ethan Michelson's finding for rural China: better provision

of public goods adds to satisfaction with both central and local Party and government institutions, but has a larger impact on local institutions.<sup>42</sup> Although he focuses on rural areas rather than cities, perceptions of increased spending rather than direct measures, and improvements in state–society relations rather than regime support, our findings are quite similar, suggesting the generalizability of these findings beyond their original scope.

These findings indicate a tangible incentive for leaders of China's cities to spend more on public goods, even in the absence of electoral institutions. Put simply, those who provide more public goods receive more support and trust from their citizens. To the extent that this increases the likelihood of political stability, better governance is rewarded with quiescence. This may provide an incentive to local officials, who are evaluated in terms of their ability to maintain order, achieve economic growth and enforce the one-child policy. These are “hard targets” that must be met, as opposed to “soft targets,” such as public health, education, poverty alleviation and most other public goods, which are less important when evaluating officials. However, if providing more public goods also helps to maintain stability, officials have good reason to do so. The centre may not benefit as much from better governance, but if citizens have greater support and trust in local institutions, they will be less likely to be disgruntled and less likely to air their grievances. In that sense, more stability at the local level has benefits for the regime as a whole.

Local officials report several motivations for providing more public goods. First of all, the provision of public goods can reduce political tensions. Officials describe tension, even animosity, between state and society as a result of the unequal distribution of incomes and unequal access to public goods. They expect improvements in public goods to alleviate those tensions and improve regime support.<sup>43</sup> Second, the public sees solutions to most problems as the responsibility of the state. In addition to questions of social justice, people have grown more concerned with issues of education, health care, public security, the environment and food safety. Local officials say that society holds them responsible for these issues and believe that more investment in these areas is necessary to meet society's expectations. Pollution is a particularly acute problem that officials fear could give rise to social instability and public protests.<sup>44</sup> A third reason for improving the provision of public goods is to catch up with international standards. Party and government officials often use international comparisons to publicize the accomplishments of their policies. But local officials recognize that government spending on health care and education as a percentage of GDP in China is lower than that in developed countries. Some officials believe too much emphasis has been given to promoting economic growth and more

42 Michelson 2012.

43 Focus group interviews with city officials in Beijing, November 2013.

44 Focus group interviews in city officials in Wuhan, November 2013; Guangzhou, October 2014; and Chongqing, September 2014.

needs to be done to bring China up to international standards.<sup>45</sup> In these different ways, officials see the provision of public goods as a part of their responsibilities and a source of regime support, especially at the local level.

The measures of aggregate and individual prosperity also reveal several significant, and in some cases surprising, determinants of regime support. The *level of aggregate prosperity* (per capita GDP) is significantly correlated with support for the centre but the relationship is negative: all else being equal, levels of political support and trust in the centre are lower in cities with higher levels of per capita GDP. At the local level, per capita GDP has a small and insignificant relationship with support and trust. This finding runs contrary to the goals of Party leaders and the conventional wisdom among scholars that development is the primary basis for the CCP's legitimacy.

In contrast, the individual-level measures of prosperity have the expected effects on regime support. The more well-to-do respondents are, relative to others in their communities, the more they support and trust state institutions at both the central and local levels. Similarly, respondents who report that their incomes have risen in recent years are more likely to have higher regime support. For both levels of income and changes in income, the effects are higher for local institutions than for the centre. The logic here is the same as for the provision of public goods: the more people benefit, the more they credit the local state. This suggests an important modification to the conventional wisdom that economic prosperity enhances the regime's legitimacy: it is individual, pocketbook factors that are the major influence, not aggregate or socio-tropic factors. This may prove to be crucial as the Chinese economy slows: as long as individual incomes continue to improve, slower growth need not threaten the regime's legitimacy.

CCP membership is positively related to regime support, although it falls just short of the standard level of statistical significance for local institutions ( $p < .07$ ). This seems to vindicate the Party's strategy of recruiting new members, who in most cases are drawn from the elite in society, in order to gain their support. At the same time, that support is stronger for the centre than for local institutions, reflecting the more general pattern of a gap between central and local legitimacy.

The other demographic variables mostly have the expected results. The older the respondents are, the more regime support they have. Conversely, the more years of education respondents have, the less regime support they have.<sup>46</sup> However, the effect is only statistically significant for the centre. This points up a dilemma for China's leaders as well as autocrats in other countries: education is a primary contributor to economic modernization and human development, but it also creates the potential for social and political challenges to the regime.<sup>47</sup> The other demographic variables have mixed effects on regime support:

45 Focus group interviews with city officials in Chongqing, September 2014.

46 Kennedy 2009.

47 Bueno de Mesquita and Downs 2005; Huntington 1969.



for example, men are less likely to support and trust the local institutions, but are no different from women regarding support and trust in the centre. More importantly, rural migrants have significantly higher levels of support and trust in the centre – but not for local states. Migrants credit the centre rather than their local political institutions for the opportunity to move in search of better-paid jobs.

