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Citation to Publisher Huang, Xian & Gao, Qin. (2019). Alleviating poverty or discontent: impact of social assistance on Chinese citizens' views of government. *China: An International Journal* 17(1), 76-95. <http://muse.jhu.edu/article/719409>.

Citation to *this* Version: Huang, Xian & Gao, Qin. (2019). Alleviating poverty or discontent: impact of social assistance on Chinese citizens' views of government. *China: An International Journal* 17(1), 76-95. Retrieved from [doi:10.7282/t3-hwbq-vk26](https://doi.org/10.7282/t3-hwbq-vk26).

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Alleviating Poverty or Discontent:

Impact of Social Assistance on Chinese Citizens' Views of Government

HUANG Xian and GAO Qin

This study provides one of the first empirical tests on the political impact of China's anti-poverty cash transfer program: Dibao. Using the China Family Panel Study 2010 dataset and a propensity score matching method, we examined whether and how much the Dibao benefits have impacted recipients' assessment of local government performance. To explore the heterogeneity effect of Dibao, we conducted the analysis in urban and rural samples respectively. Results show that receiving the Dibao benefit had a significant and positive impact on citizens' assessment of local government in China. Nonetheless, the subsample results suggest that the positive and significant impact of Dibao benefits might be driven mainly by the rural sample. Overall, it implies that China's Dibao policy has achieved a mixed success in alleviating discontent and boosting popular support for the government.

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1. Introduction

A phenomenal development in China's social welfare policy of the past decades is the establishment and expansion of the Minimum Livelihood Guarantee, or Dibao. First implemented in Shanghai in 1993 as a policy experimentation, Dibao was expanded to all urban areas in 1999 during the State-Owned Enterprises (SOE) reform preceding China's accession to WTO in 2001. Many Chinese policy analysts expected that this accession would lead to millions more workers being laid off from SOEs.¹ Thus, the funding for and the numbers served by the Dibao program expanded dramatically, with investment leaping from 1.5 billion yuan in 1999 up to 10.5 billion by 2002, as beneficiaries increased from 2.8 million in 1999 to 19.3 million in 2002.² Ideas and measures to establish the Dibao program in rural areas were gradually put forward, especially during the Hu-Wen administration since 2003. After some trials, Dibao was formally expanded to rural areas nationwide in 2007. The number of rural Dibao recipients has since exceeded that of urban recipients (Figure 1). In the following years, amount of funds allocated to rural Dibao program has rapidly grown while the emphasis and resources for the urban Dibao relatively declined (Figure 2). In 2011, the Dibao expenditures for the rural and urban areas were nearly equal and since 2012 the rural part has surpassed the urban one. In October 2017, there were approximately 54 million people receiving welfare payments through the Dibao program, with three quarters of these recipients from rural areas.³

¹ Solinger, Dorothy. "Urban Jobs and the World Trade Organization." *The China Journal* January (2013): 61-87.

² Solinger, Dorothy. "Banish the Impoverished Past: The Predicament of the Abandoned Urban Poor", manuscript, Irvine University of California, 2017.

³ Ministry of Civil Affairs Monthly Statistical Report, <http://www.mca.gov.cn/article/sj/>, accessed on December 6, 2017.

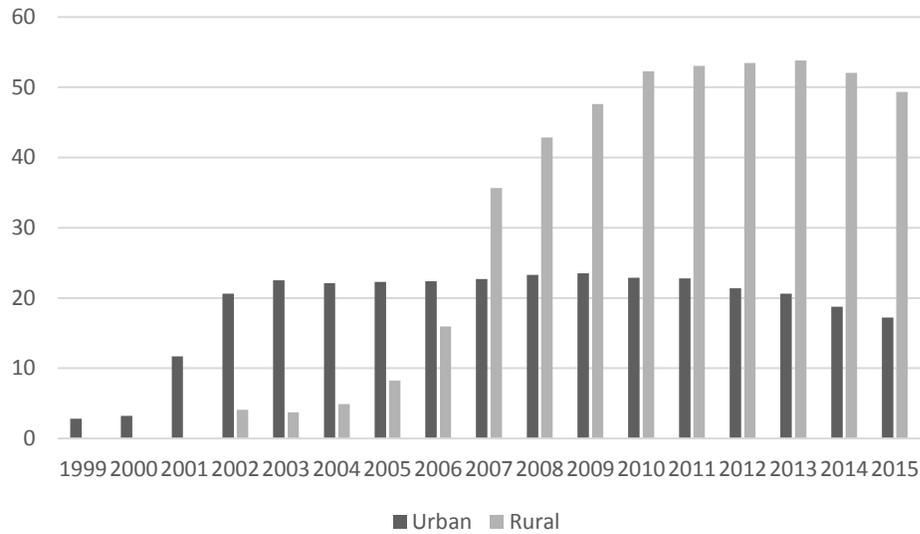


Figure 1. Number of Dibao Recipients, Urban and Rural, 1999-2015 (in Millions)
 Source: Solinger, "Banish the Impoverished Past: The Predicament of the Abandoned Urban Poor", 2017, pg. 38.

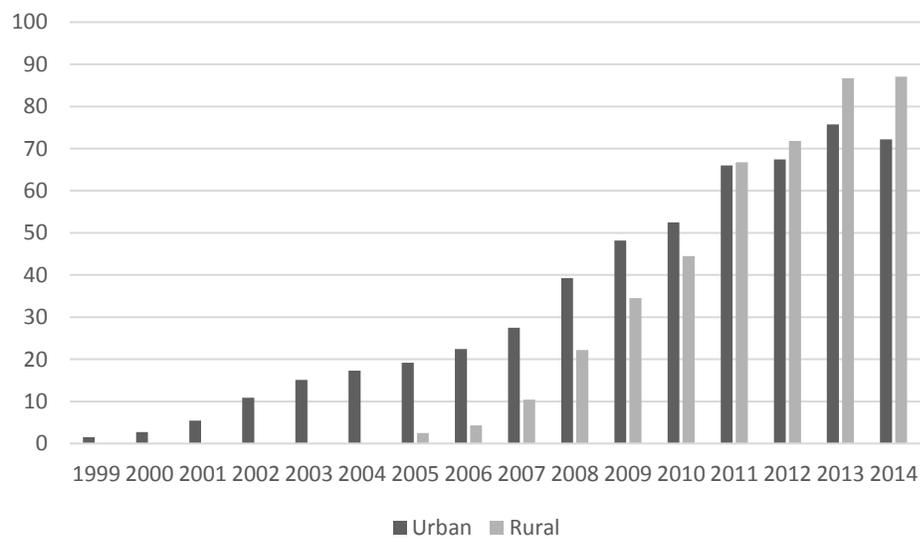


Figure 2. Government Expenditure on the Dibao, Urban and Rural, 1999-2014 (billion yuan)

