The Politics of Quality-of-Life Issues: Food Safety and Political Trust in China

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ABSTRACT
As incomes have risen, quality-of-life issues have become increasingly prominent in China. How does the growing salience of quality-of-life issues affect Chinese politics and policy? Drawing on data from a Chinese national survey, the article examines the patterns of public attitudes toward food safety, a major quality-of-life concern in contemporary China. The article finds that the young, well-educated, as well as public sector employees tend to have a high level of concern for food safety risks. The article also finds that lack of confidence in food safety erodes public trust in both local and central authorities. These findings point to the importance of food safety as a public policy issue and help explain the Chinese leadership’s policy and institutional responses to food safety concerns.

Introduction
During the past decade, Chinese society has been shaken by a large number of food safety scandals. In 2003 and 2004, over 200 ‘big-headed babies’ in Fuyang City of Anhui Province were found to have suffered from severe malnutrition because they consumed substandard baby milk powder; 12 of them died. The plight of these innocent babies and their families attracted widespread attention and raised serious public concerns about the quality of dairy products produced in China, as well as begging questions about the causes of this tragedy. In the aftermath of the ‘big-headed babies’ tragedy, Chinese regulators implemented more stringent testing requirements for milk and baby formula. Yet in September 2008, on the heels of the spectacular Olympic Games in Beijing, an even greater scandal erupted and thrust China’s food safety problem into the international spotlight. In what is now known as the melamine-tainted baby formula scandal, an estimated 296,000 babies were believed to have contracted kidney problems through consuming the Sanlu Group’s milk products, especially baby formula. At least six infants died due to kidney failure. Investigators found that Sanlu’s milk products had been adulterated with melamine, an industrial ingredient. The problem was also found in baby formula and other dairy products produced by Mengniu and Yili, China’s two largest dairy products companies.

In addition to the baby formula scandals, massive food quality problems have also been reported for cooking oil, rice, wheat flour, wine and meat; there have also been quality scares involving a broad...
range of other products, including bottled water, eggs, sugar, dumplings, fruit and seafood, as well as problems with food additives. Fake and substandard food items are not only sold in small street shops and rural markets, but have made their way into large chain stores and fast food chains (such as Walmart and KFC) in major cities. In contrast to the US, where health risks posed by food items tend to be related to infections by microbes such as salmonella, the majority of China’s food safety problems arise from intentional behavior by food manufacturers and processors.

The high incidence and prominence of food safety issues in China have raised widespread public concerns and sowed deep discontent among the Chinese public. A 2010 national survey of adult consumers showed that over two-thirds of the respondents do not ‘feel safe’ about food. Not surprisingly, many consumers have reacted with alarm. This is especially true when it comes to food for infants. Chinese families seeking quality foreign baby formula have in recent years stirred resentment in Hong Kong, Macau, Australia and even parts of Europe because they emptied store shelves and caused temporary shortages for local residents. Major chains such as Tesco in the UK limit purchases of baby formula per customer visit.

In this study, the patterns of Chinese public attitudes toward food safety issues and the political implications of such attitudes are examined. This article’s central questions are as follows: What are the structure and patterns of public attitudes toward food safety? More importantly, are issues of food safety matters of ‘low politics’ in that they do not affect trust in and legitimacy of the ruling regime, or do they have a significant impact on such trust and legitimacy? Utilizing a set of national survey data conducted by the Chinese Academy of Social Sciences, this article finds that the young, well-educated, metropolitan and those who work in the public sector (government, state-owned enterprises and government-affiliated institutions) tend to have a high level of concern for food safety. This article also finds that public perceptions of food safety have important political implications. Lack of confidence in food safety is strongly correlated with lower trust in both local and central authorities.

It is conventional wisdom that the Chinese ruling elites have relied on economic performance to boost the legitimacy of the regime in recent decades. However, the findings of the present study point to the broader political significance of a growing list of quality-of-life issues, including food safety, air and water pollution, and housing affordability, that have burst on the public policy agenda in China and the challenges they pose for China’s ruling elite. They also require scholars to go beyond considerations of economic performance to examine the increasingly complex landscape for trust in political institutions in China and thus contribute to the literature on trust in political institutions.

The rest of this article proceeds as follows. First, a review of the food safety and political trust literature is given, leading to the formation of hypotheses on how people’s perception of food safety might influence their political trust. This is followed by an overview of the survey data used in this study, the key variables to be used, and a description of the methodology. Then the results of statistical analyses

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are introduced, in addition to several robustness checks that validate results. Finally, the policy implications of the analytical results are discussed, and conclusions made.

