


## ORIGINAL ARTICLE

# Bureaucratic Incentives and Government Responsiveness in China

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## ABSTRACT

Citizen complaints have long been considered an important channel of communication between citizens and officials in authoritarian regimes. Existing explanations for responsiveness to citizen complaints in China, however, do not adequately consider the role of local bureaucratic incentives as a driver of responsiveness. This paper seeks to explain local government responsiveness to citizen demands through this lens. Original data of citizen complaints and government responses from a Chinese prefecture and its subordinate counties demonstrate that lower level officials are more likely to respond to citizen complaints when monitored by their superiors. On the other hand, they are less responsive on unmonitored forums. Thus, oversight by higher level officials may be important in increasing actual government responsiveness; citizen complaints alone may not be enough to spur government action. While recent studies emphasize authoritarian accountability arising through quasi-democratic institutions, this paper suggests incentives of local political actors may condition the effectiveness of these institutions.

## 1 | Introduction

Authoritarian regimes around the world – such as those in Eastern Europe (Dimitrov 2014b, 2015; Lueders 2022), Russia (Chapman 2021, 2024), Venezuela (Rhodes-Purdy 2017), and China (Distelhorst and Hou 2014, 2017; Su and Meng 2016; Meng et al. 2014; J. Chen et al. 2016) – have created citizen complaint or petition systems. Existing work has explored how these institutions, which mirror government responsiveness channels in democracies (Christensen and Ejdemyr 2020; Dipoppa and Grossman 2020; Sjoberg et al. 2017), contribute to authoritarian durability. Petitioning systems can help resolve the “dictator’s dilemma” (Wintrobe 1998) by gathering information about the public’s true feelings in the absence of free media or competitive elections. In addition, they serve as “barometers of public opinion,” (Dimitrov 2014b) acting to identify and resolve sources of citizen dissatisfaction before more disruptive opposition can take place. Petition systems or other

participation channels can also improve the public image of the regime (Dukalskis and Gerschewski 2017; Truex 2017; Guriev and Treisman 2019), contribute to regime legitimacy (Chapman 2024), and increase feelings of political efficacy amongst the authoritarian public (Chapman 2021, 2024). For these reasons, petition institutions could ultimately increase public support for the regime (Truex 2017; Chapman 2021; Rhodes-Purdy 2017). Because petition systems serve important functions, autocrats are driven to respond to citizen complaints (J. Chen et al. 2016; Distelhorst and Hou 2017; Lueders 2022). Many of the previous works focus on theorizing the motivations behind authoritarian responsiveness, such as the ones described above, and derive their expectations from the incentives and motivations of the singular autocrat – her desire, ultimately, to stay in power by managing public opinion.

However, in many instances citizen petitions are answered not by the dictator herself, but by lower level regime officials and

bureaucrats (J. Chen et al. 2016; Distelhorst and Hou 2014, 2017) who may or may not share the same concerns as the central dictator. What motivates these lower level officials to respond to citizen complaints, which are often pedestrian in nature? Previous work has focused on co-ethnic ties (Distelhorst and Hou 2014) or other social characteristics of the complainant (Su and Meng 2016). J. Chen et al. (2016) test whether fears of collective action or threats of “tattling” to superiors are more likely to get a response from officials. Other works focused on China highlight how bureaucratic and internal governance factors, including local officials’ calculation of public pressure and costs (Cai and Zhou 2019), political authority and professionalism of the responding government bureau (Meng and Yang 2020), and various institutional processes (Wang and Han 2023; Habich-Sobiegalla et al. 2024) affect handling of citizen complaints. Building on these works, this paper shifts the focus from citizen strategies or concerns over regime legitimacy as the driving factor of responsiveness to examine in more detail bureaucratic monitoring as key in explaining patterns of responsiveness.

Local officials’ desire for promotion or concerns over demotion means they want to present a competent image to upper-level officials and efficiently resolve citizen complaints. However, faced with constraints on their time and resources, local officials may prioritize certain complaints over others. As Guan and Göbel (2025b) demonstrates through analysis of local leaders’ written instructions, officials often respond selectively to issues that align with higher-level policy priorities or bureaucratic coordination needs. Similarly, Guan and Göbel (2025a) shows that local leaders place more emphasis on policy areas such as welfare, labor, and malfeasance when responding to citizen complaints – policy areas where they may need citizen reporting to accurately assess subordinates’ performance. I argue that another dimension that motivates officials to prioritize certain complaints over others is the degree of *monitoring* that local officials are subject to. In practice, this implies that citizens who submit complaints to *monitored* forums will receive quicker and higher quality responses than those who submit complaints to *unmonitored* forums. Leveraging complaint-response pairs from two different levels of government in China, this paper demonstrates that county government officials respond much more quickly to citizen complaints posted on a higher-level government website than those posted to their own websites.

This paper contributes to the existing literature in several ways. First, it more explicitly theorizes the bureaucratic incentives behind authoritarian responsiveness and brings together the literatures on central-local relations and government responsiveness. Second, this paper uses original data collected from different levels of governments, which allows me to compare local governments’ behavior on monitored and un-monitored forums. Previous works were limited in their ability to test hypotheses regarding bureaucratic relations and responsiveness because they only collected data at a single level of government (Distelhorst and Hou 2014, 2017; Su and Meng 2016; J. Chen et al. 2016). This study also adds more external validity to the existing works that conducted field or audit experiments (Distelhorst and Hou 2014, 2017; Su and Meng 2016; J. Chen et al. 2016) by revealing how genuine citizen complaints are resolved by local officials. More broadly, scholarly work on authoritarian regimes in the last two decades has concluded that

institutions in nondemocratic contexts do have important political consequences. Legislatures, political parties, elections, and participatory channels play important roles in authoritarian regimes (Lust-Okar 2005; Magaloni 2006; Gandhi 2008; Blaydes 2010; Dimitrov 2014b; Malesky and Schuler 2010). I contribute to this larger literature by highlighting how the effectiveness of semi-democratic institutions in autocracies can hinge upon local bureaucratic behavior and incentives.

## 2 | How Bureaucratic Incentives Drives Responsiveness

Literature on citizen complaints in authoritarian regimes emphasizes the high-level motivations for creating these semi-democratic institutions (Dimitrov 2014b; Chapman 2021; Lueders 2022). They may serve to diffuse potential collective action events (Dimitrov 2014b), help the regime gather information about citizen preferences (Distelhorst and Hou 2017), or build regime legitimacy by creating the narrative that the regime is sensitive to citizen demands (Guriev and Treisman 2019; Chapman 2024). According to this literature, the existence of petition channels reveals insights about the central autocrat’s motivations, concerns, and strategies.

However, literature on the bureaucracy, in both democracies and autocracies, demonstrates that local politics, personnel, and incentives influence how high-level policies are implemented (Rasul and Rogger 2018; Gulzar and Pasquale 2017; Cilliers et al. 2018; Hassan 2020; Raffler 2022; Dasgupta and Kapur 2020). In particular, previous work on central-local relations in China argues that local leaders’ incentives explain many important political and economic outcomes, from compliance with taxation policy (Oi 1999; Bernstein and Lü 2000; Takeuchi 2014), economic performance (Montinola et al. 1995; Zhang and Zou 1998), and responses to protests (Cai 2008; Whiting 2001; O’Brien 1996; Edin 2003). Similarly, I argue that while the initial creation of semi-democratic institutions may be motivated by central leaders’ concerns of regime survival, the actual effectiveness of these institutions is mediated by local bureaucrats’ incentives.

I propose that local leaders’ incentives to either gain promotion or to avoid demotion are central in explaining how local leaders answer citizen demands. China’s hierarchical administrative organization means that local officials in China are both given authority over their own respective jurisdictions but also subject to control from their higher level superiors. Through control over promotions and demotions (Lieberthal 1995; Huang 1995, 1996), higher level officials seek to constrain and direct lower level officials’ behavior. Thus, local leaders want to appear competent in responding to citizen complaints to their superiors (Wang and Han 2023), especially if managing public opinion is a clear goal of their upper-level leaders. However, local leaders also face constraints on their time and resources. This leads local leaders to prioritize certain complaints over others – specifically, local leaders will be especially more responsive *when they know their superiors are watching*. That is, whether there exists monitoring from upper-level officials will impact local actors’ responsiveness to citizen complaints.

## 2.1 | Citizen Complaints in China

Responding to citizen complaints or input has been an important aspect of Chinese political life, even before the introduction of the Internet. Past scholarly work particularly emphasizes the relationship between citizen complaints and collective action events. X. Chen (2012) states that aspects of the offline *xinfang* (petition) system creates political opportunities for citizens to engage in protest. The low efficacy of normal petitioning drives citizens to more disruptive activity to attract the attention of local officials. He also points out that protesters understand that higher level officials pressure their subordinates to maintain social stability, and they leverage this knowledge to drive local officials to bargain with local protesters. Relatedly, responses to complaint letters or petitions have been used to evaluate local leaders (O'Brien 1996; Edin 2003). Edin argues in particular that citizen complaints “take on a special importance in evaluation since they are intimately connected to the priority target of upholding social order, reflecting the center’s concern with maintaining stability.” (Edin 2003, 44).