Source: *ibid.*

The stated goal of Dibao program is to alleviate poverty, making monthly cash payments to low-income individuals to lift them above the local poverty lines. A more implicit yet important goal of Dibao policy is political: addressing social grievances and discontent about

subsistence that often lead to social unrests and thus fostering popular support of the government. In other words, Dibao has not just a goal of preserving livelihood; it is also meant to “ensure no threats to social order.”⁴ In the growing literature on Dibao, there has been more research on the economic effectiveness of Dibao – poverty alleviation – than on the political effectiveness thereof. Rigorous empirical studies of the redistributive effect of Dibao find that Dibao has had a modest impact in alleviating poverty. It has been more effective in reducing the poverty depth and severity than lowering the poverty rate, indicating that Dibao has had some success in reaching the most vulnerable among the poor population.⁵ By contrast, we know little about whether and how much Dibao has achieved its political goal of garnering public support for the government. In this article, we explicitly address this question using individual-level survey data to examine Dibao’ effect on citizens’ assessment of local government performance, an important indicator of public support of government in China.

There are at least two reasons why we should expect that Dibao recipients would associate the Dibao benefits with the performance of local government in the context of China. First, throughout the Chinese history, provision of social benefits has been considered a major responsibility of the state rather than the private or social sectors. For decades, maintaining social stability has been one of the nationwide priority targets with veto power in the CCP’s official evaluation.⁶ Recently, provisions of social welfare and public goods have become an

⁴ Lindqvist, Rafael; Tang, Jun; Li, Jing. "Social Assistance in China and Sweden: How Policy Intentions Are Translated into Local Practices." *China Journal of Social Work* 6, no. 3 (2013): 311-26, pg. 313.

⁵ Gao, Qin. *Welfare, Work, and Poverty: Social Assistance in China*. New York: Oxford University Press, 2017.

⁶ “Veto power” here means that the local officials who fail in securing social order in their jurisdictions are likely to fail in promotion no matter how well they perform in other policy areas. See Edin, Maria. "Remaking the Communist Party-State: The Cadre Responsibility System at the Local Level in China." *China: An International Journal* 1, no. 1 (2003): 1-15. Whiting, Susan H.

increasingly important consideration in official evaluations and promotions.⁷ Government officials and agents are heavily involved in regulating, managing and financing social welfare provisions including the Dibao program. Hence, it is natural for Chinese citizens to relate social benefits they receive to competence and legitimacy of the government. Second, decentralization is a crucial feature of China's social welfare provision. Most importantly, decentralization assigned many social spending responsibilities to local governments. It is estimated that nearly 70% of total public expenditures in China take place at the sub-national level, as compared to 32% in OECD countries.⁸ Within the central government's given framework, local governments (mainly county- and city-levels) must fund the operations of local social welfare agencies (e.g. bureaus of social security, bureaus of public health, and hospitals) with budgeting, staff, office space and other resources. Given these key features of China's social welfare provision--state dominance and decentralization, we expect that receiving Dibao benefits will influence citizens' assessment of local government performance.

The rational choice perspective in the literature on political support suggests that citizens are in a quasi-exchange relationship with the government: citizens assessment of government is a function of the benefits that the government provides to them.⁹ Thus, we predict that, all other things being equal, Dibao recipients would hold more favorable assessment of government performance than the non-recipients. However, it could be the factors that make some people more likely to be Dibao recipients that cause the favorable views of government among these

Power and Wealth in Rural China: The Political Economy of Institutional Change. Cambridge University Press, 2004.

⁷ Zuo, Cai. "Promoting City Leaders: The Structure of Political Incentives in China." *China Quarterly* 224, no. December (2015): 955-84.

⁸ World Bank. "China National Development and Sub-National Finance: A Review of Provincial Expenditures." Washington, DC: The World Bank 2002.

⁹ Riker, William H. "Political Science and Rational Choice." *Perspectives on positive political economy* (1990): 163-81.

people. In this study, we use a propensity score matching (PSM) method to address part of this selection bias¹⁰ and offer an estimation of the effect Dibao has on citizens' assessment of local government performance using the China Family Panel Study (CFPS) 2010 dataset.

As suggested earlier, urban and rural residents have distinct experiences of the Dibao “treatment”: urban residents have longer exposure to the Dibao policy (in terms of years when the Dibao policy was carried out in urban areas) but at a relatively lower and declining intensity (in terms of number of Dibao recipients and total Dibao funding in urban areas); in contrast, rural residents have shorter exposure to Dibao policy but the treatment is more intensive for rural residents than urban residents especially after 2007. Accordingly, we expect that rural residents are more susceptible to the aforementioned attitudinal effect of Dibao than urban residents are. We will explore the heterogeneity effect of Dibao on citizens' views of government by conducting the data analysis in different subsamples of the CFPS 2010 dataset: urban and rural people respectively.

Based on the CFPS 2010 data, we find that in general, receiving the Dibao benefit did improve citizens' assessment of local government performance. When further dividing the sample into two subsamples—urban and rural, we find that although both urban and rural recipients of Dibao benefits appear to hold more favorable views of local government performance than their non-recipient peers, only in the rural sample was the correlation statistically significant. It implies that the positive impact of Dibao benefits on citizen assessment of government performance might be driven mainly by the rural sample. Combined, the results

¹⁰ PSM can only address the selection bias derived from observable factors. Like any other matching methods, PSM can only take into consideration observable characteristics available in the dataset, which are never exhaustive and cannot account for all the possible factors associated with the effect of social insurance enrollment.

on the overall sample and the heterogenous effects give us a more nuanced understanding of Dibao's impact on popular support of government in China.