Among the city-level control variables, only urban hierarchy is statistically significant, and only for local institutions. All else being equal, those living in the centrally administered cities of Beijing, Tianjin, Shanghai and Chongqing have more support and trust in local institutions than those living in provincial capitals and regular prefectural cities. There is no relationship between the urban hierarchy and support and trust in the centre. Even within the centrally administered cities, there is no clear pattern. Those living in Beijing have significantly higher levels of support and trust in the centre, those in Shanghai significantly less, and those in Tianjin and Chongqing are not significantly different from those in other cities.

In short, our survey data indicate that spending on public goods increases regime support. The impact is stronger for local state institutions than for central ones, an important observation because, all else being equal, local institutions enjoy less support and trust than central ones do. For local governments that want to narrow that gap, providing more public goods to their citizens can be a successful strategy.

## Conclusion

Most research on the provision of public goods has been conducted in democratic countries and is based on the assumption that politicians are willing to trade public goods for votes in order to remain in office. Authoritarian regimes that lack this electoral mechanism are therefore expected to provide fewer public goods, and instead offer private goods to regime insiders in order to maintain their support. However, this conventional wisdom cannot explain why some authoritarian regimes, such as that in China, are committed to improving their provision of public goods, or why there is tremendous intra-national variation in the provision of these services.

Evidence reported here helps to address these puzzles. First, we have shown that some varieties of public goods are highly correlated, such that cities that spend high amounts on health care and education tend to spend a lot on both of them. Variation in the provision of these public goods in urban China is owing primarily to aggregate prosperity, the state's capacity to tap into that prosperity to spend more, and the amount of subsidies and transfers from higher levels of government. The personal qualities of incumbent mayors have little effect.

Our second key finding is that the provision of public goods builds regime support. In addition, when cities spend more on these public goods, local

state institutions receive a larger net increase in support and trust than do central ones. This indicates that increased spending on public goods can help to narrow the gap between support and trust in local institutions and the centre. This can offer an incentive to local leaders to carry out policies that benefit local populations rather than simply focus on targets set by higher-level authorities.

These findings contribute to the growing literature on governance in China and comparative research more generally. Specifically, improved governance may forestall popular demands for political change. Governments that provide more and better public goods may build support from their people, even when these people are unhappy with incumbent officials and the policies they pursue. In recent years, the chorus of discontent within China has grown, but it will not necessarily lead to demands for regime change. At a time when the benefits of China's rapid-growth strategy has run its course, and when the most prosperous cities have lower levels of regime support, improved governance can be an alternative source of performance legitimacy. While differences between regime types may have profound implications for the provision of public goods, we should also be mindful of cross-national and intra-national differences among authoritarian regimes. Good policy may also be good politics for autocrats who seek legitimacy to retain power.

### Acknowledgement

We thank the National Science Foundation (award #SES-0921570) for its financial support, Jackson Woods and Chunhua Chen for research assistance, and Yuen Yuen Ang, Xiaobo Lü, Benjamin Read, Jeremy Wallace, and several anonymous reviewers for their suggestions.

### Biographical note

Bruce J. Dickson is professor of political science and international affairs and chair of the political science department at the George Washington University. His most recent book is *The Dictator's Dilemma: The Chinese Communist Party's Strategy for Survival* (Oxford University Press, 2016).

Pierre F. Landry is professor of political science and director of Global China Studies at NYU-Shanghai, as well as a research fellow with the Research Center for Contemporary China at Peking University. His research interests focus on Asian and Chinese politics, comparative local government, quantitative comparative analysis and survey research.

Mingming Shen is professor in the School of Government and director of the Research Center for Contemporary China at Peking University. His research concentrates on China's economic and social development, and survey research methodology.

Jie Yan is associate professor in the School of Government and associate director of the Research Center for Contemporary China at Peking University. Her research focuses on the theory and methods of survey research.

