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Reassessing the Quality of Government in China

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How should the quality of government be measured across disparate national contexts? This study develops a new approach using an original survey of Chinese civil servants and a comparison to the United States. We surveyed over 2,500 Chinese municipal officials on three organizational features of their bureaucracies: meritocracy, individual autonomy, and morale. They report greater meritocracy than U.S. federal employees in almost all American agencies. China's edge is smaller in autonomy and markedly smaller in morale. Differences between the U.S. and China lessen, but do not disappear, after adjusting for respondent demographics and excluding respondents most likely to be influenced by social desirability biases. Our findings contrast with numerous indices of good government that rank the U.S. far above China. They suggest that incorporating the opinions of political insiders into quality of government indices may challenge the foundations of a large body of cross-national governance research.

Keywords: governance indicators, quality of government, China, bureaucracy, authoritarian politics.

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REASSESSING THE QUALITY OF GOVERNMENT IN CHINA

What is the quality of government in China? The country has one of the world's oldest traditions of bureaucratic rule, having pioneered the use of civil service examinations and merit-based promotion systems as early as the Former Han Dynasty that formed the bedrock of centuries of meritocratic recruitment of officials (Elman 2000, 2013; Fukuyama 2011; Zhao 2015). Yet contemporary indices of high quality government rank China quite poorly, suggesting these traditions do not extend to the present day. For example, the World Bank Worldwide Governance Indicators (WGI) rank China 67th in government effectiveness and 117th in regulatory quality, just below Azerbaijan, Cape Verde, and Paraguay. By contrast, the United States is ranked 22nd and 25th. The WGI and other cross-national indices of good government provide the foundation for a huge volume of research. Kaufmann, Kraay, and Mastruzzi's (2009) summary of the WGI has been cited in more than six thousand publications.²

We question the foundations of these governance indices—and China's low ranking in them—by generating new comparative data on quality of government. We argue that cross-national governance indices may be improved by incorporating more information about the organizational features of public bureaucracies. Following Weber, we identify several organizational features that underlie high-quality government and introduce a method for measuring the presence of these features: opinion surveys of civil servants. These political insiders possess an experience-based understanding of the bureaucracy, its strengths, and its weaknesses, and therefore have something unique to offer the comparative study of government. We then report the results of an original survey that asked over 2,500 Chinese civil servants to describe the organizational features of their workplaces in meritocracy, autonomy, and morale.

² Citation data retrieved from Google Scholar on October 18, 2016.

Eliciting their judgments opens up a new opportunity for cross-national comparison, and we compare our results to identical questions asked of civil servants in another large country: the United States.

This study contributes to scholarship on the quality of government³, Chinese politics, and comparative politics. First, we describe a set of desirable organizational features for public bureaucracy and a method for measuring their presence: workplace surveys of civil servants. Second, by reporting the results of this survey across four cities in China we offer new empirics on the quality of government in contemporary China. Finally, we offer comparative evidence on the quality of government in contemporary China and the United States, respectively the world's most powerful authoritarian and democratic states. We find that Chinese civil servants have generally superior rankings of their workplaces, a finding that raises questions about existing quality of government rankings that place China far below the United States. The Chinese advantage is primarily in meritocratic recruitment and promotion, rather than in the autonomy or morale of officials, and the highest-rated U.S. federal agencies outperform the Chinese municipal bureaucracies that we study.

MEASURING AND CONCEPTUALIZING QUALITY OF GOVERNMENT

In recent years there have been numerous efforts to develop techniques to compare the quality of government across countries. These include the World Bank's WGI, Transparency

³ We acknowledge that the concepts "quality of government" and "governance" are contested. For a discussion of these concepts and alternative approaches to measuring them, see Fukuyama (2013, 2016).

International's Corruption Perception Index, the World Justice Project's Rule of Law Index, the Quality of Government Institute's Expert Survey, and the Varieties of Democracy measures.⁴

These indices are constructed from a variety of data sources, but they generally concur that contemporary China ranks far below advanced economies in quality of government. Table 1 reports the raw scores and percentile ranks of China compared to the United States in a variety of widely-used governance indices. It is to be expected that China, a single-party nondemocratic state, would rank near the bottom of indices measuring "Voice and Accountability" or "Open Government." However, it also ranks far below the United States in dimensions where authoritarian governments could plausibly excel, like Government Effectiveness, Regulatory Quality, and Professionalism.

Valuable as these indices are, they have been criticized on several points (Kurtz and Schrank 2007; Thomas 2010; Andrews 2010; Fukuyama 2013). First, measures like the Worldwide Governance Indicators provide country-year point estimates in which a single number is said to represent the aggregated performance of an entire country for a particular dimension. Such distillation does not recognize how the quality of government varies widely within countries, between sectors and ministries, across geographical regions, and according to level of government (i.e., national, provincial, or local). For example, for a selected group of Latin American countries, Gingerich (2013) shows that variation between ministries is greater than cross-national variation for the same ministry when examining levels of politicization, stability of career paths, and mechanisms for corruption control. This within-country variation is

1

⁴ World Bank WGI: http://info.worldbank.org/governance/wgi/index.aspx#home. Transparency International Corruption Perceptions Index: http://www.transparency.org/research/cpi/overview. World Justice Project Rule of Law Index: http://worldjusticeproject.org/rule-of-law-index. Quality of Government Institute Expert Survey:

http://qog.pol.gu.se/data/datadownloads/qogexpertsurveydata. Varieties of Democracy Project: https://www.v-dem.net/en/.

particularly great for large, diverse countries such as China or the United States, rendering the use of single country-year estimates even more problematic.

Table 1: U.S. outperforms China on existing quality of government indices

	Raw score		Percentile	
	U.S.	China	U.S.	China
The World Bank				
Worldwide Governance Indicato	rs			
Government Effectiveness	1.46	0.34	90^{th}	67 th
Control of Corruption	1.32	-0.33	90^{th}	48^{th}
Political Stability	0.62	-0.46	67^{th}	30^{th}
Regulatory Quality	1.27	-0.27	89 th	46 th
Rule of Law	1.62	-0.33	90^{th}	43 rd
Voice and Accountability	1.05	-1.54	80 th	6^{th}
World Justice Project				
Rule of Law Index				
Open Government	0.73	0.43	90 th	15 th
Regulatory Enforcement	0.73	0.46	81 st	36^{th}
Overall	0.73	0.48	82 nd	31 st
University of Gothenburg				
Quality of Government Survey				
Impartiality	5.27	3.59	67^{th}	45 th
Professionalism	4.44	4.01	83 rd	63 rd
Transparency International				
Corruptions Perceptions Index	76	37	91 st	53 rd
Freedom House				
Freedom in the World				
Freedom Rating	Free	Not Free	-	-
Political Rights	1	7	100 th	10^{th}
Civil Liberties	1	6	100 th	17^{th}
Heritage Foundation				
Economic Freedom Index	75.4	52	94^{th}	20^{th}

Notes. Selected national governance indicators for 2015 or most recent available prior year.

5

Second, many of these measures draw heavily on surveys that ask scholars and regional experts to evaluate government quality. In closed political systems like China's, experts have limited access to the state and must infer government quality from a combination of public sources, personal contacts, and observed external behavior. As a result, these expert judgments may be based on relatively limited information about governments and how they function. Andrews (2013) shows that judgments of expert observers correlate better with announcements of government reform than with actual changes in government performance. This approach also renders aggregated ratings like the Worldwide Governance Indicators difficult to compare over time. Year-on-year changes in the availability of these external evaluations may produce variation in indices even when actual government quality is unchanged (Arndt and Romero 2008).

Third, when we try to go beyond expert surveys to more direct measures of government quality, there is disagreement about what we should be measuring. When evaluating the performance of a public school system, for example, it is possible to measure government *inputs* (e.g., number of teachers hired, school budgets, computers in the classroom), *outputs* (number of schools actually built, children matriculated), or *outcomes* (student performance on standardized tests, downstream earnings). Each of these approaches has different advantages and disadvantages. For example, citizens should care most about actual outcomes, yet these are shaped by a host of factors that have little to do with government performance. There is no general consensus within academic and policy circles as to the aspects of state quality upon which to focus.