The rest of this paper unfolds as follows. Section 2 situates this study in the broader literature on expansion of anti-poverty transfer programs in the developing world. Section 3 presents the research design and data for the empirical analysis of Dibao's effect on popular support of government. Section 4 reports and discusses the empirical results. Section 5 concludes with a discussion of the implications of this study.

2. Existing Studies and Our Contributions

In the 1990s and 2000s, a dramatic expansion of social welfare benefits took shape in many middle-income countries of the Global South such as Argentina, Brazil, Chile, China, Mexico, India, and South Africa.¹¹ This trend of social welfare expansion in the developing world is puzzling for several reasons. First, the most prominent type of new policy out of this expansion is some form of social assistance, in particular anti-poverty transfer programs that were generally tax-financed, non-contributory and non-discretionary.¹² Examples of the enacted social assistance programs during this expansion include unconditional cash transfers (UCT) such as the Dibao in China, as well as conditional cash transfers (CCT) such as the Bolsa Escola in Brazil, Progresa in Mexico, and PANES in Uruguayan. In these programs, the use of formulas along with technical measures to identify beneficiaries according to need has limited politicians' inclinations to respond to electoral and partisan imperatives rather than to the goal of poverty

¹¹ Tillin, Louise; Duckett, Jane. "The Politics of Social Policy: Welfare Expansion in Brazil, China, India and South Africa in Comparative Perspective." *Commonwealth & Comparative Politics* 55, no. 3 (2017): 253-77. Mares, Isabela; Carnes Matthew E. "Social Policy in Developing Countries ". *The Annual Review of Political Science*, 12 (2009): 93-113.

¹² Tillin and Duckett, 2017. Garay, Candelaria. *Social Policy Expansion in Latin America*. Cambridge University Press, 2016.

alleviation.¹³ Second, the benefits provided by this social welfare expansion have reached the most vulnerable and disempowered sectors of the population, such as labor market outsiders, urban and rural poor. This runs against the widely held assumption that these social groups are underrepresented and marginalized in social policy making and social welfare provisions. Given this puzzling expansion of social policy and social welfare provision in the Global South, scholarly works to explain, compare, and evaluate the expanded social policies have grown in the past decade, which constitute a vigorous part of the political economy literature on social policy in the developing world.¹⁴

An intriguing inquiry about this expansion of social welfare is why it took place. The answer is bifurcated in the literature. One strand of literature has focused on the economic conditions, such as economic crisis or growth, structural adjustment and globalization, that countries in the Global South have commonly confronted in the 1990s and 2000s, assuming that the primary drivers of social policy expansion were economic.¹⁵ Another strand of literature has adopted a political perspective, examining the political motivations, institutions and dynamics that gave rise to the expansion of social policy or welfare provisions in the context of developing countries.¹⁶ In the second strand of literature with political focus, a stark “democratic bias”

¹³ Diaz-Cayeros, Alberto; Federico, Estevez; Magaloni, Beatriz. *The Political Logic of Poverty Relief: Electoral Strategies and Social Policy in Mexico*. Cambridge University Press, 2016.

¹⁴ Cammett, Melani; Sasmaz, Aytug "Social Policy in Developing Countries." In *The Oxford Handbook of Historical Institutionalism* edited by Orfeo; Falletti Fioretos, Tulia G.; Sheingate, Adam. New York: Oxford University Press 2016. Mares and Carnes, 2009.

¹⁵ Barrientos, Armando; Hulme, David. "Social Protection for the Poor and Poorest in Developing Countries: Reflections on a Quiet Revolution." *Oxford Development Studies* 37, no. 4 (2009): 439-56. Tillin and Ducekett (2017) provides a thorough and critical summary of the “economic account” of social policy expansion in the Global South; they also call for and bring attention to the importance of “political account” with a focus on political leadership.

¹⁶ Garay 2016; Diaz-Cayeros et al. 2016, Haggard, Stephan; Kaufman, Robert. *Development, Democracy, and Welfare States: Latin America, East Asia, and Eastern Europe*. Princeton University Press, 2008.

stands out: explanation and evaluation of the social welfare expansion were conducted mainly under the framework of electoral or partisan politics. For example, Garay's (2016) thorough investigation of the social welfare expansion in Latin America since the 1990s uncovers two underlying mechanisms of the expansion: a top-down mechanism in which politicians initiated and developed broadly targeted social assistance programs to win competitive elections, and a bottom-up mechanism in which social groups and organizations participated to press and promote the expansion of those social assistance programs. Diaz-Cayeros and colleagues' study (2016) examines both the supply (politicians' electoral motivation for distributive policy and efforts) and the demand (voters' responses to the distributive efforts and strategies of politicians) sides of the Mexican poverty relief programs in the democratic framework. Although these works advance our understanding of the expansion of social assistance programs in the democratic countries of the developing world, they can't travel far to the non-democratic countries in the developing world in which competitive elections and political parties are often lacking. Research is much needed to understand the political motivation and impact of social welfare expansion in the autocratic setting of the developing world. Study of social welfare expansion in China can contribute to filling this gap as China has experienced both the substantial expansion of social assistance and the resilience of the authoritarian regime in the past decade.

Extant studies of social welfare reform and policy in China have documented the dramatic expansion of social welfare provisions, including social insurance, social assistance, health care, and education, in the past decade.¹⁷ Like the bifurcated literature of social welfare in

¹⁷ Gao 2017. Gao, Qin; Yang, Sui; Li, Shi. "The Chinese Welfare State in Transition: 1988-2007." *Journal of Social Policy* 42, no. 4 (2013): 743-62. Frazier, Mark. *Socialist Insecurity: Pensions and the Politics of Uneven Development in China*. Ithaca and London: Cornell

developing countries, a strand of literature on Chinese social welfare expansion embrace the political perspective,¹⁸ studying the role played by political leadership and ideology,¹⁹ concerns of social instability,²⁰ local discretion and career considerations²¹ in social welfare expansion under the authoritarian and decentralized context of China. Our study is built on the extant studies, yet takes one step back to examine an implicit assumption commonly made in the literature about the relationship between social welfare provision and popular support of the government. It is widely posited that the Chinese authoritarian government seeks to boost popular support for its continued rule by expanding social welfare benefits to ordinary citizens including the poor. However, is this co-optation strategy really working? What's the impact of the expanded social welfare benefits on citizens' attitudes towards the government?