With the introduction of the Internet, citizens have found new forums and avenues to engage with the state. The Chinese government began to establish online institutions for information disclosure, opinion gathering, and responding to citizen complaints. Through open governance initiatives in 2007 and 2016, the Chinese government made clear its goals of developing a robust online presence and facilitating state-society relations online. More recently, in 2019, online governance has become an item of local cadres’ performance evaluations, though it is still not considered a “priority target” (Wu 2019). In summary, addressing citizen complaints, especially in the post- Internet era, is an important governance goal of local officials, one that has repercussions for their performance evaluations.

## 2.2 | Monitored Versus Non-Monitored Forums

Upper level leaders desire prompt responsiveness to citizen complaints for a myriad of reasons. They use citizen complaints to collect information about subordinates’ performance, and citizens will only be willing to continue submitting complaints if they are answered in a timely fashion. Prompt responsiveness to citizen complaints could also preempt larger, more serious collective action events. Generally, responsiveness could foster deeper support for the regime.

However, leaders have incomplete information about how responsive their local agents are. Lower level bureaucrats who are tasked with responding to citizen complaints may not have the same incentives as upper level leaders and prefer to use their local knowledge to further their own interests. Answering citizen complaints may be just one aspect of their job – other concerns may take priority over communication with citizens, especially if local level leaders do not believe a major collective action event is likely to take place. Further, unlike concrete and observable metrics like GDP growth, maintaining “social stability” through diligent responses to citizen complaints is a much more vague goal, constraining upper-level officials in their ability to carefully monitor and then sanction lower level

agents. In addition, many citizen complaints are pedestrian in nature, which can lead local leaders to believe they are not very important. These factors make it possible for lower level leaders to be less responsive than what their superiors expect or desire. Upper-level leaders, however, may find it difficult to observe this “shirking” on the part of lower level officials.

When might local officials, then, be motivated to respond to online citizen complaints? I argue that citizen complaints sent to *monitored* forums will be prioritized over those sent to *un-monitored* forums. Citizens can lodge their complaints on a multitude of online platforms in China. There exist social media sites and discussion boards (Wang and Han 2023), discussion boards run by central-level authorities (Meng and Yang 2020), city hotlines (Habich-Sobiegalia et al. 2024), and numerous leader mailboxes at lower levels of government (J. Chen et al. 2016). Meng and Yang (2020) and Wang and Han (2023) have discussed how specific institutional features of the responding government bureau affect the timing and content of responses. Another feature of these citizen participation forums that has been overlooked is the presence or not of *active* monitoring.

This paper considers two different platforms that receive citizen complaints: the Mayor’s Mailbox hosted on a prefecture government’s website and the related County Mayor’s Mailbox hosted on a county government’s website. From the perspective of county officials, there are differences in the potential for monitoring on these two platforms, with the prefecture website representing a more monitored space compared to the county website. This is related to who oversees the content of each government level’s website.

In 2007, the State Council published the “Open Government Information” Ordinance (OGI).<sup>1</sup> OGI required local governments to make public government activities and plans in a variety of different areas, including administrative documents, statistical reports, financial budgets, and policies related to education, health care, and employment. The general offices of local governments at the county level and above are the agencies responsible for implementing OGI regulations – county leaders are responsible for creating and maintaining county government websites and prefecture leaders are responsible for creating and maintaining prefecture government websites. Pan (2017) finds that county government leaders systematically manipulate the content of their websites to improve their own public image. These findings strongly suggest that county leaders are willing and able to curate the content of their websites, indicating their authority and control over their own platforms.

In addition, previous works have offered insight into how citizen complaints are processed on these government forums. Based on interviews with local officials, Habich-Sobiegalia et al. (2024) finds that in Beijing, after a citizen complaint has been received through a hotline, the complaint is assigned to the district government where the complaint or problem was observed. The district government (or even lower levels of government) handles the complaint, and the municipal government official then evaluates how well the complaint was addressed in follow-up calls with the citizen. When citizens make use of the Beijing municipal hotline, the “first

respondent” is a municipal-level official who then categorizes the complaint and delegates down to district-level officials. These insights support the assumption that prefecture officials oversee and manage how citizen complaints are processed on prefecture websites. Though other prefecture government websites may not follow the exact same administrative procedure, all prefecture government websites are run by prefecture officials so we assume that the citizen complaints that are submitted on those websites are first read and screened by prefecture officials.

What this implies is that complaints on the prefecture website that are answered by county governments are those that have been delegated to them by prefecture officials. Because the citizen complaint is coming directly from the prefecture website, the county official could be subject to extensive monitoring of his or her work when answering these complaints. County leaders’ responses to citizen complaints sent from prefecture websites will be evaluated by their superiors because prefecture officials are ultimately responsible for posting the responses on the prefecture website.

The county website, on the other hand, represents a less monitored space for county officials because their responses on this website are not guaranteed to be read or evaluated by prefecture officials. Leaked email communications from a prefecture government show that local officials do send reports about citizen complaints to prefecture leaders, but that they will often conceal their wrongdoings or accusations of corruption (Pan and Chen 2018). Even though original complaints of corruption posed on social media websites are still accessible since lower level governments do not have censorship authority over social media websites, local officials still engage in concealment. This implies that lower level officials recognize the limited time and resources of their higher level superiors and believe that they can “get away” with hiding information due to slack monitoring. Applied to citizen complaints on government websites, prefecture level officials could independently access complaints on county websites. However, the probability of them doing so and closely monitoring county government responses on county government websites is considerably lower than their propensity to monitor county government responses to citizen complaints on the prefecture website, which is firmly within the control of prefecture officials. The actual posting of government responses on the prefecture website is also done by prefecture officials. The county-level website then represents an *unmonitored* or *less monitored* space for local officials compared to the prefecture website.

### 2.3 | Theoretical Expectations

The difference in monitoring between county and prefecture websites implies that if county leaders’ responses to citizen complaints are driven by the desire to look competent in front of their superiors, their behavior on the prefecture website and county website will differ. Because they are aware upper-level leaders observe their actions on the prefecture website, county officials would prioritize citizen complaints posted on the

prefecture website over the citizen complaints posted on their own government forums. This suggests the following hypothesis:

**Hypothesis 1.** *County governments will respond more quickly to citizen complaints posted on the prefecture website compared to those posted on their own.*

Responding timely to citizen complaints is just one facet of government responsiveness. Timely but incomplete or inconsequential responses would not constitute true government responsiveness. The second hypothesis considers differences between county officials’ response quality on prefecture and county websites. One potential proxy of response quality is response length.

**Hypothesis 2.** *County governments will respond with longer responses to citizen complaints posted on the prefecture website compared to those posted on their own.*

However, response length may be an imperfect measure of response quality. An official could produce a lengthy but uninformative reply that merely repeats formalities or redirects responsibility elsewhere. We should also examine, then, whether monitoring can induce higher quality content of government replies. In addition, even if the *content* of the government response is similar, government officials could differ in tone toward citizens. This leads to the following hypotheses about response content.

**Hypothesis 3.** *County governments will respond with higher quality responses to citizen complaints posted on the prefecture website compared to those posted on their own.*

**Hypothesis 4.** *County governments will respond with a more positive tone to citizen complaints posted on the prefecture website compared to those posted on their own.*

By the same logic, we can compare the behavior of prefecture agencies to county governments on the same website. While county government leaders are being monitored by their superiors on prefecture websites, prefecture agencies are not subject to upper-level monitoring on the same space – the same website represents an “unmonitored” space for prefecture-level leaders and a “monitored” space for county governments. The prefecture-level leaders then do not face additional pressure from above when answering citizen complaints *on their own websites*. Thus, we would expect county government leaders to be more responsive on the prefecture website compared to prefecture-level agencies.

**Hypothesis 5.** *County governments will respond more quickly to citizen complaints than prefecture-level agencies on the prefecture website.*

**Hypothesis 6.** *County governments will write longer responses to citizen complaints compared to prefecture-level agencies on the prefecture website.*

Prefecture agencies could also face horizontal monitoring on the prefecture website. For example, the prefecture propaganda

bureau or the prefecture leaders may monitor the responses of other agencies. If so, comparing the response times of county governments versus prefecture agencies on the prefecture website could reveal which type of monitoring (vertical or horizontal) can lead to faster and more substantive responses. Horizontal monitoring is discussed in more detail in the Limits and Scope Conditions section (Section 7.1).

### 3 | Research Design

#### 3.1 | Data Collection and Description

This paper explores original data from local government websites. These websites include information about the locality, its leaders, policies, and administrative or bureaucratic processes (Pan 2017). One feature of these local websites is the “Mayor’s mailbox,” an online bulletin board where citizens can post complaints or concerns. By 2014, the Mayor’s Mailbox was available on the official web pages of 98% of China’s 336 prefecture-level governments (Distelhorst and Hou 2017). County governments also have similar websites, with a “County Leader’s Mailbox.”

Original data on citizen complaints and government officials’ responses were collected from the government website of Chenzhou, a prefecture-level city in Hunan province. Data was also collected from the websites of the 11 counties and districts under its jurisdiction. The data begins in October of 2007 and ends in April of 2017, which is when data collection ended. There were numerous attempts to extend the data past 2017. Currently, however, the Chenzhou government website is using a firewall protection system to actively block access from foreign IP addresses, VPN connections, and web-scrappers. Internet Archive websites also do not have snapshots of the Chenzhou government website beyond 2016. The current protections in place would flag and block repeated queries or large-scale downloads even if research assistants within China could access the website. This is, unfortunately, one limitation of the data, which is addressed later on when discussing the scope conditions of the theory.