Even if we decide to measure outcomes, it remains unclear how to relate them back to intrinsic qualities of the state. Does quality encompass the ends that government is trying to

serve, or should it refer only to the effectiveness with which a government is able to implement a given policy? For example, in terms of outcomes, China has been a poor performer with regard to environmental protection and food safety (Yasuda 2015; Economy 2004; Li and Zhou 2015). Yet this may be the result of deliberate policy choices to privilege economic growth over the environment or food safety. If democratic accountability and protection of human rights are considered intrinsic parts of government quality, then China would obviously perform poorly compared to Western democracies. Yet folding such policy choices into the definition of government quality prevents us from investigating how state quality relates to democratic political development and rule of law. The public policies that a government pursues cannot simultaneously comprise the *definition* of good governance and be the *result* of good governance.

We believe one way to improve upon these indices is to focus on measuring the organizational features of public bureaucracies. The organizational features of bureaucracy are conceptually distinct from the inputs to government and the outputs of public administration. This allows these features to appear on the "right-hand" side of models relating inputs to governance outputs. Focusing on organizational features also does not penalize countries that either choose to spend less on various public goods or are insufficiently productive to support high levels of public goods provision (i.e. less developed countries). Most importantly for our analysis of China, certain desirable features of bureaucratic organization—such as meritocracy, individual autonomy, and morale—may occur in both democratic and authoritarian regimes. This allows for comparisons across regime types without a presumption of the superiority of democratic institutions. In adopting this approach, we follow in the tradition of Evans and Rauch (1999) and Andrews (2010), both of whom compare the organizational features of public

bureaucracies across countries. We extend this research by developing a new source of comparative data on these organizational structures and by introducing contemporary China to this literature on comparative state quality. Using opinion surveys of political insiders (in our case, Chinese and U.S. civil servants) to measure the organizational features of bureaucracy addresses some problems of relying on the judgments of experts outside of the political system, while retaining the possibility for comparison across disparate regimes and national contexts.

Governance in China

Measuring good governance and placing it in comparative context is especially challenging in China. As social scientists have gained access to the country's officials and institutions, they have shed light on many distinctive features of China's political system. These include the nomenklatura system of official appointments (Kung and Chen 2011, Shih, Adolph, and Liu 2012), "People's Congress" legislatures (O'Brien 1990, Truex 2014, Manion 2015), the "one-veto" rule in official performance evaluations (Edin 2003, Birney 2014), and institutions of political repression, censorship, and propaganda (Deng and O'Brien 2013, King, Pan, and Roberts 2013, Huang 2015, Fu 2016). While these institutions play important roles in shaping Chinese governance, focusing on what makes China distinctive makes cross-national comparisons difficult. Recent research on rural elections and public goods (Luo et al 2007, Mattingly 2016, Sun et al. 2013; Tsai 2007; Xu and Yao 2015) and local government responsiveness (Chen, Pan, and Xu 2015; Distelhorst and Hou 2014, 2016) offer possible points of departure for such comparisons. Yet even these studies were not designed to compare the quality of government in China to other countries.

Without clear foundations for comparison, contemporary observers remain divided on the question of China's quality of government. Some assert that meritocracy constitutes the essence of modern Chinese rule and that cadres are selected for talents such as innovative ability (Bell 2015; Chin 2011; Xiao and Li in Bell and Li 2013). Others emphasize that corruption and patronage pervade the political system (Pei 2009; Rothstein 2015; Sun 2004), or that party control and factional loyalty trump merit in promotion criteria (Pieke 2009; Shih, Christopher, and Liu 2012).

Three organizational features of bureaucracy

We focus on measuring so-called "Weberian" aspects of bureaucratic organization. Evans and Rauch (1999, 2000) pioneered this approach in a widely-cited survey of 35 countries, but it has not been widely used since then. They found that Weberian characteristics were highly correlated with positive development outcomes. The Quality of Government Institute's Expert Survey also uses a Weberian characteristic, impartiality, as its central measure. This feature predicts positive development outcomes better than do measures of democracy (Rothstein 2011). The Worldwide Governance Indicators also acknowledge the relevance of Weberian organization to the quality of government (Kaufmann, Kraay, and Mastruzzi 2009). Several sources that comprise the WGI Government Effectiveness Index ⁵, including the Country Performance and Institutional Assessment reports of the World Bank, African Development Bank, and Asian Development Bank, use expert judgments to measure the role of merit in bureaucratic recruitment and promotion. The Economist Intelligence Unit measures also offers expert-driven measures of bureaucratic competence and morale. However, the WGI diverges

⁵ The sources of each WGI component can be found at: http://info.worldbank.org/governance/wgi/index.aspx#doc (Accessed November 20, 2016)

from our approach in relying on the judgment of external experts and in combining these organizational characteristics with a variety of government outputs, such as public perceptions of the quality of public services.

Our survey examines three dimensions of Weberian organizations: (1) meritocracy, (2) individual autonomy, and (3) morale. Meritocracy is a system of official recruitment and promotion that recognizes the primacy of talent and virtue. Meritocracy is a controversial subject, as the individual qualities that constitute "talents" and "virtues" may reasonably vary by culture, historical period, and organizational goals. We thus adopt a relatively modest definition of the term, focusing on three features of the bureaucratic workplace. Officials should obtain their positions based on having relevant skills and abilities (meritocratic recruitment). They should advance within the bureaucracy according to those abilities and accomplishments (meritocratic promotion). Finally, because promotions occur rarely and are only one kind of reward for good performance, officials should also feel subjectively recognized for good performance of their duties (meritocratic recognition).

In examining perceptions of meritocracy among mid-level bureaucrats, we expand recent research on the role of merit in career trajectories of Chinese officials. An established literature examines career trajectories of top local leaders (such as mayors and party secretaries in municipalities) and finds evidence of both meritocratic—based on either local economic performance, revenue extraction, or educational qualifications—and factional considerations in these promotions (Bo 2002, Landry 2008, Landry, Lü, and Duan 2015, Shih, Adolph, and Liu 2012). Local chief executives and party secretaries are important political leaders, but they comprise a tiny proportion of China's 7 million civil servants. We offer new evidence on

meritocratic recruitment and promotion of rank-and-file bureaucrats and agency-level executives responsible for an array of daily government activities.⁶

We define individual autonomy as the discretion accorded to bureaucrats in implementing their mandates and their level of engagement in organizational decision-making and problem-solving. In doing so, we draw on Lipsky's (1980) and Wilson's (1989) recognition of the role of discretion in public bureaucracy as well as scholarship on employee engagement and organizational performance. In addition, there is substantial discussion of the role of administrative discretion in the administrative law literature (Mashaw et al. 2014, pp. 755-760). While adherence to laws and regulations is a common feature of bureaucracy, highly conformist or rigid work practices may limit the efficacy of public bureaucracies by discouraging the use of professional knowledge, creativity, and human considerations in the discharge of official duties (Lipsky 1980). By affording individuals the opportunity to participate in decision-making processes and apply their talents to achieving organizational goals, public organizations may both increase employee effort and garner efficiencies from the application of local know-how. A large meta-analysis of studies on employee engagement and organizational performance found strong relationships between employee engagement and productivity, safety, customer satisfaction, and employee turnover (Harter, Schmidt, and Hayes 2002).

⁶ One recent relevant study on rank-and-file bureaucrats uses a survey experiment on roughly three hundred civil servants to explore the determinants of bureaucratic recruitment (Liu 2016). It suggests the continued importance of both meritocratic and nepotistic considerations.

⁷ Our focus is on *individual* autonomy rather than the organizational autonomy highlighted by Evans' (1995) model of the developmental state or Carpenter's (2001) study of American political development. We do not contest the importance of these forms of bureaucratic autonomy; these features could plausibly be added to the bureaucratic organization approach to comparing quality of government. This study lacked the ability to draw credible comparisons between the U.S. and China on this dimension, so we leave this to future research.

Specifically, we examine three measures of individual autonomy and engagement. First, that bureaucrats believe their individual talents are well-utilized in their official positions. Second, that bureaucrats are encouraged to innovate—applying their own creativity—in their work practices. Third, that bureaucrats have opportunities to meaningfully participate in decision-making, rather than simply following detailed rules or orders from superiors.

