

# Authoritarian Regime Legitimacy and Health Care Provision: Survey Evidence from Contemporary China

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## Abstract

**Context:** Over the last two decades a growing body of research has shown that authoritarian regimes are trying to increase their legitimacy by providing public goods. But there has so far been very little research on whether or not these regimes are successful.

**Methods:** This article analyzes data from a 2012–2013 nationally representative survey in China to examine whether health care provision bolsters the Communist regime's legitimacy. Using multivariate ordinal logistic regression, we test whether having public health insurance and being satisfied with the health care system are associated with separate measures of the People's Republic of China's regime legitimacy: support for "our form of government" (which we call "system support") and political trust.

**Findings:** Having public health insurance is positively associated with trust in the Chinese central government. Health care system satisfaction is positively associated with system support and trust in local government.

**Conclusions:** Health care provision may bolster the legitimacy of authoritarian regimes, with the clearest evidence showing that concrete benefits may translate into trust in the central government. Further research is needed to understand the relationship between trends in health care provision and legitimacy over time and in other types of authoritarian regime.

**Keywords** authoritarian, legitimacy, political trust, public goods, China

Research on authoritarian regime legitimacy from the mid-1980s focused on ideology, nationalism, and economic and political performance. Into the 21st century, the focus shifted to how autocrats use political institutions—particularly semicompetitive elections—as a source of legitimation. More recently, attention has turned to ways in which authoritarian regimes seek

to generate legitimacy by providing public goods such as free education or welfare, though there is scant evidence on the effectiveness of the outcomes.

Studies of legitimacy in the People's Republic of China, the world's largest authoritarian regime, have flourished in parallel to these comparative studies. Although the continuity and distinctiveness of China's traditional Confucian culture have led some to claim that traditional values underpin the Chinese Communist Party (CCP) regime's legitimacy, here too the focus has often been on ideology, nationalism, and performance. Indeed, there has been a particularly strong consensus that since the 1980s the CCP's one-party state has sought to generate "performance legitimacy" through a combination of economic growth and limited reforms of political institutions.

As China's economic growth rates began to slow in the 21st century, however, and the party-state began to extend government-funded social and health programs, more recent research has begun to see this wave of public goods provision as part of an attempt to relegitimize the regime. Yet with only two pioneering studies so far—examining education provision and urban public goods spending—we have very limited evidence that this relegitimization effort has been successful.

Our article assesses the significance of health care provision, a politically important public good in many countries, for authoritarian regime legitimacy. To do so, we analyze the findings of a unique survey conducted nationwide in China in 2012–2013. The China National Health Attitudes Survey (CNHAS) asked questions about people's use of the health care system as well their attitudes to it and to wider political institutions. It thus provides a rare opportunity to examine the associations between health care provision and regime legitimacy. And because it includes several questions that capture attitudes toward political institutions, it also enables us to explore relationships with different theorized dimensions of legitimacy.

To probe the outcomes of public goods provision we operationalize "regime legitimacy" using three separate variables that are derived from survey questions about support for the political system and trust in central and local government "to act in the best interests of society." We use both system support and trust questions because we want to explore differences between these commonly used variables. First, we want to understand whether they are interchangeable, as is sometimes assumed. Second, because, as David Easton (1975: 437, 444) has argued, "what governments do" may affect "specific" support for incumbents without affecting more "diffuse" support for political institutions, we want to see if public

goods provision has a differential effect on measures of support that are more or less diffuse. We distinguish between trust in central government and trust in local government because previous research has established that in authoritarian regimes they are distinct and differently patterned, as compared to democracies, but still closely connected (Li 2016). Overall, we are following precedent in that other survey-based studies of legitimacy in China have used similar variables (Chen 2017; Chen and Shi 2001; Chu 2013; Lü 2014).

Using multivariate ordinal logistic regression, we first explore the associations between having public health insurance (i.e., government-administered or government-funded health insurance, including employee schemes, that are sometimes referred to as “social insurance”) and our three dependent variables. Here we find that central government appears to be reaping a trust dividend from having extended this public good in the previous decade, but local governments do not benefit (even though they administer public health insurance in their areas).

We then introduce, alongside health insurance, a second independent variable that measures health care system satisfaction. This attitudinal variable is associated (see below) with a wide range of health system perceptions and evaluations. It captures more than just the effects of having health insurance, and it enables us to consider a mechanism through which health insurance might influence legitimacy. At the same time we introduce variables measuring attitudes that previous research suggests affect legitimacy in authoritarian regimes: traditional values, national pride, economic and political performance, trust in the mainstream media, and trust in people in general. In this second stage, our model shows that overall, health insurance retains a significant association with trust in the central government. Health care system satisfaction does not have a significant association with central trust but is associated with local government trust and system support.

Overall, we find that China’s communist regime appears to be successfully generating support through the provision of public goods and that health care provision bolsters authoritarian regime legitimacy. In addition, the different findings across our measures of legitimacy indicate that they are not straightforwardly interchangeable and that Eastonian distinctions between specific support and diffuse support may be useful in explaining why measures of legitimacy relate to health care provision in different ways.

Our findings are important given the recent “authoritarian resurgence” (Walker 2015) and authoritarian regimes’ efforts to extend their legitimacy.

It indicates that they may be able to successfully extend support and thus enhance their durability at least in the short term. But the generalizability of our findings depends on the nature of authoritarian political institutions. When (as in China) regimes can credibly claim to provide public health insurance and services, they are likely to benefit from providing it. Moreover, authoritarian regimes like the CCP's, which do not have any semblance of democratic electoral institutions, may be more reliant on providing health care (as well as other public goods) than regimes that are able to generate some legitimacy from elections.

### **Authoritarian Regime Legitimacy**

Authoritarian regimes are widely understood to enjoy little legitimacy and are often portrayed as founded on patronage, coercion, and oppression (Bueno de Mesquita et al. 2003; Policzner 2009; Wintrobe 1998). Yet research has long shown that autocrats try to use nationalism and economic performance to bolster support (Epstein 1984; Huntington 1991; Liddle 1985; Turner 1990; White 1986) and that communist regimes have deployed ideology to legitimize their rule. Others have demonstrated how leaders in semiauthoritarian systems use elections to increase legitimacy (Hermet, Rose, and Rouquié 1978; Levitsky and Way 2010; Magaloni 2006; Rose, Mishler, and Munro 2011).

Recent work has begun to show that autocrats sometimes try to win support—or at least prevent rebellion—by providing public goods (Gallagher and Hanson 2009; Gandhi and Przeworski 2006; Mares and Carnes 2009; von Soest and Grauvogel 2017). Bueno de Mesquita et al. (2013) contend that in autocracies with large constituencies it makes sense for elites to provide public services. This adds to Anders Aslund's (2002) work showing that universal health care and education were important for central and eastern European and Eurasian communist states. Research on welfare state policies, meanwhile, has long agreed that welfare provisions introduced in authoritarian regimes dating from Bismarck's Germany onward have often sought to preempt political opposition (Briggs 1961).

There has been only limited research on the outcomes of autocrats' efforts to generate legitimacy, but recent work has claimed that they are sometimes successful. Harris (2013) has argued that social policies helped generate middle-class support in Iran until at least 2009. Yom and Gause (2012) have claimed that some Arab monarchies prevented rebellion during the Arab Spring of 2011–2012 by using their hydrocarbon wealth to provide welfare and benefits. Similarly, Greene (2010) has maintained that

spending on public goods in electoral authoritarian regimes has helped dominant parties retain power. But these studies base their arguments on an absence of rebellion or assert the presence of support without providing robust empirical evidence of it.

### Understanding the Chinese Party-State's Legitimation Efforts

Much scholarship on China's brand of authoritarianism has, like multi-country comparative studies and research on other regimes, focused on the state's coercive capacity (Tanner 2001). But for China, too, studies of legitimacy have examined nationalism, economic performance, and reforms to political institutions as well as, most recently, public goods provision. Early work on China's political culture argued that although the CCP in the first three decades of its rule from 1949 rejected Confucianism, traditional ideas—such as justifying political hierarchy or valuing harmony and stability—nevertheless underpinned the regime (Pye 1992), perhaps more than for other autocracies.<sup>1</sup> Recent studies have also shown that since the turn of the 21st century, the CCP has encouraged a brand of Confucian revival that emphasizes hierarchy, obedience, social order, and stability as well as devotion to family and nation-state (Billioud 2007; Holbig and Gilley 2010). The scholarly consensus is that Marxism and socialist ideology no longer generate much support for China's communist party-state and that the CCP now encourages both traditional (often Confucian) ideas and nationalism to bolster its legitimacy (Nathan 2003; Zheng 1999).<sup>2</sup>

Alongside traditional culture and nationalism, the most significant source of the CCP's post-1978 legitimacy is often argued to be economic performance (Heberer and Schubert 2006; Holbig and Gilley 2010). Indeed, economic performance has dominated discussions of regime legitimacy and resilience in China over the last two decades, as scholars and journalists have sought to explain both the longevity of the CCP regime and the high levels of support for the Chinese party-state that began to emerge in public opinion surveys from the 1990s (Chen, Zhong, and Hillard 1997; Kennedy 2009; Shi 2001). Indeed, the idea of “performance legitimacy” (Zhao 2009; Zhu 2011) has begun to gain wider currency in the

1. For critiques of this view, see Hu (2000), Hung (2011), and Lee (2001).

2. See Holbig and Gilley (2010). The CCP dominates and penetrates all institutions of the contemporary Chinese state (including central and local government, the legislature, and the military), so that we equate the CCP's legitimacy with that of the “party-state”—the regime—it has created.

international media (Anderlini 2013; Bell 2012; Ferguson 2012), with economic performance—in other words, delivering high levels of economic growth—usually seen as the most important factor (Lustig and Sorensen 2013; Mucha 2012; Wang 2010; Zhao 2009).