Does the Chenzhou prefecture government website represent a more monitored space for county governments? From Chenzhou government documents, we know that the Chenzhou government office is responsible for maintaining the prefecture website and its day-to-day operations. Because of this role, the

prefecture government is also responsible for logging citizen complaints and distributing them to relevant governments and agencies. They are the “first line of defense” for citizen complaints. Next, it is the responsibility of the relevant government bodies to investigate the complaints and to prepare an official answer. Those answers are then submitted back to the prefecture government to be uploaded onto the Mayor’s Mailbox portal.<sup>2</sup> In summary, the prefecture website represents a more monitored space for county governments because the Chenzhou prefecture officials have authority over their website rather than county officials, prefecture officials delegate citizen complaints to county officials from posts on the prefecture website, and prefecture officials ultimately review the county government replies before posting to the prefecture website (Figure 1).

As seen in Figure 2, the Mayor’s Mailbox bulletin contains links to individual complaint-response pairs. Each citizen’s complaint is answered by the appropriate bureau or government agency, as seen in Figure 3.

In order to submit a complaint, a citizen must provide some form of personal information (name, national ID number, email address, or phone number). After the complaint is submitted, there is a screening process. Then, the complaint is posted online and publicly available (J. Chen et al. 2016). This means that the complaints and responses in this data are those that have survived censorship. Complaints and responses available for collection are those that the local officials deemed acceptable to show the public (and their superiors). The data does not give us access to complaints that local government officials did not want to make public.

I collected data on when the complaint was submitted, the text of the complaint, the bureau that responded, the text of their response, and when the response was posted. As seen in Figures 2 and 3, the Chenzhou website displays the title of the complaint, the sender name, the complaint date, the response bureau, and the response date for each complaint. Once one clicks on the individual links and goes to the webpage of each citizen complaint, one can find the actual text of the complaint and government response, as well as the dates of the complaint and response and the government bureau that responded.

Figure 4 displays the response agencies that respond to 95% of the complaints. They include prefecture-level agencies like the Education Bureau, the Social Security Bureau, the Public Security Bureau, as well as county governments. On the Chenzhou website, responses that were written by county governments are



FIGURE 1 | Chenzhou prefecture Mayor’s mailbox.

denoted just as “XX County Government” with no information on which agency within the county government was involved in writing the response.

Data collection was done through web-scraping the government websites. While previous studies have conducted audit studies or experiments using these forums, this study may demonstrate more external validity since it collects actual citizen complaints and responses. Previous works focused on collecting citizen complaint data at one level of government (i.e., central, prefecture, or county-level). By collecting both prefecture and county-level data, I am able to test hypotheses regarding bureaucratic incentives and government responsiveness.

This paper draws upon data from one prefecture-city and its subsidiary counties. How does Chenzhou compare to other cities in China, and what inferences could we draw? We may expect wealthier, more developed prefectures to be more responsive to citizen complaints as they would have access to

greater resources. Along this dimension, Chenzhou represents a “middle of the road” prefecture. In 2015, Chenzhou ranked sixth in GDP out of 13 cities in Hunan province. In the same year, Hunan province, with a GDP per capita of 42,968 *yuan*, ranked 16 out of 31 provinces and provincial-level cities. Chenzhou city is not a particularly wealthy city in a province that is also in the middle of the pack in terms of GDP per capita in China.

Another factor that could influence responsiveness to citizen complaints is the political competitiveness or level of ambition of local officials. Following Kung and Chen (2011) and Pan and Chen (2018), I measure ambition through the party positions of key prefecture leaders. Specifically, I examine whether the Chenzhou prefecture party secretary and mayor are in the Hunan Provincial Party Committee or in the Standing Committee of the Hunan Provincial Party Committee. If the prefecture leaders are members of the Standing Committee, we could assume they are less ambitious. This is because they have already achieved the senior party position for leaders at the prefecture level. If the prefecture leaders are *not* members of the Standing Committee, we can assume they are *more* ambitious. This is because there is room for promotion into the Standing Committee. From 2007 to 2017 (when the citizen complaint data was collected), no party secretary or mayor of Chenzhou prefecture was in the Standing Committee.<sup>3</sup> This implies that the leaders of Chenzhou could be considered more ambitious and therefore more likely to be invested in responsiveness to the public and monitoring of subordinates.

In sum, neither Hunan Province nor Chenzhou prefecture represents an extreme case in terms of economic development. Based on the party position of Chenzhou prefecture leaders at the time of their tenure in Chenzhou, we can assume that Chenzhou leaders were more politically ambitious and therefore more likely to have paid attention to government responsiveness and monitoring. Other prefectures where leaders have already been promoted to the standing committee of the provincial party committee would likely have fewer incentives to be responsive to citizen complaints.



FIGURE 2 | List of citizen complaints, Chenzhou Prefecture website.



FIGURE 3 | Example of complaint-response pair, Chenzhou Prefecture website.

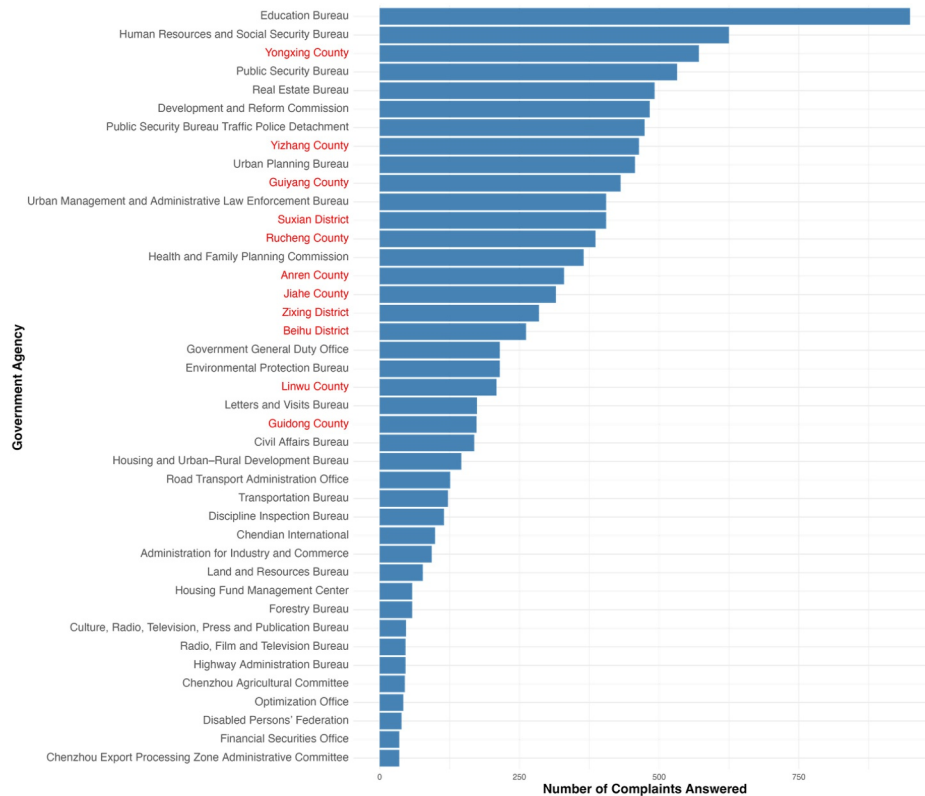


FIGURE 4 | Response agencies on Chenzhou website.

### 3.2 | Measurement of Key Variables

I measure government responsiveness with *days until response*, a standard measure in other works (Christensen and Ejdemyr 2020; Dipoppa and Grossman, 2020; Lueders 2022). I measure response quality through *response length*, using both number of Chinese characters and number of distinct words. For response content and tone, I take advantage of new language processing methods and large language models to classify government responses.<sup>4</sup>

For analyses comparing county government behavior across monitored and unmonitored forums, I use the variable *prefecture source*. This is coded as an indicator variable equal to one if the citizen complaint was posted on the prefecture website and 0 if the complaint was posted on a county website. When comparing county government behavior with prefecture behavior, I use the variable *county government*. This is also an indicator variable equal to one if the response was written by a county government and 0 if the response was written by a prefecture agency.