**Food safety and political trust**

Trust in government, or political trust, is people's evaluations of how the government is doing its job in comparison to their expectations of its performance. Trust in government is essential, as their support gives political regimes room to maneuver when they have difficulties finishing immediate political tasks. Previous scholarship indicates that economic factors and government's general performance are the most crucial determinants of people's trust in government.

First, scholars suggest that trust in government is influenced by economic performance and people's evaluations of general and individual economic status. Intuitively, negative perceptions of the economy and personal living standards engender greater distrust in government. Similarly, China's remarkable economic successes have notable effects of enhancing the legitimacy of and public support for government.

Second, declining trust in government is attributed to poor institutional performance. In China, while both local and central governments have enjoyed high levels of political trust due to the stellar growth of the Chinese economy in the past three decades, their base of popular support is being chipped away by the arbitrary, rent-seeking and corrupt behavior of many local government agencies. These can be seen from media reports of 'chengguan' (urban management staff) bullying street vendors and peddlers, government-supported developers expropriating and demolishing private homes without proper compensation, and government officials of various ranks being convicted for taking bribes and embezzlement of public funds. For this and other reasons, the central authorities have enjoyed much higher levels of public trust than the local.

Past research has demonstrated a close association between public attitudes toward safety risk and trust in government institutions. Trust in food manufacturers and government has been shown to have significant impact on consumers' confidence in food safety. As pointed out by Paul Slovic, the lack of public trust in risk management institutions is the major reason for the ineffectiveness of risk communication strategies in aligning public and official stances on risk situations. Regaining public trust

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after it is destroyed by government’s mishaps or mistakes when handling safety incidents is particularly difficult.18 Both the rise of modern electronic media outlets that feed the public with immediate and negative news of safety incidents and the rise of powerful public interest groups help to consolidate people’s distrust of risk management institutions.19

In China, the increasing number of food safety incidents and their adverse health consequences have boosted public awareness of food safety risks and sapped their confidence in the government’s regulatory capacity. The arbitrary manner in which local governments and regulatory agencies have addressed these incidents further exacerbated public distrust. In the case of the melamine-tainted Sanlu milk powder, the initial reaction of the local government was to cover up the incident instead of investigating and disclosing the causes of the scandal.20 All too often with such incidents, Chinese government has deployed its hegemonic power by suppressing information, framing issues and repressing advocates seeking redress.21 Because perceived ‘openness’ and ‘honesty’ are crucial for public trust in government regulatory institutions,22 the hegemonic government behavior in the aftermath of the Sanlu incident only further undermined public trust. A survey on food safety attitudes published in the journal *Xiaokang* revealed that only 28% of the respondents had faith in the food safety information published by Chinese government agencies, and only 21% believed government regulators were diligent in safeguarding food safety.23 Several ethnographic studies of food safety in China also demonstrate the widespread concern of consumers about food safety risks, especially ‘poisonous’ foods that are deliberately contaminated with toxic chemicals by unscrupulous manufacturers and vendors.24 Indeed, the large-scale production and distribution of toxic foods such as Sanlu milk powder have posed a serious risk to social trust and led to public distrust of food experts, manufacturers and retailers, and regulatory agencies.25 The Chinese public seems to hold governments accountable for safety scandals and their attitudes toward safety issues are closely associated with their confidence in government institutions. Most scholars who studied food safety policy and regulation in China have attributed food safety problems to poor regulation and lax enforcement. The fragmented and poorly demarcated responsibilities among different regulatory authorities and local protectionism have attracted special attention and elicited calls for institutional and regulatory reforms.26 In addition, Guobin Yang concludes that public monitoring, including media openness, could help improve government accountability.27

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18Ibid.
19Ibid.
23See Note 6.
25Van, ‘Food safety and social risk in contemporary China.’
27See Note 21.
Despite the widespread concern regarding food safety risks in China, cross-national studies in the past two decades have shown that people’s perceptions of food safety risks vary considerably with demographic characteristics and socioeconomic status (SES). First, significant gender differences in perceptions of food safety risks have been found. Females are more likely to perceive higher levels of food safety risks caused by bacterial contamination, additives and pesticide residues. The reason for gender differences may be related to the fact that females are often primary meal planners and caregivers of children, and are therefore more vigilant about food-related risks. Moreover, people at different stages of their lifecycle also vary in their perception of the level of food safety risks. Older people, with more experience of food-borne diseases, express higher levels of concern toward food safety risks than younger people and are especially concerned about pesticide residues, additives in food and food spoilage. Third, the presence and size of vulnerable populations at home, especially babies and children, also sway respondents’ perceptions of food safety risk to a higher level than for those with no children at home.