Some observers have suggested that the post-1978 performance legitimacy of the Chinese party-state also has political dimensions. Andrew Nathan (2003) has argued, for example, that the CCP's efforts to increase political participation since the 1980s may have generated trust and legitimacy. The CCP has been concerned to broaden its legitimacy by building a more efficient bureaucracy, improving the rule of law, and reducing corruption (Heberer and Schubert 2006). It has tried to deliver its own brand of "democracy" through holding managed village elections, activating local legislatures (people's congresses), and experimenting with participatory, consultative, or deliberative mechanisms (Duckett and Wang 2013; He and Thøgersen 2010; He and Warren 2011; Wang 2014).

Finally, the Chinese party-state's extension of public goods to wider segments of the population in the 21st century is thought to be another part of an evolving legitimizing project (Holbig and Gilley 2010; Nathan 2003; Zhu 2011) whose rhetoric invokes both Marxist and Maoist tenets about "serving the people" and older traditional ideas about benefiting the people (*li min*) as well as Confucian values and concepts (Holbig 2009: 27). Overall, then, as Holbig and Gilley (2010: 395) argue, the CCP is trying to "relegitimate" its regime through a combination of appeals to traditional culture and nationalism, economic and political performance, and public goods provision.

### Empirical Studies of Regime Legitimacy in China

Survey research in China over the last two decades has begun to make important contributions to understanding the party-state's legitimacy, with many studies based on nationally representative surveys or on surveys of particular cities or rural areas. These studies use a range of different survey questions to operationalize the concept of regime legitimacy, with some focusing on attitudes to the political system (Tang 2005; Zhong and Chen 2013), some focusing on trust (Chen 2004; Li 2004; Lü 2014; Yang and Tang 2010; Zhong 2014), and others using a combination of both kinds of measures (Chu 2013; Dickson et al. 2016; Li 2011; Shi 2001).

Some early opinion survey-based analyses argued that traditional "Confucian" values underpinned regime legitimacy (Chen 2004; Shi 2001), but others have found legitimacy to be associated with national pride

(Shen and Guo 2013), evaluations of economic and political performance (Chu 2013; Lewis-Beck, Tang, and Martini 2014; Yang and Tang 2010; Zhong and Chen 2013), exposure to China's state-controlled media (Kennedy 2009; Stockmann and Gallagher 2011; Wang 2005), and "generalized trust" (Steinhardt 2012).

Recent work has begun to examine the role that public goods provision plays in bolstering regime legitimacy. Michelson (2012) has argued that providing public goods to rural dwellers in the first decade of the 21st century improved evaluations of government performance. Dickson et al. (2016) provide empirical evidence from a public opinion survey—but only across 49 cities in China—that there are significant associations between local spending on public goods (education, health, and social welfare) on the one hand and both local and central "regime support" on the other. Li and Wu (2018) argue, based on a survey of rural residents in selected Chinese counties, that new rural pension schemes increase political trust. Lü (2014) shows, based on two waves of a national survey in 2004 and 2009, that public awareness (rather than actual policy benefits) of education policy increased regime legitimacy.

### Health Care Provision and Legitimacy

Health is a fundamental human right (WHO 1946), and health care is an important public good (Cassani 2017). Governments play important roles in providing health care: funding and managing or regulating provision as well as training and employing health care workers and administering health services (Roberts et al. 2004; Schieber and Maeda 1999). As a result, health care provision may play an important role in mediating the relationship between people and the state (Freedman 2005) and is a core political issue in countries around the globe (Carpenter 2012).

Despite the attention to public goods provision as a source of regime legitimacy in authoritarian systems, and despite research in democratic contexts that suggests health provision may affect political trust (Gilson 2003; Rockers, Kruk, and Laugesen 2012), there has been no thorough study of health care provision's effects in authoritarian political systems. Yet health care provision is just as important for people living in autocracies as for those in democracies. Public opinion surveys in China, for example, have repeatedly found health care provision to be a high priority for the population (Whyte 2010), and health care reform has been a prominent policy issue in China over the last 15 years. Since the late 1990s and especially in the first decade of the 21st century, the government extended basic public health insurance (including urban employee and residents'

health insurance, and rural cooperative medical schemes) to almost the entire population. In 2006 the government announced a review of the health system, and in 2009 it initiated major reforms aimed at improving primary care and reforming public hospitals to make health care more affordable and accessible (Kornreich, Vertinsky, and Potter 2012). Although the health care system still faces many problems (Yip et al. 2012; Zhang and Gong 2019), these reform programs proclaimed the government's commitment to providing basic health care in China, and they established entitlements to basic public health insurance (in principle at least) across the whole population.

On the basis of the research discussed above, which shows that public goods may contribute to authoritarian regime legitimacy and that health care is recognized as an important public good internationally (Cassani 2017; Freedman 2005), our overarching hypothesis is that *health care provision contributes to authoritarian regime legitimacy*. To test this hypothesis, we use multivariate logistic regression to explore the associations in our CNHAS data set between two health care provision variables on the one hand, and three variables aimed at capturing expressions of regime legitimacy on the other. We use two health care provision variables because they enable us to explore both the effects of a specific and direct material benefit (health insurance) and the associations between broader evaluations of health care provision and legitimacy as well as possible mechanisms through which insurance may affect legitimacy. We use three different measures of regime legitimacy for two reasons: first, to distinguish the associations between public goods and attitudes toward central government on the one hand and local government on the other; and second, to distinguish specific support based on what the government does from diffuse support for the overall political system. This approach is consistent with previous studies on legitimacy of the Chinese regime, most of which look at political trust either alone or in combination with other measures.

Our hypotheses for each independent variable are as follows. Following Easton, we expect health insurance to increase trust in the central government because it is a benefit arising from a central government national policy to roll out public health insurance schemes across the population in the first decade of the 21st century. We also expect having health insurance to increase trust in local governments because they administer the schemes, which are organized locally. But we do not expect having health insurance to affect "system support" because this third dependent variable is more likely to capture diffuse political support, which is, theoretically speaking, less tied to specific benefits.



Health care system satisfaction is an attitudinal variable, so we cannot prove any causal effects on political attitudes; but because the national government announced a major reform of the health care system in 2009, we hypothesize that positive evaluations of health care provision are associated with greater trust in the central government. And since local governments regulate and are responsible for local health care facilities, they may also benefit from positive evaluations of the health system through higher trust ratings. We do recognize, however, that higher central and local trust might lead people to be more satisfied with the health care system, and that, in other words, we cannot be sure of the direction of causality. This is perhaps even more likely to be the case with system support, so that satisfaction with the health care system may help bolster system support, or system support might bolster satisfaction with the health care system.

## Data

We use data from the CNHAS, a nationally representative survey we designed and commissioned that was conducted across China between November 2012 and January 2013. (For details of sampling procedures, questionnaire design, and implementation, see appendices 1 and 2.) We recognize the endogeneity problems in an analysis focused on a single cross-sectional survey. For this reason we are cautious about making causal assertions.

We also recognize the problem of a possible “fear factor” and other sources of bias in survey research in authoritarian contexts, especially with regard to such questions as regime legitimacy. In our survey, as in many others conducted in China, we report high levels of political trust in the central party-state and high levels of system support. While there is potential for bias, particularly when survey data are used to compare authoritarian and nonauthoritarian countries (Tannenberg 2017), analysts of Chinese survey data caution against “throwing the baby out with the bathwater” over this issue. Shi (2001: 407) found a low correlation between political trust and measures of political caution, which suggests that while caution is a source of bias, it may not have large effects. He also found that “don’t know” and “no-reply” responses to political trust questions had lower correlations with political caution than with level of education and interest in politics (Shi 2008: 213), which undermines the assumption that these responses are necessarily driven by caution. A field experiment with surveyors wearing or not wearing CCP badges showed that the badged surveyors elicited even more negative evaluations

of the CCP than the nonbadged surveyors (Lei and Lu 2017), suggesting that ordinary Chinese answering a survey are not necessarily cautious in expressing dissatisfaction and may indeed welcome the opportunity to complain. List experiments aimed at quantifying dissimulation bias (Robinson and Tannenberg 2019; Tang 2016) and explorations of non-response bias (Munro 2018; Ratigan and Rabin 2020) show that surveys do overestimate political trust, particularly trust in the central government. However, the amount of bias detected does not change the conclusion of multiple studies that the vast majority of Chinese citizens trust the central government. Survey responses are always open to varying interpretations (Li 2004). Nevertheless, we believe that the existing research legitimates the practice of using Chinese survey data to analyze meaningful patterns of association among variables. In this study, we have attempted to mitigate nonresponse bias by including an item nonresponse measure as an independent variable.

