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The Policy-Opinion Nexus: The Impact of Social Protection Programs on Welfare Policy Preferences in China

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Abstract

This study investigates the policy-opinion nexus in China. Using nationally representative survey data and propensity score matching, it examines the effect of policy on opinions in four welfare domains: pension, educational subsidies, health care, and minimum livelihood assistance. Our findings show that individuals' experience with welfare policy tends to reinforce the idea that the government should take responsibility for welfare, and this experience also influences their opinions about other welfare programs. This paper contributes to the literature by using a novel methodological approach and using a new dependent variable concerning individuals' feeling of entitlement for social welfare. The results show strong evidence of the contingent nature of policy feedback process, and show how interpretive effects operate through spillover feedback effects.

One of the central beliefs that undergirds participatory politics is the existence of an institutionalized, reciprocal relationship between public opinion and public policy. To study this relationship, a number of past studies have investigated the causal status of public opinion in enacting social policy changes and the effects of public policies on public opinion. Although studies on the effects of policies on mass opinion have made significant progress in recent years, understanding of the dynamics and mechanisms of the

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policy-opinion nexus, or policy feedback, is underdeveloped when compared with the abundant empirical studies on the opinion-policy nexus (Brooks & Manza, 2006; Burnstein, 1999; Soroka & Wlezien, 2010a). Deeper knowledge about how public policy affects and creates public opinion is crucial to understanding how representative democracy works and how the opinion-policy relationship constitutes a vital dynamic of participatory politics (Mettler & Soss, 2004).

This study considers this question of the policy-opinion nexus through a case study of contemporary Chinese welfare policy. Since the accession of Hu Jintao and Wen Jiabao to political leadership in 2003, the Chinese Government has expanded the scope of social provisions for its citizens. These initiatives have aimed to counter the negative outcomes of ever-rising economic inequality and provide a social safety net for those exposed to economic insecurity after the dismantling of the socialist welfare system. These policy modifications have occurred in various domains of social programs, and include establishment or expansion of medical insurance, educational subsidies, pension systems, unemployment insurance, minimum wage, and housing subsidies. This rapid expanding of the social safety net characterizes the emergence of a Chinese welfare state (Gao, Yang, & Li, 2013), which has the potential to affect the lives of hundreds of millions of people. The effects of social policies on public opinion are particularly crucial matters for China's governing partystate and its concerns of maintaining the political status quo and legitimacy in a period of rapid social transformation. The absence of a democratic, multiparty electoral system leads political leaders to extensively and anxiously rely on public opinion polls (Thornton, 2011) to understand trends in popular attitudes and respond accordingly. This environment makes the feedback loop between policy and opinion particularly critical even in a nondemocratic country such as China. Because of this unique political environment, China provides an intriguing case where we can test theories and findings from past literature based on democratic societies in the context of an authoritarian state.

Using a representative survey data set on inequality and distributive justice in China, this study investigates the effect of social protection policies on individuals' attitudes toward inequality and welfare policy preferences in contemporary China. To examine the relationship between social welfare policy and mass opinion, we compare the opinions of individuals exposed to social welfare programs with those with similar social backgrounds without such exposure, and examine their attitudinal differences using a counterfactual analytic method. We begin with a review of the transformation of the Chinese welfare state over the past decade. Next, we canvass the past literature on public responsiveness to social policy and discuss how the present research contributes to the existing scholarship. Finally, we explain our data, variables, and methods and discuss our findings and conclusions.

"Old Politics" in the New Welfare State

Since 2003, China's welfare policy has undergone a major transformation as the state launched its harmonious society program aimed at constructing a well-off (xiaokang) society and reducing socioeconomic inequalities based a general policy model known as scientific development concept (kexue fazhan guan). Despite superficial differences, this expansion of welfare spending and coverage to meet the demands of the Chinese public resembles what Paul Pierson (1996) labeled "old politics," similar to the trend in postwar development of the welfare state in Western democracies. Although still evolving, the current Chinese welfare state's main agenda is to expand welfare policies and increase welfare spending to ensure public support (i.e., old politics), rather than what Pierson (1996) refers to as "new politics," which describes the struggle between the movement toward welfare state retrenchment for financial needs and the pressure from people who are accustomed to the welfare provisions of old politics.

The development of China's welfare policy since 2003 is considered the third period in the evolution of China's welfare state (Sander, Schmitt, & Kuhnle, 2010). The first period (1950s to late 1970s) is marked by the foundation of the People's Republic of China and the launching of economic reform whereby social welfare was provided through urban work units, state-owned-enterprises, and rural collectives. The second period extends from the contraction and demise of this socialist welfare state until the early 2000s, when these socialist welfare institutions were dismantled by market-and growth-oriented social and economic policies, including rural decollectivization in the 1980s and mass layoffs from urban state-owned enterprises in the early 2000s. The third and current stage has promoted an expansion of welfare policy directed toward reducing inequalities at individual and regional levels and providing a more extensive social safety net as a national agenda.

Below, we briefly explain how four kinds of welfare policy examined in our empirical analysis—pension insurance, education subsidy (tuition elimination policy), minimum livelihood assistance, and health insurance—have changed and expanded in recent years.

Pension Insurance

As the socialist pension system was dismantled, the active role of the state in funding pensions decreased, and for a while, pay-as-you-go was the only available method of pension funding (Lu & Feng, 2008). Since the late 1990s, a new funding scheme consisting of three parties—individuals, businesses, and the government—has gradually increased the percentage of the population it covers in urban areas. In rural areas, care of the elderly was traditionally the responsibility of extended family, but in recent years, a rural

pension insurance system has started to be slowly, experimentally, and unevenly implemented across rural areas and now provides a large number of rural citizens with old-age pension insurance.

Educational Subsidies

Beginning in 2006, a tuition elimination program was implemented, first in rural areas as part of rural compulsory education reform. This policy approach, designed to ensure compulsory education for the first nine years of school, consisted of eliminating tuition and fees, providing free textbooks, repairing school buildings, and increasing public funding for schools.

Minimum Livelihood Assistance

The minimum livelihood assistance (dibao) program was first adopted in urban areas around 1999. Citizens whose income falls below the local minimum wage are generally eligible for financial assistance. Establishment of the program in rural areas was delayed, but after gradual expansion, most rural areas implemented minimum livelihood security programs by the end of 2007. Rural dibao programs, however, exhibit some problems in their administration and effectiveness, which we will discuss later in this paper.