Concerning the association of socioeconomic status with attitudes toward food safety, studies in the US have found that people with higher incomes and better education tend to be less concerned with food safety risks, especially those related to natural contaminants. A recent US survey also indicates that people with the highest education had the least safe food-handling behaviors. It has been reasoned that people with higher SES may perceive themselves as having higher self-efficacy in managing these food risks. However, there is also an indication that people with higher income and better education may be more concerned about technical food risks such as growth hormones and genetic modifications. Furthermore, studies have indicated that people’s level of knowledge about food safety hazards is positively associated with their level of concern with food safety risk. Exposure to media reports of food safety stories is also shown to increase people’s awareness of food safety hazards.

Meanwhile, as public concern about the quality of food products has increased in China, both Chinese and foreign researchers have also begun to examine public attitudes toward and knowledge of food safety issues. They find significant differences between urban and rural consumers in their perception and knowledge of food safety risks. Rural consumers put less emphasis on quality than urban residents when purchasing food items, while price considerations dominate their purchasing decisions.

30 Dosman, Adamowicz, and Hrudey, ‘Socioeconomic determinants of health- and food safety-related risk perceptions’; Roosen, Thiele, and Hansen, ‘Food risk perceptions by different consumer groups in Germany’.
31 Ibid.
32 Ibid.
34 See Note 30.
35 Roosen, Thiele, and Hansen, ‘Food risk perceptions by different consumer groups in Germany’.
36 Ibid.
38 韩青 [Han Qing], ‘食品消费行为和食品安全意识的城乡差异’ [‘Food consumption behavior and urban–rural differences in senses of food safety’], 2008年全国中青年农业经济学者年会 [Paper presented at the 2008 Chinese Young Agricultural Economists, Fuzhou, 21 November 2008.]
Nanjing shows that those with higher education have a higher level of awareness of food safety risks, and they were also the least trustful of government sources for food safety information.40

While food safety issues have received much attention in China, there has been little systematic examination of public attitudes toward food safety in contemporary China apart from the few ethnographic studies and the survey studies based on local samples of limited size.41

This article uses data from a nationally representative sample of 7,000 adults from a 2006 survey conducted by the Chinese Academy of Social Sciences to offer a systematic analysis of public attitudes toward food safety and to explore the linkages between quality-of-life issues such as food safety and the broader issue of political trust. It seeks to answer the following two questions. First, what are the patterns of sense of food safety among people with different demographic and socioeconomic backgrounds in China? Second, does perception of food safety affect trust in governments at multi-levels?

Based on the above review of previous research, the following hypotheses are formulated:

Hypothesis 1: All else being equal, females, individuals who are older and people with more children are expected to show higher levels of concern with food safety risks than males, those who are younger and those with fewer or no children.

Hypothesis 2: All else being equal, individuals with higher SES (education and income status) have lower perception of, or concern with, food safety risks than individuals with lower SES.

Hypothesis 2 is derived from the understanding that individuals with higher SES possess greater knowledge and resources and thus possess greater efficacy in handling food hazards, including purchasing foods of a higher quality.42 Yet various food safety risks, especially fake and toxic foods, have been widespread in China and may overwhelm people's food safety coping skills, thereby making it difficult for those even with higher SES to mitigate such risks. In consequence, it is hypothesized that, contrary to H2, in China:

Hypothesis 2A: All else being equal, individuals with higher SES (education and income status) have higher perception of, or concern with, food safety risks than individuals with lower SES in China.

Finally, in view of the frequent incidences of food scandals in China, it is expected that the Chinese public connect the severity of food safety problems with government performance. Thus, it is expected that:

Hypothesis 3: Those with a higher level of concern for food safety tend to have lower trust in government institutions than those with lower awareness of food safety issues.

The relationship between perception of food safety and trust in government is likely to be two-directional and mutually reinforcing.

Data and methods

Data and sample

The analyses use data from the General Survey of Social Conditions conducted by the China Academy of Social Sciences (CASS survey) in 2006, after the ‘big-headed’ baby formula scandal and prior to the

41韩青 [Han Qing], ‘食品消费行为和食品安全意识的城乡差异’ [Food consumption behavior and urban–rural differences in senses of food safety]; 王建英、王亚楠和王子文 [Wang Jianying, Wang Yanan and Wang Ziwen], ‘农村居民的食品安全意识及食品安全行为现状’ [Rural residents’ sense of food safety and food purchases]; 虞, ‘食品安全与社会风险在当代中国’ [Klein, ‘Everyday approaches to food safety in Kunming’; Veeck, Veeck, and Zhao, ‘Perceptions of food safety by urban consumers in Nanjing, China’.
42Dosman, Adamowicz, and Hrudey, ‘Socioeconomic determinants of health- and food safety-related risk perceptions’.
The melamine milk scandal of 2008. The CASS survey is based on a multistage cluster sample of over 7,000 participants between 18 and 69 years old from over 500 urban and rural communities in China. Li et al. describe the sampling procedure in detail. Respondents were informed that their responses would be kept confidential and be used only for research purposes. The survey completion rate was high and the item non-response rate for most questions was very low. Descriptive statistics of the following variables are provided in Table S1.