## Variables

### Dependent Variables

There is a large literature and a complex debate about the definition and measurement of legitimacy (Beetham 1991; Easton 1965; Easton 1975; Gerschewski 2013, 2018; Lipset 1959; Weatherford 1992). For present purposes, we adopt Seymour Martin Lipset's (1959: 86) definition of legitimacy as "the capacity of a political system to engender and maintain the belief that existing political institutions are the most appropriate or proper ones for the society." We operationalize the concept in two ways. First, we use a dependent variable derived from a question about support for "our form of government" that approximates Lipset's understanding as well as Easton's "diffuse support." Second, we use two variables operationalized through questions about political trust, one for trust in central government and one for trust in local government. We do this for reasons explained above: to capture support for what government at different levels does for society and to distinguish more specific forms of support from more diffuse ones. In this we differ from Dickson et al. (2016), who conducted the only other study to consider health care provision, and who merge trust and wider support measures to create a composite variable. We note that our three dependent variables correlate with one another positively ( $r=0.31$  for trust in central and local government,  $r=0.29$  for trust in central government and system support, and  $r=0.28$  for trust in local government and system support). This suggests they may be

causally related in some way, but we believe greater analytical clarity is achieved by treating them as parallel measures and comparing their relationships with the independent variables. Using political trust in combination with a measure of system support follows the precedent of other survey-based studies internationally.<sup>3</sup>

Our measure of “system support” uses responses to a question on whether people “strongly agreed,” “somewhat agreed,” “somewhat disagreed,” or “strongly disagreed” with the statement: “Whatever its faults may be, our form of government is still the best for us.”<sup>4</sup> To measure “political trust” our survey asked respondents to: “Please indicate to what extent you trust the following institutions to operate in the best interest of society.” Respondents were shown cards listing political institutions including “central government,” “Party center,” and “local government,” and they could answer “trust a lot,” “trust somewhat,” “don’t trust much,” and “don’t trust at all.” We focus on trust in the central government because that is the effective locus of policy making and a more direct comparator to “local government.” We note that trust in central government and in the Party center correlate highly ( $r=0.87$ ).

We distinguish central trust from trust in local government (“local trust”) because this enables us to probe the extent to which the center and local governments are differentially credited or blamed for public goods provision. Previous research has shown Chinese citizens trust the center more than they trust local government (Li 2004), the inverse of the pattern of trust in democracies (Tang and Huhe 2016). Previous research has also consistently yielded very different results for central versus local trust (Dickson et al. 2016; Li 2004; Shi 2001; Zhong 2014; Zhong and Chen 2013). This is perhaps because the central government is able to control media narratives so that it claims credit for beneficial policies, while local governments are blamed for poor implementation (Li 2004, 2013; Lü 2014).

## Key Independent Variables

To estimate the influence of health care provision we use two independent variables: participation in public health insurance and health care system satisfaction. We showed our respondents a list of possible health insurance schemes (including both public and private insurance) and asked them if

3. See also Levi and Stoker (2000), Li (2004), Mishler and Rose (2005), Shi (2001), and Tang (2005).

4. This question is used by Chen (2017), and similar questions have been used by Chu (2013), Robinson and Tannenberg (2019), and Zhong and Chen (2013).

they participated in any (or more than one) of the schemes.<sup>5</sup> Health care system satisfaction is a subjective measure reflecting aspects of health care provision including insurance and use of hospitals and community clinics. Our own previous analysis (Munro and Duckett 2016) demonstrated that health care system satisfaction is positively associated with having insurance but negatively associated with having used health services. To measure satisfaction, we asked: “In general, would you say you are very satisfied, fairly satisfied, fairly dissatisfied, or very dissatisfied with the way health care is run in our country?”

We included socioeconomic control variables for sex, age,<sup>6</sup> education,<sup>7</sup> self-reported social status,<sup>8</sup> marital status, and CCP membership as well as agricultural and nonlocal (migrant) household registration (often referred to using the Chinese term *hukou*). We also included two variables to capture contextual effects. Dickson et al. (2016: 871) found that gross domestic product (GDP) per capita had a negative association with support for the central government, and public spending on health care had a positive association, while public spending on health care had a positive association with support for local government but GDP per capita was insignificant. We were unable to obtain reliable data on public spending on health care across the counties (our primary sampling units, or PSUs) in the year of our survey, so we controlled for GDP per capita for the county or district.<sup>9</sup> We included a variable for the residential location of our respondents, which refers to the administrative status of our 60 primary sampling units, because rural counties, county-level cities, and urban districts are differently governed, and this aspect of context may affect trust and system support.<sup>10</sup>

Finally, we included a range of attitudinal measures that prior research (discussed above) has indicated could influence institutional trust, including “traditional values,” national pride, and economic and political performance evaluations. We added controls for expressed trust in the “mainstream

5. Note that urban employee schemes are funded by employers and employees, not by local governments. Urban and rural residents' schemes are at least partly funded from the local public purse.

6. Our age data is measured in deciles because Chinese people tend to answer questions about age in that way, so that “I’m 60” means “I’m already over 60.” This produces spikes in the age distribution at each decile that do not reflect biological ages.

7. Education was measured on a nine-point scale from no formal education to PhD level.

8. Social status was self-assessed on a seven-point scale from lowest to highest. We do not use a household income measure because of the large amount of missing data (25%). In our early-stage analysis we used imputed income data in our analysis of objective data, and it was not significant.

9. See note for table 1.

10. Of our 60 PSUs, 20 were urban districts, 10 were county-level cities, and 30 were rural counties. “Urban location” refers to the 20 urban districts, which are located in the largest cities.

media” (because mainstream media are vehicles for government propaganda) and trust “in people in general” (to capture social capital effects). We also controlled for respondents’ willingness to answer questions by including a measure counting refusals to answer or giving “don’t know” responses to questions all across our survey.<sup>11</sup> For multivariate analyses, we use a multiple imputation model to impute substantive responses where these are missing for more than 1% of respondents, and we pool the results from five imputations of missing data.<sup>12</sup> (For details of coding and questions for all independent variables, see appendix 3.)

## A Staged Analysis

We conducted preliminary analyses using bivariate t-tests and to explore the associations between our dependent and independent variables. We ran a multilevel ordinal logistic regression for each of our three dependent variables using only health insurance and controlling for key “objective” (socioeconomic) characteristics (models 1.1, 2.1, 3.1). We then added in our second key independent variable, health care system satisfaction, alongside our other subjective variables (those that previous studies have suggested influence political trust and system support—traditional values, national pride, and evaluations of economic and political performance) and our trust controls (models 1.2, 2.2, 3.2).

## Empirical Results

### Descriptive Findings

Our survey found (figure 1), in line with previous surveys, that a higher proportion of respondents reported trusting the central government (86%) than reported trusting local government (52%). The majority (61%) agreed that “our system of government is the best for us,” but almost a quarter (23%) disagreed.<sup>13</sup>

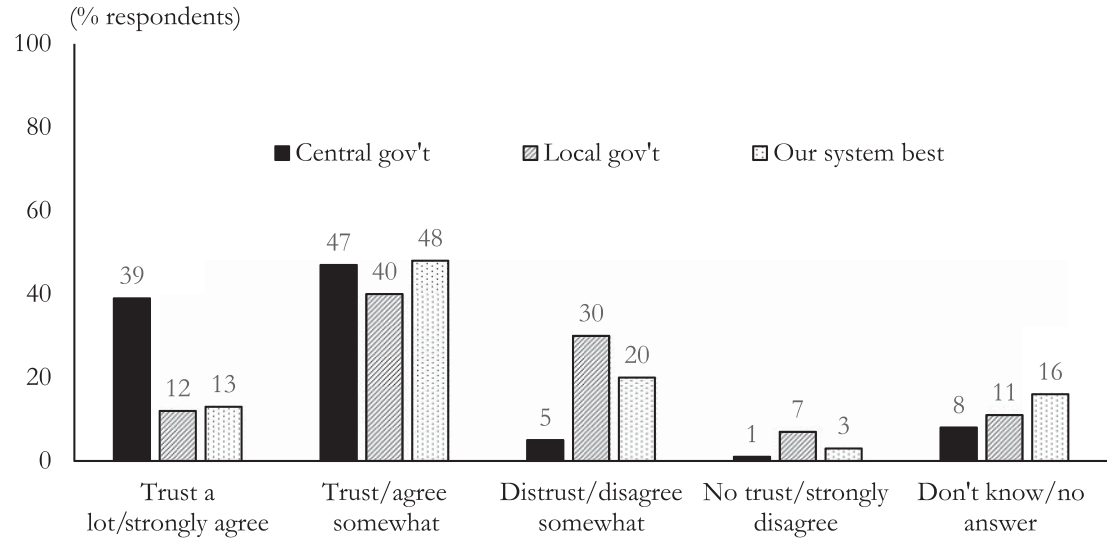
11. We acknowledge that estimating the exact amount of unit nonresponse bias requires more complex techniques. See Munro (2018) for an adaptation of one such technique using Chinese survey data.

12. See Baraldi and Enders (2010). We acknowledge that nonsubstantive responses can be another source of bias (Ratigan and Rabin 2020), but we believe that multiple imputation is one of the best available techniques for overcoming this bias, as it imputes the most likely substantive response based on the available information.

13. In reporting percentages, we include “Don’t know” and “No reply” responses where their combined total is more than 10% of respondents, or where we are making a comparison with a variable having 10% or more “Don’t know” or “No reply” responses. Where “Don’t know” and “No reply” responses are less than 10%, we exclude them. Percentage decimals of 0.5 or more are rounded up to the nearest whole percentage point.

Q. Please indicate to what extent you trust the following institutions to operate in the best interests of society. If you don't know what to reply or have no particular opinion, please say so. (Central government... local government: "trust a lot," "trust somewhat," "don't trust much," "don't trust at all")

Q. Here are some statements. For each statement would you tell me whether you strongly agree, somewhat agree, somewhat disagree or strongly disagree? "Whatever its faults may be, our system of government is still the best for us."