Health Insurance

Public health insurance has seen rapid expansion since 2004, as medical expenses became one of the top financial burdens for ordinary citizens, and the large number of uninsured people was recognized as a serious social and public health problem. Subsequently, China's health budget has increased by more than 20% for every year between 2003 and 2007. Distribution of health coverage has also expanded to include the urban unemployed and migrant workers. In rural areas, a new rural medical insurance scheme system was established in 2003 and is currently adopted in most rural counties. Although these rapid changes reflect the trend of the emerging contemporary welfare state in China, the actual scope of social welfare provisions is still limited, particularly in rural areas.

Our attempt to find evidence of the linkage between policy changes and public opinion in China is somewhat atypical of past literature on the subject, because this linkage is usually considered as an element in the democratic theory of politics (Burnstein, 1999), which assumes the existence of national elections, public offices filled through electoral process, and politicians acting with motives for (re-)election and blame avoidance (Pierson, 1996). Therefore, one might think the policy-opinion link would be either absent or distorted in a nondemocratic, authoritarian state such as China. However, the current

Chinese political context shows some reasons why mass policy feedback is especially important in this country. One such reason is the Chinese Government's extensive consulting of public opinion. Although electoral democracy in China is not fully institutionalized at most administrative levels, the state is very proactive about managing the direction of social, economic, and foreign policies by using public opinion data (King, Pan, & Roberts, 2013). While mass mobilization was used as the main strategy for maintaining political legitimacy in the past, this approach has been replaced with an extensive reliance on measuring public opinion on a near real-time basis for policy feedback. The Communist Party actively collects information on public opinion through nationally representative surveys, randomly sampled polls, and Internet data such as microblogs (Thornton, 2011). Recently, for example, it was reported that the Chinese Academy of Social Sciences will recruit 600,000 citizens to participate in public opinion surveys over the next three years, with the results to be used by policy makers at the central and local government levels (Xinhua, 2013). This active consideration of public opinion by the government in designing and instituting public policy suggests that mass opinion affected by public policies would have significant feedback effects on subsequent policies. Therefore, even without the existence of a fully representative democratic political system, the nexus between public opinion and policy in contemporary China functions as a central mechanism of public representation in policy making.

Public Responsiveness to Social Policy Change

Past studies have investigated the effects of a wide variety of public policies on popular attitudes and mass politics. Accumulated empirical evidence and careful case studies in this literature, however, have shown the analytic difficulty of finding a generalizable, unified conceptual framework that can account for diverse patterns of the policy-opinion nexus. Empirical studies have found variable outcomes of policy changes, such as positive policy feedback (Campbell, 2003; Franklin & Wlezien, 1997; Kumlin, 2004), negative feedback (Soroka & Wlezien, 2005, 2010b; Soss, 1999, 2000; Wlezien, 1995), or no significant impact of public policy on public opinion (Morgan & Campbell, 2011; Soss & Schram, 2007). Furthermore, understanding of such diverse patterns of the policy-opinion nexus is complicated by various kinds of mechanisms and mediating conditions entwined with the policy-opinion dynamics (Campbell, 2012).

Because of this complexity inherent to the policy-opinion nexus, finding a single, unifying mechanism that can explain the large variation in policy feedback remains a challenging issue in the existing literature. Therefore, instead of attempting to identify a new governing mechanism of the policy-opinion

nexus or to discredit a particular viewpoint in the literature, the present study focuses on three specific theoretical issues and aims to advance our knowledge and empirical evidence on policy feedback with regard to them. In the following, we provide a brief summary of the literature around these three issues and discuss how this paper is situated $vis-\hat{a}-vis$ their contexts.

A Neglected Dimension of Policy Feedback Effects

In the past and current literature on policy feedback, political scientists have mostly focused on studying people's perceptions of or attitudes toward specific policy changes, such as the enactment of a new policy program or a change in the size of spending. The focus of these studies, naturally, lies in the public's attitudes toward policies (for example, the classic thermostatic models: Soroka & Wlezien, 2010a; Wlezien, 1995). What has been relatively neglected in these efforts, however, is a problem that defines the core of the welfare state: the fundamental responsibility of the government, as opposed to individuals' selfreliance, to provide welfare for its citizens. This problem is interconnected with individuals' policy preferences and attitudes toward policy reforms, which have been studied in past literature, but it is still qualitatively different in the sense that its focus is not on the design of a specific policy itself but rather on citizens' sense of entitlement or deservingness in relation to the responsibility and obligation of the government. It is also related to people's taken-for-granted experiences of social welfare provision by the decommodified welfare state. Coming from this background, our study uses a set of dependent variables that are slightly but meaningfully different from those used in conventional policy feedback studies. Whereas past studies ask whether individuals support a certain policy, our study focuses on a different aspect of citizens' policy feedback, namely, mass opinion about which entitythe government or individuals—should take responsibility for the welfare of citizens, and examines how people's experience with welfare programs influence their perceptions about the responsibility of the government.

This is a particularly important issue in relatively new and expanding welfare states, in which both the government and citizens have little experience or social learning with regard to practicing a social welfare system. As noted earlier, the Chinese welfare state is undergoing rapid transformation and collective social learning in policy making, and there is a lack of consensus about the appropriate role of the government, as opposed to individuals, in taking responsibility for social welfare (Wong, 2005). In such a social environment, policy makers and ordinary citizens, in Heclo's words, are "collectively wondering what to do" (1974, p. 305) and are engaged in a political learning process to harness the uncertain situation. This social learning process shapes individuals' identities, interests, and sense of entitlement regarding the government's responsibility for social protection. Therefore, public policy will

not only affect preferences about certain policy reforms or the size of social spending, which past studies have primarily focused on, but also have cognitive consequences on individuals' normative views about which entity should take the responsibility for protecting ordinary people's life conditions. Using survey responses on the responsibility of the government (vs. individuals), our study provides a new kind of empirical evidence to expand the scope of policy feedback literature and examine the public's responsiveness more comprehensively. It also allows us to probe the question of whether different kinds of feedback mechanism are more prominent in different dimensions of policy feedback effects. Indeed, survey questions concerning the government's responsibility for social welfare have been extensively used in a wide range of social surveys for a long time. However, few studies have actually studied the connection between such survey items and individuals' varying policy experiences to show how welfare policy experience affects welfare attitudes.