Finally, we study bureaucratic morale. While morale was not on Weber's list of characteristics of modern bureaucracy (Weber 1978, Vol. I, pp. 220-221), it is a useful proxy for strong organizational culture and *esprit de corps*. The latter is a measure of common purpose and ability to cooperate that is associated with professionalism. Research in organizational psychology establishes a relationship between morale and job performance (for a review and meta-analysis, see Judge et al 2001), and improving bureaucratic morale has been promoted as a tool for combatting official corruption (Klitgaard 1988). Morale is also acknowledged among the underlying features of Government Effectiveness in the WGI.⁸

Meritocracy, autonomy, and morale do not exhaust the desirable qualities of a public bureaucracy. Nor do they fully capture the complex "production function" of public sector agencies, which includes many external factors that are not under agency control (Manning and Shepherd 2016). However, the desirability of these three features is relatively uncontroversial, even in the developing world. The World Bank's recommendation to developing countries on motivating and incentivizing civil servants includes the adoption of "merit-based recruitment and promotion, adequate pay, and a strong esprit de corps" (World Bank 1997: 81). Although some

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⁸ Of course, untrammeled authority and opportunities for self-enrichment could also result in high official morale. China's recent anti-corruption campaign under Xi Jinping may therefore have reduced morale as officials experience fewer such opportunities and uncertainty about the boundaries of acceptable behavior. Rather than taking official morale as the *only* indicator of organizational quality, we believe it is most valuable when combined with the other features we examine.

may advocate going beyond these Weberian features to measure organizational practices associated with the New Public Management (Hood 1995), such as performance-based pay and competitive outsourcing of government services, there remains considerable disagreement over the extent to which such practices are appropriate in the institutional and economic context of the developing world (Hughes 2012).

We focus on the organizational features of public institutions, not the mandates that these bureaucracies seek to implement. Existing cross-national indices measure the degree to which authoritarian governments like China's abide by international standards of human rights or democracy. We avoid such normative issues not because they are unimportant, but because we aim to provide information about quality of government that is independent of these policy choices and outcomes. By clearly separating the organizational features of public institutions from the normative objectives associated with democracy and human rights, we can address issues such as the degree to which state quality affects these and other development outcomes. Our decision to focus on these three features was also guided by the desire to place results from China in comparative perspective. As detailed below, survey items pertinent to meritocracy, autonomy, and morale have also been asked in the largest survey of U.S. civil servants.

STUDY DESIGN AND IMPLEMENTATION

The perceptions of bureaucrats have many desirable features in the evaluation of the organizational features of bureaucracy. First, impressions formed through years of experience may offer unique insights into bureaucratic practices. Like any workplace, bureaucratic agencies observe many informal practices that may not appear in formal rules or organizational structure. The individuals most intimately acquainted with these practices are bureaucrats themselves. The

formal credentials of officials (e.g. their educational degrees) may obscure less observable dimensions of merit (or lack thereof) that are apparent to individuals within the organization. Similarly, formal institutions that appear to incentivize creative problem-solving may not be effective in practice. Consider the many workplaces where soliciting suggestions or holding award ceremonies for innovation are largely ritualistic rather than effective. Divergence between formal rules and informal practices may be particularly widespread in the bureaucracies of developing countries. On paper, their formal systems frequently resemble those of industries countries. Yet informality remains the norm in practice: "[m]erit-based personnel rules are circumvented, and staff are recruited or promoted on the basis of patronage and clientelism" (World Bank 1997).

Despite these advantages to learning about bureaucratic organization from political insiders, there are also shortcomings to this empirical approach. Although insiders are uniquely positioned to report on unwritten rules and practices, they may carry assumptions about how bureaucracies function that shape their judgments. These foundational assumptions might blind them to inefficient or counterproductive bureaucratic practices that may be apparent to more "objective" outside observers.

In addition, we must consider the possibility of social desirability biases when people are reporting on conditions in their own workplaces. Even in surveys where respondents are assured anonymity, the social expectation that they will provide positive evaluations of their work environments may shape insiders' responses. As elaborated upon further below, we believe that our survey items are unlikely to activate strong social desirability biases among our respondents in China. We also empirically explore the possibility that social desirability biases explain our

results by analyzing subgroups of the Chinese respondents least likely to exhibit positive biases, as summarized in the results section.

Surveying political insiders in China is challenging in part because there are no public registries of civil servants that allow researchers to establish sample frames. Even if researchers could obtain a sampling frame, official agencies have little political incentive to provide access to researchers. These challenges have grown in recent years, as government agencies have become more circumspect under the nationwide anti-corruption campaign initiated in 2012. We originally sought to survey officials in China's central ministries rather than at the municipal level, but were unable to obtain access. To gain entrée into the cities where we collected data, we relied on personal connections between Chinese academics and local political elites.

We fielded our survey of civil servants in four prefectures, located in southeastern (SE) China, southwestern (SW) China, northwestern (NW) China, and East Central (EC) China. As these prefectures were selected through the personal connections of our survey research partners one concern is their representativeness among Chinese prefectures. We might expect that only exceptionally well-run and successful local governments would volunteer to participate in such a study. While nothing replaces the value of randomized sampling, we note that the four prefectures appearing in our study are highly ordinary. They occupy positions near the middle of the national distribution for key economic and demographic indicators. For example, they appear in the third, fourth, fifth, and seventh deciles in per capita GDP. In Appendix A, we plot their decile ranks for 23 demographic, economic, and public goods covariates and find that the covariates in sampled prefectures are nearly uniformly distributed between the 2nd and 8th

⁹ In China, prefectures are the administrative jurisdictions that make up provinces. Prefectures are composed of subordinate urban districts, counties, and various minority autonomous regions. We anonymize the prefectures sampled in our study to protect the identities of survey respondents.

deciles, with relatively few features appearing in either tail of the distribution. This suggests that despite the limitations of our sampling method, our prefectures are relatively ordinary and more likely to be informative of national means than surveys conducted in China's provincial capitals (which overwhelmingly occupy the top deciles in population, economic development, and public service provision). At the same time, there are important considerations to keep in mind when generalizing findings from our sample to other regions of China. Our results may differ significantly from China's major metropolises such as Shenzhen or Nanjing (not to mention Beijing and Shanghai, which have the rank of "province" rather than "prefecture" in China's administrative hierarchy). In addition, there are certain regional gaps in our sample. We have no data from prefectures in China's northeast "rust belt" nor from the highly developed coastal region near Hong Kong.

To obtain statistically representative samples of each locality, we would ideally obtain a complete registry of official posts across the prefectural government and randomize invitations to participate within that sampling frame. However, these lists are not public and it was deemed politically infeasible to obtain them. Instead, we used a quota-sampling method in which we attempted to obtain responses from at least 400 civil servants from municipal administrative and legislative agencies at or above the rank of deputy section chief (*fu keji*) at each site. This sampling approach resembles that used in the *Local Governance and Public Goods Survey* (Yang and Meng 2014, Meng, Pan, and Yang 2015), but we focus exclusively on prefectural (not provincial) officials and survey roughly twice the number of officials. In collaboration with the survey implementation partner, the local contacts arranged for survey participants to arrive at specified conference rooms and complete written surveys under supervision of survey

organization staff. No personal identifiers were collected. We reached our numerical targets, and even recruited additional officials below the rank of deputy section chief.