The empirical evidence concerning social policies' effect on public support for the Chinese government is mixed at best. Michelson (2012), comparing two waves of individual-level survey data collected in rural China in 2002 and 2010, shows that rural stimulus

University Press, 2010. Huang, Xian. "Expansion of Chinese Social Health Insurance: Who Gets What, How and When?". *Journal of Contemporary China* 23, no. 89 (September 2014): 923-51.

¹⁸ For a helpful summary of the economic account of Chinese social welfare reform and expansion, see Duckett, Jane. "Challenging the Economic Reform Paradigm: Policy and Politics in the Early 1980s' Collapse of the Rural Co-Operative Medical System." *The China Quarterly* 205, no. March (2012): 80-95.

¹⁹ Manor, James; Duckett, Jane. "The Significance of Political Leaders for Social Policy Expansion in Brazil, China, India and South Africa." *Commonwealth & Comparative Politics* 55, no. 3 (2017): 303-27.

²⁰ Hurst, William. "Rebuilding the Urban Chinese Welfare State." *China Perspectives*, 2011, no. 2 (2011): 35-42. Pan, Jennifer. "Buying Inertia: Preempting Social Disorder with Selective Welfare Provision in Urban China." In *PhD Dissertation*, edited by Harvard University, 2015.

²¹ Solinger, Dorothy; Ting Jiang. "When Central Orders and Promotion Criteria Conflict: Recent Urban Decisions on the Dibao." *Modern China* 42, no. 6 (2016): 571-606. Solinger, Dorothy J.; Hu, Yiyang "Welfare, Wealth and Poverty in Urban China": The Dibao and Its Differential Disbursement." *The China quarterly* 211, no. September (2012): 741-64. Lü, Xiaobo; Liu, Mingxing. "Public Goods with Private Benefits: Understanding Local Governments' Incentives in Education Provision in China." In *Annual Meeting of American Political Science Association*. Chicago, IL, 2013.

programs—including agricultural subsidies, the expansion of rural healthcare provisions, and a family allowance program—have improved rural residents’ perceptions that the local government cares about their wellbeing.²² Similarly, Saich (2008) found a dramatic increase in satisfaction with township and village governments between 2003 and 2005.²³ In contrast, Lü (2014), using a difference-in-differences analysis and data from a national survey conducted in 2004 and 2009, finds that a change in education policy (abolition of the school fee for compulsory education) has enhanced citizens’ trust in China’s central government but has not improved their trust of the local government, due primarily to state media bias in reporting on the policy.²⁴ The different findings in those studies might be attributed to the different specific policies under study. Dickson (2016), based on results from a nationwide survey of urban areas in 2010, examines the effects of various public goods on public support for government. The study finds that local government gets a bigger boost in popular support from citizens’ satisfaction with the provision of public goods such as health care, environmental protection and transportation; in contrast, the central government gets a bigger boost in popular support than local government does only in education policy.²⁵

Our study of the impact of social welfare provision on public support of government in China differs from the extant studies in three aspects. First, we focus on the social policy that is supposed to be the “safety net” or “last resort” for Chinese citizens’ subsistence--Dibao-- to

²² Michelson, Ethan. "Public Goods and State-Society Relations: An Impact Study of China's Rural Stimulus." In *The Global Recession and China's Political Economy*, 131-57. New York: Palgrave Macmillan, 2012.

²³ Saich, Tony. *Providing Public Goods in Transitional China*. New York: Palgrave Macmillan, 2008.

²⁴ Lü, Xiaobo "Social Policy and Regime Legitimacy: The Effects of Education Reform in China." *American Political Science Review* 108, no. 2 (2014): 423-37.

²⁵ Dickson, Bruce. *The Dictator's Dilemma: The Chinese Communist Party's Strategy for Survival* New York: Oxford University Press 2016.

study the attitudinal effect of social welfare policy in China. A main function of the Dibao is to prevent people from falling into poverty by providing them with minimum livelihood allowance when the other resorts such as labor market participation are exhausted or impossible due to disability, disease, or young/old age. Considering this “safety-net” nature of the Dibao policy, we expect that if the effect of social policy on popular support of government exists, the Dibao should have a direct and strong impact on people’s views of the city/county governments that are responsible for distributing the Dibao benefits. Second, we use the propensity score matching (PSM) method to address part of the selection bias prevalent in the studies of social policy effect on political attitudes using observation data. It is possible that the factors making some people more likely to be the welfare recipients, rather than the social policy itself, cause the differences in peoples’ views of government. By using PSM to preprocess the survey data before regression analysis, we reduce the selection bias due to observable factors such as personal demographic and socioeconomic characteristics. Third, we examine the attitudinal effect of the Dibao in different social groups: urban residents and rural residents, to better evaluate the effectiveness of social policy in fostering popular support of government. This also allows us to draw more specific implications from the empirical results of this study detailed in the following sections.

3. Research Design and Data

We use the regression model specified below to estimate the effect of receiving the Dibao benefit on citizens’ assessment of government.

$$\Pr(Y_{ic} = k) = \Phi(\alpha_c + \beta T_i + \sum_1^j \varphi_j Z_i + \varepsilon_i)$$

The subscript i indexes each respondent; c indexes the county where respondent i resides. Y_{ic} represents respondent i ’s assessment of local government performance. Our coefficient of

interest is β , the effect of receiving Dibao benefits on individual assessment of local government performance; T_i is a binary indicator, $T_i = 1$ means that respondent i has received the Dibao benefit, otherwise $T_i = 0$. $\sum_1^j Z_i$ refers to a vector of covariates measuring personal characteristics of the respondent, including age, gender, education, marital status, ethnicity, Chinese Communist Party (CCP) membership, income, social status, household registration type (hukou), employment status and sector, social dispositions (e.g. optimism and life satisfaction)²⁶ and use of modern communication technologies (e.g. internet, mobile phone); φ_j is the coefficient of the j^{th} covariate; α_c is a vector of county dummy variables that capture unobserved county fixed effects; ε_i is the error term of respondent i to take into consideration other non-observed characteristics at the individual level.

We use responses to the following question about respondents' assessment of local government performance as the dependent variable, *assesgov* ($k=1, 2, 3, 4, \text{ or } 5$). Since the dependent variable, *assesgov*, is an ordered categorical variable, we employ ordered probit regression to estimate the above model.