### 3.3 | Complaints and Government Responses

Figure 5 below displays the number of complaints per year posted on Chenzhou prefecture's website. A significant number of complaints were redirected to county governments from the prefecture website each year. Figure 6 examines the distribution of the number of days it took for a government agency to

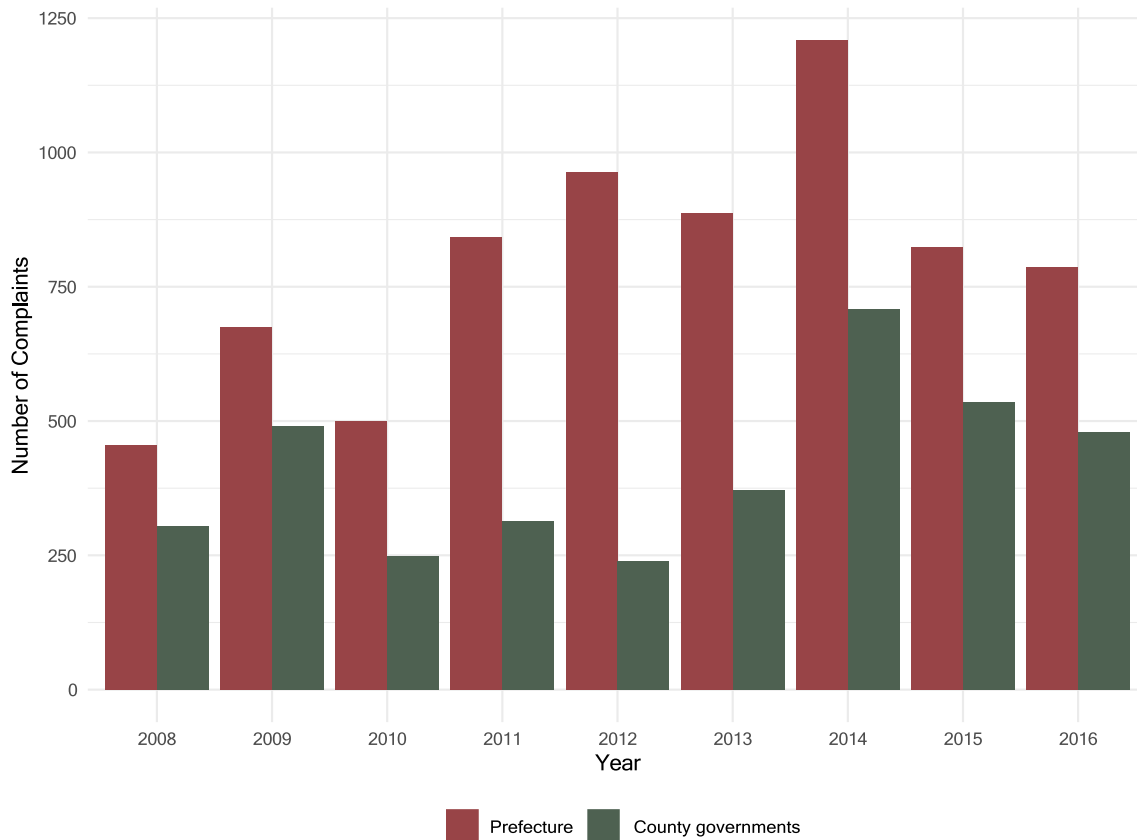
respond on both the prefecture website and the county websites. County and prefecture governments are, overall, very responsive to citizen complaints. We observe that more than 95% of complaints were answered within 100 days, though there are some outliers. Every complaint receives a response, so the data is not censored. Table 1 displays the mean days until response, as well as the mean number of characters and words in a government response.

## 4 | County Behavior on Monitored Versus Non-Monitored Forums

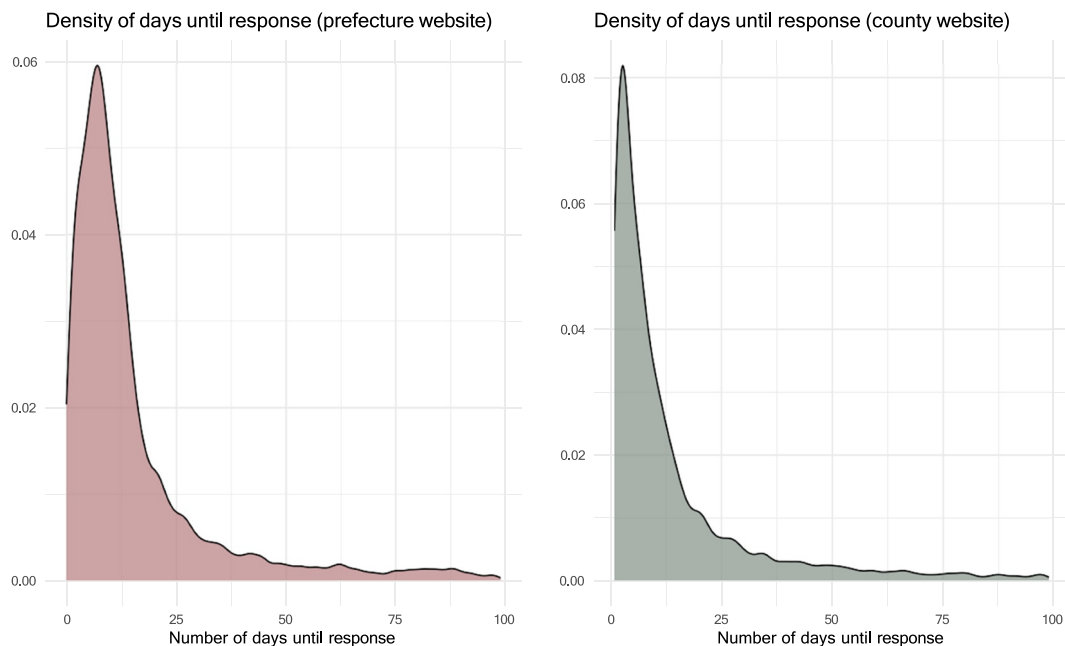
### 4.1 | Response Time

Hypothesis 1 states that county governments will respond more quickly to citizen complaints posted on the prefecture website than the ones posted on their own county website. To test this hypothesis, I compared how many days county governments took to respond to complaints on the prefecture website with how many days they took to respond to complaints on their own website.

The unit of observation is a complaint-response pair directed to county governments, both from the prefecture website and the county government's own website. The variable of interest is the *prefecture source* variable, an indicator of whether the complaint originated from the prefecture website or the county's website. The dependent variable is *days until response* or how long it took the county government to respond to the



**FIGURE 5** | Complaints on Chenzhou website by responding government. The data was collected from October 2007 to April 2017. Thus, there are much fewer complaints in 2007 and 2017 in the data. The plot shows the number of complaints from 2008 to 2016, the complete years for which we have complaint data.



**FIGURE 6** | Density of days until response. The plots cut off at 100 days for readability purposes. This represents 95% of the data.

citizen complaint. If Hypothesis 1 is correct, I would expect the coefficient on *prefecture source* to be negative: county governments respond more quickly to complaints posted on the prefecture website.

An important source of variation in response times may be complaint topic. Some complaints may be easier to answer than others, or local officials may be more motivated to answer complaints on certain topics. If citizens post relatively easy-to-solve

**TABLE 1** | Summary statistics of dependent variables.

Variable	Mean	SD	Min	Max
Chenzhou website				
Days until response	30.73	95.27	0.00	2276.00
Number of characters	259.85	342.51	0.00	4939.00
Number of words	187.70	241.36	1.00	3515.00
County websites				
Days until response	29.19	87.10	0.00	1621.00
Number of characters	220.28	317.84	0.00	14,367.00
Number of words	158.57	226.54	0.00	9101.00

complaints on prefecture websites but post more difficult complaints on county websites, this may be related to the time it takes county governments to respond. Thus, county governments may respond more quickly to prefecture website complaints not because of the prefecture website's monitoring function, but because the complaints from prefecture websites are easier to respond to. The sheer volume of complaints in the data – more than 20,000 posts and replies over a time span of 10 years – makes it difficult to read and code each individual complaint. Thus, I use unsupervised topic modeling, specifically structural topic modeling (STM), to discover the topics of the texts.<sup>5</sup> Similar to other topic models like latent dirichlet allocation models, STM assumes that each document contains a mixture of topics, where each word in the document has a probability of belonging to a topic. This is a multi-membership model, denoting that documents do not belong to a single topic but are composed of multiple topics. Topic proportions across topics within a single document sums to one. The STM, unlike the LDA, allows metadata of the document (such as when it was written, the author, etc.) to predict the topics within the document.

A 15-topic model was chosen to represent the topics of the citizen complaints from both the Chenzhou prefecture website and the county websites, using the date it was written, whether it was sent to county governments, response type, and date it was answered as document-level covariates.<sup>6</sup> The STM model produces a vector of *topic proportions* for each document ( $\theta_d$  where  $d$  denotes a particular document) that expresses the proportion of the document that belongs to each topic. For example,  $\theta_{p1}$  would represent the proportion of document  $p$  that is devoted to topic 1. To assign each complaint to a topic, I chose the topic with the highest proportion. In other words, a complaint (or document) would be labeled an *education* complaint if the *education* topic had the highest proportion in that complaint. More detailed information about the STM models and the complaint topics can be found in Supporting Information S1: Appendix A.