Table 2: China Officials Survey (2015-2016) Sample

	Full	By city			
	sample	EC	SE	SW	NW
Demographics					
Female	27%	22%	23%	32%	29%
Age (years)	42.4	44.4	41.1	40.9	43.3
From the prefecture?	83%	83%	85%	78%	89%
From the province?	95%	96%	95%	94%	95%
Communist party member	90%	92%	88%	90%	89%
Education					
High school and below	0%	0%	1%	0%	0%
Vocational high school	1%	1%	0%	1%	2%
Vocational college	12%	14%	7%	8%	19%
University graduate	74%	72%	71%	80%	73%
Master's degree	12%	12%	21%	10%	6%
Doctorate	0%	0%	0%	0%	0%
Official rank					
Below Deputy Section Chief	26%	13%	21%	34%	34%
Deputy Section Chief	20%	14%	30%	17%	20%
Section Chief	28%	23%	30%	29%	30%
Deputy Division Chief	20%	33%	17%	18%	11%
Division Chief	6%	13%	2%	3%	4%
Above Division Chief	1%	3%	0%	0%	0%
Organization type					
Administrative agencies	71%	72%	69%	80%	64%
Legislative (PC, CPPCC)	17%	21%	14%	15%	19%
Justice (courts, prosecutor)	11%	7%	18%	5%	17%
Work experience (years)					
Total	21.8	24.4	20.4	20.0	22.3
In current position	8.1	8.5	7.6	7.0	9.2
Weekly work hours					
<25 hours	2%	1%	1%	2%	3%
25-34 hours	6%	6%	10%	6%	2%
35-44 hours	44%	44%	36%	48%	47%
45-54 hours	32%	31%	30%	31%	33%
55-64 hours	11%	12%	14%	9%	10%
65+ hours	5%	5%	9%	4%	4%
Total respondents	2,575	635	568	678	694

Table 3: Government and Party Organizations Represented in China Officials Survey

Official respondents in	Organizations						
All four prefectures	CCP Prefectural Committee organizations (3):						
_	Discipline Inspection Committee, Organization Department, Propaganda Department Chinese People's Political Consultative Conference (CPPCC)						
				Development and Reform Commission Health and Family Planning Commission People's Congress People's Courts Prefectural government bureaus (10):			
	City Planning, Education, Environmental Protection, Human Resources and Social Security, Public Security, State Land,						
		Prefectural Government Office					
		Prosecutor's Office					
	Three prefectures	All-China Federation of Trade Unions					
		CCP Prefectural Committee organizations (3):					
		Prefectural Committee Office, Committee on Politics and Law,					
United Front Work Department.							
	Communist Youth League Committee						
	Prefectural government bureaus (10):						
	Civil Affairs, Forestry, Housing and Urban-Rural Development,						
	Industry and Commerce, Justice, Finance, Quality Inspection,						
	Safety Inspection, Science and Technology, and Statistics.						
	Women's League						
Two prefectures	Association for Science and Technology						
I wo prefectures	CCP Party School						
	Civil Air Defense Office						
	Commission on the Economy and Information Technology						
	Federation of Disabled Persons						
	Federation of Industry and Commerce						
	Federation of Literature and Art						
	Organization Structure Committee						
	People's Bank Local Office						
	Policy Research Office						
	Prefectural government bureaus (8):						
	Agriculture, Animal Husbandry, Archives, Auditing, Food and Drug,						
	Local Taxation, Press, Publication, Radio, Film, and TV, and Retired						
	Cadres						
	Red Cross of China						
	Reception Office						
One prefecture	(49 additional organizations)						

Notes. Organizations represented in the China Officials Survey, grouped by the number of prefectures in which respondents from each organization appeared. In total, 20 organizations appear in all four prefectures, 16 appear in three prefectures, and 20 appear in two prefectures.

Table 2 provides descriptive statistics on the full sample and each of the four research sites. The respondents were largely men (73%) and overwhelmingly members of the Communist Party (90%), consistent with research suggesting that party membership is an important precondition to advancing in the bureaucracy (Dickson 2014). In addition, 2% were members of one of the eight legal Democratic Parties, 3% identified as elites without a party, and 5% identified as members of "the masses." Respondents ranged in age from 21 to 60 years, with an average age of 42. A large majority (81%) are university-educated, and small groups have either a high school education or a Master's degrees.

Large majorities grew up in the province (95%) and prefecture (83%) in which they currently work. Most (71%) worked in administrative agencies, while 11% worked in legal institutions (*sifa jiguan*) and another 17% worked in legislative institutions like the People's Congress (PC) or Chinese People's Political Consultative Conference (CPPCC). Table 3 reports the government organizations represented in the sample. Important agencies like the Prefectural Government Office, Development and Reform Commission, Discipline Inspection Committee, and CCP Organization Department appear in all four prefectures, as do officials in People's Congresses, People's Courts, Public Security Bureaus, and Prosecutors' Offices.

We were unable to match individual respondents to agencies: our sample included high-ranking local officials and combining rank and bureau information would have compromised their anonymity. Instead, we obtained a list of represented agencies in each prefecture (Table 3). In addition, we asked respondents about the type of work in which their agencies participated; 30% of respondents identified their bureaus as responsible for public services such as health, education and social security. This was followed by economic policymaking (20%) and market regulation (19%). The largest group of respondents (43%) stated that their organization had none

of these three responsibilities. In prefecture NW, a larger proportion of officials reported working in public services: 37%, compared to 31%, 28%, and 23% in the other prefectures. EC had a somewhat smaller proportion of officials (15%) engaged in market regulation than the other cities.

Many of the surveyed officials held positions of authority in local government. One-fifth of respondents held the rank of Deputy Division Chief (*fu chuji*). These officials serve as the Deputy Heads of municipal agencies, such as tax, environmental protection, and housing administration bureaus. In addition, 6% held the rank of Division Chief, placing them as leaders of these municipal administrations. At the next level down, 28% held the rank of Section Chief and 26% were Deputy Section Chiefs. These officials serve as directors and vice-directors of departments within municipal bureaus. Another quarter of the respondents held ranks below Deputy Section Chief. On average, respondents had 22 years of work experience, with some fresh starters and a maximum work experience of 44 years. The earliest date that a respondent began working was 1969 (i.e. the middle of China's Cultural Revolution), but the average respondent started work in 1993, early in the tenure of General Secretary Jiang Zemin. They had on average spent 8.1 years in their current position. The modal workweek was 35-44 hours, but 16% reported working over 55 hours per week, while just 8% reported working under 35 hours per week.

Samples demographics are largely similar across the four prefectures with a handful of noteworthy differences. SW and NW have greater proportions of female respondents (32% and 29% respectively, compared to 22% and 23% for EC and SE). EC had a larger proportion of

¹⁰ For example, a municipal tax bureau may have departments in charge of Policy, Tax Collection, Financial Planning, Statistics, Auditing, and Human Resources. Each department would be led by an official at the Section Chief rank.

high-ranking officials, and SE respondents were more likely to hold graduate degrees. Reported work experience and weekly work hours were fairly consistent across cities.

COMPARING CHINESE AND AMERICAN CIVIL SERVANTS

How do China's civil servants evaluate the organizational characteristics of government agencies? And how do these characteristics compare to bureaucracies in the United States? To enable this comparison, we selected and translated survey items on meritocracy, individual autonomy, and morale from the U.S. Office of Personnel Management's Federal Employee Viewpoint Survey (FedView). FedView's 2015 survey contains survey results from over 421,000 U.S. civil servants. We selected seven FedView questions pertaining to our three dimensions of inquiry: three items on meritocracy, three on autonomy, and one on bureaucratic morale (Table 4).

Before comparing the results from China and the U.S., we examine differences in the survey samples (Figure 1). We ultimately report unadjusted differences across the two surveys, but we also use preprocessing techniques to adjust for differences in respondent demographics. These adjustments are important if we believe that individual characteristics may bias the evaluations of civil servants. Women make up a much larger proportion of the FedView sample (48%) than our study of Chinese bureaucrats (27%). Mandated retirement ages in China's civil service result in almost no Chinese respondents over 60 years old, compared to 15% of the FedView respondents, a finding that echoes concerns about the aging of the US civil service (Volcker 2004).

The education level of respondents is likely correlated with both unobservable personal characteristics, such as family background, and the types of positions individuals hold in the

.

¹¹ For implementation details, see https://www.fedview.opm.gov/2015/.

bureaucracy. For example, individuals with higher levels of formal education are more likely to occupy positions requiring technical expertise. If those technical positions are systematically more or less meritocratic than others, such an imbalance would bias our results. The distribution of education across the two samples also differs. A majority of the Chinese officials have Bachelor's degrees, whereas the FedView sample is almost equally distributed among pre-Bachelor's, Bachelor's and Postgraduate degrees.

Table 4: U.S. FedView survey items and corresponding China Officials Survey items

FedView 2015 survey item	China Officials Survey item
1. Meritocratic recruitment My work unit is able to recruit people with the right skills.	我的工作单位能够招聘到具有合适技能的人
2. Meritocratic promotion Promotions in my work unit are based on merit.	我的同事的晋升是以业绩为基础的
3. Meritocratic recognition How satisfied are you with the recognition you receive for doing a good job?	您对自己的工作成绩能够被单位认可满意吗?
4. Autonomy: individual talents My talents are used well in the workplace.	我在单位能够充分发挥自己的聪明才智
5. Autonomy: innovation I feel encouraged to come up with new and better ways of doing things.	我提出了新的、更好的工作方法时,会被鼓舞
6. Autonomy: participation How satisfied are you with your involvement in decisions that affect your work?	在您单位,您对参与和自身相关工作的决策现状满意吗?
7. Morale Considering everything, how satisfied are you with your job?	总体上来说,您对您的工作满意吗?