What's your general evaluation of local (city/county) government performance in the past year?

1. *Worse than before*
2. *No achievement*
3. *Few achievements*
4. *Some achievements*
5. *Many achievements*

²⁶ Political and social values have been found to correlate empirically with public support of government. For example, Inglehart (1997) has shown that those who are satisfied with the quality of their standard of living and their social status are more likely to support the incumbent political system. See Inglehart, Ronald. *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Cambridge University Press, 1997.

The data come from 2010 China Family Panel Studies (CFPS)²⁷ collected by Peking University's Institute of Social Science Survey from nearly 15,000 families and over 40,000 individuals (including children and adults) within these families. The sample is drawn through three stages with implicit stratification: county, then village, and then household. The 2010 CFPS data cover 162 counties in 25 provinces and are representative of about 95% of the national population.²⁸ We use only the adult sample (about 33,600 observations) for this study, with the individual as the unit of analysis. To better explore the inter-group variation of Dibao's effect, we further divide the sample into two sub-samples—urban and rural—based on respondents' hukou (household registration) status and residence area.²⁹ Specifically, respondents who hold a non-agricultural hukou and live in urban areas are included in the urban sample; respondents who hold an agricultural hukou and live in rural areas are included in the rural sample.

Descriptive statistics of the dependent variable indicate that many respondents held an affirmative assessment of local government: 55% thought that their local government had made some achievements in the past year and 12% believed that the local government had made many achievements in the past year; only 11% of respondents expressed that the local government had made no achievement or had been worse in the previous year than in years before. According to the 2010 CFPS data, less than 5% of respondents were beneficiaries of Dibao. Table 1 shows the

²⁷ More details of this survey project can be found at <http://www.isss.edu.cn/cfps/EN/>.

²⁸ For more information about CFPS, see <http://www.isss.edu.cn/cfps/EN/>.

²⁹ A *hukou* is a record in the system of household registration required by law in China. The *hukou* system was officially promulgated by the Chinese Communist Party in 1958 to control the movement of people between urban and rural areas. Individuals were broadly categorized as a 'agricultural' or 'non-agricultural' person according to *hukou*. When defining the subsamples, in addition to *hukou* we also consider individuals' actual places of residence to exclude migrants from the sample. Conceptually, the effect of receiving Dibao on citizen assessment of "local government" is not clear in the migrant case: they might interpret the "local government" as the one in their hometown (*hukou* place) or the one in their actual living areas. To eliminate such confusion, we decide to exclude migrants from the sample in this study by adopting stricter (combining hukou type and resident areas) definitions of urban and rural samples.

population coverage of the Dibao program in the different subsamples.³⁰ The coverage rate of Dibao program is relatively higher in the urban sample than in the rural sample.³¹

Table 1. Population Coverage of Dibao by Subsample (%)

	Dibao recipients	N
Urban	3.71%	7572
Rural	2.83%	13555
N	665	

Notes:

1. Coverage is calculated as the percentage of people who have received Dibao benefits in the total population of the specific sample.
2. “Urban” refers to the urban sample; “rural” refers to the rural sample.

Who are typical recipients of the Dibao benefits? We depict their personal characteristics in three aspects: demographic attributes (age, gender, ethnicity, marital status, and region of residency), socioeconomic status (CCP membership, income, family registration status or hukou, education, social status, and employment status), access to information (use of modern communication technologies) and opinions (optimism and life satisfaction). Table 2 presents the personal characteristics of Dibao recipients and non-recipients in each of the subsamples. There are palpable differences between recipients and non-recipients. The Dibao recipients tend to be

³⁰ The coverage rates reported in Table 1 are unweighted. The weighted coverage rate is 3.6% for urban sample and 2.79% for rural sample. The difference between the weighted and unweighted coverage rates is not large, .04% for rural sample and .11% for urban sample.

³¹ This is quite different from the official Dibao coverage rates in urban and rural areas. According to administrative data, population coverage of urban Dibao is 3.5%, and the one of rural Dibao is 8%. The urban coverage rate calculated in this study using CFPS is a bit higher than the official rate and the rural one is much lower than the official rate. There are, at least, two causes for the disparities, in addition to sampling error. First, the coverage rate in this study is for adult population only while the official rate includes children recipients of Dibao. Second, the denominator of coverage rate calculated in this study excludes the rural-to-urban migrants (the reason for exclusion has nothing to do with the consideration of coverage calculation, see Footnote 29), while the denominator of official coverage rate both in urban and rural residents might not exclude migrants.

the people who are older, male, and not married (including being single, divorced, or widowed). Regarding socioeconomic and employment status, Dibao recipients had fewer years of formal education and are less likely to be employed or self-employed. Moreover, they were less likely to be CCP members and less likely to consider themselves as having a high income or social status compared to others. As for opinions or world values, Dibao recipients tended to have lower life satisfaction and optimism than others did. Turning to inter-group differences in Dibao recipients' personal characteristics, urban recipients of Dibao benefits were more likely to be CCP members, had relatively more education, worked in state sectors or retired, and used modern communication technologies more than their rural counterparts. Nonetheless, urban Dibao recipients did not express greater life satisfaction or optimism than rural recipients did.

Table 2. Personal Characteristics of Dibao Recipients in China (Mean and SD)

	Dibao Recipients		Dibao Non-recipients	
	Urban	Rural	Urban	Rural
<i>Demographic</i>				
Age	49.04 (14.07)	54.79 (15.69)	47.80 (15.32)	45.64 (14.88)
Male	.58 (.49)	.60 (.49)	.50 (.50)	.51 (.50)
Married	.77 (.42)	.70 (.46)	.84 (.37)	.86 (.35)
Minority	.02 (.14)	.10 (.30)	.04 (.19)	.12 (.32)
<i>Socioeconomic</i>				
Years of schooling	7.32 (4.89)	3.07 (3.95)	9.83 (4.48)	4.52 (4.25)
Income	1.67 (.93)	1.76 (.93)	2.25 (.95)	2.26 (.99)
Social status	2.26 (1.06)	2.70 (1.14)	2.63 (.96)	2.87 (.95)
Party membership	.23 (.42)	.18 (.38)	.38 (.49)	.14 (.34)
<i>Employment Status</i>				
Employed	.19	.03	.42	.10