**Key variables and measurements**

a) **Sense of food safety.** One question in the CASS survey asks the respondent: ‘how do you feel about the safety level in the following aspects of the present social life?’ Food safety is one among seven categories listed that also include property safety, physical safety, traffic safety, medical treatment safety, labor safety, and personal information and privacy safety. Respondents can choose from five response categories: ‘quite unsafe’, ‘unsafe’, ‘fairly safe’, ‘very safe’, and ‘not sure’. The sense of safety is used as a binary variable and coded 1 for those who selected ‘very safe’ and ‘fairly safe’ and 0 for those who chose ‘quite unsafe’, ‘unsafe’ and ‘not sure’.

b) **Political trust.** The CASS survey includes one question concerning respondents’ level of trust in different institutions and information sources. Among the political institutions listed are local government and the central government. Respondents could choose from the following: ‘dis-trust a lot’, ‘distrust’, ‘trust’, ‘trust a lot’ and ‘not sure’. The original response categories are coded as ‘1’ (trust) for those who selected ‘trust’ and ‘trust a lot’ and ‘0’ otherwise.

c) **Government performance.** Four of the CASS survey questions bear on government performance. Three of them ask respondents about their experiences with governments in the past five years: improper charges/fines, unfair compensation for land expropriation or housing demolition, police brutality and unfair adjudication. The responses are coded as ‘1’ when respondents indicated they had experienced such cases and ‘0’ otherwise. The fourth question asks respondents whether the local government ever helped them. The responses are coded as ‘1’ if respondents selected ‘helped a lot’ or ‘helped much’ and 0 otherwise.

The covariates (control variables):

a) **Demographic variables:** respondents’ age, gender, marital status, self-reported health condition, and number of household members.

b) **Education status:** respondents’ education by the years of formal schooling. Four levels of education are identified, roughly corresponding to primary school (6 years or less), middle school (7–9 years), high school (10–12 years) and beyond high school (over 12 years).

c) **Employment status:** respondents are classified as ‘employed’, ‘unemployed’, ‘retired’ and ‘student’ (code as ‘1’ for the employed and ‘0’ otherwise). The study also differentiates between those employees of government agencies and state-owned enterprises and those who work in the private sector.

d) **Household economic conditions:** Four questions are used that pertain to household economic conditions. The first and second questions ask respectively about respondents’ family living standards and socioeconomic status in the local area. For both questions, the responses are coded as 1 if respondents selected ‘upper class’ or ‘upper-middle class’ and 0 otherwise. The third question asks respondents whether their living standards have improved in the last five years.

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43 李培林、陈光金、张翼、和李炜 [Li Peilin, Chen Guangjin, Zhang Yi, and Li Wei], 《中国社会和谐稳定报告》[Report on social harmony and stability in China] (Beijing: Shehui kexue wenxian chubanshe, 2009).
44 The question in Chinese is ‘你觉得当前社会生活中以下方面的安全程度如何?’
45 Four percent of the respondents chose ‘not sure’. It makes little difference in the analysis whether these observations are excluded or not.
46 The question in Chinese: “一般情况下，你在多大程度上信任下列方面?” “地方政府”, “中央政府” 等:
(code as 1 for those who answered ‘improved a lot’ or ‘improved’ and 0 otherwise). The fourth question asks about the respondents’ household income in 2005. The respondents are divided into three groups by their per capita household income: less than 2,500 Yuan, between 2,500 and 5,000 Yuan and over 5,000 Yuan.

e) **Knowledge of social affairs**: This question measures respondents’ knowledge of social and public affairs. The responses are coded as 1 if respondents’ knowledge level is ‘very high’ or ‘high’ and 0 otherwise.

f) **Region**: Based on respondents’ residential locations, the study differentiates between urban and rural residents according to their hukou status. The respondents’ locations are also categorized by whether they lived in the eastern (coastal) region, the central region or the western region.

g) **Political identity**: whether respondent was a member of the Communist Party.

**Method**

The study first performs bivariate and multivariate analyses of the patterns of sense of food safety. It examines significant variations in people’s sense of food safety according to different demographic and socioeconomic factors through chi-square tests and multiple logistic regression models. Analyses are then conducted to assess how people’s sense of food safety relates to their level of trust in both local and central governments. Logistic regression models are employed to see whether and how respondents’ attitudes toward food safety are associated with their trust in both local and central governments after controlling for socioeconomic and demographic factors.