Notes. Response sets for each question on a five-point Likert scale. For agreement items (1, 2, 4 and 5) the response set was strongly agree, agree, neutral, disagree, and strongly disagree. For satisfaction items (3, 6, and 7), the response set was extremely satisfied, satisfied, neutral, dissatisfied and extremely dissatisfied.

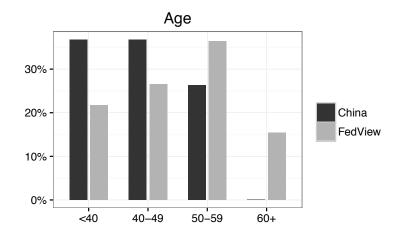
It is also possible that one's position in the hierarchy influences one's perceptions of meritocracy and autonomy. Indeed, 54% of supervisors in FedView agree that officials are promoted according to their work performance, compared to just 29% of non-supervisors. Sorting our Chinese sample into supervisors and non-supervisors is difficult; the same distinctions are not used in Chinese agencies. Instead, we use their official ranks as a proxy for supervisory status within the prefectural governments. Officials at the vice-Section Chief (*fu keji*) rank are treated as non-supervisors, and all officials at the rank of Section Chief (*zheng keji*) and above are treated as supervisors. Using this mapping, 73% of the Chinese respondents are supervisors, compared to just 21% of the FedView respondents.

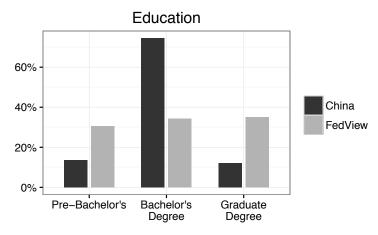
The amount of time an individual has worked in a bureaucracy may influence their attitudes in several ways. Long-serving bureaucrats may be a group that finds life in the bureaucracy particularly rewarding or comfortable, leading to more positive evaluations. On the other hand, many years of experience may lead to an accumulation of grievances resulting in more negative evaluations. The Chinese officials have generally had longer careers in the bureaucracy than their American counterparts, with 70% having worked for at least 15 years.¹²

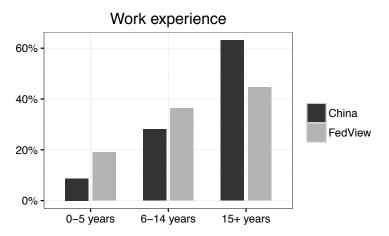
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¹² We estimated Chinese officials' years of experience in the bureaucracy by treating the youngest official in the dataset (aged 25) the average entry-level age for these officials. We then estimated their experience in the Chinese bureaucracy by subtracting 25 from their current ages.

Figure 1: Civil Servant Demographics in China and U.S. (FedView) Surveys







Notes. Descriptive statistics from our survey of municipal civil servants in China and the 2015 Federal Employee Viewpoint Survey of U.S. federal employees. Note that the U.S. public use data file bins these features into the groups shown in the figures.

Balancing samples on respondent characteristics

In order to compare the judgments of similar samples of officials, we adjust the FedView sample so that the observable characteristics of respondents more closely matched those in the China survey. We pursue these adjustments for two reasons. First, we assume that these organizations have underlying levels of meritocracy, autonomy, and morale. Each individual response offers some information about these organizational features. However, our second assumption is that individuals' knowledge about and perspective on these qualities are shaped by their personal and professional situation. Meritocratic recruitment may appear one way to those just recruited (i.e. recent beneficiaries of recruitment policies) and another way to those who have served for many years and seen repeated waves of recruitment. High-ranked officials likely enjoy greater feelings of personal autonomy than low-ranked officials. We therefore believe that adjusting the China and U.S. samples to exhibit similar demographic profiles offers a more plausible comparison of the underlying features of these organizations. In the main results, we show both raw comparisons and adjusted results.¹³

To balance these samples on observable characteristics, we assign new analytic weights using entropy balancing (Hainmueller 2012). This pre-processing technique re-weights each observation in the dataset such that the moments (means, variances, and skewness) of the variables are nearly equivalent across the two samples. Since the FedView public use data file is already binned (e.g. ages in ten-year increments, rather than continuous numbers), we use each

1

¹³ Note that these adjustments may introduce some biases to the comparison of organizational features. For example, if one bureaucratic organization has higher numbers of supervisors, which results in greater autonomy, then rebalancing the samples such that they have equal numbers of supervisors would disadvantage the organization with superior autonomy. In our case, the China sample has a greater proportion of supervisors, so these adjustments may downward bias our estimates of bureaucratic autonomy in China.

of the above categories as a binary variable in the entropy balancing process. Table 4 shows that the balancing procedure equalizes the sample moments (and thus the variances and skewness, since each variable is binary) of the respondent characteristics discussed above. To ensure that our results are not sensitive to the use of this pre-processing technique, we re-estimate the differences using exact matching on these binary features as implemented in Blackwell et al (2009).

Balancing on observable characteristics is not a cure-all. Even perfect balance through matching or other pre-processing techniques on observable features cannot exclude the possibility that factors other than the features of the bureaucratic workplace bias our estimates of the differences between the Chinese and U.S. bureaucratic workplace. However, correcting for these imbalances is likely to reduce bias introduced by the differences in the two samples. As we will see below, these adjustments generally reduce (but do not eliminate) the observed gap in assessments between Chinese and U.S. officials.

Table 4: Covariate balance in China and U.S. civil servant samples

	Original samples		After reweighting	
	China	U.S.	China	U.S.
Female	27%	48%	27%	27%
Supervisor	74%	21%	75%	75%
Age				
<40 yo	37%	22%	37%	37%
40-49	37%	27%	37%	37%
50-59	26%	36%	26%	26%
60+	0%	15%	0%	0%
Education				
Pre-Bachelor's	14%	31%	13%	13%
Bachelor's Degree	74%	34%	75%	75%
Graduate degree	12%	35%	12%	12%
Work experience				
0-5 years	9%	19%	9%	9%
6-14 years	28%	36%	28%	28%
15+ years	63%	45%	63%	63%

Notes. Samples reweighted using entropy balancing (Hainmueller 2012) on the listed variables. Each variable is a dummy (0, 1) binned according to the FedView 2015 public use dataset. https://www.fedview.opm.gov/2015/EVSDATA/ (accessed May 22, 2016)

Results

How do the views of Chinese officials compare to those of U.S. bureaucrats? Two patterns quickly emerge. First, Chinese civil servants consistently rated their workplace as superior, according to Weberian qualities of bureaucracy, to that of the U.S. civil servants. Second, the gap shrinks after adjusting for the observable characteristics of respondents. However, the difference remains statistically significant in all cases.

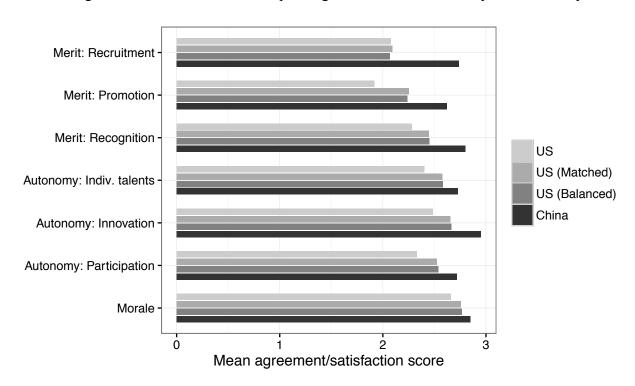


Figure 2: Chinese bureaucrats report higher levels of meritocracy and autonomy

Notes. Mean responses from surveys of Chinese and U.S. civil servants (FedView). Each question offered a five-point Likert scale of agreement or satisfaction, with 0 corresponding to the most negative response and 4 corresponding to the most positive. Samples are balanced using entropy balancing (Hainmueller 2012) on respondent gender, age, supervisory status, experience in government, and education. Also shown are results after matching the samples on the same covariates using the exact matching algorithm implemented in Blackwell et al (2009).