	(.39)	(.17)	(.49)	(.30)
Self-employed	.03	.01	.06	.05
	(.17)	(.10)	(.23)	(.22)
Retired	.06	.01	.26	.01
	(.24)	(.07)	(.44)	(.06)
Employed in state sector	.07	.01	.22	.02
	(.26)	(.09)	(.42)	(.14)
Information Access				
Use new technologies	.06	.03	.09	.04
	(.24)	(.18)	(.28)	(.20)
Opinions				
Life satisfaction	3.12	3.31	3.44	3.50
	(1.16)	(1.22)	(1.06)	(1.04)
Optimism	3.31	3.18	3.62	3.71
	(1.26)	(1.30)	(1.11)	(1.08)
N of Observation	281	384	7291	13171

Notes:

1. Standard deviations are in parentheses.
2. Demographic variables: age and years of schooling are continuous variables; 1 unit indicates one year (of age or education). Male, minority and married are dummy variables, “1” means “being male,” “being ethnic minority” and “married” respectively.
3. Socioeconomic variables: Party membership refers to the Chinese Communist Party (CCP) or the Chinese Communist Youth League (CCYL) membership, “1” means “being a CCP or CCYL member” and “0” means otherwise. Income and social status are ordered categorical variables indicating subjective self-evaluation of individual income and social status; the range of these variables is from 1 to 5 with 1 being the lowest and 5 being highest.
4. Employment variables, employed, self-employed, and retired are all dummy variables and they do not distinguish in which sectors respondents are or were employed; unemployed is omitted to avoid collinearity in regression. State sector is a dummy variable indicating if the respondent is employed by the state sector.
5. Use new technology is a dummy variable, indicating if the respondent often uses the Internet or a mobile phone to obtain information.
6. Opinion variables: assesgov, optimism and life satisfaction are ordered categorical variables with a range from 1 to 5, 1 is lowest and 5 is highest.

Our goal is to examine Dibao’s effect on recipients’ views of local government. Specifically, we seek to evaluate whether and how much receiving the Dibao benefit (the “treatment”) changes citizens’ assessment of local government performance in China. An intuitive strategy is

to use the difference-in-differences method: finding the differences in individual assessments of local government performance before and after receiving the Dibao benefits from the government. This not only requires multiple rounds of data collection but also identification of the timeframe in which the “treatment” was received, which varies across individuals and areas. More importantly, in reality, the “treatment” is anything but randomly assigned. Individuals who receive the benefits may have higher support for or satisfaction with local government to begin with, considering the severe mistargeting problem in the Dibao policy.³² To take advantage of existing survey data and to address the selection bias, we use propensity score matching (PSM) to process the data before parametric statistical analysis. The goal of matching is to construct a plausible counterfactual group (Dibao non-recipients) who match the treated group (Dibao recipients) on a number of important personal characteristics that affect their likelihood of receiving the Dibao benefits. After matching, the regression results are much less sensitive to the modeling choices made at the post-matching analysis stage.³³

To create a more comparable control group, we employ the PSM approach, which is considered especially useful when the dimensionality of the observable characteristics is high.³⁴ The propensity score captures the likelihood of receiving a treatment, estimated by a logistic regression with linear covariates such as age, gender, ethnicity, education, CCP membership,

³² Gao, Qin; Zhai, Fuhua. "Anti-Poverty Family Policies in China: A Critical Evaluation." *Asian Social Work and Policy Review* 6, no. 2 (2012): 122-35. Ravallion, Martin "Miss-Targeted or Miss-Measured?". *Economics Letters* 100, no. 1 (2008): 9-12.

³³ Ho, Daniel E.; Imai, Kosuke; King, Gary; Stuart, Elizabeth A. "Matchit: Nonparametric Preprocessing for Parametric Causal Inference." (2011). <http://gking.harvard.edu/matchit>.

³⁴ With a small number of characteristics (e.g. two binary variables), matching is straightforward (one would group units in four cells). However, when there are many variables to match, it is difficult to determine along which dimensions (variables) to match units or which weighting scheme to adopt. Propensity score matching methods are especially useful under such circumstances, because they provide a natural weighting scheme that yields unbiased estimates of the treatment impact.

income, household registration status, social status, employment status and sector, and access to modern communication technologies. After matching on propensity score, the distribution of covariates should be approximately equal across treated and control groups.³⁵ In the 2010 CFPS sample, the treated and control individuals for Dibao are quite different in number (e.g. there are much more Dibao non-recipients than recipients in the sample, see Table 1), so finding a satisfactory match by matching without replacement could be difficult. Hence, we use the “nearest matching” method that chooses the control individuals closest to the treated individuals on propensity score and matches with replacement in order to reduce bias: each treatment individual can be matched to the nearest control individual even if a control individual is matched more than once.³⁶

We employ the same matching methods in the three sub-samples as well as the whole sample. The matching results are summarized in Table 3. The mean differences between the treated and the control individuals show that after matching, these two groups are quite similar across a number of personal characteristics. The percent reduction in the difference in means (or % balance improvement)³⁷ indicates that the matching has dramatically improved the balance of control and treated individuals on the observed covariates.

Table 3. Means Difference of Personal Characteristics in Matched Data

	Sub-Samples		
	Urban	Rural	All
Age	.64 (48.70)	-2.07 (77.39)	-1.59 (75.32)

³⁵ Rosenbaum, Paul. *Observational Studies*. Springer Series in Statistics. New York, NY: Springer Verlag, 1995.

³⁶ For discussion of the pros and cons of matching with replacement and without replacement, see Dehejia, RH; Wehba, S. "Propensity Score Matching Methods for Non-Experimental Causal Studies." *Review of Economics and Statistics* 84, no. 1 (2002): 151-61.

³⁷ “% balance improvement” is defined as the percent reduction in the difference in means, defined as $100(|a|-|b|)/|a|$, where a is the balance before and b is the balance after matching.