**Results**

**Sense of food safety in general**

In the CASS 2006 survey, only 59% of survey participants feel safe in terms of food safety and nearly 40% feel unsafe (see Figure 1). In comparison, another food safety survey carried out by *Xiaokang Journal* in 2010 shows that 68% of the respondents did not have confidence in food safety. Considering that the CASS survey was conducted in 2006, two years before the notorious Sanlu milk powder scandal, it was understandable that the respondents’ perception of food safety risks should be higher than in 2010. Still, the results of both surveys suggest that the Chinese people have a high level of concern about food safety.

![Sense of Food Safety](image)

Source: CASS 2006 Survey

*Figure 1*. Sense of Food Safety in China. Source: CASS 2006 Survey.
Analysis of sense of safety patterns

Table S2 summarizes survey respondents’ sense of food safety by demographic factors and socioeconomic characteristics. The p value from the Chi-square test indicates whether each variable is significantly associated with a sense of food safety. Age and health status, but not gender and marital status, are significantly associated with a sense of food safety. Those who are older and unhealthy are more likely to have a lower level of food safety concerns. Among the socioeconomic covariates, household income and educational level as well as employment status and work type are significantly related to a sense of food safety. Specifically, individuals with a higher household income and longer time in education tend to have a higher level of concern for food safety than the poorer and the less well educated. Those who are unemployed or retired are more concerned with food safety risks than those who are employed. Interestingly, government employees and Communist Party members also have a much higher level of concern about food safety. In addition, there are significant regional differences: people in urban areas or from the eastern region have a much higher level of concern about food safety than rural residents or those from central and western provinces.

Table S3 displays the results of binary logistic regression models with the dependent variable being whether one feels safe with food. Model 1 contains the demographic variables only; model 2 adds the major socioeconomic variables; model 3 includes the SES status and social knowledge level; and the last model incorporates the regional indicators. The findings, largely consistent with the bivariate analysis in Table S2, reveal several patterns.

First, the perception of food safety varies with demographic attributes, especially age. Age is positively correlated with perceptions of food safety even when the other covariates such as education and income are added to the analysis. Generally speaking, younger people have a lower probability to feel safe about food in comparison to older people. This is contrary to hypothesis 1, based on previous research. Also contradicting the hypothesis is the finding that gender does not make any difference in the perception of food safety in any of the models. Although unhealthy people tend to have the most positive attitude towards food safety in model 1, when covariates are added, unhealthy people become more negative about food safety when compared to healthy people. For household size, respondents with a three-member household have significantly more concerns about food safety than households with either smaller or bigger families. As the three-member households are generally nuclear families that consist of two parents and one child, it makes sense that the parents have greater vigilance regarding food safety.

Second, educational level and employment status are significantly associated with perceptions of food safety. Contrary to the hypothesis, education has strong yet negative effects on the sense of safety. The odds of feeling safe about food for people with a primary school education or less is about twice that for people with an education beyond high school. This effect is the highest compared to the effect of all the other variables. For employment status, the retired and unemployed are more concerned about food safety than students or the employed. Interestingly, government and state-owned enterprise (SOE) employees are the most negative about food safety. Different from the results of bivariate analysis, household income does not have an independent impact on food safety attitudes once education and employment status are controlled for. However, self-reported household socioeconomic status in the local community is significantly associated with a sense of food safety. People in the lower SES strata reported more concerns over food safety than those in the upper and middle strata, especially the latter.

Third, there are clear regional differences in perceptions of food safety. Urban residents are more pessimistic about food safety than rural residents. The odds of urban residents feeling safe about food is only 63% of the odds for rural residents. Likewise, consistent with previous studies, individuals living in the eastern region are more negative about food safety than those in the middle and western regions.
Discussion

The findings about the association of demographic and socioeconomic factors with perception of food safety are at odds with research findings from Europe and North America.

First, females are not found to be more concerned about food safety than males. This may be partly attributed to the fact that most Chinese women are fully employed and share child care and food preparation duties with their husbands. Therefore, their levels of vigilance about the health risks of food to their children and themselves should be similar. Younger and more highly educated people are also found to be more pessimistic about food safety than the older and the less well educated. This is contrary to most findings in North American and European countries, where ‘knowledge and control’ is often invoked in that people with better education have a better understanding of food safety risks and the knowledge to effectively control and mitigate such risks. Two aspects of China’s food safety situation help explain the different patterns of public attitudes toward food safety risk in China. First, the foremost concern for most Chinese consumers in the past decade has been the adulteration of food with illicit additives such as melamine in milk powder. Unlike risks from bacteria-tainted food that are more salient in North America and Europe, food adulteration with illegal additives cannot be corrected with hygienic food handling practices at home. Therefore, Chinese consumers’ awareness of food safety risks in China is likely to exacerbate their concern and sense of helplessness. Second, it has been shown that awareness of food safety risks is closely associated with the quantity of media coverage of food safety incidents. As discussed above, coverage of food safety incidents by print and electronic media has expanded enormously in China in the past decade. It is expected that younger and better educated consumers will have greater exposure to media reports, especially digital media sources such as Internet micro blogs and mobile messaging and thus to have acquired heightened level of concern for food safety.