**摘要:** 为什么威权政府要提高其治理水平? 由于缺乏民主的监督, 奖励和处罚机制, 威权政府往往倾向于通过腐败和奖励裙带的方式来获取自身利益, 而不是提高公共福利。然而, 近些年, 中国政府却积极地提升其政府治理水平, 中国政府将更多的注意力从关注经济持续快速增长转移到了民生问题。本文分析了中国城市公共产品供给在国内的变化情况及公共产品提供对制度支持的影响。即使在没有民主选举的情况下, 更好的政府治理能够带来对制度的更多支持吗? 我们的研究表明, 高的治理水平能带来对制度更高的支持水平。这种影响机制在对地方政府的支持方面的影响比对中央政府更大。

**关键词:** 中国; 公共产品; 合法性; 治理

## References

- Alesina, Alberto, Reza Baqir and William Easterly. 1999. "Public goods and ethnic divisions." *The Quarterly Journal of Economics* 114(4), 1243–84.
- Ang, Yuen Yuen. 2016. *How China Escaped the Poverty Trap*. Ithaca, NY: Cornell University Press.
- Barber, Benjamin R. 2013. *If Mayors Ruled the World: Dysfunctional Nations, Rising Cities*. New Haven, CT: Yale University Press.
- Brady, Anne-Marie. 2008. *Marketing Dictatorship: Propaganda and Thought Work in Contemporary China*. Lanham, MD: Rowman and Littlefield.
- Bueno de Mesquita, Bruce, and George W. Downs. 2005. "Development and democracy." *Foreign Affairs* 84(5), 77–86.
- Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson and James Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press.
- Cai, Yongshun, and Lin Zhou. 2013. "Disciplining local officials in China: the case of conflict management." *The China Journal* 70, 98–119.
- Chan, Anita, Richard Madsen and Jonathan Unger. 2009. *Chen Village: Revolution to Globalization*. Berkeley, CA: University of California Press.
- Chen, Jie. 2004. *Popular Political Support in Urban China*. Stanford, CA: Stanford University Press.
- Dickson, Bruce J. 2008. *Wealth into Power: The Communist Party's Embrace of China's Private Sector*. New York: Cambridge University Press.
- Donaldson, John. 2011. *Small Works: Poverty and Economic Development in Southwestern China*. Ithaca, NY: Cornell University Press.
- Duckett, Jane. 2010. "Economic crisis and China's 2009 health reform plan: rebuilding social protections for stability and growth?" *China Analysis: Studies in China's Political Economy* 80, 1–14.
- Easton, David. 1975. "A re-assessment of the concept of political support." *British Journal of Political Science* 5(4), 435–457.
- Edin, Maria. 2003. "State capacity and local agent control in China: CCP cadre management from a township perspective." *The China Quarterly* 173, 35–52.
- Eggleston, Karen. 2010. "*Kan bing nan, kan bing gui*: challenges for China's health-care system thirty years into reform." In Jean C. Oi, Scott Rozelle and Xueguang Zhou (eds.), *Growing Pains: Tensions and Opportunity in China's Transformation*. Palo Alto, CA: The Walter H. Shorenstein Asia-Pacific Research Center, Stanford University, 229–272.