Contingency of Feedback Effects

The entire body of policy feedback literature to date unambiguously points to the strong contingency of feedback effects. The contingent effect of policy change on mass opinion is complicated by many layers of endogenous and exogenous conditions, resulting in variable outcomes depending on the spontaneous amalgam of historical, institutional, regional, political, and temporal factors. Past policy feedback studies have scrutinized and summarized possible sources of such contingency. For example, a large part of the policy feedback literature has explored the processes of positive policy feedback. These researchers proposed that positive feedback can occur through an institutional process consisting of either self-reinforcing and path-dependent mechanisms, which are usually endogenous sources of change, or though exogenous shocks and disturbances that create punctuations in the existing policy dynamics (Jacobs &Weaver, 2014). But there are also numerous examples in which positive feedback does not occur. Patashnik and Zelizer (2013) provide a list of broad conditions under which policy fails to become a meaningful, independent casual factor in the enactment and post-enactment phases, and produces weak or no feedback. In their earlier paper (Patashnik & Zelizer, 2010), they suggested that weak policy design, inadequate or conflicting institutional support, and poor timing are major reasons for weak or no positive policy feedback. An explanation of why policy changes often fail to produce attitudinal changes is also provided by Soss and Schram's (2007) framework for the analysis of mass feedback processes, which is composed of proximity and visibility dimensions of policy. They explain that contingent mass feedbacks can be explained by how policies, encountered by public majorities, correspond to different locations in the two-dimensional space of mass feedback effects determined by the visibility-proximity variation. On the other hand,

Jacobs and Weaver (2014) paid attention to the cases of negative feedback, namely, when policies become self-undermining over time, and outlined three generic types of self-undermining feedback processes and mechanisms: emergent losses for organized groups, losses in mass cognition, and menu expansion. Campbell (2012) summarizes numerous policy feedback studies and provides an exhaustive list of factors and mechanisms that influence policy feedback processes.

In this study, it is not our aim to add another bullet-point list of sources of contingency to this already complex literature or to discount a particular study. Instead, our intended contribution regarding contingency effect is empirical rather than theoretical. Our empirical case clearly demonstrates that the whole picture of the contingent feedback of various welfare programs is highly complicated, perhaps more than well-organized theoretical models can generally picture, because the factors that contribute to the contingency are exceedingly multilayered and multifaceted. Whereas most past studies focus on a specific case and discuss its feedback mechanisms, our study shows a larger picture of policy feedback effects regarding various social welfare programs. The results reveal that the overall picture is very messy and each policy program is contingent on a very different set of conditional factors of its own. In taking this approach, we identify variable mechanisms of feedback effects in different policy domains and different subregions in China, so that the contingent nature of policy feedback processes in the country can be revealed more comprehensively.

Interpretive Effects

The third major issue that this paper seeks to engage is related to Pierson's (1994) discussion of two different channels of policy feedback effects: resource/incentive effects and interpretive effects. On the one hand, past studies have shown that mass feedback effects are often generated by self-interested constituencies whose policy preferences are based on rational choices and expected utility (Baldwin, 1990; Campbell, 2003). On the other hand, a large number of empirical studies have highlighted other mechanisms that are not in the domain of utilitarianism, particularly the interpretive effects of public policies. That is, the design of public policies shapes, alters, or creates the perceptions, interpretations, and cognitive shortcuts of ordinary citizens in their making sense of the social world through such processes as political learning, path dependence, and symbolic interaction, which escape the realm of individuals' instrumental rationality (Edelman, 1971; Heclo, 1974; Mettler, 2005; Pierson, 1993; Raven, Achterberg, Van der Veen, & Yerkes, 2011).

One important gap in the studies on interpretive effects is that most studies only examined a one-to-one relationship between policy and opinion. These studies investigated a somewhat narrow phenomenon of whether a specific policy (e.g., pension) influences changes in people's opinions on the same policy. This means that they only looked at how a policy has cognitive consequences on public attitudes about that same policy, while neglecting another possible consequence, which is that the policy may remake public perceptions of other policies. Social welfare policies have multiple impacts on many dimensions of people's lives, and the idea of social welfare consists of different but closely connected ideas on how society should provide for its citizens. Therefore, the question of whether a welfare policy A affects not only public opinions on policy A, but also public opinions about other welfare policies (B, C, D, etc.), has meaningful implications. Furthermore, we argue that such a spillover effect of policy feedback operates on interpretive mechanisms because the symbolic interconnection between the objects of meanings is the basic structure of the spillover process in attitudinal change. We fill the gap in the existing literature on interpretive effects by examining the case of policy feedback effects spilling over into other policy areas and argue that public policy invokes a wide variety of interpretive channels as feedback effects spread into opinions about other social welfare policies. By doing so, we present a larger view of the network of policy-opinion nexuses and show which welfare domains are strongly connected with one another in the public's perception of the rules of the game in the changing welfare state.

In short, our study not only seeks to advance our understanding of the impact of the expanding welfare state on popular attitudes in China, but also aims to contribute to the three theoretical issues in the feedback literature mentioned above. In the section that follows, we introduce our analytic and methodological strategies and discuss the results of our empirical analysis.

Analytic Strategy

One often-mentioned challenge that analysts confront in studying mass policy feedback effects is the problem of information. Relying on aggregated data inevitably invites the operational assumption of the existence of a well-informed public (Ellis and Faricy, 2011; Soroka & Wlezien, 2005; Wlezien, 1995). While policy feedback researchers acknowledge that a public policy is met by different publics (Key, 1961), empirical studies often treat the sample population as a single, undifferentiated public rather than as heterogeneous groups of individuals with varying levels of education or political knowledge and with different levels of access to welfare provision. How to deal with individual-level heterogeneity in demographic factors and in the level of policy knowledge/experience remains problematic in many empirical case studies. To avoid the potential bias stemming from the implicit assumption of a well-informed public and from treating all individuals as a homogeneous group in terms of their policy experiences, we target the population that

has experience of or knowledge about specific welfare policies and compare the attitudes of members of that population with those of other people with comparable social backgrounds. We will discuss more on our methodological strategy after explaining our data and key variables.