Male	-.04 (50.80)	.07 (20.50)	.04 (55.75)
Married	-.15 (12.14)	-.07 (55.39)	-.07 (33.84)
Minority	.02 (26.24)	.09 (35.75)	.07 (9.16)
Year of schooling	-.40 (84.02)	1.19 (18.33)	1.43 (10.82)
Income	-.13 (66.15)	.03 (93.12)	-.05 (90.29)
Social status	-.04 (89.21)	-.01 (92.10)	-.03 (83.93)
Party membership	.08 (49.93)	.11 (16.45)	.14 (80.44)
Employed	-.03 (85.86)	.03 (61.45)	.09 (25.26)
Self-employed	.03 (.89)	.01 (74.63)	.02 (52.33)
Retired	.04 (80.83)	.01 (33.98)	.03 (55.83)
Employed in state sector	-.01 (95.35)	.01 (30.99)	.03 (45.10)
Use new technologies	.06 (11.85)	.03 (30.87)	.05 (24.96)
N of Treated	281	384	776
N of Control	248	357	714

Notes:

1. The matching is done using the “MatchIt” statistical package (<http://gking.harvard.edu/matchit>) embedded in R; the “nearest matching” method and the option of “matching with replacement” are chosen. A
2. The numbers in parentheses are the percent reduction in the difference in means, defined as $100(|a|-|b|)/|a|$, where a is the balance before and b is the balance after matching.

4. Empirical Results and Robustness Test

Table 4 reports the regression coefficients of Dibao (with standard errors in parentheses) based on the matched data using PSM. Model (1) includes the treatment variable only; Model (2) additionally includes the control variables (including controls for demographic and socioeconomic characteristics, employment status, information access, opinions and county-

fixed effect). According to the regression coefficients estimated using the national sample, receiving the Dibao benefit did have a positive effect on citizens' assessment of local government performance; and such an effect is statistically significant with or without controlling for personal characteristics. We are not only interested in whether receiving Dibao has a significant effect on citizens' assessment of government in general but also how such an effect varies by social groups. The analysis results from different sub-samples shown in Table 4 suggest that receiving the Dibao benefit seemed to have a positive effect on urban citizens' assessment of local government, but such effect is not statistically significant no matter personal characteristics are controlled for. In contrast, the estimation of coefficients for the rural sample suggests that receiving the Dibao benefit consistently had a significant and positive effect on rural citizens' assessment of local government. Hence, it is very likely that the effect of receiving Dibao benefit in the rural sample that drives the overall effect of Dibao on citizen assessment of government. Disaggregating the whole sample enables us to identify the heterogeneity effect of the Dibao benefits.

Table 4. Regression Coefficients of Welfare Programs for Different Samples after PSM

	Model (1)	Model (2)
All	.160*** (.056)	.203*** (.062)
N	1496	1496
Urban	.078 (.094)	.060 (.101)
N	530	530
Rural	.140* (.080)	.135* (.087)
N	743	743

Notes:

1. The regression coefficients are estimated by ordered probit regression using data after PSM.
2. Model (1) includes the treatment variable only; Model (2) includes both treatment and control variables including age, gender, education, marital status, ethnicity, party membership, income, social status, employment status and sector, use new technology, optimism, life satisfaction, and county-fixed effect.
3. “All” refers to the national sample; “urban” refers to the urban sample; “rural” refers to the rural sample.
4. *** p<.01, ** p<.05, * p<.10

To make inferences about the “treatment,” we calculate the average treatment effect on the treated (ATT) by simulating the change in the expected value of the outcome variable for the treated individuals when changing T from 0 (i.e., not receiving the Dibao benefit) to 1 (i.e., receiving the Dibao benefit), while holding constant the control variables. As the dependent variable in this study is an ordered categorical variable consisting of five categories, we present the ATT results in risk ratio scale for each category of the outcomes to make interpretation more straightforward.³⁸ Figure 3 presents the ATT results simulated based on Model (2) in Table 4 for the whole and the rural samples. How large is Dibao’s effect on citizens’ assessment of government? We find that in the whole sample, receiving the Dibao benefits can increase the likelihood that citizens agree that “the local government made many achievements last year” by 44% and reduce the likelihood that “the local government’s performance was worse than before” by 39%. The ATT results for each category of rural citizens’ assessment of government indicate that receiving the Dibao benefit can significantly decrease the likelihood that rural citizens will

³⁸ For example, for the treated individuals, if an ATT of the *Dibao* benefit on *assgov=5* (“local government has made many achievements last year”) is 1.10, it means that the individuals are 10% more likely to make that assessment of government if they are *Dibao* recipients. It should be noted, for the welfare beneficiaries, the outcomes under treatment ($Y_i(1)$) are observed whereas the potential (or counterfactual) outcomes under no treatment ($Y_i(0)$) are missing. We impute the missing outcomes via simulation using ordered probit regression and then calculate the treatment effect as $Y_i(1) - \hat{Y}_i(0)$.

make the least favorable assessment of local government (“local government’s performance last year was worse than before”) by 27%.

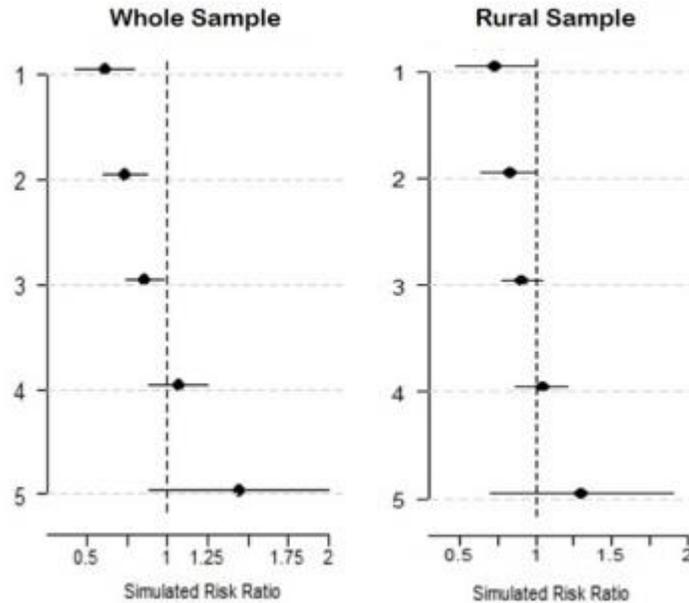


Figure 3. Effect of Receiving the Dibao Benefit on Citizens’ Assessment of Local Government Performance

Notes:

1. On the vertical axis, numbers refer to the five categories of assessment of local government performance. Specifically, “1” means “worse than before,” “2” means “no achievement,” “3” means “not many achievements,” “4” means “some achievements” and “5” means “many achievements.”
2. Numbers on the horizontal axis are the scale for the simulated risk ratios based on ordered probit regression estimates (all the variables are set at mean and only the treatment variable varies).
3. The 90% confident interval is based on a two-tailed test.