The substantive significance of the gap varies by item. The most dramatic difference between the two samples is in response to the question about recruiting individuals with the appropriate skills for the job. After balancing the samples on observables, the mean response of Chinese civil servants still exceeds that of U.S. bureaucrats by 0.63 to 0.70 units on the five-point agreement scale. On the other hand, while the morale gap is statistically significant, it only represents a difference of 0.04 to 0.1 units, less than one-quarter of the gap in meritocratic recruitment. The estimated gap for opportunities to use your talents well in the workplace is also relatively small, ranging from 0.09 to 0.16 units.

One concern is that stronger social desirability biases among Chinese officials explain the observed differences between the U.S. and China. It seems possible that the perceived desirability of favorably evaluating your workplace might be stronger in China, where certain political topics are taboo. That said, empirical research on Chinese censorship suggests that the repressive apparatus is more concerned about collective action than speech that criticizes the political regime (King, Pan, and Roberts 2013). In addition, previous survey research on public opinion in China finds that respondents are more likely to select the non-response category rather than report a biased response (Stockman 2013: 46-47).

Nonetheless, we might expect that Chinese officials have internalized greater restraint in expressing criticism of government agencies, even in an anonymous survey. One approach to dealing with social desirability biases is to use randomized survey methods such as item-count techniques or endorsement experiments. We declined to use these techniques because FedView does not contain comparable survey items. Instead, we perform a series of robustness checks that exclude Chinese respondents most likely to exhibit social desirability biases (see Appendix B). Our main findings on meritocracy and autonomy are robust to excluding all high-ranking officials (27% of respondents) or excluding all Communist Party members (90% of respondents). We then use other survey questions to identify subgroups of Chinese officials that demonstrate willingness to express socially undesirable viewpoints. We first examine only Chinese officials who express a negative view of China's signature economic achievement of the late 20th century: economic reform and breakneck growth. They agree with the assertion that a small number of people have monopolized the benefits of Chinese reform, and that "the vast majority of citizens have not benefited." A somewhat surprising 40% of officials agreed with this negative review of economic reform in China. Among them, our results for meritocracy remain, the Chinese

advantage in autonomy becomes weaker, and the two groups are now identical in morale. As a final robustness check, we examine the even smaller subgroup of officials (10%) who support the right of artwork, "to defame national leaders and founding fathers of China." Even among these iconoclastic respondents, China maintains its advantage in meritocratic recruitment, promotion, and recognition. In participation in decision-making, using talents and knowledge, and workplace morale, the U.S. and China are statistically indistinguishable after adjusting for respondent observable characteristics.

In summary, China's advantage in organizational meritocracy persists after removing all high-ranking officials, excluding all Chinese Communist Party members, and including only the officials for which we have behavioral evidence of their willingness to express socially undesirable opinions. In this last subgroup, the mean levels of autonomy and morale in prefectural agencies are estimated to be at parity with the U.S. means after adjusting for respondent observable characteristics. Even within this subgroup expressing socially undesirable opinions, we detect no evidence that that they perceive lower autonomy or morale than the average U.S. federal civil servant.

Comparisons to U.S. Federal Agencies

Another way to put these results in context is to compare Chinese civil servants to civil servants in various U.S. federal agencies. The following figures present these comparisons for one item each from meritocracy, autonomy, and morale (for the remaining items, see Appendix B). In meritocratic recruitment, where the Chinese sample exhibits the largest advantage, none of the U.S. agencies outperform the Chinese sample (Figure 3). However, four federal agencies—the Nuclear Regulatory Commission, the Securities and Exchange Commission, the Department

of Education, and the Office of Personnel Management (which implements the FedView survey)—have ratings that are statistically indistinguishable from the Chinese sample. At the bottom end, the Department of Homeland Security averages nine-tenths of a point lower on the agreement scale.

However, when we examine bureaucrats' satisfaction with participation in decision-making processes—an indicator of autonomy—several agencies outperform the Chinese sample (Figure 4). The Chinese respondents fall closer to the middle of the pack. In employee morale (Figure 5), a plurality of U.S. agencies exhibit higher ratings than the Chinese municipal bureaucracies. However, the large sample sizes for the Veterans' Administration (VA) and Homeland Security result in an overall mean morale that is lower among FedView respondents.

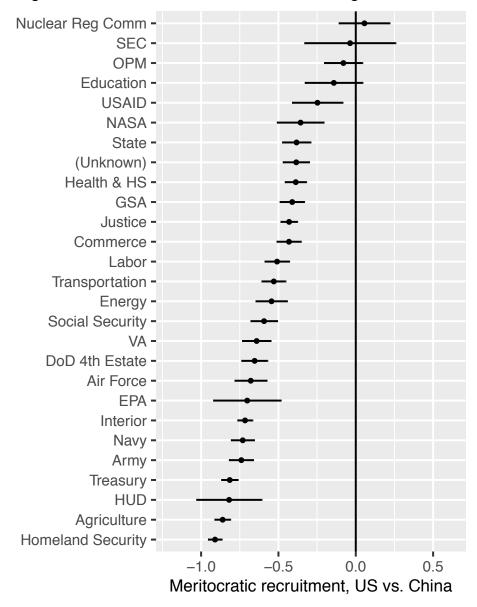
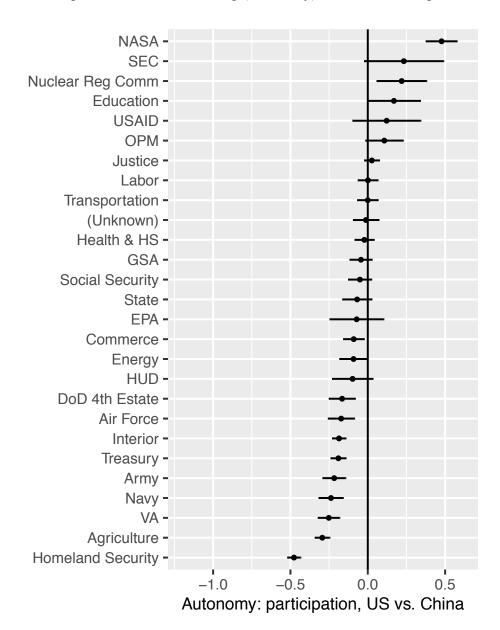


Figure 3: Meritocratic Recruitment in US Federal Agencies vs. China

Notes. Estimated differences in mean response to meritocratic recruitment survey item in US federal agencies compared to China survey. Error bars show 95% confidence intervals. Each federal agency subsample balanced on observables using entropy balancing. US agencies with fewer than 600 respondents not displayed.

Figure 4: Participation in decision-making (autonomy) in US Federal Agencies vs. China



Notes. Estimated differences in mean response to participation in decision-making (autonomy battery) survey item in US federal agencies compared to China survey. Error bars show 95% confidence intervals. Each federal agency subsample balanced on observables using entropy balancing. US agencies with fewer than 600 respondents not displayed.

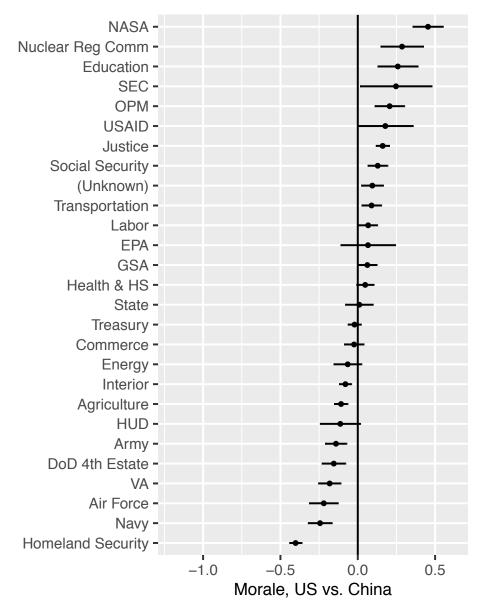


Figure 5: Morale in US Federal Agencies vs. China

Notes. Estimated differences in mean response to morale survey item in US federal agencies compared to China survey. Error bars show 95% confidence intervals. Each federal agency subsample balanced on observables using entropy balancing. US agencies with fewer than 600 respondents not displayed.