Data and Variables

Our analysis uses the China National Survey of Inequality and Distributive Justice (2009), a high-quality, nationally representative data set that provides information about individual attitudes and beliefs regarding various distributive justice issues and welfare policies. This face-to-face interview survey was carefully designed and carried out by the joint project team of colleagues based in China (the Research Center for Contemporary China [RCCC] at Peking University) and the United States (principal investigator: Martin Whyte, Harvard University). For sampling, both stratified and spatial probability sampling methods were used. This sampling method uses multiple kinds of information and techniques that include local population estimates, maps, geographic information system, and global positioning system devices to identify a nationally representative group of 2,967 adults between 18 and 70 in 23 of China's 31 provinces. A test survey showed that the spatial probability sampling method produced far better results than traditional household registration-based sampling. The response rate was 66.98%. See Whyte (2010) for technical details about the data collection procedure.

Two categories of variables are used as dependent variables. The first group of dependent variables is based on responses to six survey items that query how much responsibility the government or the individual should take for the following items: health care, compulsory education (primary and secondary education), university education, employment, housing, and care for the elderly. Responses were scored using a five-point scale ranging from I (Individuals should be fully responsible) to 5 (Government should be fully responsible). The second group of dependent variables is based on responses (1: strongly disagree, 5: strongly agree) measuring individuals' attitudes toward two statements concerning minimum living standard assistance ("The government should assure that every person at least be able to maintain a minimum standard of living") and reducing the income gap ("Government has the responsibility to shrink the gap between high and low incomes").

For the key independent variables, we used survey questions exploring respondents' experience of or knowledge about social welfare policy in four domains: pension insurance, education subsidy, health insurance, and minimum income. The questions are worded as follows: (1) *Pension insurance*: Do you have a public old-age pension insurance (including village old-age insurance, but not including commercial insurance)? (2) *Education subsidy*: Has the county/city/district where you live carried out the policy of

1	3						
Treatment variable	Total (N=	= 2,866)	Urban (N	= 1,445)	Rural (N = 1421)		
	Recipients	Nonrecipients	Recipients	Nonrecipients	Recipients	Nonrecipients	
Pension	848	2,018	607	838	24I	1,180	
insurance	(29.59%)	(70.41%)	(42.01%)	(57.99%)	(16.96%)	(83.04%)	
Educational subsidy	2,164	702	1,070	375	1,094	327	
	(75.51%)	(24.49%)	(74.05%)	(25.95%)	(76.99%)	(23.01%)	
Health insurance	2,291	575	1,038	407	1,253	168	
	(79.94%)	(20.06%)	(71.83%)	(28.17%)	(88.18%)	(11.82%)	
Minimum	152	2,714	68	1,377	84	1,337	
livelihood	(5.30%)	(94.70%)	(4.71%)	(95.29%)	(5.91%)	(94.09%)	

Table 1
Descriptive Statistics of the Treatment Variables

eliminating tuition for primary through lower middle school? (3) *Health insurance*: Do you have public health insurance (including village medical insurance, but not including commercial insurance)? (4) *Minimum livelihood assistance*: How much minimum living security or social assistance income (dibao) did your family receive in 2008? (If more than 0, then coded as 1; otherwise 0.) Table 1 shows the descriptive statistics of these treatment variables.

In addition to these variables, other sociodemographic characteristics such as age, gender, household registration status (*hukou*), level of education, household income, and local government's welfare expenditure are included in our analysis.

Methods

assistance

Estimating the effect of a certain treatment on individuals often confronts the selection bias problem, because the treatment is often not distributed randomly among people (Rosenbaum, 2002), making internal validation problematic in causal inference. To reduce this selection bias problem, propensity score matching (PSM) is widely used for drawing more effective causal inferences (Stuart, 2010).

The analytic principle underlying PSM is as follows: When estimating the effects of an independent variable (treatment) on a dependent variable, a counterfactual (control) group comparable with the sociodemographic profile of the treatment group is constructed using observed covariates. The constructed propensity scores are then assigned to individuals, indicating the probability of a subject belonging to the treatment group, conditioned on the set of observed covariates. Based on the propensity score, subjects in the treatment group are matched with subjects in the counterfactual control

group, which results in matched data similar to random experimental data, assuming that there are no important unobserved or omitted variables in the matching process. Here, the average treatment effect is the mean difference in outcomes between the treatment group and the control group.

In the present study, propensity score prediction models were first constructed to estimate the probability of entering the treatment group (i.e., being exposed to welfare policies), creating separate models for four different social welfare programs mentioned earlier: pension insurance, education subsidy, health insurance, and minimum livelihood assistance. Based on studies on the structure of the Chinese welfare system (Duckett, 2004; Li & Zhong, 2009; Salditt, Whiteford, & Adema, 2008), six observed covariates that could cause selection bias in treatment effect were used to construct individuals' propensity scores. They included general demographic variables such as age, gender, household income, and education, which affect the probability of individuals' exposure to welfare policy. In addition, two covariates that reflect regional variation in welfare provision were used. The first one is individuals' household registration status (hukou: rural or urban), which has a huge influence on the level of individuals' experience of welfare policies. The second variable is local government expenditure on social welfare, measured by the per capita fiscal expenditure of the government at the prefecture level (or prefecture-level cities) on various social welfare programs. Because individuals' policy preferences are affected by their policy environments, we consider the size of local-level welfare expenditure in constructing propensity scores. Using these six observed covariates, we construct propensity scores to reduce the selection bias of the treatment effect.

Based on the propensity score distribution of treatment and control groups, a common support region was defined, and only the subjects whose propensity scores lay in the common support region were retained for analysis. In addition, to ensure the comparability of treatment and control group, we conducted a balancing test. The results of this test indicate that the data from all four models of pension insurance, education subsidy, health insurance, and minimum livelihood assistance achieved good balance.

Finally, based on the estimated propensity scores and the common support region, the three most widely used matching methods (i.e., nearest-neighbor matching, stratification matching, and kernel matching) were used to obtain the best matching results (Heckman, Ichimura, & Todd, 1998; Rosenbaum & Rubin, 1985) and calculate the average treatment effect on the treated (ATT). The robustness of results was also tested through individual comparisons of the findings from different matching methods. All three methods resulted in balanced matching between treatment and control groups. To reduce the potential bias caused by the small number of observations retained for PSM and to obtain valid and unbiased standard errors, we calculated ATT standard errors using the bootstrap method with 100 replications.

Of course, the PSM technique is not a panacea for the selection bias problem, nor does it guarantee to detect true causal relationships. Matching methods themselves cannot deal with unobserved covariates and unrecognized systematic differences between control and treatment groups. Therefore, the method is not completely immune from the omitted variable problem (Rosenbaum, 2002). Ideal data that can avoid these problems would have to rely on randomized experiments or panel study. However, as such data of good quality with a sufficiently large sample size are rare, we take a counterfactual causal inference approach as an alternative and utilize PSM to minimize the potential selection bias problem.