- Evans, Peter. 1992. "The state as problem and solution: predation, embedded autonomy and adjustment." In Stephan Haggard and Robert Kaufman (eds.), *The Politics of Economic Adjustment: International Constraints, Distributive Politics, and the State*. Princeton, NJ: Princeton University Press, 139–181.
- Frazier, Mark. 2010. *Socialist Inequality: Pensions and the Politics of Uneven Development in China*. Ithaca, NY: Cornell University Press.
- Gallagher, Mary Elizabeth. 2005. *Contagious Capitalism: Globalization and the Politics of Labor in China*. Princeton, NJ: Princeton University Press.
- Gandhi, Jennifer. 2008. *Political Institutions under Dictatorship*. New York: Cambridge University Press.
- Gerring, John, Strom C. Thacker and Rodrigo Alfaro. 2012. "Democracy and human development." *Journal of Politics* 74(1), 1–17.
- Gibson, Clark C., and Barak D. Hoffman. 2013. "Coalitions not conflicts: ethnicity, political institutions, and expenditure in Africa." *Comparative Politics* 45(3), 273–291.
- Gilley, Bruce. 2008. "Legitimacy and institutional change: the case of China." *Comparative Political Studies* 41(3), 259–284.
- Gilley, Bruce, and Heike Holbig. 2009. "The debate on Party legitimacy in China: a mixed quantitative/qualitative analysis." *Journal of Contemporary China* 18(59), 337–356.
- Haggard, Stephan, and Robert R. Kaufmann. 2008. *Development, Democracy, and Welfare States: Latin America, East Asia, and Eastern Europe*. Princeton, NJ: Princeton University Press.
- Hu, Angang. 2011. *China in 2020: A New Type of Superpower*. Washington, DC: Brookings Institution.
- Huber, Evelyne, and John D. Stephens. 2001. *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. Chicago: University of Chicago Press.
- Huntington, Samuel P. 1969. *Political Order in Changing Societies*. New Haven, CT: Yale University Press.
- Hurst, William. 2009. *The Chinese Worker after Socialism*. New York: Cambridge University Press.
- Kaufman, Joan, Arthur Kleinman and Tony Saich (eds.). 2006. *AIDS and Social Policy in China*. Cambridge, MA: Harvard University Asia Center.
- Kennedy, John James. 2009. "Popular support and the rural and urban divide in China: the influence of education and the state-controlled media." *Political Studies* 57(3), 517–536.
- Kipnis, Andrew B. 2011. *Governing Educational Desire: Culture, Politics, and Schooling in China*. Chicago: University of Chicago Press.
- Landry, Pierre F. 2008. *Decentralized Authoritarianism in China: The Communist Party's Control of Local Elites in the Post-Mao Era*. New York: Cambridge University Press.
- Landry, Pierre F., and Mingming Shen. 2005. "Reaching migrants in survey research: the use of the global positioning system to reduce coverage bias in China." *Political Analysis* 13(1), 1–22.
- Lee, Ching Kwan. 2007. *Against the Law: Labor Protests in China's Rustbelt and Sunbelt*. Berkeley, CA: University of California Press.
- Li, Lianjiang. 2008. "Political trust and petitioning in the Chinese countryside." *Comparative Politics* 40(2), 209–226.
- Lin, Tingjin. 2013. *The Politics of Financing Education in China*. New York: Palgrave Macmillan.
- Lipset, Seymour Martin. 1959. "Some social requisites of democracy: economic development and political legitimacy." *American Political Science Review* 53(1), 69–105.
- Lu, Jie. 2015. *Varieties of Governance in China: Migration and Change in Chinese Villages*. New York: Oxford University Press.
- Magaloni, Beatriz. 2008. *Voting for Autocracy: Hegemonic Party Survival and its Demise in Mexico*. New York: Cambridge University Press.
- Michelson, Ethan. 2012. "Public goods and state-society relations: an impact study of China's rural stimulus." In Dali L. Yang (ed.), *The Global Recession and China's Political Economy*. New York: Palgrave Macmillan, 131–157.

- Ministry of Finance. 2010. *2007 Quanguo dishixian caizheng tongji ziliao (2007 Financial Statistics at the Prefecture, Municipal, and County Levels of China)*. Beijing: China Financial & Economic Publishing House.
- Nathan, Andrew J. 2003. "Authoritarian resilience." *Journal of Democracy* 14(1), 6–17.
- Naughton, Barry. 2007. *The Chinese Economy: Transitions and Growth*. Cambridge, MA: MIT Press.
- O'Brien, Kevin J., and Lianjiang Li. 1999. "Selective policy implementation in rural China." *Comparative Politics* 31(2), 167–186.
- OECD. 2005. *China's Governance in Transition*. Paris: Organization for Economic Co-operation and Development.
- Parish, William L., and Martin King Whyte. 1977. *Village and Family in Contemporary China*. Chicago: University of Chicago Press.
- Pei, Minxin. 2006. *China's Trapped Transition: The Limits of Developmental Autocracy*. Cambridge, MA: Harvard University Press.
- Perry, Elizabeth J. 1994. "Labor divided: sources of state formation in modern China." In Joel Migdal, Atul Kohli and Vivienne Shue (eds.), *State Power and Social Forces: Domination and Transformation in the Third World*. New York: Cambridge University Press, 143–173.
- Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-being in the World, 1950–1990*. New York: Cambridge University Press.
- Saich, Tony. 2008. *Providing Public Goods in Transitional China*. New York: Palgrave Macmillan.
- Schubert, Gunter. 2014. "Political legitimacy in contemporary China revisited: theoretical refinement and empirical operationalization." *Journal of Contemporary China* 23(88), 593–611.
- Sen, Amartya. 2004. *Resources, Values, and Development*. Oxford: Blackwell.
- Shambaugh, David. 2009. *China's Communist Party: Atrophy and Adaptation*. Berkeley, CA: University of California Press and Woodrow Wilson Center Press.
- Shi, Fayong, and Yongshun Cai. 2006. "Disaggregating the state: networks and collective resistance in Shanghai." *The China Quarterly* 186, 314–332.
- Shi, Tianjian. 2001. "Cultural values and political trust: a comparison of the People's Republic of China and Taiwan." *Comparative Politics* 33(4), 401–419.
- Shue, Vivienne. 2010. "Legitimacy crisis in China?" In Peter Hays Gries and Stanley Rosen (eds.), *Chinese Politics: State, Society, and the Market*. New York: Routledge, 41–68.
- Singh, Prerna. 2011. "We-ness and welfare: a longitudinal analysis of social development in Kerala, India." *World Development* 39(2), 282–293.
- Solinger, Dorothy J., and Yiyang Hu. 2012. "Welfare, wealth and poverty in urban China: the *dibao* and its differential disbursement." *The China Quarterly* 211, 741–764.
- Steinfeld, Edward S. 1998. *Forging Reform in China: The Fate of State-owned Industry*. New York: Cambridge University Press.
- Stockmann, Daniela. 2012. *Media Commercialization and Authoritarian Rule in China*. New York: Cambridge University Press.
- Tang, Wenfang. 2016. *Populist Authoritarianism: Chinese Political Culture and Regime Sustainability*. New York: Oxford University Press.
- Tsai, Kellee S. 2007. *Capitalism without Democracy: The Private Sector in Contemporary China*. Ithaca, NY: Cornell University Press.
- Tsai, Lily Lee. 2007. *Accountability without Democracy: Solidary Groups and Public Goods Provision in Rural China*. New York: Cambridge University Press.
- Unirule. 2012. *2010 Report on Public Governance in China's Provincial Capital Cities*. Beijing: Unirule.
- Waldner, Andrew G. 1986. *Communist Neo-traditionalism: Work and Authority in Chinese Industry*. Berkeley, CA: University of California Press.
- Wallace, Jeremy. 2014. *Cities and Stability: Urbanization, Redistribution, and Regime Survival in China*. New York: Oxford University Press.