CONCLUSION

In most existing quality of government indicators, such as the World Bank's Worldwide Governance Indicators (WGI), China is a laggard in comparison to the United States (Table 1). The WGI indicator on government effectiveness places China at the 67th percentile, whereas the United States is at the 90th percentile. Yet the testimony of political insiders presented above civil servants in the United States and China—tells a different story. Chinese officials provide systematically higher evaluations of their public organizations surrounding meritocracy, autonomy, and, to a lesser extent, morale.

Considered in light of quality of government indices, this result may seem unusual. Municipal officials in relatively ordinary cities (i.e. not Shanghai or Beijing) of an authoritarian country were more likely, on average, to characterize their workplace as having Weberian qualities than officials in an advanced western democracy. Yet on further consideration this is less surprising. The civil service is a highly sought-after profession in China, whereas federal bureaucrats are not broadly admired in American political culture. Even when China experienced a decline in civil service applicants in 2015, there were still 1.4 million candidates, or roughly 50 for each available post. 14 This results in an acceptance rate lower than any Ivy League university. Such intense competition for Chinese civil service posts may explain why Chinese officials report their workplaces to be more meritocratic than U.S. civil servants do. The finding that Chinese officials experience greater individual autonomy and engagement should also not surprise us. Scholars have argued that the U.S. system of separated powers breeds legalistic behavior and low autonomy as bureaucrats try to shield themselves from an adversarial political

¹⁴ "Applications for civil service exam drop as companies beckon." *The China Daily*. October 28, 2015. http://www.chinadaily.com.cn/china/2015-10/28/content 22300964.htm (accessed November 23, 2016).

process that reaches deep into executive branch implementation (Wilson 1989). Chinese bureaucrats, by contrast, come from a tradition in which they are accustomed to governing. The high level of human capital generated by meritocratic recruitment may also enable the high levels of engagement and participation that our survey finds.

The differences between our findings and quality of government indicators that rely on expert surveys raise questions about the appropriate basis of cross-national comparisons of quality of government. Are the organizational features that support good government undervalued in expert opinions? Does a focus on government outputs—or a preference for democratic institutions—obscure the presence of high-quality organizations and processes the governments of some developing countries? This study aims to raise these questions about measuring the quality of government and to highlight the value of exploiting new sources of information to answer them.

These results also raise questions about the usefulness of summarizing a country's quality of government using a single country-year point estimate. Although the estimated mean ratings among Chinese bureaucrats are greater than the mean ratings among U.S. bureaucrats for all seven indicators we examine, several U.S. federal agencies outperform the Chinese municipal governments. Civil servants at NASA, the Nuclear Regulatory Commission, the Securities and Exchange Commission (SEC), and the Department of Education consistently rate their workplaces at or above the levels of our Chinese officials. The numerous respondents in Homeland Security and the Veterans' Administration (VA) tend to drag down the mean estimates of government quality among U.S. civil servants.

There are also important limitations to this study. Political considerations in China led to non-random sampling of both jurisdictions and individuals. While the jurisdictions selected are

reasonably ordinary, we have no methodological guarantee that the sample of officials we draw is statistically representative of the population. In addition, it is important to note that perceptions of meritocracy may deviate from actual practice in important ways. There is evidence that organizations perceived to be more "meritocratic" in fact exhibit higher levels of gender bias (Castilla and Benard 2010). Finally, while we perform several subgroup analyses to address the possibility that the U.S.-China gap is inflated by social desirability biases, future research may employ alternative techniques such as item-count experiments to elicit potentially socially undesirable opinions from Chinese civil servants.

We also assume that the organizational features that Weber defined underlie good governance. While we believe this to be true for the features we selected—meritocracy, individual autonomy, and morale—recent research questions whether Weberian bureaucracy is indeed the right recipe for countries in economic transition. Ang (2016) argues that some practices scorned by Weber, such as opportunities for officials to collect gray income through political connections, may support development and the successful transition to a market economy. In a similar vein, Andrews (2010) argues that even among advanced economies there is significant heterogeneity in the organizational features of good government.

It is also important not to over-interpret the China-US comparison in terms of its implications for the relative quality of the "China model" as a whole when compared to American democracy. We deliberately focused on the Weberian characteristics of government and excluded consideration of values like adherence to law, respect for individual rights, responsiveness to citizen demands, etc., all of which must be considered when evaluating an entire political system, rather than solely the quality of a bureaucracy. A Weberian bureaucracy can be ruthlessly efficient in censoring the media or jailing dissidents. In addition, the

comparison is obviously a snapshot of two systems at a particular point in time. Had the same survey been conducted during the Cultural Revolution, when Mao sought to dismantle and demoralize the bureaucracy, China would have fared much worse. Previous generations of American bureaucrats would likely have rated themselves much more highly. Scholars of US public administration have noted that bureaucratic quality has been under increasing stress in recent decades, that the work force is aging and demoralized, and that Congress has often been deliberately stripped of its capacity (Light 2008, Volcker 1989, 2003). None of this necessarily speaks to the long-term qualities of the political system.

The primary goal of this research is to introduce new comparative evidence on the organizational features of bureaucracy around the world. The organizational features that we measure through surveys of civil servants could conceivably be combined with expert characterizations of other structural variables in national governments, as pursued by Evans and Rauch (1999). To further this comparative endeavor, we hope that similar civil servant surveys will be replicated in other large, complex countries in the future. It would contribute to our knowledge of governance if researchers could standardize survey instruments across different countries, much as the US General Social Survey became the basis for the World Values Survey (Inglehart 1995). If such a survey can be done in a large authoritarian country like China, it could certainly be carried out in other, more open societies.

APPENDIX A: SAMPLED PREFECTURES

The four prefectures sampled in this study were selected according to where our local research partners could secure access to large numbers of municipal officials. We are therefore concerned that these jurisdictions may be exceptional and unrepresentative of Chinese administrative jurisdictions on the whole. To investigate this question, we computed the decile ranks of sampled prefectures among all Chinese prefectures in available economic and demographic indicators. Appearing in the 10th decile means that the prefecture lies between the 90th and 100th percentile for that characteristic. All data come from the 2014 Statistical Yearbook of the Regional Economy (China Statistics Press), which reports indicators for 2013. Rather than report decile ranks for each of the four prefectures, which yields statistical signatures that may permit their identification, we report the four-prefecture average decile ranks in Table A1.1 and offer brief qualitative descriptions of each prefecture below.

Southeast (SE) is a middle-income prefecture with a high proportion of private sector employers. Despite being relatively populous and export reliant, its economic output per capita is near the national median. Its economic composition is tilted toward the primary and service sectors, but industrial output is not far below the median. Although government revenue is above the median, expenditures per capita are again near the national median.

Southwest (SW) is a more industrialized prefecture on the interior with a population near the national median. Its economic output per capita is slightly below the median, and it has higher shares of primary and secondary sector economic output. Compared to the other prefectures in our sample, it has low exposure to the international economy.

Northwest (NW) is a poorer rural prefecture, ranking at the high end of the distribution of rural households and share of primary sector economic output. Industry contributes relatively

little to economic output, and it ranks low in per capita GDP. The government collects low revenue per capita, but ranks high in expenditures per capita. Its public health resources are relatively weak, with low ranks in doctors and hospital beds per capita.

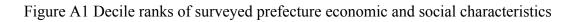
East Central (EC) is our most economically developed prefecture. It appears in the upper half of per capita economic output. It is also geographically compact with a high population density. EC is among the most industrialized prefectures in China, with a large share of secondary sector economic output.

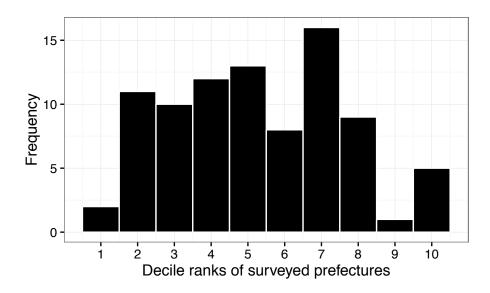
Table A1 shows that the average rank of these four prefectures in a variety of economic and demographic features is close to the national median. Figure A1 displays the distribution of 87 decile ranks computed (5 data points for surveyed prefectures were missing). We find relatively few extreme ranks in the tails. 13 indicators rank in the 1st or 2nd deciles, and another 6 rank in the 9th or 10th deciles. The remaining 74 ranks (85%) fall between the 3rd decile and 8th decile of the national distribution. The average decile rank across all comparisons is 5.3, suggesting that in aggregate these four prefectures are relatively ordinary.