Results

The results of a series of PSM analyses are presented in Tables 2, 3, 4, and 5. Each table shows the results of the respective average treatment effect of pension insurance, education subsidy, health care, and minimum livelihood assistance programs on individuals' opinions. The results of three different matching methods are shown in the tables to illustrate the variance of findings produced by each method. The three matching methods produced substantively similar results across the entire analysis, so we will not discuss their minor differences unless necessary.

The dependent variables, as explained earlier, are grouped into two categories. The first set of columns represents the six survey questions about whether the government or individuals should take more responsibility for each social welfare domain. Positive, larger coefficients in the tables indicate a stronger demand for government intervention over that of the individual. The next set of two columns represents the two survey items regarding individuals' attitudes toward the need for government intervention to guarantee a minimum standard of living and reduce the income gap. Positive coefficients mean stronger support for active redistributive policies by the government. For readers' convenience, the columns which contain the dependent variables that correspond to treatment variables are shaded.

In the following sections, we will first present the effect of social welfare policy on individuals' opinions on the same policy, which will be referred to as main effect in the remaining text, and then discuss whether policy benefits or awareness have a spillover effect on individuals' attitudes toward other welfare policies.

Main Effects

Table 2 presents the results of propensity score analysis of the effect of having an old-age pension insurance on individuals' attitudes toward various domains of social protection. The results suggest that pension insurance holders are

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Table 2
Average Treatment Effects of Welfare Policies on Policy Preferences: Pension Insurance

Matching methods		provision re government		Policy preference				
	Elder care	Compulsory education	University education		Employment	Housing	Minimum living standard	Reduce income gap
Nearest neighbor Stratification Kernel	(.080)	(.080) .154** (.058)	.249*** (.073) .213*** (.052) .171** (.055)	.200** (.068) .148** (.046) .135*** (.041)	(.040)	.152 (.082) .175*** (.048) .129* (.051)	.084 (.066) .074 (.043) .071 (.041)	.157 (.081) .202*** (.050) .223*** (.057)

Notes. ***p < .001; **p < .01; *p < .05; standard errors in parentheses.

Table 3

Average Treatment Effects of Welfare Policies on Policy Preferences: Education Subsidy

Matching methods		e provision i government	Policy preference					
	Elder care	Compulsory education	University education		Employment	Housing	Minimum living standard	Reduce income gap
Nearest neighbor Stratification Kernel	(.053) .004 (.045) .000	.247*** (.053) .215*** (.047) .217*** (.046)	.034 (.049) .011 (.037) .020 (.039)	.114* (.047) .079* (.035) .079* (.040)	.004 (.050) .009 (.038) .009 (.037)	074 (.052) 048 (.047) 048 (.038)	.022 (.043) .002 (.036) 001 (.037)	.004 (.051) 023 (.039) 028 (.035)

Notes. ***p < .001; **p < .01; *p < .05; standard errors in parentheses.

more likely to think that the government is responsible for social provisions for elderly care compared with those who have comparable demographic backgrounds but without insurance. The mechanism behind this positive policy feedback is not obscure, because insurance holders have a clear, utility-based reason to support the insurance system secured by the government, and also because the pension insurance scheme is proximate to the affected population, promising unambiguous benefits for current and future pension recipients.

Table 3 shows the effect of education subsidies (i.e., tuition exemption for compulsory education) on individuals' preference for social protection policies. While other analyses in this paper examine the effect of policy benefits (i.e., pension insurance, health insurance, and *dibao*), the survey question that asks

Table 4
Average Treatment Effects of Welfare Policies on Policy Preferences: Health Insurance

Matching methods	1 1 1							Policy preference	
	Elder	Compulsory education	University education	Health care	Employment	Housing	Minimum living standard	Reduce income gap	
Nearest neighbor Stratification Kernel	.095* (.045) .090*	(.047)	066 (.055) 004 (.047) 010 (.040)	094 (.050) 042 (.038) 049 (.036)	.017 (.055) .023 (.040) .019 (.042)	065 (.061) 044 (.046) 050 (.044)	.116* (.046) .118** (.035) .101** (.037)	.087 (.057) .092* (.046) .084 (.047)	

Notes. ***p < .001; **p < .01; *p < .05; standard errors in parentheses.

Table 5
Average Treatment Effects of Welfare Policies on Policy Preferences: Minimum Livelihood
Assistance

Matching methods		re provision i government	Policy preference					
	Elder care	Compulsory education	University education		Employment	Housing	Minimum living standard	Reduce income gap
Nearest	.113	.027	.113	.199*	.130	.154	024	082
neighbor	(.114)	(.099)	(.104)	(.092)	(.110)	(.118)	(.086)	(.102)
Stratification	.164*	.084	020	.142*	070	048	.039	.014
	(.081)	(.070)	(.069)	(.060)	(180.)	(.080)	(.057)	(.072)
Kernel	.165*	.075	.005	.138*	041	015	.010	013
	(.071)	(.076)	(.074)	(.065)	(.082)	(.082)	(.063)	(.076)

Notes. ***p < .001; **p < .05; standard errors in parentheses.

whether a tuition exemption program is instituted in respondents' living area basically taps citizens' policy awareness, although it also implies the possibility of policy benefits. The result shows that (awareness of) the implementation of an education subsidy program in one's area has a significant, positive effect on the idea that the government should take responsibility for providing compulsory education. This positive feedback is similar to the case of pension insurance, but the operating mechanisms of the two feedback effects seem to be different. As with the pension program, the significant policy feedback effect of the education subsidy program on mass opinion may be owing to the policy's high proximity and visibility for its potential beneficiaries. However, in contrast to the case of pension insurance, it is hard to attribute the

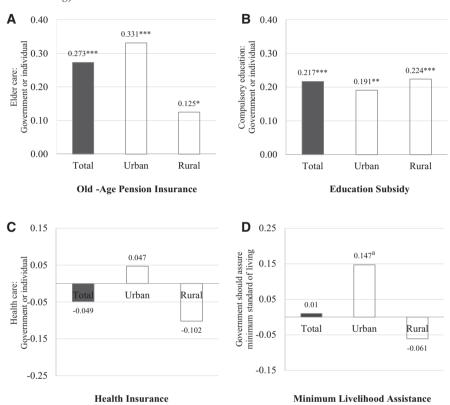
mechanism of positive policy feedback to individuals' self-interest, because people who live in areas with the subsidy program do not necessarily have stronger utilitarian reasons to believe that the government should take more responsibility for compulsory education. What seems to be a more reasonable interpretation is that the policy feedback arose by such mechanisms as social learning and interpretive effects of social policy, by which the social welfare policy sends ratifying messages to the members of the public about their deservingness (Campbell, 2003, 2011) and produces an institutional effect of cognitive lock-in (Lowi, 1964; Raven et al., 2011), by which citizens take the welfare program for granted.