**Figure 1** Political trust and regime support.

Source: China National Health Attitudes Survey, 2012–2013; fieldwork November 1, 2012–January 17, 2013; N = 3,680.

In line with official figures for health insurance participation nationwide, 92% of respondents reported having health insurance, and 89% said they were participating in one of China's public health insurance schemes: the New Cooperative Medical Scheme (NCMS, 59%), Urban Employee Basic Medical Insurance (UEBMI, 17%), Urban Residents' Basic Medical Insurance (URBMI, 14%), or one of the legacy schemes no longer in common use—government health insurance (2%), reimbursement through the work unit (3%), and special insurance for former revolutionary veterans and their spouses (0.3%) (figure 2). (Since respondents can have more than one type of insurance, the totals for each type of public insurance exceed the 89% who have some form of public insurance.) The 9% who have private insurance includes 4% whose insurance is provided by their employer and 5% who bought it individually. Some people have private as well as public insurance. Of the main types of public insurance, NCMS and URBMI are newer (introduced in the 2000s) than UEBMI, but much less generous.

A large majority of respondents reported moderate levels of satisfaction with the health care system. While only 8% said they were “very satisfied” with the health care system, 69% were “quite satisfied.” Less than a quarter reported dissatisfaction, with 20% “fairly dissatisfied” and 3% “very” dissatisfied (figure 3). We note that satisfaction with health care and health insurance have a modest correlation ( $r=0.12$ ). This is in line with our previous analysis (Munro and Duckett 2016) showing that having health insurance contributes to health care system satisfaction.

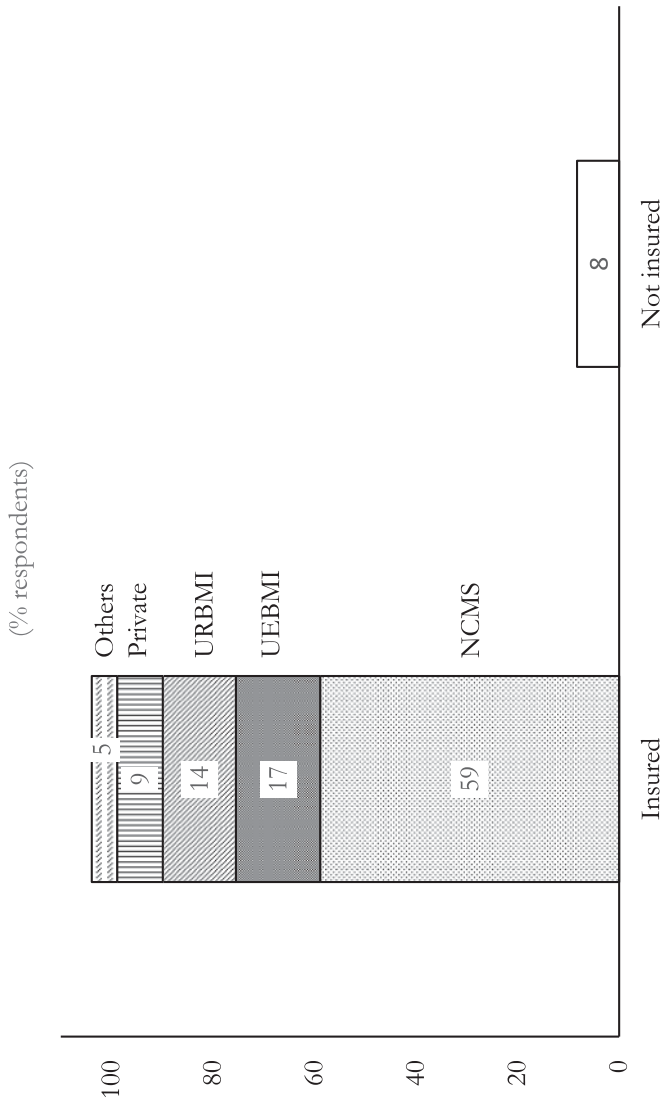
### Multivariate Regression Analyses

To capture the effects of variables measured at the level of the PSU, and to take account of the clustered structure of the data, we use a multilevel model. The multilevel ordinal logistic regression model uses a maximum likelihood estimator with robust standard errors (Muthén and Muthén 2012). We ran the analyses separately for each dependent variable and we discuss each in turn, finding support for some but not all of our hypothesized associations.

Having any kind of public health insurance<sup>14</sup> is not associated with system support, but health care system satisfaction is (est. 0.23,  $p < 0.01$ , table 1, model 1.2).

14. Public health insurance comprises UEBMI, URBMI, NCMS, government employee insurance, employer reimbursement, and special insurance for the military, retired cadres, and widows of veterans.

Q. Are you currently the policy holder/primary beneficiary of any of the types of health insurance listed below?



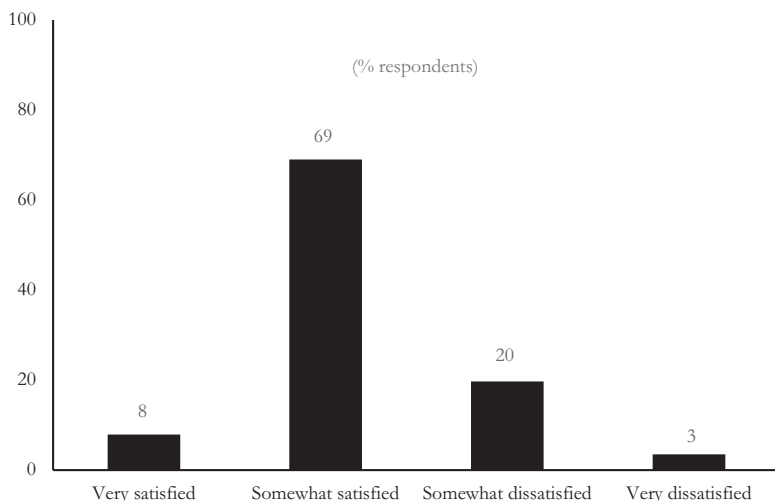
**Figure 2** Health insurance.

Source: Same as for figure 1.

Note: The share of respondents with insurance adds to more than 100% because some respondents hold more than one type of insurance.



*Q. In general, would you say you are very satisfied, fairly satisfied, fairly dissatisfied, or very dissatisfied with the way health care is run in our country?*



**Figure 3** Health care system satisfaction.

*Source:* Same as for figure 1.

Having any kind of public health insurance is associated with trust in central government (est. 0.48,  $p < 0.01$ , table 2, model 2.1), but health care system satisfaction is not (model 2.2). When, as a check for possible mediating effects of health care system satisfaction, we added *only* health care system satisfaction to model 2.1, we found it to have a strong association (est. 0.40,  $p < 0.001$ ) with central trust, at the same time as the effect of health insurance decreased (est. 0.41,  $p < 0.01$ ), while still remaining significant. But the association of health care system satisfaction with central trust lost significance when we added the other attitudinal variables (in model 2.2).

We also ran separate regression analyses to estimate whether people with different kinds of public insurance have different levels of trust and system support. For example, does having more generous employer UEBMI associate with in greater trust in the central government than having less generous URBMI and NCMS (see appendix 4, tables A4.1–A4.3)? We found that UEBMI and URBMI are both significant predictors of trust in the centre, and while NCMS is not, having “agricultural” household registration (*hukou*) is (table A4.2). Because, however, there is a high correlation ( $r = 0.74$ ) between participating in NCMS and having agricultural *hukou*, we cannot disentangle their effects. Thus there is no clear evidence that more generous provisions elicit greater central trust. When we did the

**Table 1** Estimates for System Support (Model 1)

	Objective variables only (model 1.1)		All variables (model 1.2)		Impact (CI)
	<i>Est.</i>	<i>SE</i>	<i>Est.</i>	<i>SE</i>	
<i>System support on:</i>					
Has any kind of public insurance	0.26	0.15	0.12	0.16	
<i>Health care system satisfaction</i>	—	—	0.23**	0.08	1.15 (1.04, 1.27)
<i>Age in deciles</i>	0.18***	0.05	0.14**	0.05	1.20 (1.07, 1.35)
Female	-0.12	0.07	-0.13	0.08	
Education	0.01	0.04	0.06	0.04	
Agricultural hukou	0.11	0.10	0.01	0.10	
Nonlocal hukou	-0.09	0.14	0.12	0.13	
Urban district	0.01	0.19	0.09	0.20	
<i>Communist Party membership</i>	0.05	0.08	0.03	0.07	
Married	-0.18	0.12	-0.23	0.12	
<i>Socioeconomic status</i>	0.03	0.05	-0.003	0.06	
<i>Item nonresponse rate, %</i>	-0.02***	0.01	-0.01	0.01	
<i>GDP per capita (10,000 yuan)</i>	-0.16	0.40	-0.13	0.30	
<i>Leave everything to upright leaders</i>	—	—	0.46***	0.09	1.46 (1.27, 1.68)
<i>Obey unreasonable parents</i>	—	—	0.24**	0.09	1.21 (1.06, 1.38)
<i>Pride in country</i>	—	—	0.31***	0.08	1.21 (1.09, 1.34)
<i>National economy rating</i>	—	—	0.33***	0.09	1.22 (1.10, 1.35)
<i>Political performance rating</i>	—	—	0.88***	0.10	1.76 (1.55, 1.99)
<i>Trusts mainstream media</i>	—	—	0.21*	0.09	1.14 (1.02, 1.28)