It may not be surprising that the unemployed have more concerns about food safety. In fact, based on the analysis, their concerns about safety of all the other aspects of social life are also higher than others. Therefore, their concerns with food safety are most likely to be caused by the general precariousness of their circumstances. In contrast, the fact that retired and government employees have a high level of concern with food safety is somewhat puzzling. Unlike most of the elderly, the retired in China are largely urban residents with secure pension income. The government and SOE employees also enjoy higher income, better job security and other benefits. Both groups have the financial means to purchase food of high quality at reputable market venues. In fact, many government agencies and large SOEs have even commissioned companies to produce green foods exclusively for their canteens and private consumption. Despite all their advantages, their grave concern over food safety risks reflects a low level of confidence in food quality and government regulatory capacity. For one possible explanation, as members of the new middle class, they have a higher demand for a good quality of life, including a clean environment and safe food. For another, as regime insiders they may have better access to information about the severity of food safety conditions than the general public.

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50 Yan, ‘Food safety and social risk in contemporary China’.
52 The CASS survey also indicates that a high proportion of government and SOE employees distrust the official media and the government statistics.
The low level of concern about food safety risks among rural residents may be counter-intuitive. As reported in earlier studies, the quality of food sold in the countryside is generally inferior due to the deficient infrastructure and sanitary techniques in food production, processing and distribution and weak enforcement of food safety regulation.\(^{53}\) Their lower income makes them especially vulnerable to the health risks posed by cheap yet low-quality food items.\(^{54}\) In fact, most victims of the ‘big-head’ baby and Sanlu milk powder incidents were rural children. Given the poorer food quality in rural areas, rural residents’ perception of food safety must be a reflection of their higher subjective feelings of safety.

What factors lead to their false sense of safety? First, rural residents have lower education and have limited information on food safety risks. The source of information for most villagers is limited to TV programs, which tend to toe the official line on food safety risks. Limited media exposure and their high level of trust in government media account for their better perception of food safety than their urban counterparts.\(^{55}\) Second, rural residents tend to have lower incomes and basic subsistence is still their central concern. Therefore, when buying food, they pay more attention to price rather than quality.\(^{56}\)

More importantly, rural residents feel safer because their more locally based food systems might engender greater trust. Indeed, a large proportion of foods they consume are grown locally, or even on their own, particularly in interior regions. Therefore, they have more information on how their foods are produced and the moral hazard problem of food safety risks could be minimized. In comparison, city residents have more uncertainties and fears over the quality of food they purchase. For instance, Klein finds evidence from his interviews with city residents in Kunming that they had considerable concerns about ingesting residues of pesticides, growth hormones, and intensified production methods of foods. Many of them will not even trust foods with ‘no public harm’ or ‘green foods’ certificates in the supermarkets.\(^{57}\) Differences are also noted in food safety perceptions between residents in the east and those in other regions. The eastern region is highly urbanized and more developed, and it thus follows that residents in the eastern provinces and municipalities have a higher demand for a good quality of life, including food safety.

**Food safety and political trust**

The article now examines how respondents’ sense of food safety affects their trust in local and central governments. Table 1 provides a summary of the variables in the analysis. It is apparent that, compared to local governments, the Chinese central government enjoys a very high level of public trust. This is consistent with the findings of previous studies: Chinese people have more confidence in the center, at least in its beneficent intent if not its capacity to rein in wayward local officials.\(^{58}\) As residents mostly deal with local government agents, it is natural that local governments bear the brunt of public discontent for their arbitrary behaviors such as improper charges.

As discussed above, most Chinese residents are well aware that a major reason for the food safety crisis is the ineffectiveness of local regulatory agencies.\(^{59}\) It is therefore expected that survey respondents with a higher level of perceived food safety are likely to be more distrustful of governments, especially local governments.

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\(^{54}\) Peng Hailan, Ma Zhuo and Wu Lin, ‘A causal analysis of the differences in urban–rural food safety’.

\(^{55}\) The CASS survey indicates that a significantly higher proportion of urban residents distrust official media and statistics.


\(^{57}\) Klein, ‘Everyday approaches to food safety in Kunming’.