Table 4 presents the effect of having health insurance on policy preferences. The most notable pattern in this table is the nonsignificant effect of having health insurance on individuals' opinions about who should take more responsibility for health care. The coefficients not only are nonsignificant but also show negative signs. Why do we see this unexpected pattern? A similar result is also found in Table 5, which shows how minimum livelihood assistance (dibao) recipients hold different policy preferences from those with similar backgrounds but without such assistance. As with the case of health insurance, the results show that receiving dibao does not influence recipients' opinions on government responsibility to ensure people's minimum living standards. Why do we see these nonsignificant policy feedback effects with regard to these two social welfare programs?

Behind such a pattern exists an important underlying mechanism that deserves closer attention: The nonsignificant effects are actually the outcome of differing policy feedback effects across different regions, particularly rural and urban areas. China is a vast country, and the differences between rural and urban areas in terms of the size, scope, and institutional arrangement of social welfare programs are large, almost constituting a divided welfare state (Gao et al., 2013). Numerous past studies have shown widespread unequal coverage, benefit levels, and treatments between urban and rural China (Frazier, 2010; Hurst, 2009; Saich, 2008). To consider this regional heterogeneity, we separated urban and rural samples and examined the effect of policy on opinions in the two regions. Owing to space constraints, we do not examine the entire spectrum of rural–urban differences in the policy–opinion nexus presented in Tables 2 through 5, but focus only on the policies' main effects. Figure 1 presents the results.

Figure I (A, B) shows that pension insurance and education subsidy have statistically significant positive feedback on individuals' opinions in both urban and rural areas. On the other hand, health insurance and minimum livelihood assistance programs have nonsignificant, negative effects on opinions in rural areas (Figure IC, D). Why are such nonsignificant feedback effects found for rural citizens? Some possible mechanisms have been suggested in the past

Figure 1 Estimated average treatment effect on the treated (ATT) of welfare programs on individuals' opinions. ATTs in this figure are based on kernel matching. *** p < .001; ** p < .05. A superscripted letter (a) indicates that the estimated ATT is statistically significant when other matching methods (nearest neighbor matching and stratification matching) are used



literature, particularly the size of welfare policy benefits and publics' lived experience with social policies (see Campbell, 2012, for a review of the literature). For health insurance, recent years have seen a rapid quantitative expansion in health care coverage in rural areas. However, a mere expansion of rural health care capacity does not necessarily mean that increased coverage and quality of medical services have been achieved. Despite the rapid expansion in coverage under the new rural cooperative medical system (from 9.5% coverage in 2002 to 96% in 2010), the quality of medical service and the actual medical coverage provided by the rural health care system remain very poor and are spread too thin to meet the actual medical needs of the population. The nonsignificant, negative policy—opinion link can be attributed to the people's

dissatisfaction with a health care scheme that fails to meet their actual needs owing to the low levels of subsidy and reimbursements. According to a recent national social survey conducted by the RCCC at Peking University in 2014, almost 43% of rural respondents reported that it was "difficult" or "impossible" to receive health insurance reimbursement.

On the other hand, the minimum livelihood assistance program (dibao) does not have a significant effect on rural citizens' opinions, while it has significant and positive effect on urban citizens' opinions (Figure 1D). To understand this pattern, we should again consider the different living conditions of the two areas. Rural-urban income inequality is large, constituting more than half (51%) of the total income inequality in the country, and average urban income is nearly four times larger than rural income (Li, Sato, & Sicular, 2013). However, living in rural areas has some advantages over living in urban areas in terms of meeting basic needs. For example, most poor farmers own a modest amount of land that provides some minimum food and housing, and sometimes they can get necessary support from their tightly knit rural communities. By contrast, the urban poor can easily fall into extreme poverty without the public assistance program. Owing to this difference, the impact of minimum living assistance policy on individuals' opinions varies across the two regions. In addition, some problems of the administration of the dibao program in rural areas are likely reasons why the dibao program had no significant positive feedback effect. For example, Luo and Sicular (2013) found that nearly 90% of those living below the poverty line in rural China did not receive dibao subsidies. Furthermore, they also found that more than half of the dibao recipients are not poor even when the most conservative poverty line is considered. On the other hand, according to the RCCC national survey, almost 70% of rural survey respondents reported that obtaining dibao program benefits was difficult or impossible. This systematic problem with the dibao program administration offers an explanation of why significant policy feedback is not found for this policy.

Other than these issues related to policy characteristics, the distributional aspect of citizens' attitudes may account for the weak feedback. Popular attitudes toward health care and securing minimum living standards show relatively less variation compared with attitudes toward other policies: 87% of respondents reported that they "agree" or "strongly agree" with the statement that the government should ensure minimum living standards for everyone, and nearly 84% of the survey respondents said health care should be provided either by "mainly the state" or "equally" between individuals and the government. Therefore, the high level of attitudinal consensus about these issues may be one of the reasons why it is relatively hard to detect meaningful policy feedback effects. It is also important to note that the minimum livelihood assistance, which is basically a means-tested program, is widely supported

by the general public. Some past studies suggested that targeted programs often generate negative policy feedback effects by benefiting only a small group of people and creating social stigma for their beneficiaries (e.g., Aid to Families with Dependent Children in the United States; Soss, 2000). However, our data show that popular opinions about the government's responsibility to secure a minimum living standard for everyone are far from negative. The overall attitudes are even more positive than for universal programs such as health care. This pattern is consistent with the findings of Bruch, Ferree, and Soss (2010), which clearly show that popular attitudes toward mean-tested programs depend on various political and social contexts and can be both positive and negative. Of course, there is some difference between this study and past studies in terms of the object of citizens' attitudes; past studies focused on specific policies, whereas our study focuses on the responsibility of the state.