**Table 1** (continued)

	Objective variables only (model 1.1)		All variables (model 1.2)		Impact (CI)
	Est.	SE	Est.	SE	
Trusts people in general	—	—	−0.01	0.10	
<i>Household economy compared to 5 years ago</i>			0.03	0.07	
<i>Watches TV news</i>			−0.05	0.05	
<i>Reads print media for news</i>			0.04	0.05	
Log likelihood	−96058		−51004		
Number of observations	3,594		3,594		
LR chi square ( <i>df</i> )	88013 (11)		178122 (22)		
Prob > chi square	0.000		0.000		

*Notes:* Results show ordinal logistic regression coefficients computed using maximum likelihood estimation with robust standard errors clustered at the level of the primary sampling unit (PSU), pooling five imputations of missing data, resulting in five complete data sets with 3,594 cases each. Impact is computed by multiplying the odds ratio by the standard deviation of the independent variable. Confidence intervals for impact are computed for 95% confidence. \* means significant at .05 level; \*\* at .01 level; \*\*\* at .001 level. All variables are measured at the individual level, except for urban district (which refers to the administrative category of PSUs in cities at prefecture level or above) and county or district GDP per capita. Variables in italics are centered on their grand mean, and all other variables take a negative response (coded zero) as their reference category. Survey data from: China National Health Attitudes Survey, 2012–2013, fieldwork November 1, 2012–January 17, 2013, N = 3,680.

**Table 2** Estimates for Trust in Central Government (Model 2)

	Objective variables only (model 2.1)		All variables (model 2.2)		Impact (CI)
	<i>Est.</i>	<i>SE</i>	<i>Est.</i>	<i>SE</i>	
Has any kind of public insurance	0.48**	0.16	0.40*	0.16	1.13 (1.03, 1.25)
Health care system satisfaction	—	—	0.06	0.08	
Age in deciles	0.10**	0.03	0.01	0.03	
Female	-0.01	0.09	0.03	0.08	
Education	-0.04	0.04	-0.02	0.04	
Agricultural hukou	0.31**	0.12	0.17	0.12	
Nonlocal hukou	-0.24*	0.13	-0.12	0.13	
Urban district	0.04	0.15	0.17	0.17	
Communist Party membership	0.06	0.06	0.06	0.07	
Married	-0.06	0.11	-0.07	0.12	
Socioeconomic status	0.04	0.05	-0.005	0.05	
Item nonresponse rate, %	-0.02**	0.01	-0.02	0.01	
GDP per capita (10,000 yuan)	-0.25	0.29	-0.35	0.35	
Leave everything to upright leaders	—	—	0.20**	0.07	1.15 (1.04, 1.27)
Obey unreasonable parents	—	—	0.07	0.08	
Pride in country	—	—	0.52***	0.09	1.38 (1.23, 1.53)
National economy rating	—	—	0.27***	0.09	1.20 (1.06, 1.36)
Political performance rating	—	—	0.43***	0.11	1.31 (1.15, 1.51)
Trusts mainstream media	—	—	0.83***	0.11	1.73 (1.49, 2.00)
Trusts people in general	—	—	0.24*	0.10	1.12 (1.02, 1.23)

**Table 2** (continued)

	Objective variables only (model 2.1)		All variables (model 2.2)		Impact (CI)
	Est.	SE	Est.	SE	
<i>Household economy compared to 5 years ago</i>					
<i>Watches TV news</i>			0.04	0.06	
<i>Reads print media for news</i>			0.04	0.04	
Log likelihood	-96085		-0.07	0.05	
Number of observations	3,594		-51079		
LR chi square ( <i>df</i> )	87959 (11)		3,594		
Prob > chi square	0.000		177971 (22)		
			0.000		

*Note:* Coding and source as in table 1.

same disaggregated analysis for system support, we found that the most generous scheme, UEBMI, is associated with greater support (est. 0.56,  $p < 0.01$ ), though this association disappeared when we added the attitudinal variables (table A4.1). If we add health care system satisfaction on its own, UEBMI is still significant but less so (est. 0.51,  $p < 0.018$ ).

Having public health insurance is not associated with trust in local government, but health care system satisfaction is (est. 0.32,  $p < 0.001$ , table 3). When we disaggregated health insurance into its component schemes, none of them associated significantly with local trust (table A4.3).

If we model the impacts of an increase of one standard deviation in the value of each independent variable (see the last column in tables 1–3), which effectively standardizes the lengths of their scales, it emerges that having any kind of public health insurance has a small impact (OR = 1.13, 95% CI = 1.03–1.25) on trust in the central government, similar in magnitude to trust in people in general, but smaller than most of the other attitudinal measures. Health care system satisfaction has a modest impact (OR = 1.15, 95% CI = 1.04–1.27) on system support, one that is similar in magnitude to trust in the mainstream media, but weaker than all the other impacts. Health care system satisfaction has a moderate impact (OR = 1.21, 95% CI = 1.11–1.33) on trust in local government, one that is smaller than trust in the mainstream media and political performance, but about the same as the impact of national pride.

In model 1.1, age is the most important socioeconomic variable, indicating that regime legitimacy is generally greater among older people. Being older is significantly associated with “system support,” and the effect is robust to the inclusion of attitudes in model 1.2. Being older appears to be associated with trust in the central government (model 2.1, est. 0.10,  $p < 0.01$ ) and in local government (model 3.1, est. 0.09,  $p < 0.01$ ), though the effects disappear when attitudes are included. Rural dwellers (those with agricultural *hukou*) appear more likely to trust central (but not local) government (models 2.1 and 3.1), but the effect disappears when attitudes are introduced (initial estimate .31,  $p < 0.01$ ). Migrants (those with nonlocal *hukou*) are less likely than others to trust the central government (model 2.1, initial estimate  $-0.24$ ,  $p < 0.05$ ), but again, the effect disappears when attitudes are included.

Turning to models 1.2, 2.2, and 3.2, where we introduce a range of attitudinal variables, we find that satisfaction with China’s health care system is associated with system support and with trust in local government, but not with trust in the center. Strikingly, all three dependent variables have significant associations with expressions of national pride, with positive ratings of economic and political performance, and with trust in

**Table 3** Estimates for Trust in Local Government (Model 3)

	Objective variables only (model 3.1)		All variables (model 3.2)		Impact (CI)
	<i>Est.</i>	<i>SE</i>	<i>Est.</i>	<i>SE</i>	
Has any kind of public insurance	0.17	0.14	-0.01	0.15	1.21 (1.11, 1.33)
Health care system satisfaction	—	—	0.32***	0.07	
Age in deciles	0.09**	0.03	0.01	0.04	
Female	-0.11	0.08	-0.09	0.08	
Education	0.03	0.03	0.05	0.03	
Agricultural hukou	0.07	0.09	-0.08	0.10	
Nonlocal hukou	-0.19	0.15	0.04	0.14	
Urban district	0.16	0.15	0.21	0.17	
Communist Party membership	0.05	0.06	0.02	0.06	
Married	-0.18	0.12	-0.20	0.11	
Socioeconomic status	0.03	0.04	-0.04	0.04	
Item nonresponse rate, %	-0.01	0.01	-0.002	0.01	
GDP per capita (10,000 yuan)	0.31	0.34	0.23	0.30	
Leave everything to upright leaders	—	—	0.11	0.06	
Obey unreasonable parents	—	—	0.07	0.08	
Pride in country	—	—	0.29***	0.07	1.20 (1.10, 1.30)
National economy rating	—	—	0.15*	0.08	1.11 (1.00, 1.23)
Political performance rating	—	—	0.60***	0.10	1.47 (1.30, 1.66)
Trusts mainstream media	—	—	1.15***	0.12	2.12 (1.83, 2.46)

(continued)

**Table 3** Estimates for Trust in Local Government (Model 3) (*continued*)

	Objective variables only (model 3.1)		All variables (model 3.2)		Impact (CI)
	<i>Est.</i>	<i>SE</i>	<i>Est.</i>	<i>SE</i>	
Trusts people in general	—	—	0.13	0.09	
<i>Household economy compared to 5 years ago</i>			0.11	0.06	
<i>Watches TV news</i>			−0.02	0.04	
<i>Reads print media for news</i>			0.04	0.03	
Log likelihood	−96045		−50898		
Number of observations	3,594		3,594		
LR chi square ( <i>df</i> )	88043 (11)		178334 (22)		
Prob > chi square	0.000		0.000		

*Note:* Coding and source as in table 1.



the mainstream media (which is subject to substantial regime censorship). Traditional values, meanwhile, are strongly associated with system support (model 1.2), moderately associated with central trust (model 2.2), and not associated at all with local trust (model 3.2). Both traditional values variables showed a significant association with system support (est. 0.46,  $p < 0.001$  and est. 0.24,  $p < 0.01$ ), while only one was associated with trust in the central government (est 0.17,  $p < 0.01$ ). Finally, trust in people in general was a moderate positive influence on trust in central government only (est. 0.24,  $p < 0.05$ ). Overall, we find that that regime legitimacy in China is associated with a cluster of attitudinal variables previously discussed in the literature on authoritarian regime legitimacy.

### **Conclusion: Health Care Provision Contributes to Authoritarian Regime Legitimacy**

Our study is based on a cross-sectional survey, so we are able to identify associations, but we cannot (at least for the attitudinal variables) indicate the direction of causation. Thus, only the findings from our models that use objective independent variables can be interpreted as causal. For this reason, support for our overarching hypothesis that health care provision contributes to the legitimacy of the Chinese party-state is evidenced most strongly through the association between having health insurance and “trust in the central government.”