\(^{58}\) Li, ‘Political trust in rural China’.

\(^{59}\) Wang Changwei and Guo Haiying, ‘The food safety situation in our country and its policy implications’.
The article employs linear probability models to explore how different variables influence trust in both the central and local governments in China. In addition to the attitudes toward food safety, the models also take into account demographic variables and other covariates previous research have shown to be relevant for political trust. These include three sets of variables: (a) socioeconomic factors such as education, employment status, household income and change in living standards; (b) covariates indicating extent of state dependency, such as Communist Party membership, government and SOE employee status, and help from local government; and (c) personal experiences of arbitrary state behavior such as improper charges, land expropriation and unfair justice. The results are shown in Table 2.

The analyses using linear probability models generate several interesting results. First, respondents’ sense of food safety has a statistically significant relationship with trust in governments and this effect is significantly greater on trust in local government than on trust in the central government. For instance, feeling safe about food raises the probability of trusting the local government by 7.3 percentage points. The coefficients are highly significant in both model 1 and model 2 (trust in local government) at 1% confidence level. In comparison, the coefficients are much smaller in models 3 and 4 (trust in central government).

The results also corroborate some of the empirical findings in the political trust literature. First, when a local government performs better, respondents in that locality are more likely to show trust in both that local government and the central government. Still, the magnitude of coefficients is much greater in the first two models (trust in local government). One possible explanation is that the variables employed mainly capture the performance of local government, and such performances also affects respondents’ trust in local authorities more directly. For respondents whose living standards improved during the preceding five years, the probability of trusting the local government increased by 3.9 percentage points versus only 1.1 percentage points for the central government. For those who had been helped by local government, their probability of having trust in their local government rose by 14.5 percentage points, versus only 1.2 percentage points for trust in the central government.
Table 2. Political Trust for the Local and Central Governments: LPM Model.

<table>
<thead>
<tr>
<th>Political Trust</th>
<th>Trust for local gov</th>
<th>Trust for central gov</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of food safety</td>
<td>0.068***</td>
<td>0.073***</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Living standard has improved during the last 5 years</td>
<td>0.041***</td>
<td>0.039***</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Received help from the local government</td>
<td>0.147***</td>
<td>0.145***</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>High family living standard</td>
<td>-0.013</td>
<td>-0.019</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>High individual socio-economic status</td>
<td>0.01</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.028)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Experienced improper charges</td>
<td>-0.152***</td>
<td>-0.149***</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.014)</td>
</tr>
<tr>
<td>Experienced improper compensations/land expropriation</td>
<td>-0.090***</td>
<td>-0.091***</td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.019)</td>
</tr>
<tr>
<td>Experienced unfair justice</td>
<td>-0.106***</td>
<td>-0.105***</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.024)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.013</td>
<td>-0.000</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Age (&gt;55)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>-0.109***</td>
<td>-0.056***</td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.023)</td>
</tr>
<tr>
<td>26-40</td>
<td>-0.078***</td>
<td>-0.028***</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>41-55</td>
<td>-0.055***</td>
<td>-0.010</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Communist Party member</td>
<td>0.016</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.019)</td>
</tr>
<tr>
<td>Personal income (&gt;5000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2500</td>
<td>-0.047***</td>
<td>-0.011*</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>2500-5000</td>
<td>-0.024**</td>
<td>-0.005</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Education (&gt;12 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;7</td>
<td>-0.030</td>
<td>-0.018</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>7-9</td>
<td>-0.015</td>
<td>-0.008</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>10-12</td>
<td>0.014</td>
<td>-0.008</td>
</tr>
<tr>
<td></td>
<td>(0.021)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>Religious believer</td>
<td>0.008</td>
<td>-0.013*</td>
</tr>
<tr>
<td></td>
<td>(0.015)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Rural resident</td>
<td>0.004</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.012)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Employed</td>
<td>0.015</td>
<td>0.014**</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Region (western)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern</td>
<td>-0.014</td>
<td>-0.033***</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Central</td>
<td>-0.012</td>
<td>-0.018***</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td>(0.014)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.69***</td>
<td>0.78***</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.026)</td>
</tr>
<tr>
<td>Observations</td>
<td>7,061</td>
<td>7,061</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.054</td>
<td>0.062</td>
</tr>
</tbody>
</table>

Note: Clustered standard errors in parentheses (** p<0.01, * p<0.05, * p<0.1).
On the other hand, arbitrary behavior by (local) authorities negatively impacts levels of political trust. Those who had experienced improper charges, land expropriations or unfair justice are respectively 14.1, 9.1 and 10.5 percentage points less likely to trust the local authorities. However, the effects are much smaller for political trust in the central government. The probability that people trust the central government is 1.6 and 2.6 percentage points lower for those that experienced improper charges or land expropriations.