- Whiting, Susan H. 2004. "The cadre evaluation system at the grass roots: the paradox of Party rule." In Barry Naughton and Dali L. Yang (eds.), *Holding China Together: Diversity and National Integration in the Post-Deng Era*. New York: Cambridge University Press, 101–119.
- Wong, Christine P.W., and Richard Bird. 2008. "China's fiscal system: a work in progress." In Loren Brandt and Thomas Rawski (eds.), *China's Great Transformation: Origins, Mechanism, and Consequences of the Post-Reform Economic Boom*. New York: Cambridge University Press, 429–466.
- World Bank. 2000. *China: Overcoming Rural Poverty*. Washington, DC: World Bank.
- World Bank. 2006. *China: Governance, Investment Climate, and Harmonious Society: Competitiveness Enhancements for 120 Cities in China*. Washington, DC: World Bank.
- Wright, Teresa. 2010. *Accepting Authoritarianism: State–Society Relations in China's Reform Era*. Palo Alto, CA: Stanford University Press.
- Yusuf, Shahid, Kaoru Nabeshima and Dwight Perkins. 2006. *Under New Ownership: Privatizing China's State-owned Enterprises*. Palo Alto, CA: Stanford University Press and The World Bank.

## Appendix

The data presented in this paper come from a survey implemented in China during the autumn and early winter of 2010. The survey was a nationwide probability sample of urban areas, including prefecture-level cities, provincial capitals, and districts within Beijing, Tianjin, Shanghai and Chongqing. This pool of over 280 cities was stratified using per capita GDP. A sample of 49 cities was selected using the probability proportionate to size (PPS) method, meaning that cities with large populations had a higher probability of being selected than smaller cities. Equivalent numbers of cities were selected from each of three strata (high, medium and low levels of per capita GDP). Within each city, a district was selected as the primary sampling unit (PSU) using the PPS method, based on the number of housing units in each district. Each PSU was divided into 30" x 30" squares using GPS technology, and from this grid three squares were selected as secondary sampling units using the PPS method, with the number of households as the measure of size.<sup>48</sup> Within each secondary sampling unit three sub-squares (roughly 90 metres square) were selected as tertiary sampling units with a simplified random sampling method. Among all the occupied residential units within the selected sub-squares, 60 equidistant residential units were selected. Finally, on the basis of a Kish grid, individuals within each selected residential unit who had lived there for at least six months and were between the ages of 18 and 80 were chosen as respondents, and were interviewed face to face.

The implementation of the survey was conducted by the Research Center for Contemporary China (RCCC) of Peking University. All the interviewers for this project were enrolled college students in the targeted provinces and cities at the time. RCCC supervisors trained the interviewers and monitored their work daily. The survey included a total of 3,874 respondents.

48 For more details on using GPS technology in sampling, see Landry and Shen 2005.