I run an OLS model with *From Prefecture* as the main independent variable and days until response as the dependent variable. Table 2 displays the main results comparing response times of complaints from the prefecture website to complaints from the county websites. The coefficient on *From Prefecture* is negative and statistically significant. County governments, on average, respond more quickly to complaints posted on the prefecture website by about 9 days (Model 1). With the addition of year and county-fixed effects, the coefficient increases to 26 days and

**TABLE 2** | Response times on county websites versus prefecture website (OLS models).

	Days until response			
	Model 1	Model 2	Model 3	Model 4
From prefecture	-8.931*** (1.074)	-14.281*** (1.240)	-26.519*** (1.850)	-27.060*** (1.819)
Constant	29.046*** (0.835)	50.385*** (3.427)	47.571*** (4.884)	49.521*** (5.499)
Year FE	No	Yes	Yes	Yes
County FE	No	No	Yes	Yes
Topic controls	No	No	No	Yes
N	14,461	14,461	14,461	14,461

\* $p < 0.1$ .  
 \*\* $p < 0.05$ .  
 \*\*\* $p < 0.01$ .

remains significant (Model 3). Finally, Model 4 controls for complaint topic and the coefficient increases to 27 days and remains significant. Substantively speaking, this means that a county government responds to a complaint posted on the prefecture website 27 days earlier than it would a similar topic complaint posted on its own county government website. This is a considerably large effect, given that the mean number of days until response is 30 days. This result is robust to other model specifications, including survival analysis and models of count data (see Supporting Information S1: Appendix C and Appendix D).

The finding that county governments respond more quickly to citizen complaints on prefecture websites is indicative of the idea that lower level government responsiveness can be motivated by top-down pressures. If government responsiveness was driven solely by citizen pressures, we would expect county governments to be more responsive on their own websites, since this is a more direct line of communication to the citizens closest to them. These citizens would presumably be the ones to organize protests directed at county leaders. If county government responsiveness is driven by the desire for information, we would also expect county governments to be more responsive on their own websites. Presumably, the county governments wish to know about events happening in their *own jurisdiction*. In order to encourage citizens to report local information, county leaders would want to be responsive on their own websites because citizens on these websites are reporting their opinions about events happening directly in that county. Though county leaders may respond to citizen complaints to collect information or diffuse collective action, the evidence suggests that pressure from higher-level officials can also drive response rates.

#### 4.2 | Response Length

Even if county governments respond more quickly to complaints originating from the prefecture website, does this

indicate greater *responsiveness*? If a county government responds quickly but the response is incomplete or low quality, this would not indicate true responsiveness to citizen concerns. One proxy for response quality is response length – a longer response is more likely to contain a complete or thoughtful response.

If we believe that monitoring from upper level officials motivates county government leaders to be more responsive to citizen complaints, we would expect county governments to write longer responses to complaints posted on the prefecture website as compared to their own county website. Indeed, that is what we find. The coefficient on *From Prefecture* is positive and statistically significant. County governments, on average, respond with longer responses to complaints posted on the prefecture website by about 142 characters (Model 1 of Table 3). In the most robust model (with year, county, and complaint topic fixed effects), the coefficient is around 126 characters. Substantively speaking, this means that a county government responds to a complaint posted on the prefecture website with a response that is 126 characters longer than a response to a similar topic complaint posted on its own county government website. This is a substantively large effect, given that the mean number of characters is around 240 characters.

The results are similar when the dependent variable is measured as number of words, rather than characters.<sup>7</sup> The coefficient on *From Prefecture* is also positive and statistically significant. In the most robust model, county governments write responses that are 88 words longer on the prefecture website as compared to their own website. This is also a meaningful effect, given that the mean number of words is 173 words.

These analyses reveal that county governments not only respond more quickly to complaints posted on prefecture websites, they also write longer responses. The difference in response time, then, is not a function of writing shorter, low-quality responses. Rather, county governments respond more quickly to complaints on prefecture websites with longer, higher-quality responses.

## 5 | Comparing County Governments and Prefecture Agencies

### 5.1 | Response Time

Hypothesis 3 states that county governments will respond more quickly to citizen complaints compared to prefecture agencies on the prefecture website. This is because the prefecture website represents a *monitored* space for county government but a *non-monitored* space for prefecture-level agencies. To test Hypothesis 3, I examined whether county governments differed significantly from prefecture agencies in the time they took to respond, using only data from the prefecture website. Here the comparison is between county governments and prefecture-level agencies on the same website. The dependent variable is the number of days it takes for a government agency to respond. The independent variable of interest is *county government*, a dichotomous variable that equals one if the responding agency is a county or district government and 0 if it is not.

Table 4 presents the results. County governments answer citizen complaints around 21 days faster than prefecture agencies (Model 3). This difference is statistically significant, even when

**TABLE 4** | Responsive times: County governments versus prefecture agencies (OLS models).

	Days until response		
	Model 1	Model 2	Model 3
County government	-16.022*** (1.487)	-17.781*** (1.503)	-20.683*** (1.743)
Constant	36.137*** (1.324)	36.439*** (4.231)	53.547*** (7.506)
Year FE	No	Yes	Yes
Topic controls	No	No	Yes
N	11,028	11,028	11,028

\**p* < 0.1.  
\*\**p* < 0.05.  
\*\*\**p* < 0.01.

**TABLE 3** | Response length on county websites versus prefecture website (OLS models).

	Dependent variable							
	Number of characters (models 1-4)				Number of words (models 5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
From prefecture	142.104*** (7.849)	153.212*** (8.209)	143.153*** (8.070)	126.047*** (7.824)	101.038*** (5.516)	109.217*** (5.760)	100.142*** (5.644)	88.125*** (5.480)
Constant	219.834*** (3.083)	173.263*** (8.018)	90.339*** (16.735)	275.291*** (31.576)	158.324*** (2.198)	122.969*** (5.619)	62.949*** (11.658)	194.200*** (22.147)
Year FE	No	Yes	Yes	Yes	No	Yes	Yes	Yes
County FE	No	No	Yes	Yes	No	No	Yes	Yes
Topic controls	No	No	No	Yes	No	No	No	Yes
Observations	14,461	14,461	14,461	14,461	14,461	14,461	14,461	14,461

\**p* < 0.1.  
\*\**p* < 0.05.  
\*\*\**p* < 0.01.

accounting for complaint topic, year, and county-fixed effects. The results remain unchanged with different model specifications (for details, see Supporting Information S1: Appendix C and Appendix D). The evidence suggests that there is a substantial and statistically significant difference between county governments and prefecture-level government agencies in the time it takes for them to respond to citizen complaints. A county government takes 21 days faster to respond to a citizen complaint than a prefecture-level agency. Considering that it takes 31 days, on average, to receive a response, the wait time for a government response is more than halved if the complaint is assigned to a county government from the prefecture website.

An alternative explanation of these findings may be that the bureaucratic process of addressing complaints favors county governments on prefecture websites. However, the actual process by which these complaints are answered supports the hypotheses of this paper. K. Chen and Jee (2025) leverages a dataset of leaked internal emails that detail the bureaucratic procedures for answering a citizen complaint. Once a citizen lodges an online complaint at the prefecture level, the organization in charge of citizen complaints at the prefecture level reviews the complaint and then sends it to the relevant prefecture government agency or county government. The county government then forwards the citizen complaint to the relevant county-level bureau (education, environment, social services, family planning, etc.). This bureau then investigates the complaint and forms an official response. This response is sent to the county-level government, which then forwards it to the prefecture-level agency in charge of citizen complaints, which finally publishes the response online. In contrast, complaints sent to the prefecture-level government agencies simply have to be forwarded to the prefecture agency in charge of answering citizen complaints before an official response is published. Complaints sent to county government from the prefecture website, then, face an additional bureaucratic step in formulating an answer to a citizen complaint sent from the prefecture government. Similarly, complaints sent directly to the county government website only have to be forwarded from the county

agency in charge of citizen complaints to the relevant county agency. This agency then investigates the complaint, forms a response, and sends it to the county agency in charge of citizen complaints to be published. Again, complaints sent directly to the county government website and complaints distributed to prefecture-level agencies from the prefecture website have one less bureaucratic hoop (compared to complaints sent to county governments from the prefecture website) before a response is posted onto the relevant website.

Thus, if county level governments were not prioritizing complaints from the prefecture-level website, we would expect county governments to be *slower* in their responses compared to prefecture-level agencies *and* slower in their responses on prefecture-level websites compared to their own, simply by the bureaucratic procedure in which complaints are answered. I find the opposite results.

## 5.2 | Response Length

Though the prefecture website is a monitored space for county governments, it may represent a non-monitored space for prefecture-level agencies. Using data from the prefecture website, we can also compare the length of responses written by prefecture-level agencies and county governments. The independent variable of interest is *County government*, indicating whether the responding agency is a county government or if it is a prefecture-level agency.

Table 5 presents the results. County governments write responses around 134 characters longer than those written by prefecture-level agencies (Model 3). This difference is statistically significant, even when accounting for year and topic fixed effects. It is also a substantively important effect, as the mean number of characters is 260. Similarly, county governments write responses that are 94 words longer than those written by prefecture-level agencies (Model 6). Again, this difference is statistically significant as well as substantively significant. In other words, county governments write responses that are more than

**TABLE 5** | Response length from county governments versus prefecture agencies (OLS models).

	Dependent variable					
	Number of characters models 1–3			Number of words models 4–6		
	(1)	(2)	(3)	(4)	(5)	(6)
County government	152.134*** (7.845)	150.593*** (7.820)	133.839*** (7.761)	106.773*** (5.510)	106.944*** (5.509)	94.512*** (5.453)
Constant	209.804*** (3.071)	190.164*** (11.981)	353.349*** (35.940)	152.588*** (2.182)	141.567*** (8.654)	257.935*** (25.398)
Year FE	No	Yes	Yes	No	Yes	Yes
Topic controls	No	No	Yes	No	No	Yes
Observations	11,028	11,028	11,028	11,028	11,028	11,028

\* $p < 0.1$ .  
\*\* $p < 0.05$ .  
\*\*\* $p < 0.01$ .

twice as long as those written by prefecture-level agencies, whether measured as number of characters or number of words.