Second, in line with previous findings, it is found that household income has significant effects on political trust. Those with an average personal income of below 2,500 had lower political trust (in both local and central government). In contrast, family living standards and the socioeconomic status of each individual are not statistically significant. Few of the demographic variables affect levels of political trust but age stands out. In particular, trust in the local and central government increases with age, with the 19–25 cohort being less trustful of government than the 26–40 cohort, which is in turn less trustful than the base group (those over 55).

One primary concern is that part of the effects could be attributable to the fact that trust in government influences people’s sense of food safety. With cross-sectional data, it is indeed difficult to rule out the possibility of reverse causality. The article’s estimates thus provide an upper bound of the real effects of sense of food safety on political trust. However, since the magnitude of effects in the LPM model is very large, it is expected that the real effects of sense of food safety on political trust will still be substantial even after taking into consideration the reverse effects of political trust on sense of food safety.

Robustness checks

In order to check the robustness of the results, the article further includes probit regressions and another weight of CASS 2006 data into the models. The results are presented in Table S4. The key results remain unchanged. A sense of food safety is still highly correlated with trust in both local and central authorities. In comparison with the results in Table 2, employment status is associated with trust in both central and local government.

Discussion and conclusion

While China has experienced rapid economic growth, the government’s legitimacy does not rely on economic performance alone and is increasingly affected by public concern with a growing array of quality-of-life issues. During the past decade, a large number of local and national food safety scandals broke out in China and have severely undermined public confidence in China’s food safety, especially in the case of baby formula.

The findings from an analysis of the CASS survey data reveal certain patterns in public attitudes toward food safety and significant linkages between food safety concerns and trust in government. First, while the rural residents, elderly citizens and people with less education have a lower level of concern about food safety, the more educated, urban and metropolitan residents, the retired and unemployed, and employees of government or state-owned corporations have grave concerns about food safety. To put it bluntly, food safety has become a special concern for members of China’s rising middle class. Second, the article finds that respondents’ sense of safety is negatively related to trust in both local and central government, with greater effects on trust in local government. The empirical analyses also corroborate several key implications of the political trust literature concerning government performance and trust in government. While the regression analyses do not prove the direction of causality, taken together, the evidence is strong that the lack of confidence in food safety also leads to a reduction in trust in government. Since these results are derived from data that preceded the outbreak of the 2008 melamine-adulterated baby formula scandal, it is likely that the effects uncovered are more pronounced in the aftermath of the 2008 scandal.
The findings suggest that, far from matters of low politics, quality-of-life issues, including food safety and air pollution, are of fundamental importance for China’s leaders concerned with bolstering regime legitimacy. Shortly after the 2008 melamine milk scandal, the Chinese leadership rushed to enact the PRC Food Safety Law (February 2009). This law provides for the establishment of a State Council Food Safety Commission to provide leadership on food safety regulation. It also includes stipulations on food recall and imposes punitive penalties for violators of food safety regulations.

The new generation of leaders (Xi Jinping and Li Keqiang) who took over in 2012/2013 have paid special attention to quality-of-life issues, notably food safety and environmental pollution. In March 2013, the Food Safety Commission was merged with the State Food and Drug Administration to form the ministerial-ranked China Food and Drug (General) Administration (CFDA). President Xi Jinping has taken a personal interest in promoting food safety regulation. Speaking at the Central Rural Work Conference in December 2013, Xi Jinping concluded that food safety had become a major test of the Chinese Communist Party (CCP)’s governing ability. Failure to ensure food safety, he argued, would allow critics to raise the question of the CCP’s right to rule. 60 In May 2015, Xi put safe development on the Politburo’s study agenda. Food safety occupied pride of place in Xi’s remarks and he called for building a governance system for food safety with ‘stringent standards, strict regulation, severe punishment, and stern accountability’.61

The Chinese drug administration had earlier gone through a baptism of fire and its founding director general, Zheng Xiaoyu, was executed in 2007 for corruption and dereliction of duty. 62 In the aftermath of the drug safety crisis in the early to mid-2000s crisis, drug safety regulation in China has been strengthened substantially. As the national leaders turn their attention to food safety, regulators at the CFDA have increasingly adapted and applied the CFDA’s drug regulatory skills to the regulation of food safety.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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60习近平 [Xi Jinping],〈食品安全长期做不好会被质疑执政不够格〉 [‘Failure of food safety in the long-term will lead to questions of being not qualified to govern’], 《北京晚报》 [Beijing Evening News], (28 September 2014), http://xw.qq.com/finance/20140928046600/FIN2014092804660000 (accessed 28 September 2014).