The fact that we find that having health insurance is strongly associated with central trust, but not with system support or local trust, shows that we cannot interchangeably use these measures of legitimacy. It also lends some support to Easton’s propositions about specific support emerging from specific benefits, as long as we accept that central trust is closer to the specific end of the spectrum and system support is closer to the diffuse end, and that central government gets the credit for providing insurance.

Our finding that health care system satisfaction may have a mediating effect for the association between health insurance and central trust is consistent with our research reported elsewhere (Munro and Duckett 2016), which finds that health insurance is one of the factors shaping health care system satisfaction. In other words, having health insurance may increase central trust to some extent through the mechanism of increasing health care system satisfaction. The same mechanism may be at work in relation to the effect of having UEBMI on system support, but the fact that the effect disappears when other attitudinal variables are added suggests that there are also other mechanisms at work, and the effect of UEBMI on system support may be spurious.

The fact that health care system satisfaction is associated with trust in local government, but having public insurance is not, indicates that local governments do not benefit from administering public health insurance schemes (instead, it is the central government that successfully claims credit for them). Health care system satisfaction is partly shaped by use of health services, so its correlation with local government trust may reflect recognition that those services are a local government responsibility, though it is equally possible that trusting government leads to higher evaluations of the health care system.

Our survey used robust sampling methods that achieved a high response rate, and our analysis builds on an extensive body of theory about the sources of legitimacy in authoritarian regimes. It thus relies on a standard of evidence similar to most other comparable studies. In addition, we consider a broad range of associated variables, including cultural attitudes and political performance evaluations, so that the associations we find for our health care provision variables are robust even when taking into account the broad range of other factors that have been theorized to affect regime support and trust.

Although we find that public health insurance (and health care system satisfaction) show statistically robust associations with measures of legitimacy, whether health care matters substantively is another question. About 89% of China's population participates in public health insurance, and more than 80% expressed trust in the central government. It could be argued that any reduction in legitimacy from lack of health insurance is therefore negligible. Yet the 11% of the population without any form of public health insurance and among whom the regime enjoys less legitimacy is still 154 million people—a number greater than the population of many large countries. Further analysis of the social structural characteristics of this group suggests they tend to be young, mobile urbanites who are less likely to answer survey questions (see appendix 5).<sup>15</sup> The regime's claims to provide universal basic health care thus rings hollow for a substantial minority, and this should be of concern to the central government. Similarly, health care system satisfaction is associated with trust in local government as well as system support, and our results show that even though a majority of the population is satisfied, almost one in four are

15. Regressing the measure for having public insurance on the other nonattitudinal measures produces a model with two significant positive associations—age (est. 0.015,  $p < 0.003$ ) and agricultural *hukou* (est. 0.086,  $p < 0.001$ )—and two significant negatives ones: nonlocal *hukou* (est.  $-0.12$ ,  $p < 0.001$ ) and item nonresponse rate (est.  $-0.004$ ,  $p < 0.001$ ). This implies that those without public insurance tend to be younger, have nonagricultural and nonlocal *hukou*, and are less willing to answer questions (see appendix 5). Note that rural migrants to China's cities are not part of this excluded group because they tend to be signed up for NCMS in their home villages.

not. Again, this is a substantial minority, and since satisfaction is relative to expectations, there is no reason to think this minority will disappear, even if the system improves.

Using two trust measures allowed us to probe the effects of health care provision on central versus local support. Here, our findings support previous work on the differences between central and local political trust on China. Extending health insurance nationwide appears to have benefited the center, even though insurance is administered and mainly financed by employers (UEBMI) and local governments (in the case of NCMS and URBMI<sup>16</sup>). This is consistent with Li's (2004, 2016) observation that respondents give credit to the center for achievements and blame local governments for problems, and Lü's (2014) finding that local governments, which are generally less trusted, do not reap the benefit of many policies, even when they are responsible for financing and implementing them. Yet local political trust *is* associated with health care system satisfaction (even when controlling for local variation in GDP per capita).<sup>17</sup> Further research is needed to understand whether this reflects some recognition of local governments' roles in funding community clinics and city hospitals, or whether trust in local government produces "positively biased" evaluations of health care and perhaps other public services. Further research is also needed to probe why central government trust is not associated with health care system satisfaction, but system support is.

Overall, we add significantly to the nascent evidence that public goods provision is important to the Chinese party-state (Whyte 2010) and its regime legitimacy. We show that regime legitimacy is not only associated with awareness of education policy (Lü 2014) and with urban government spending across education, health, and social welfare (Dickson et al. 2016) but also is bolstered when people directly benefit from public goods provision—in this case by participating in a public health insurance scheme.

At the same time, we show that the Chinese party-state's legitimacy—whether measured by questions about trust or by questions about the political system—is simultaneously associated with a range of other factors previously discussed in the literature: traditional attitudes, nationalism, and economic and political performance (see Heberer and Schubert 2006). Thus we provide some evidence that the Chinese party-state has

16. Central government only finances some contributions in poorer parts of the country.

17. We tested the average health care system satisfaction for each county or district as a second-level variable and found it to be insignificant across all three dependent variables. This does not mean, however, that individual opinions about differences in health care between counties and cities are unimportant; it merely means that average health care system satisfaction level of a county or city does not help explain variation in regime support or trust.

“relegitimated” itself using multiple means, as Holbig and Gilley (2010) have argued it has sought to do.

Further research is needed to determine whether the Chinese party-state has sustained that relegitimation in the years since our survey was conducted. The effects of health insurance may decline if our survey captured a short-lived trust dividend arising from these new programs. On the other hand, since 2012–2013, the Chinese government has continued to try to reform hospitals, improve primary care, and further subsidize and merge NCMS and URBMI schemes in some places. And of course the COVID-19 pandemic and state responses in China around the world—in both the short and the long term—may also have implications for both regime legitimacy and health care provision. Our study thus provides a foundation for future research, for example into whether COVID-19 has increased the importance of health care for legitimacy in China and other authoritarian regimes.

Health care provision in China, as in other countries around the world, is an important dimension of the relationship between state and society (Freedman 2005), and we have shown that it can be as important in autocracies as it is in democracies—even for regime legitimacy. The policy implications of this are that authoritarian regimes may improve their durability by extending public goods like health insurance. They would do well to pay attention to health care provision and invest in it. But as Cassani (2017: 354) has argued, there are differences between authoritarian regimes, so that subtypes “can have significant implications for leaders’ efforts to legitimize themselves through regime performance and the improvement of citizens’ living conditions.” China’s Communist Party cannot rely on legitimization through elections. As a result, it may rely more on performance and public goods provision than semiauthoritarian regimes that do hold elections. Further research is needed to assess whether other autocracies of different types can boost their legitimacy by expanding health care and other public goods provision, as previous research (Yom and Gause 2012; Harris 2013) has indicated they seek to.

■ ■ ■

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### References

- Anderlini, James. 2013. "China Corruption Trials Risk Erosion of Party Legitimacy." *Financial Times*, September 25. [www.ft.com/cms/s/0/3b3a5c50-25d8-11e3-ae88-00144feab7de.html?siteedition=uk#axzz2iRjY5jzD](http://www.ft.com/cms/s/0/3b3a5c50-25d8-11e3-ae88-00144feab7de.html?siteedition=uk#axzz2iRjY5jzD).
- Aslund, Anders. 2002. *Building Capitalism: The Transformation of the Former Soviet Bloc*. New York: Cambridge University Press.
- Baraldi, Amanda N., and Craig K. Enders. 2010. "An Introduction to Modern Missing Data Analyses." *Journal of School Psychology* 48, no. 1: 5–37. doi.org/10.1016/j.jsp.2009.10.001.
- Beetham, David. 1991. *The Legitimation of Power*. Atlantic Highlands, NJ: Humanities Press International.
- Bell, Daniel. 2012. "The Real Meaning of the Rot at the Top of China." *Financial Times*, April 23. [www.ft.com/cms/s/0/e3f729bc-8d2d-11e1-8b49-00144feab49a.html#axzz2iRjY5jzD](http://www.ft.com/cms/s/0/e3f729bc-8d2d-11e1-8b49-00144feab49a.html#axzz2iRjY5jzD).
- Billioud, Sebastien. 2007. "Confucianism, 'Cultural Tradition,' and Official Discourses in China at the Start of the New Century." *China Perspectives*, September 15. doi.org/10.4000/chinaperspectives.2033.