## 6 | Response Content

### 6.1 | Semantic Response Quality: Are Longer Responses Also Better?

The previous results examined responsiveness through the time until response and length of replies, showing that county officials respond more quickly and write longer responses to complaints from the prefecture website compared to their own. Length, however, is an imperfect measure of quality. An official could produce a lengthy but uninformative reply that merely repeats formalities or redirects. To address this concern, I also create a measure of the *semantic content* of replies. Due to the sheer number of observations, it would be prohibitively difficult to code government responses by hand within a reasonable time frame. Instead, I take advantage of new language processing methods, harnessing large language models (LLMs) to classify large amounts of text.

I apply a novel, two-stage, fully automated text classification procedure. This approach builds on previous work on classifying government responses to citizen complaints. I follow J. Chen et al. (2016) (henceforth CPX), who codes government responses to citizen complaints into three categories: *Deferral*, *Referral*, and *Direct Information*. *Direct Information* provides facts, explanations, or solutions; *Referral* forwards or redirects the issue to another agency, and *Deferrals* acknowledge receipt or promise future action without substantive resolution.

Rather than rely on manual coding, which is costly and limits scalability, I employ state-of-the-art multilingual natural language inference (NLI) models to classify responses in a zero-shot setting. Specifically, I use three widely adopted, open-weight models: xlm-roberta-large-xnli (Connneau et al., 2020), facebook/bart-large-mnli (Lewis et al. 2020), and microsoft/deberta-v3-large-mnli (He et al. 2020). Each model returns a set of probabilities, between 0 and 1, indicating how likely it is that the response provides direct information, a referral, or a

deferral. I take the simple average across models to form an ensemble measure for each label. Because all three models are trained on large-scale entailment datasets, this approach captures general semantic cues of responsiveness while minimizing reliance on any single model's idiosyncrasies.<sup>8</sup> Responses are then classified into one of the three categories.

For each response  $i$ , let  $\hat{P}_{i\ell}$  denote the predicted probability that the response belongs to label  $\ell \in \{\text{DirectInfo, Referral, Deferral}\}$ . The ensemble probability for each response and label is defined as:

$$\hat{P}_{i\ell} = \frac{1}{3} \sum_{m \in \{\text{BART, XLM-R, DeBERTa}\}} \Pr(\text{label} = \ell | \text{response}_i; m)$$

I then estimate an OLS model for each label (direct information, referral, or deferral), where the main independent variable is *PrefectureSite*, equal to one if the complaint was posted on the prefecture website and 0 if posted on county websites. The model includes county fixed effects, year fixed effects, and topic fixed effects, comparing responses within the same county, year, and issue type. Standard errors are heteroskedasticity-robust (HC1).

Table 6 reports the results. The coefficients on the prefecture website indicator are small but statistically significant. On average, responses to complaints posted on the prefecture website are 0.4 percentage points more likely to contain direct informational content, 0.9 percentage points less likely to issue a referral, and 0.5 percentage points more likely to include a deferral. When county officials are monitored, they are more likely to provide information and less likely to issue a referral. Though the magnitudes are modest, they are consistent with the pattern observed with days until response and response length.

Why might county governments be less likely to issue a referral? One explanation may be that complaints from prefecture websites passed down to county governments have already been delegated or referred down. County governments may then be less willing to write a referral *back* to the prefecture

**TABLE 6** | Semantic response quality on county versus prefecture websites (ensemble of NLI classifiers).

	Dependent variable: Predicted probability of response type		
	Direct information	Referral	Deferral
Prefecture website (=1)	0.004** (0.001)	-0.009*** (0.002)	0.005*** (0.001)
County fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Topic fixed effects	Yes	Yes	Yes
Observations	21,689	21,689	21,689
R <sup>2</sup>	0.035	0.043	0.025

Note: OLS estimates with heteroskedasticity-robust (HC1) standard errors in parentheses. Dependent variables are ensemble probabilities for each response type, averaged across BART-MNLI, XLM-R-XNLI, and DeBERTa-MNLI. Coefficients represent within-county, within-topic, within-year differences between responses to complaints on prefecture versus county websites.

\* $p < 0.1$ .

\*\* $p < 0.05$ .

\*\*\* $p < 0.01$ .

government. However, in responding to citizen complaints from their own websites, county governments may be more willing to write referrals to deflect responsibility to a higher-level government, particularly because their own government websites are less likely to be monitored by prefecture agencies. Overall, these findings corroborate that county officials are more likely to be responsive when monitored – by responding more quickly to a citizen complaint, responding with longer replies, and providing direct information rather than referring.

## 6.2 | Beyond Content: Tone and Communicative Stance

The preceding analysis focuses on the *content* of replies—whether officials provide information, refer responsibility, or defer action. However, responsiveness also has a *communicative* dimension.

Officials may signal attentiveness, commitment, or dismissal through the tone of their language even when the substantive content is similar.

To examine this behavioral nuance, I extend the same NLI-based framework to classify the *stance* of each response, distinguishing between four categories based on previous work (Wang and Han 2023): (1) *dismissal*, in which officials deny responsibility or minimize the issue; (2) *inquiry*, which seeks clarification or additional formation from the citizen; (3) *promise*, which expresses an intention to act; and (4) *solution*, which reports that the problem has been or will be resolved. These categories capture the tone of the government response—an aspect of responsiveness related but distinct from content that is also important for citizen perception.

Using the same ensemble of NLI models, I compute the probability of each stance label for every response. I then estimate an OLS model that has *Prefecture Site* as the main independent variable and includes county, year, and topic fixed effects. As shown in Table 7, county officials are substantially less likely to use dismissive or inquiry stances when answering complaints from the prefecture website ( $\beta = -0.009$  and  $-0.013$ ,  $p < 0.01$ ) and more likely to adopt promise or solution stances ( $\beta = 0.005$  and  $0.016$ ,  $p < 0.05$ ). These results suggest that county officials

are more likely to use a constructive and solution-oriented *tone* when responding on a monitored forum. Again, these results represent another dimension of responsiveness and echoes earlier findings: county officials behave differently on monitored versus unmonitored forums.

## 6.3 | Quantifying and Interpreting Topic Contentiousness

Does the impact of monitoring on county officials' behavior vary by topic? Some complaint topics could be more contentious or politically sensitive than others. Corruption, land disputes, and unpaid wages are widely regarded as sensitive issues that could trigger protests, while others, such as property management or utility fees, typically generate routine questions without true danger of protests. How might the latent threat of collective action or public anger affect the relationship between vertical monitoring and responsiveness?

To explore this question, I construct a quantitative measure of *contentiousness* from the text of the complaints rather than depending on predetermined topic labels. The measure builds upon J. Chen et al. (2016), who experimentally demonstrate that threats of collective action induce greater responsiveness. I use their experimental treatments as “anchors” to locate complaints within a continuous space of (low to high) collective-action threat. Each complaint is embedded using a multi-lingual sentence-transformer model and projected onto an axis defined by the difference between a neutral control letter requesting welfare assistance and an otherwise identical letter that introduces a phrase implying collective action (“*People around me are in the same situation, and we will figure out what we can do together.*”). Higher scores indicate closer alignment with collective-action language.

I then average these projection scores within topics estimated by the structural topic model to obtain an interpretable topic-level measure. The dispersion across topics is sizable: a one-way ANOVA attributes 28.7% of total variance in document-level contentiousness to between-topic differences ( $\eta^2 = 0.287$ ,  $p < 0.001$ ) – some topics score very highly on this contentious measure and others do not. Figure 7 displays the resulting

TABLE 7 | Communicative stance of county responses on county versus prefecture websites (ensemble of NLI classifiers).