The cases of the health insurance program and minimum living guarantee program collectively suggest that the policy feedback mechanism is strongly contingent on people's actual experience of different kinds of welfare policies, the policy design and administration that shape such experiences, and the degree of popular consensus about the policies.

To review our findings on the main policy feedback effects discussed so far, we offer two major points. First, the results collectively reveal that the large picture of the policy-opinion nexus in China is marked by strong contingency, and each policy feedback process is determined by multiple layers of such variable conditions as the characteristics of policy design and administration (e.g., size of benefits, effectiveness of program administration, and proximity of policies), people's lived experience with welfare policies under regional contexts, and different kinds of feedback mechanisms (e.g., resource/ incentive-based or interpretive mechanisms) depending on the type of policy. Furthermore, it should be considered that all these feedback processes occur within the distinctive political, historical, and cultural contexts of Chinese society, which has different institutional settings from Western countries for political discourse, media representations, and the historical-institutional background of welfare policies. This strong contingency of policy feedback effects suggest that the effects can be positive or negative (or insignificant) depending on the synthesis of numerous contributing factors.

Second, despite the contingent nature of feedback effects, our study shows that all significant feedback effects found in our analysis are positive. Receiving welfare benefits generally enhanced recipients' idea that the government should take the responsibility to provide for its citizens, although some ineffective welfare programs did not produce such significant policy feedback. This suggests that, when it comes to the question of government responsibility for social welfare, as opposed to individuals' self-reliance, individuals'

experience with social welfare programs generates a tendency to strengthen their expectation that the government is supposed to provide these welfare programs for people and the people are entitled to expect them. This kind of pattern is consistent with the institutional argument that individuals form their opinions only within institutional contexts, which are often path-dependent and therefore self-reinforcing (Lowi, 1964; Raven et al., 2011). It also allows us to propose that in the foreseeable future, Chinese citizens' increasing experiences with social welfare benefits will reinforce their idea that their central and local governments have a natural obligation to provide social welfare for their citizens.

Spillover Effects

While the main feedback effects show complex patterns and mechanisms, the spillover effects of social welfare policies reveal even more complicated findings that do not readily yield intuitive causal interpretations. In this section, we summarize patterns of spillover effects found in our analysis (Tables 2–5) and discuss their theoretical implications.

The first pattern that attracts our attention is that individuals' opinions on health care receive spillover effects from their experience with all the other kinds of social welfare policies included in our analysis (i.e., pension insurance, education subsidy, and dibao). This result suggests that publics' sense of their rights to and deservingness about government's welfare provision is especially contagious for their opinions about the health care system. While it is citizens' opinion about health care policy that is most likely to receive spillover effects from their experience of other social welfare policies, having pension insurance is most likely to generate spillover effects into publics' opinion on other social welfare policies. Holding pension insurance has a significant spillover effect on attitudes toward compulsory education, university education, health care, housing, and reducing the income gap. The reason why pension insurance has stronger main and spillover effects than other welfare policies would have to do with the policy's strong, direct proximity to its beneficiaries, the relatively clear expected benefits from the program, and the learning effect that influences the attitudes of beneficiaries. And considering that such a learning effect is an important aspect of interpretive effect (Heclo, 1974; Pierson, 1994), we can see that an interpretive mechanism of policy feedback is operating in the spillover effect. This kind of interpretive effect is contingent on the type of policy because individual contribution is usually required for the program; a strong sense of entitlement for government action is attached to pension holders' opinions, which would affect their attitudinal orientation toward other welfare policies. The significant interpretive effect of pension insurance is also clearly revealed in the fact that public's opinions about compulsory education, university education, housing, and reducing the income gap received spillover effects only from holding pension insurance.

By contrast, opinion about the government's responsibility to support individuals' employment shows a very different pattern: Our findings show that none of the four social welfare policies had significant spillover effects on it. Although government intervention to provide institutional support for citizens' employment would have a significant contribution to the social protection of ordinary citizens, publics' ideas about employment assistance/protection are not developed enough to be associated with their experience with other social welfare policies. This result shows that when a mass policy feedback effect spills over into other social welfare domains, the interpretive feedback effect is fundamentally constrained by a political learning process that determines policy's symbolic salience in publics' minds. The fact that opinions about health care received spillover effects from all other social policies, while opinions about employment did not receive any spillover effect, clearly evidences the different symbolic values that different social policies have in citizens' political consciousness. These results tell us that spillover effects based on interpretive mechanisms are contingent on individuals' policy learning and on the degree of salience of a policy.

Another interesting but somewhat puzzling pattern found in the results concerns the relationship between health insurance and dibao programs. As mentioned earlier, these two policies did not produce significant policy feedback effects (main effect) owing to their inadequate benefits and ineffective policy administration. However, both have significant spillover effects on each other; namely, the dibao program generated positive spillover feedback effect on opinions about health care, and having health insurance produced significant positive spillover feedback effect on opinions about dibao. This circular feedback relationship between the two welfare domains can be understood by considering the close intertwinement of economic and health inequalities in the country. As in many other countries, the poor are more likely to suffer from serious or chronic illnesses that are not covered by the national health care program, and having an illness is likely to pull individuals down toward poverty. The vicious cycle between illness and poverty in China has been confirmed in a number of studies (Li and Zhu, 2006; Luo, 2010). Therefore, although the affected populations are disenchanted with the benefits of each policy on their lives, which produced nonsignificant main feedback effects, the two policies could generate significant spillover effect to their opinions about other closely related social welfare domains by cultivating the sense that they deserve to expect social protection from the government.

Based on these complex findings tangled with multiple mechanisms, what conclusions about the general pattern of spillover feedback effect can we draw? First of all, we would like to point out that our results open a new area of

discussion for the existing literature. Past studies have explored how policy feedback can occur through various cognitive and interpretive channels, such as social and political learning, visibility and traceability of policies, knowledge and information, and so on (Pierson, 1994). In so doing, however, they have not seriously tackled an intriguing feature of political cognition, namely, that interpretive effects create a new symbolic web of meaning among political objects by interconnecting them and conferring them new structure. Because one of the basic underlying mechanisms of cognition is association, it is vital to understand how the associative processes sync political attitudes together to generate new cognitive effects among the public.