Comparing the four sample prefectures to well-known prefectures in China illustrates how exceptional most well-known cities in China are. Take, for example, the coastal city of Shenzhen, China's export manufacturing hub. It is one of the geographically most compact prefectures in China, and ranks in the top decile for 13 of the indicators we examine, including total GDP, per capita GDP, imports, exports, cars, mobile subscribers, and doctors. Even less well-known provincial capital cities are quite extraordinary. The capital of Hunan province, Changsha, ranks in the top decile for 9 of the indicators we examine, including GDP and per capita GDP. Despite non-random selection, our sample is relatively ordinary among Chinese prefectures in terms of demographics and economics.

Table A1: Average decile ranks of surveyed prefectures compared to large prectures

	Four surveyed prefectures	Reference: large prefectures			
Indicator	Average decile rank	Nanjing	Changsha	Shenzhen	Urumqi
Land area (sq km)	4	3	5	1	6
Population	6	10	9	10	6
Population density	7	10	8	10	5
Rural households (%)	7	1	5		1
GDP	6	10	10	10	8
Per capita GDP	5	10	10	10	9
Primary sect. GDP (%)	6	1	2	1	1
Secondary sect. GDP (%)	6	3	8	3	2
Tertiary sect. GDP (%)	4	10	8	10	10
Private sector empl (%)	6	10	6	10	
Import share of GDP	5	10	7	10	7
Export share of GDP	5	9	6	10	9
FDI share of GDP	7	9	9	8	3
Per cap. rural disposable income	6	10	10		8
Per cap. urban disposable income	4	10	10	10	4
Per cap. government revenue	5	10	10	10	10
Per cap. government exp.	5	9	8	10	9
Highways per km ² land area	6	9	8	5	2
Cars per capita	4	9	10	10	
Mobile subscribers per cap.	5	9	10	10	10
Broadband connections per cap.	7	9	8	9	9
Doctors per capita	4	9	10	8	10
Hospital beds per capita	4	8	10	1	10



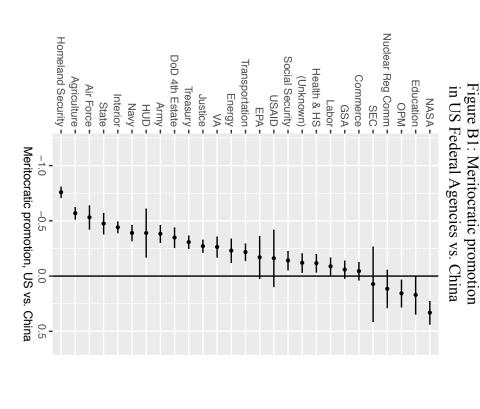


Notes. Histogram shows the distribution of decile ranks for all indicators listed in Table A1.1 for our four surveyed prefectures. 87 ranks shown in total, as 5 data points were missing.

APPENDIX B: ADDITIONAL FIGURES

entropy balancing. US agencies with fewer than 600 respondents are not displayed. bars show 95% confidence intervals. Each federal agency subsample is balanced on respondent observables using Estimated differences in mean response to survey items in US federal agencies compared to China survey. Error

Figure B2: Meritocratic recognition



Nuclear Reg Comm Homeland Security -DoD 4th Estate Social Security -Transportation -Health & HS Commerce · Agriculture (Unknown) -Education · Air Force Treasury in US Federal Agencies vs. China Energy -Interior · Justice · NASA -SEC -USAID: Labor -State: HUD. Army GSA-OPM-EPA-Meritocratic recognition, U.S. vs. China -1.0

Figure B3: Use of individual talents (autonomy) in US Federal Agencies vs. China

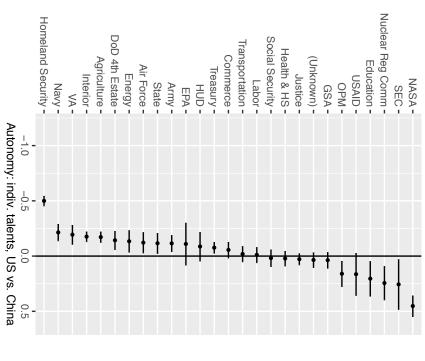
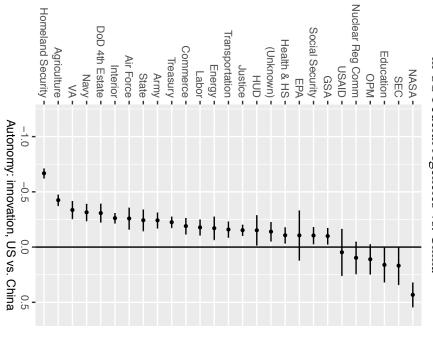


Figure B4: Innovation is rewarded (autonomy) in US Federal Agencies vs. China



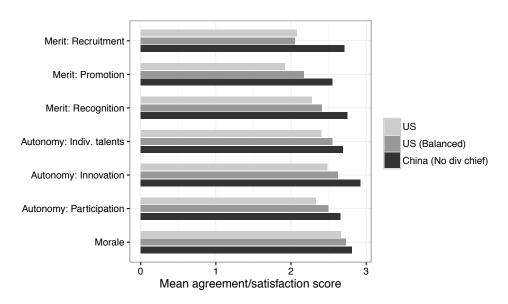


Figure B5 Robustness—Excluding High-Ranking Officials in China

Notes. Mean responses from surveys of Chinese and U.S. (FedView) civil servants. Replication of Figure 2 after excluding all Chinese officials at and above the rank of Vice Division Chief (*fu chuji*). China respondents in this subsample: 2,109.

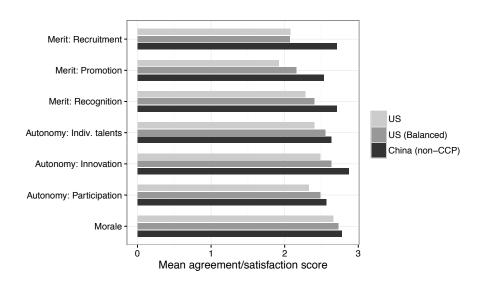


Figure B6 Robustness—Excluding All Communist Party Members

Notes. Mean responses from surveys of Chinese and U.S. (FedView) civil servants. Replication of Figure 2 after excluding all Chinese officials who are members of the Communist Party. China respondents in this subsample: 270.

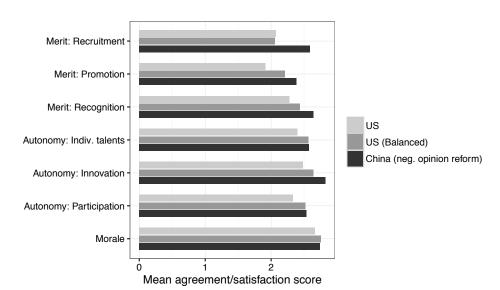


Figure B7 Robustness—Only Officials Expressing Negative View on China's Reform

Notes. Mean responses from surveys of Chinese and U.S. (FedView) civil servants. Replication of Figure 2 examining only Chinese officials expressing the opinion that China's economic reform has not benefited the large majority of Chinese citizens. China respondents in this subsample: 1,127.

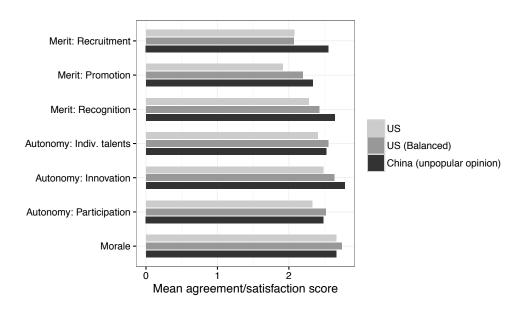


Figure B8 Robustness—Only Officials Open to Artwork Defaming China's Founding Fathers

Notes. Mean responses from surveys of Chinese and U.S. (FedView) civil servants. Replication of Figure 2 examining only Chinese officials that assert that artworks may defame China's national leaders and founding fathers. China respondents in this subsample: 280.

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