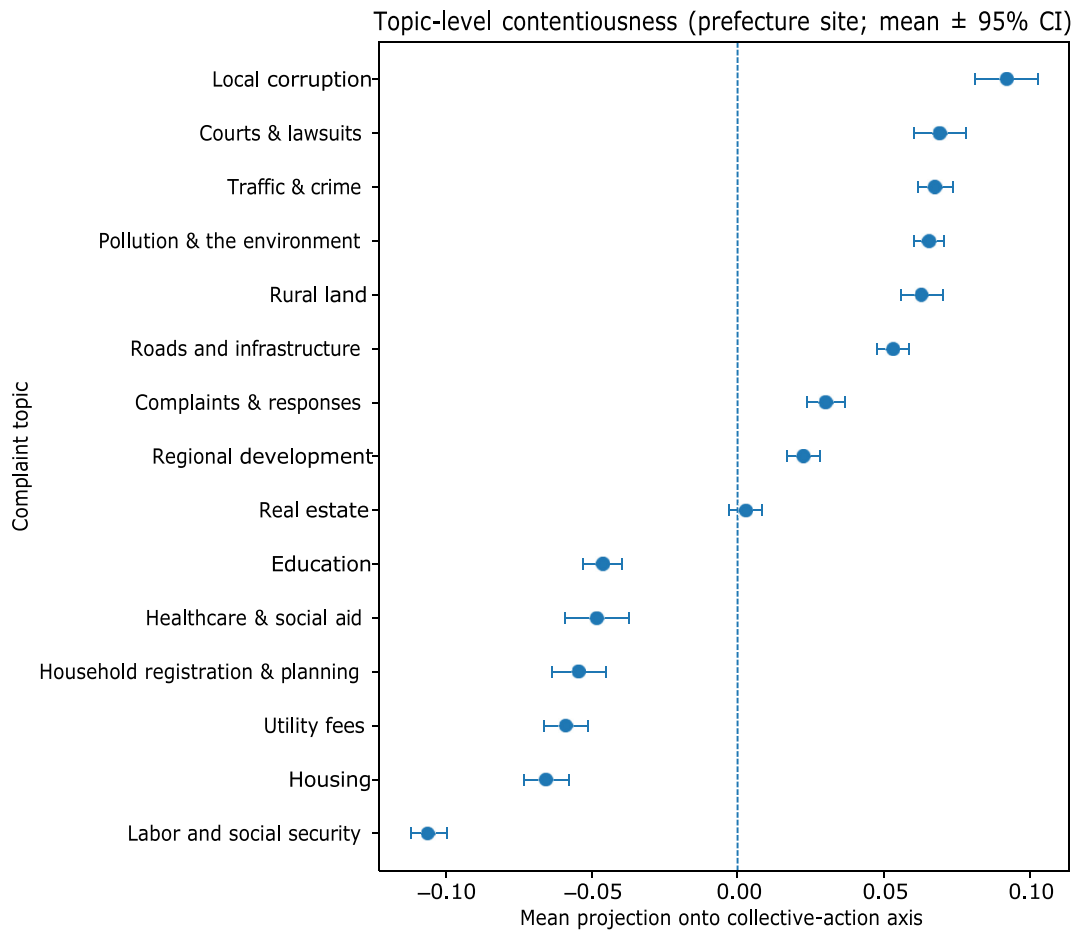
	Dismissal	Inquiry	Promise	Solution
Prefecture website (=1)	-0.009*** (0.001)	-0.013*** (0.001)	0.005** (0.002)	0.016*** (0.002)
County fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Topic fixed effects	Yes	Yes	Yes	Yes
Observations	21,689	21,689	21,689	21,689
R <sup>2</sup>	0.020	0.056	0.048	0.031

Note: OLS estimates with heteroskedasticity-robust (HC1) standard errors in parentheses. Dependent variables are ensemble probabilities for each stance label, averaged across BART-MNLI, XLM-R-XNLI, and DeBERTa-MNLI. Coefficients represent within-county, within-topic, within-year differences between responses to complaints on prefecture versus county websites.

\* $p < 0.1$ .

\*\* $p < 0.05$ .

\*\*\* $p < 0.01$ .



**FIGURE 7** | Mean contentiousness by topic with 95% CI. Higher values indicate closer resemblance to collection action language.

means with 95% confidence intervals. Topics commonly associated with collective action language (e.g., corruption, land, unpaid wages) sit at the upper end of the scale, whereas administrative or service issues cluster near zero.

**Does contentiousness explain topic-level variation?** Averaging these projections within each topic estimated by the structural topic model provides an interpretable topic-level score. Table 8 shows that topics account for roughly 29% of total variance in these projections ( $\eta^2 = 0.287$ ,  $p < 0.001$ ), indicating systematic differences in how issue areas align with collective-action language.

I estimate topic-specific monitoring effects by interacting the *county gov* indicator with topic dummies in a model with year fixed effects (dependent variable: days until response). County governments answer complaints faster than prefecture agencies across the board, but the *magnitude* of this effect is markedly larger for a subset of topics. To link these effects to the text-based contentious measure, Table 9 reports, for each topic, both its mean contentiousness and its topic-specific monitoring effect from the interaction model. Figure 8 plots the estimated prefecture-county gap in the number of days until response for each topic with robust 95% confidence intervals.

Monitoring makes county officials faster *on average* compared to prefecture officials, and it matters most for politically

**TABLE 8** | Variation in contentiousness across topics.

Source	Sum Sq.	df	F-statistic
Topic	74.95	14	606.6***
Residual	186.36	21,115	
$\eta^2$ (topic share of variance)		0.287	

Note: Document-level projection onto the collective-action axis. \*\*\* $p < 0.01$ .

sensitive, collective action-prone issue areas. These topics include local corruption, courts and lawsuits, crime, pollution, and rural land issues. The text-based measure validates that such contentious topics are semantically distinct from non-contentious topics and can be identified from complaint language. For complaints that concern politically sensitive topics and contain collective action language, monitoring has a more intense impact on responsiveness.

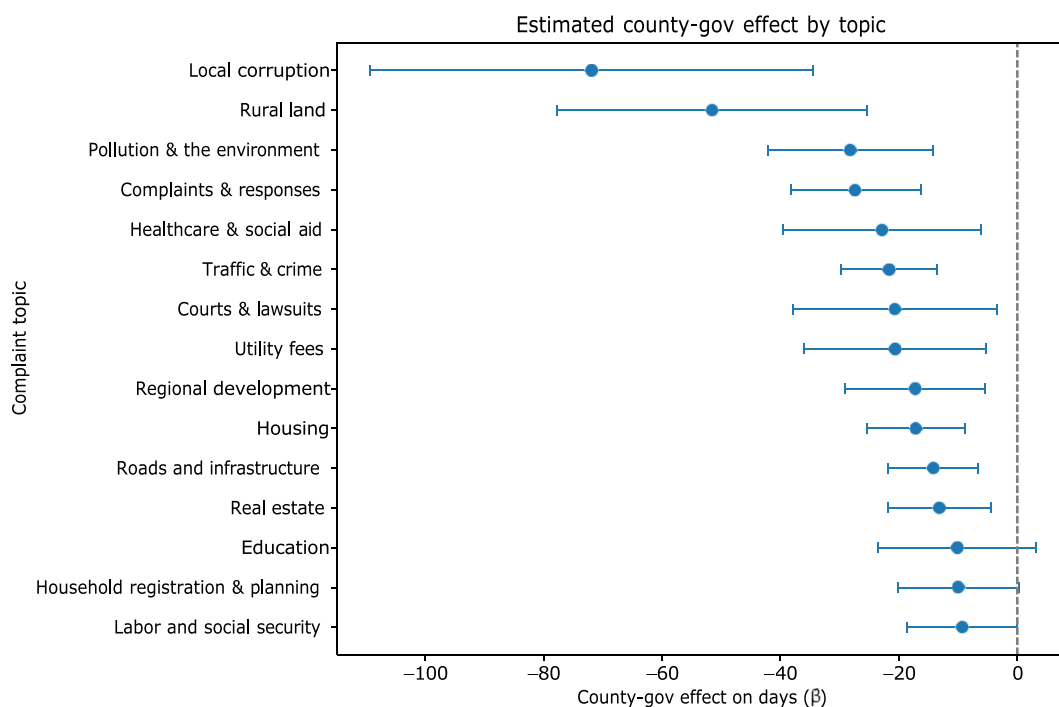
## 7 | Discussion

This paper provides evidence that county governments are much more responsive to citizen complaints when they face monitoring from their superiors. This was demonstrated by comparing the time it took county governments to respond to complaints posted on the prefecture website, a monitored space for county officials,

**TABLE 9** | Contentiousness and county-government effect by topic.

Complaint topic	Contentiousness	County effect ( $\beta$ )	SE	n
Local corruption	0.091	-69.421	18.801	317
Courts & lawsuits	0.069	-20.285	8.754	448
Household reg. & planning	-0.053	-9.579	5.045	470
Healthcare & social aid	-0.050	-22.171	8.415	400
Pollution & the environment	0.065	-27.574	7.040	912
Complaints & responses	0.029	-24.873	5.420	1101
Traffic & crime	0.067	-20.931	4.176	861
Utility fees	-0.059	-20.419	7.718	659
Rural land	0.062	-46.917	12.443	697
Real estate	0.003	-12.542	4.311	1007
Roads and infrastructure	0.054	-14.112	3.811	645
Labor and social security	-0.106	-8.159	4.513	974
Regional development	0.022	-16.653	5.913	912
Education	-0.046	-10.086	6.686	834
Housing	-0.066	-16.743	4.179	791

Note: Contentiousness is the topic average of the document-level projection. County effect is the estimated coefficient on *County government* (vs. prefecture agency) for that topic, with year FE.



**FIGURE 8** | Estimated monitoring effect (prefecture-county response gap in days) by topic with robust 95% CIs. Negative values indicate faster responses from the county officials than from prefecture agencies.

with the time it took for them to respond to complaints from their own website, an unmonitored space. This was also evident when comparing the response times of county governments with those of prefecture-level agencies, who arguably do not face monitoring pressure on their own website. The relationship between response time and monitoring holds even when controlling for complaint topic, county, and year. In addition, the effect sizes are substantial; depending on the specification, county governments

respond 9–27 days more quickly when a complaint is posted on the prefecture website compared to their own. They respond 16–21 days faster compared to prefecture agencies on the prefecture website. For citizens who use complaint forums, these are considerable differences in wait time.