Our analysis of spillover effect reveals the consequences of such a mechanism. It shows that individuals' experience with one policy can change their expectations and attitudes toward the government's responsibility for other policies. At the same time, our study also shows not every policy has equally strong contagious cognitive power. Depending on the characteristics of policy design and administration, policy salience, and individuals' direct experience, some policies turned out to be more effective generators of spillover effects than others, while some policies are more receptive of spillover effects. Here we find that spillover effects are also contingent in nature. Also, the large number of nonsignificant spillover effects reflects the fact that ideas about many social welfare policies are not strongly associated with one another in the public's mind in China. Finally, the fact that all statistically significant spillover effects are positive rather than negative deserves our attention. The results show that receiving benefits from a social welfare program does not lower citizens' demands in other areas of social welfare. Instead, significant spillover effects almost always occur in a way that increases popular demands for more government responsibility. The evidence shows that the expansion of social welfare policies in today's China will likely generate a greater sense of entitlement among the public by way of complex ripple effects through the multiple chains of policy-opinion nexuses.

Conclusion

This study investigates the patterns of the policy-opinion nexus in contemporary China. The effect of welfare policy on public opinion has critical implications for understanding the dynamics between policy and opinion. There is a burgeoning literature on this subject, but it has been relatively understudied in past literature compared with studies on the effect of public opinion on social policy. Also, past studies on policy-opinion dynamics often did not differentiate individuals with different welfare policy experiences. This study aims to overcome these limitations and provide new evidence on the policy-opinion nexus. It also contributes to understanding the effect of the expanding

Chinese welfare state on people's attitudes toward social welfare and economic inequality. The impressive growth of the Chinese economy has been accompanied by ever-rising socioeconomic inequalities, and the public's discontent with inequality is often regarded as one of the nation's greatest sources of sociopolitical instability. This study tests whether the expansion of social welfare programs and expenditures in today's China satisfies popular demands for the government's role and responsibility to provide social welfare.

Our findings show that all statistically significant effects of welfare policy on opinions are positive, indicating that the contemporary welfare policy—opinion linkage in Chinese society is characterized by positive feedback, namely, that welfare policy begets stronger political consciousness that the government should provide social welfare. Another intriguing pattern is the existence of a spillover effect of policy on opinions, which indicates that one welfare policy can create a ripple effect in attitudes toward other welfare policies and that the policy—opinion link is not necessarily an exclusive one-for-one relationship. These findings suggest that the gradual transition from socialist welfare state (~1970s), its deconstruction (~1990s), and its transformation into a de facto capitalist welfare state (2003—) will result in a social environment where the state's responsibility to provide social security becomes institutionalized as a social norm, with the state compelled to bear more responsibility to meet the popular demand for social security.

However, despite the positive feedback found for some policies, the overall relationship between policy and opinion reveals that there is no dominant deterministic mechanism that connects welfare policy and public opinion, and the relationship is contingent on a wide variety of contextual mechanisms such as the size of a policy's benefit (e.g., health care), the effectiveness of policy administration (e.g., the *dibao* program), social learning and issue salience (e.g., employment, education subsidy), and the level of certainty and entitlement for expected benefits (e.g., pension insurance). Furthermore, we found that such a context-contingent aspect is multiplied by socio-spatial variations and by people's actual experiences with such welfare programs, all of which are occurring within the distinct historical and institutional conditions of post-socialist China. These findings confirm the contingency argument provided in the past policy feedback literature.

The results also show that individuals' self-interest and utility maximization in these various pathways of the policy-opinion nexus often play a minimal role and are often muted, particularly in the case of spillover effect. Spillover effect results in a large and complex policy feedback network, which is created by interpretive effects (Pierson, 1994). It suggests that the evolution of the welfare state in China will be further propelled by the positive feedback effects produced under such spillover processes, as the cognitive association mechanism reinforces citizens' perceptions of the role of the

government. Our study makes a novel contribution to the feedback literature regarding this topic.

Finally, our study also contributes to the existing literature by shedding light on a previously neglected dimension of policy feedback effects, namely, citizens' understanding of each welfare domain as primarily the responsibility of the government. While past studies mostly focused on individuals' preference for a policy or attitudes toward the change in the size of government spending in a certain policy area, this study examines whether experience with a policy changes individuals' attitudes toward the role of the government in providing social welfare. This issue has heavy weight in a nation that is undergoing rapid institutional transformation of social welfare provisions. This study provides a hint of what the ideational evolution of people's perception of the social and moral responsibility of the Chinese Government may be like in the future. On the other hand, the fact that all statistically significant feedbacks in our study are positive effects suggests that as for people's understanding of the role of the government, the institutional process of self-reinforcing dynamics is more powerful than other mechanisms that can bring about negative feedback. That is, citizens may or may not agree with the appropriate size of government spending in a certain policy area, which makes both positive and negative policy feedback effects possible. But when it comes to citizens' more abstract and general understanding of the responsibility of the government, we see the strong influence of institutional embeddedness that generates cognitive lock-in for mass opinion, for which positive feedback effects are more prevalent. If we have looked at people's opinions about the appropriate size of welfare spending in, we might have gotten different results.

Collectively, our results suggest that future studies on the policy-opinion nexus can benefit from examining more diverse aspects of policy feedback effects by using alternative types of dependent variables in empirical analysis. It would also be worth investigating whether different kinds of feedback mechanisms (e.g., self-reinforcing, self-undermining, or thermostatic) vary depending on different dimensions of feedback. Also, our paper makes it clear that systematic analysis of the diversity of nexus mechanisms shaped by sociocultural embeddedness is needed, and that future studies should consider individuals' actual experiences and local contexts of social policies in analyzing the contingent dynamics between policy and opinion. The findings also suggest that future literature can take a broader look at the scope of interpretive effects by paying attention to the pathways of spillover effects, which stems from the social configuration of a complex web of ripple effects that channel less recognized mass policy feedbacks.

We want to finally note that our findings and conclusions are constrained by the limitations of our data, because the survey questions were not designed in a way to test the conventionally examined policy feedbacks. Our study could not demonstrate how policy experience influences a more direct kind of policy feedbacks, such as policy/spending preferences. It is certainly possible that feedback effects arise in different ways for such preferences than for perceptions of the state's responsibility for welfare. Therefore, the findings of this research need to be complemented by future studies that utilize the variables more commonly used in the policy feedback literature. Another weakness of this study is that its statistical findings need to be rendered with more detailed local contexts for rich, qualitative understanding of the policy—opinion nexus operating in China. Particularly, spillover effects require further exploration to clarify their underlying political-cognitive mechanisms. Filling these gaps will significantly enhance the existing scholarship on the dynamic relationship between public opinion and social policy.

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