- Briggs, Asa. 1961. "The Welfare State in Historical Perspective." *European Journal of Sociology* 2, no. 2: 221–58. doi.org/10.1017/S0003975600000412.
- Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: MIT Press.
- Carpenter, Daniel. 2012. "Is Health Politics Different?" *Annual Review of Political Science* 15, no. 1: 287–311. doi.org/10.1146/annurev-polisci-050409-113009.
- Cassani, Andrea. 2017. "Social Services to Claim Legitimacy: Comparing Autocracies' Performance." *Contemporary Politics* 23, no. 3: 348–68. doi.org/10.1080/13569775.2017.1304321.
- Chen, Dan. 2017. "Local Distrust and Regime Support: Sources and Effects of Political Trust in China." *Political Research Quarterly* 70, no. 2: 314–26. doi.org/10.1177/1065912917691360.
- Chen, Jie. 2004. *Popular Political Support in Urban China*. Stanford, CA: Stanford University Press.
- Chen, Jie, Yang Zhong, and Jan William Hillard. 1997. "The Level and Sources of Popular Support for China's Current Political Regime." *Communist and Post-Communist Studies* 30, no. 1: 45–64. doi.org/10.1016/S0967-067X(96)00022-0.
- Chen, Xueyi, and Tianjian Shi. 2001. "Media Effects on Political Confidence and Trust in the People's Republic of China in the Post-Tiananmen Period." *East Asia: An International Quarterly* 19, no. 3: 84–118. doi.org/10.1007/s12140-001-0011-3.
- Chu, Yun-han. 2013. "Sources of Regime Legitimacy and the Debate over the Chinese Model." *China Review* 13, no. 1: 1–42. www.jstor.org/stable/23462227.
- Dickson, Bruce, Pierre Landry, Mingming Shen, and Jie Yan. 2016. "Public Goods and Regime Support in Urban China." *China Quarterly*, November 21. doi.org/10.1017/S0305741016001156.
- Duckett, Jane, and Hua Wang. 2013. "Extending Political Participation in China: New Opportunities for Citizens in the Policy Process." *Journal of Asian Public Policy* 6, no. 3: 263–76. doi.org/10.1080/17516234.2013.850221.
- Easton, David. 1965. *A Systems Analysis of Political Life*. New York: John Wiley and Sons.
- Easton, David. 1975. "A Reassessment of the Concept of Political Support." *British Journal of Political Science* 5, no. 4: 435–57. www.jstor.org/stable/193437.
- Epstein, Edward C. 1984. "Legitimacy Institutionalization and Opposition in Exclusionary Bureaucratic-Authoritarian Regimes: The Situation of the 1980s." *Comparative Politics* 17, no. 1: 37–54. www.jstor.org/stable/421736?seq=1.
- Ferguson, Tim. 2012. "China's Communist Party and Lost Legitimacy." *Forbes Magazine*, June 29. www.forbes.com/sites/timferguson/2012/06/29/chinas-communist-party-and-lost-legitimacy/.
- Freedman, Lynn P. 2005. "Achieving the MDGs: Health Systems as Core Social Institutions." *Development* 48, no. 1: 19–24. doi.org/10.1057/palgrave.development.1100107.
- Gallagher, Mary, and Jonathan K. Hanson. 2009. "Coalitions, Carrots, and Sticks: Economic Inequality and Authoritarian States." *PS: Political Science and Politics* 42, no. 4: 667–72. doi.org/10.1017/S1049096509990096.

- Gandhi, Jennifer, and Adam Przeworski. 2006. "Cooperation, Cooptation, and Rebellion under Dictatorships." *Economics and Politics* 18, no. 1: 1–26.
- Gerschewski, Johannes. 2013. "The Three Pillars of Stability: Legitimation, Repression, and Co-optation in Autocratic Regimes." *Democratization* 20, no. 1: 13–38. doi.org/10.1080/13510347.2013.738860.
- Gerschewski, Johannes. 2018. "Legitimacy in Autocracies: Oxymoron or Essential Feature?" *Perspectives on Politics* 16, no. 3: 652–65. dx.doi.org/10.1017/S1537592717002183.
- Gilson, Lucy. 2003. "Trust and the Development of Health Care as a Social Institution." *Social Science and Medicine* 56, no. 7: 1453–68. doi.org/10.1016/S0277-9536(02)00142-9.
- Greene, Kenneth F. 2010. "The Political Economy of Authoritarian Single-Party Dominance." *Comparative Political Studies* 43, no. 7: 807–34. doi.org/10.1177/0010414009332462.
- Harris, Kevan. 2013. "A Martyrs' Welfare State and Its Contradictions: Regime Resilience and Limits through the Lens of Social Policy in Iran." In *Middle East Authoritarianisms: Governance, Contestation, and Regime Resilience in Syria and Iran*, edited by Steven Heydemann and Reinoud Leenders, 61–80. Stanford, CA: Stanford University Press.
- He, Baogang, and Stig Thøgersen. 2010. "Giving the People a Voice? Experiments with Consultative Authoritarian Institutions in China." *Journal of Contemporary China* 19, no. 66: 675–92. doi.org/10.1080/10670564.2010.485404.
- He, Baogang, and Mark E. Warren. 2011. "Authoritarian Deliberation: The Deliberative Turn in Chinese Political Development." *Perspectives on Politics* 9, no. 2: 269–89. doi.org/10.1017/S1537592711000892.
- Heberer, Thomas, and Gunter Schubert. 2006. "Political Reform and Regime Legitimacy in Contemporary China." *Asien* 99: 9–28. doi.org/10.1163/9789004302488\_035.
- Hermet, Guy, Richard Rose, and Alain Rouquié, eds. 1978. *Elections without Choice*. London: Macmillan.
- Holbig, Heike. 2009. "Ideological Reform and Political Legitimacy in China: Challenges in the Post-Jiang Era." In *Regime Legitimacy in Contemporary China: Institutional Change and Stability*, edited by Thomas Heberer and Gunter Schubert, 13–34. London: Routledge.
- Holbig, Heike, and Bruce Gilley. 2010. "Reclaiming Legitimacy in China." *Politics and Policy* 38, no. 3: 395–422.
- Hu, Shaohua. 2000. "Confucianism and Western Democracy." In *China and Democracy: Reconsidering the Prospect for a Democratic China*, edited by Suisheng Zhao, 55–72. London: Routledge.
- Hung, Ho-fung. 2011. *Protest with Chinese Characteristics: Demonstrations, Riots, and Petitions in the Mid-Qing Dynasty*. New York: Columbia University Press.
- Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman: University of Oklahoma Press.
- Kennedy, John James. 2009. "Maintaining Popular Support for the Chinese Communist Party: The Influence of Education and the State-Controlled Media." *Political Studies* 57, no. 3: 517–36.

- Kornreich, Yoel, Ilan Vertinsky, and Pitman B. Potter. 2012. "Consultation and Deliberation in China: The Making of China's Health-Care Reform." *China Journal* 68: 176–203. doi.org/10.1086/666583.
- 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, no. 1: 1–22. doi.org/10.1093/pan/mpi001.
- Lee, Chin-Chuan. 2001. "Beyond Orientalist Discourses: Media and Democracy in Asia." *Journal of the European Institute for Communication and Culture* 8, no. 2: 7–19. doi.org/10.1080/13183222.2001.11008769.
- Lei, Xuchuan, and Jie Lu. 2017. "Revisiting Political Wariness in China's Public Opinion Surveys: Experimental Evidence on Responses to Politically Sensitive Questions." *Journal of Contemporary China* 26, no. 104: 213–32. doi.org/10.1080/10670564.2016.1223104.
- Levi, Margaret, and Laura Stoker. 2000. "Political Trust and Trustworthiness." *Annual Review of Political Science* 3, no. 1: 475–507. doi.org/10.1146/annurev.polisci.3.1.475.
- Levitsky, Steven, and Lucan A. Way. 2010. *Competitive Authoritarianism: Hybrid Regimes after the Cold War*. Cambridge: Cambridge University Press.
- Lewis-Beck, Michael S., Wengang Tang, and Nicholas F. Martini. 2014. "A Chinese Popularity Function: Sources of Government Support." *Political Research Quarterly* 67, no. 1: 16–25. www.jstor.org/stable/23612032.
- Li, Lianjiang. 2004. "Political Trust in Rural China." *Modern China* 30, no. 2: 228–58. doi.org/10.1177/0097700403261824.
- Li, Lianjiang. 2011. "Distrust in Government Leaders, Demand for Leadership Change, and Preference for Popular Elections in Rural China." *Political Behaviour* 33, no. 2: 291–311. doi.org/10.1007/s11109-010-9111-3.
- Li, Lianjiang. 2013. "The Magnitude and Resilience of Trust in the Centre: Evidence from Interviews with Petitioners in Beijing and a Local Survey in Rural China." *Modern China* 39, no. 1: 3–36. doi.org/10.1177/0097700412450661.
- Li, Lianjiang. 2016. "Reassessing Trust in the Central Government: Evidence from Five National Surveys." *China Quarterly*, February 1. doi.org/10.1017/S0305741015001629.
- Li, Zhonglu, and Xiaogang Wu. 2018. "Social Policy and Political Trust: Evidence from the New Rural Pension Scheme in China." *China Quarterly*, September 13. doi.org/10.1017/S0305741018000942.
- Liddle, R. William. 1985. "Soeharto's Indonesia: Personal Rule and Political Institutions." *Pacific Affairs* 58, no. 1: 77–81. www.jstor.org/stable/2758010.
- Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *American Political Science Review* 53, no. 1: 69–105. doi.org/10.2307/1951731.
- Lü, Xiaobo. 2014. "Social Policy and Regime Legitimacy: The Effects of Education Reform in China." *American Political Science Review* 108, no. 2: 423–37. doi.org/10.1017/S0003055414000124.
- Lustig, Joshua, and Alan Sorensen. 2013. "The Governance Gap." *Current History* 112, no. 750: 3–6. doi.org/10.1525/curh.2013.112.750.3.