County governments also write longer and more responsive replies to complaints posted on the prefecture website versus

their own. Replies from county governments are 126–142 characters and 88–101 words longer when a citizen posts a complaint on the prefecture website instead of the county government’s own website. And compared to prefecture agencies, county governments write responses that are 134–152 characters and 94–107 words longer. Finally, there is some evidence that county governments are more responsive in content and stance on monitored forums. They are more likely to provide direct information and less likely to issue a referral. They are also more positive in tone when answering complaints on monitored forums—they are less dismissive and more likely to emphasize promises or solutions.

## 7.1 | Limits and Scope Conditions

The findings of this paper are derived from government websites, where monitoring is most likely to take place. There do exist other online complaint portals, such as social media websites and applications (e.g., Weibo, WeChat). Previous work points out that censorship on these platforms is often delegated to individual social media companies (MacKinnon 2008, 2009; Pan and Chen 2018; Wang and Han 2023; Han 2018). Though local governments can forge close relations with social media firms and cooperate on censorship, they do not exercise the level of control over these platforms as they do on their own government websites. Social media websites could be considered a monitored space by county governments because they do not have total control over the content of these sites and prefecture government officials can, in theory, view citizen complaints on these websites. However, social media websites represent a less monitored space than the prefecture website. Pan and Chen (2018) finds that county governments conceal corruption in their internal reporting to prefecture officials, even though the original allegation of corruption can still be accessed on social media websites. This finding suggests that county officials are aware that prefecture officials are able to access citizens’ social media posts, but they believe it is unlikely that prefecture officials would expend resources and time to closely monitor the social media websites. Thus, county governments may prioritize responding to complaints directly delegated to them by the prefecture rather than complaints that have been posted on social media websites, which the prefecture government certainly could access but may not monitor as closely.

This paper considers vertical monitoring between prefecture and county governments. What about horizontal monitoring that could occur between the prefecture government and its bureaus? It may be the case that the prefecture government also monitors the activity of its bureaus (for example, the Education Bureau or the Civil Affairs Bureau). If the prefecture website represents an equally monitored space for prefecture agencies, we might expect that they would respond more quickly compared to the prefecture government office. I compare the response times of prefecture agencies and the general prefecture government office in answering complaints on the prefecture website. A simple Welch Two Sample *t*-test reveals that, in fact, the prefecture government office responds more quickly to complaints than prefecture bureaus. The mean number of days

until response for the prefecture government office was 14 days while the mean number of days until response for prefecture bureaus was 31 days. This difference was statistically significant ( $p < 0.05$ ). Though this does not mean horizontal monitoring does not occur,<sup>9</sup> it does suggest that prefecture agencies do not seem to feel pressure to respond more quickly than the prefecture government office.

This paper examines monitoring between a prefecture government and its subordinate counties and districts. However, the proposed theory of monitoring could apply to other inter-governmental relationships, such as between the provincial and prefecture governments. Principal-agent problems and fragmented authoritarianism characterize governance throughout China, though there certainly exists variation in the severity of fragmentation. Future studies should examine whether there exist variation in monitoring between different inter-government relations (i.e., provincial-prefecture; prefecture-county) and whether this variation explains patterns of government responsiveness on different government portals.

How would these results differ if censored posts had been included? First, county officials do not have control over the content of prefecture websites. Prefecture level officials would want to observe accusations of corruption or wrongdoing toward county level officials to better monitor their subordinates – thus, we might expect that the complaints we do not observe would be (1) complaints that reflect badly on prefecture officials on the prefecture website and (2) complaints that reflect badly on county officials on the county website. Would prefecture agencies have responded more quickly to these complaints had they not been censored? On the one hand, prefecture officials may want to respond to these complaints quickly to diffuse any threat of collective action or public anger. On the other hand, these types of complaints may be more difficult to resolve and thus require more time to address. It is difficult to say which logic would dominate. Regardless, the prefecture agencies do not have the *added* pressure of vertical monitoring on their website and so may respond slower than county officials who face this additional pressure when addressing similar types of complaints on the prefecture website. How might the empirical results differ if the data set included censored complaints on county websites? In this case, county officials could respond more quickly to diffuse public anger and including these observations could attenuate the results. On the other hand, county officials could also take longer to respond if the complaints are difficult to resolve and address.

One major limitation of this data is that it ends in 2017, prompting concerns that these findings are limited to the pre-Xi or the early-Xi era. Government responsiveness might be considered less important in the second Xi era. The proliferation of government websites, open governance initiatives, and responsiveness to citizen complaints and online opinion are trends more closely associated with Hu Jintao’s reign. However, in 2019, online governance formally became a part of local officials’ performance evaluations. Hence, we might observe even more attention paid to timely government responsiveness in the Xi era - in any case, government responsiveness and vertical monitoring remain priorities for the Party-state. An article on the CPC News website called for more monitoring of how local

cadres respond to citizens online. In 2021, the People's Daily also criticized local authorities for their subpar responsiveness to citizen complaints and not addressing public concerns adequately, with consequences for the regime's legitimacy.<sup>10</sup> These examples reveal that even in the Xi era, public responsiveness and especially monitoring and supervision of local officials' responsiveness are relevant for Party and government officials. Studies using more updated data from government portals confirm that local incentives and bureaucratic characteristics are important factors in shaping government responsiveness. This paper adds to this body of work by revealing how the presence of monitoring can enhance government responsiveness to the public.

## 7.2 | Contributions

While much of the literature on government responsiveness in China focuses on bottom-up pressures or information gathering as motivating government responsiveness, the evidence in this paper suggests that top-down monitoring remains a significant driver of local government responsiveness. If local officials responded to citizen complaints to collect information from citizens, they would be more likely to respond quickly to complaints on their own government websites. These complaints would likely be targeted to specific concerns or problems that occur directly within their jurisdiction and would provide the most relevant information to county officials. Thus, they would be motivated to answer citizen complaints on their own websites efficiently to increase citizens' expectations of receiving a response and spur further citizen reporting of local conditions. However, the data from this study suggest the opposite: county governments respond more quickly to complaints posted on the prefecture-level website.

This paper also makes a contribution to the wider literature on authoritarian institutions. Petition or complaint institutions have featured in other autocracies around the world in the past and present (Lueders 2022; Walter 2018; Dimitrov 2014a, 2014b; Chapman 2024; Rhodes-Purdy 2017). These institutions play a vital role in managing public opinion in authoritarian regimes (Dimitrov 2014b; Distelhorst and Hou 2017) and increasing public support for the regime (Chapman 2021; Truex 2017). Scholars have asked whether these institutions truly answer and resolve public grievances (Lueders 2022) and what motivates government responsiveness to citizen petitions (J. Chen et al. 2016; Su and Meng 2016), mainly by focusing on the political motivations of the central autocrat or regime. This paper examines how local officials manage and implement the petition institutions that central authorities mandate. Though the central autocrat may have incentives to create citizen input institutions for information-gathering purposes to better manage public opinion (Dimitrov and Sassoon 2014; Distelhorst and Hou 2017), one implication of this paper's findings is that these institutions are effective when there is monitoring by upper-level officials. Citizen complaints on unmonitored forums receive much less attention, suggesting that citizen complaints in and of themselves do not have much leverage over local officials' actions. This points to important limitations of

institutions designed to increase transparency and accountability in authoritarian regimes.

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### Conflicts of Interest

The author declares no conflicts of interest.

### Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

### Endnotes

- <sup>1</sup> 中华人民共和国政府信息公开条例 in Chinese.
- <sup>2</sup> 州市人民政府办公室. (2018). 郴州市2018年政务公开工作要点 (郴政办函〔2018〕98号) [Official circular]. 郴州市人民政府办公室. Retrieved October 2, 2025, from <https://www.czs.gov.cn>.
- <sup>3</sup> See Supporting Information S1: Appendix B for more details regarding Chenzhou prefecture leaders.
- <sup>4</sup> A longer treatment of these methods is offered in Section 6.1 and Section 6.2.
- <sup>5</sup> Like other topic models, the STM is a generative model of word counts. There is a data-generating process for each document and the word counts of the documents are used to find the most likely values for the parameters within the model. A more extensive technical treatment is available in Roberts et al. (2019).
- <sup>6</sup> 7-topic models, 10-topic models, and 20-topic models were attempted before deciding that the 15-topic model created the most substantively comprehensive categories.
- <sup>7</sup> In Chinese, the number of characters does not equal the number of words. Words can consist of one or more characters.
- <sup>8</sup> The stored variables are per-label probabilities, not logits. I average the three probabilities to form ensemble scores for each label. Results are nearly identical if I standardize each model's probabilities before averaging, and no additional calibration or temperature scaling is applied.
- <sup>9</sup> Monitoring may be happening offline through other modes of communication between the prefecture government and its bureaus.
- <sup>10</sup> Cao, R. 2018. "Gongkai Wenzheng 'Liaoxiao' Dang Shengyu 'Liaoxiao.'" [Open Governance Shall Prioritize Effectiveness over Lip Services], *People's Daily Online*, June 25, 2018, <http://theorypeople.com.cn/n1/2018/0625/c40531?;30084322.html>.

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### Supporting Information

Additional supporting information can be found online in the Supporting Information section.

**Supporting Information S1:** gove70114-sup-0001-suppl-data.pdf.