Missing data is a ubiquitous problem in public survey data including the CFPS under study. As the PSM method employed above has zero tolerance of missing data, we used listwise deletion to deal with the missing data before matching. This deletion might risk discarding valuable information and causing selection bias in estimation. To cope with these issues and check the robustness of the results presented above, we employ an alternative method to deal

with the missing data: multiple imputations for missing data.³⁹ We conduct the empirical analysis (including matching and regressions) again using a dataset achieved by 5 times of multiple imputation (MI). Analysis results using the multiple imputed data are presented in Table 5. According to the results in Table 5, the coefficient of receiving the Dibao benefit is positive in the urban samples but statistically insignificant at conventional levels; in contrast, the coefficient of receiving the Dibao benefit is positive and significant at the 99% confident level in the rural sample. Comparing the results in Table 5 to the one in Table 4, the conclusion regarding the Dibao's effect on citizens' assessment of government is consistent: Dibao could have a significant and positive effect on people's assessment of local government performance but this effect is mostly present in the rural population.

Table 5. Regression Results for Different Subsamples after MI and PSM

	Assessment of Local Government Performance	
	Model (1)	Model (2)
All	.196*** (.055)	.181*** (.060)
N	1552	1552
Urban	.182 (.112)	.106 (.125)
N	437	437
Rural	.208*** (.075)	.226*** (.079)
N	810	810

Notes:

³⁹ This method creates multiple "filled in" or rectangularized versions of the incomplete data set so that analyses which require complete observations can appropriately use all the information present in a data set with missingness. Multiple imputation has been shown to reduce bias and increase efficiency compared to listwise deletion. See Honaker, James; King, Gary; Blackwell, Matthew. "Amelia II: A Program for Missing Data." *Journal of Statistical Software* 45, no. 7 (2011).

3. The regression coefficients are estimated by ordered probit regression using data after multiple imputations and PSM.
4. The multiple imputations, to address missing data before PSM, were carried out by using Amelia II, embedded in the R statistical package developed by Honaker et al. (2011).
5. Model (1) includes the treatment variable only; Model (2) includes both treatment and control variables including age, gender, education, marital status, ethnicity, party membership, income, social status, employment status and sector, use new technology, optimism, life satisfaction, and county-fixed effect.
6. “All” refers to the national sample; “urban” refers to the urban sample; “rural” refers to the rural sample.
7. *** p<.01, ** p<.05, * p<.10

5. Conclusion and Discussion

Studies of the social welfare expansion in the developing world, especially in the context of nondemocracies have grown in the past decade. The combination of authoritarianism and dramatic social welfare expansion makes the China case particularly intriguing. It is commonly believed that the Chinese government seeks to elicit popular support for its continued rule by providing more and better social welfare benefits to various social groups.⁴⁰ Empirically, we know little about whether and how much the expanded social policies have improved popular support for the government in China. This article attempts to fill this gap in the literature by examining the attitudinal effect of social policy using the CFPS 2010 dataset. We made four specific choices in research design to better capture this effect. First, we focused on the “safety net” policy –Dibao-- that is more likely to directly drive citizens’ assessment of government performance than other social policies such as social insurance or education. Second, we examined citizens’ assessment of local government performance as an indicator of government support in China. Given the proximity between local governments and citizens as well as the

⁴⁰ Hurst, 2011; Pan, 2015; Wallace, Jeremy. *Cities and Stability: Urbanization, Redistribution, & Regime Survival in China*. New York, NY: Oxford University Press, 2014. Huang, Xian. "Four Words of Welfare in China: Understanding Subnational Variation in Chinese Social Health Insurance." *The China Quarterly* 222, June (2015): 449-74.

state dominance in China's social welfare provision, it is natural that Chinese citizens associate the Dibao benefits they receive from the local government with its competence and performance. Third, we employed PSM to reduce the selection bias in the survey data that might generate the spurious effect of social policy, that is, people with more favorable views of government are more likely to receive benefits from the government. Although the estimates using PSM are not strictly causal and need to be interpreted with caution, they provide a more accurate evaluation of the social policy effects than without matching. Four, we explored the heterogeneity effect of social policy by conducting the data analysis in different meaningful subsamples: urban residents and rural residents.

Results from our empirical analysis show that receiving the Dibao benefit had a significant and positive impact on citizens' assessment of government in China and such an effect varied by social group. The Dibao benefits had a significant and positive effect on rural citizens' assessment of local government performance: receiving the Dibao benefit increased rural people's favorable views of local government and decreased their unfavorable views thereof. In contrast, receiving Dibao benefits did not have a significant effect on urban citizens' views of local government. These empirical results are robust across different models as well as different methods of handling missing data.

The findings of this study imply that the Dibao, or the safety net for Chinese citizens, has achieved mixed success in alleviating discontent and boosting popular support for the government. On the one hand, we have some evidence that the Dibao policy has a significant and positive impact on citizens' assessment of local government performance. On the other hand, we also find that this impact is mainly driven by the rural population to which the Dibao policy has shifted the emphasis in recent years. Urban population, who were accorded the minimum

livelihood guarantee by the government since 1999, have witnessed the stagnation and even decline of Dibao expenditure and coverage in recent years. The shrinking Dibao program in urban areas might account for the absence of a significant attitudinal effect of Dibao benefits among urban citizens. Although due to data limitation we do not analyze the temporal aspects of the Dibao effects on government support in this paper, the study does provide important findings on which future research can build. Future research can take advantage of the increasingly available longitudinal or panel data from public surveys to rigorously examine the unaddressed questions here, such as how the focus shift of Dibao policy from urban to rural areas in recent years has influenced urban/rural citizens' support of government. Answers to these questions will give us a more nuanced understanding on the roots of the heterogenous effects of China's Dibao policy across social groups and over time. They will also advance our knowledge and understanding about the evolution and effectiveness of social welfare policies in nondemocratic settings.