- Magaloni, Beatriz. 2006. *Voting for Autocracy: Hegemonic Party Survival and Its Demise in Mexico*. Cambridge: Cambridge University Press.
- Mares, Isabella, and Matthew E. Carnes. 2009. "Social Policy in Developing Countries." *Annual Review of Political Science* 12: 93–113. doi.org/10.1146/annurev.polisci.12.071207.093504.
- Michelson, Ethan. 2012. "Public Goods and State-Society Relations: An Impact Study of China's Rural Stimulus." In *The Global Recession and China's Political Economy*, edited by Dali Yang, 131–58. New York: Palgrave Macmillan.
- Mishler, William, and Richard Rose. 2005. "What Are the Political Consequences of Trust? A Test of Cultural and Institutional Theories." *Comparative Political Studies* 38, no. 9: 1050–78. doi.org/10.1177/0010414005278419.
- Mucha, Thomas. 2012. "China's Economic Model: Just How Weak Is It?" *Global Post*, May 25. www.globalpost.com/dispatches/globalpost-blogs/macro/china-economy-just-how-weak-it.
- Munro, Neil. 2018. "Does Refusal Bias Influence the Measurement of Chinese Political Trust?" *Journal of Contemporary China* 27, no. 111: 457–71. doi.org/10.1080/10670564.2018.1410981.
- Munro, Neil, and Jane Duckett. 2016. "Explaining Public Satisfaction with Health-Care Systems: Findings from a Nationwide Survey in China." *Health Expectations* 19, no. 3: 654–66. doi.org/10.1111/hex.12429.
- Muthén, Linda K., and Bengt O. Muthén. 1998–2012. *Mplus Statistical Analysis with Latent Variables User's Guide*. Version 7. Los Angeles, CA: Muthén and Muthén.
- Nathan, Andrew. 2003. "China's Changing of the Guard: Authoritarian Resilience." *Journal of Democracy* 14, no. 1: 6–17. doi.org/10.1353/jod.2003.0019.
- Policzer, Pablo. 2009. *The Rise and Fall of Repression in Chile*. Notre Dame, IN: University of Notre Dame Press.
- Pye, Lucien W. 1992. *The Spirit of Chinese Politics*. Cambridge, MA: Harvard University Press.
- Ratigan, Kerry, and Leah Rabin. 2020. "Re-evaluating Political Trust: The Impact of Survey Nonresponse in Rural China." *China Quarterly*, January 21. doi.org/10.1017/S0305741019001231.
- Roberts, Marc, William Hsiao, Peter Berman, and Michael Reich. 2004. *Getting Health Reform Right: A Guide to Improving Performance and Equity*. New York: Oxford University Press.
- Robinson, Darrel, and Marcus Tannenberg. 2019. "Self-Censorship of Regime Support in Authoritarian States: Evidence from List Experiments in China." *Research and Politics* 6, no. 3: 1–9. doi.org/10.1177/2053168019856449.
- Rockers, Peter C., Margaret E. Kruk, and Miriam J. Laugesen. 2012. "Perceptions of the Health System and Public Trust in Government in Low- and Middle-Income Countries: Evidence from the World Health Surveys." *Journal of Health Politics, Policy and Law* 37, no. 3: 405–37. doi.org/10.1215/03616878-1573076.
- Rose, Richard, William Mishler, and Neil Munro. 2011. *Popular Support for an Undemocratic Regime: The Changing Views of Russians*. Cambridge: Cambridge University Press.

- Schieber, George, and Akiko Maeda. 1999. "Health Care Financing and Delivery in Developing Countries." *Health Affairs* 18, no. 3: 193–205. doi.org/10.1377/hlthaff.18.3.193.
- Shen, Fei, and Zhongshi Steve Guo. 2013. "The Last Refuge of Media Persuasion: News Use, National Pride, and Political Trust in China." *Asian Journal of Communication* 23, no. 2: 135–51. doi.org/10.1080/01292986.2012.725173.
- Shi, Tianjian. 2001. "Cultural Values and Political Trust: A Comparison of the People's Republic of China and Taiwan." *Comparative Politics* 33, no. 4: 401–19. www.jstor.org/stable/422441.
- Shi, Tianjian. 2008. "China: Democratic Values Supporting an Authoritarian System." In *How East Asians View Democracy*, edited by Yun-han Chu, Larry Diamond, Andrew Nathan, and Doh-Chull Shin, 209–37. New York: Columbia University Press.
- Steinhardt, H. Christoph. 2012. "How Is High Trust in China Possible? Comparing the Origins of Generalized Trust in Three Chinese Societies." *Political Studies* 60, no. 2: 434–54.
- Stockmann, Daniela, and Mary E. Gallagher. 2011. "Remote Control: How the Media Sustain Authoritarian Rule in China." *Comparative Political Studies* 44, no. 4: 436–67. doi.org/10.1177/0010414010394773.
- Tang, Min, and Narisong Huhe. 2016. "The Variant Effect of Decentralization on Trust in National and Local Governments in Asia." *Political Studies* 64, no. 1: 216–34. doi:10.1111/1467-9248.12177.
- Tang, Wenfang. 2005. *Public Opinion and Political Change in China*. Stanford, CA: Stanford University Press.
- Tang, Wenfang. 2016. *Populist Authoritarianism: Chinese Political Culture and Regime Sustainability*. Oxford: Oxford University Press.
- Tannenbergh, Marcus. 2017. "The Autocratic Trust Bias: Politically Sensitive Survey Items and Self-Censorship." V-Dem Working Paper 2017:49, June. dx.doi.org/10.2139/ssrn.2980727.
- Tanner, Murray S. 2001. "Cracks in the Wall: China's Eroding Coercive State." *Current History* 100, no. 647: 243–49. doi.org/10.1525/curh.2001.100.647.243.
- Turner, Mark M. 1990. "Authoritarian Rule and the Dilemma of Legitimacy: The Case of President Marcos of the Philippines." *Pacific Review* 3, no. 4: 349–62. doi.org/10.1080/09512749008718886.
- von Soest, Christian, and Julia Grauvogel. 2017. "Identity, Procedures, and Performance: How Authoritarian Regimes Legitimize Their Rule." *Contemporary Politics* 23, no. 3: 287–305. dx.doi.org/10.1080/13569775.2017.1304319.
- Walker, Christopher. 2015. "The Authoritarian Resurgence." *Journal of Democracy* 26, no. 2: 21. doi.org/10.1353/jod.2015.0025.
- Wang, Feng. 2010. "China's Population Destiny: The Looming Crisis." Brookings, September 30. www.brookings.edu/research/articles/2010/09/china-population-wang.
- Wang, Guohui. 2014. *Tamed Village Democracy: Elections, Governance, and Clientelism in a Contemporary Chinese Village*. Berlin: Springer Verlag.

- Wang, Zhengxu. 2005. "Before the Emergence of Critical Citizens: Economic Development and Political Trust in China." *International Review of Sociology* 15, no. 1: 155–71. doi.org/10.1080/03906700500038876.
- Weatherford, M. Stephen. 1992. "Measuring Political Legitimacy." *American Political Science Review* 86, no. 1: 149–66. doi.org/10.2307/1964021.
- White, Stephen. 1986. "Economic Performance and Communist Legitimacy." *World Politics* 38, no. 3: 462–82. doi.org/10.2307/2010202.
- WHO (World Health Organization). 1946. *Constitution of the World Health Organization*. Geneva, Switzerland: World Health Organization. www.who.int/governance/eb/who\_constitution\_en.pdf.
- Whyte, Martin. 2010. *Myth of the Social Volcano: Perceptions of Inequality and Distributive Injustice in Contemporary China*. Stanford, CA: Stanford University Press.
- Wintrobe, Robert. 1998. *The Political Economy of Dictatorship*. Cambridge: Cambridge University Press.
- Yang, Qing, and Wenfang Tang. 2010. "Exploring the Sources of Institutional Trust in China: Culture, Mobilization, or Performance?" *Asian Politics and Policy* 2, no. 3: 415–36. doi.org/10.1111/j.1943-0787.2010.01201.x.
- Yip, Winnie Chi-Man, William C. Hsiao, Wen Chen, Shanlian Hu, Jin Ma, and Alan Maynard. 2012. "Early Appraisal of China's Huge and Complex Health-Care Reforms." *Lancet* 379, no. 9818: 833–42.
- Yom, Sean L., and F. Gregory Gause III. 2012. "Resilient Royals: How Arab Monarchies Hang On." *Journal of Democracy* 23, no. 4: 74–88. doi.org/10.1353/jod.2012.0062.
- Zhang, Chi, and Peng Gong. 2019. "Healthy China from Words to Actions." *Lancet* 4, no. 9: PE438–39. doi.org/10.1016/S2468-2667(19)30150-1.
- Zhao, Dingxin. 2009. "The Mandate of Heaven and Performance Legitimation in Historical and Contemporary China." *American Behavioral Scientist* 53, no. 3: 416–33. doi.org/10.1177/0002764209338800.
- Zheng, Yongnian. 1999. *Discovering Nationalism in China: Modernization, Identity, and International Relations*. Cambridge: Cambridge University Press.
- Zhong, Yang. 2014. "Do Chinese People Trust Their Local Government, and Why?" *Problems of Post-Communism* 61, no. 3: 31–44. doi.org/10.2753/PPC1075-8216610303.
- Zhong, Yang, and Yongguo Chen. 2013. "Regime Support in Urban China." *Asian Survey* 53, no. 2: 369–92. doi.org/10.1525/as.2013.53.2.369.
- Zhu, Yuchao. 2011. "'Performance Legitimacy' and China's Political Adaptation Strategy." *Journal of Chinese Political Science* 16, no. 2: 123–40. doi.org/10.1007/s11366-011-9140-8.