Who Deserves to be Minimally Alive in Chinese Cities? 
Urban Decisions on the *Dibao* [the Minimum Livelihood Guarantee]

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A Common Phenomenon?

The institutions of welfare and social assistance have come under challenge in the past decade-plus, first in the industrialized West. What has been designated a “pro-work orientation,” now conditioning state subsidization of the poor, saw its onset with the 1996 “reform” of welfare in the U.S. and soon spread to Britain, continental Europe and other OECD countries. The central issue was the proper relationship that was to obtain between work and welfare; the changed notion became that financial aid ought not to be an automatic entitlement for those in need, but instead a kind of endorsement of labor-based desert for poor people who earned their take.

In China too, it would appear that the central government’s relief plan of the late 1990s and early 2000s was undergoing alteration by the end of the 2000s, also, like those in the West--to judge from central-level proclamations--growing more unfriendly to the idea of funding the fit and the firm. This plan, initially geared to help anyone at all in possession of a city-registered household identification who was indigent, was primarily devised for those who had sunken into poverty following the huge spate of enterprise dismissals after 1997. In fact, the impoverished surged

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after the cutbacks; according to a recent study of labor conflicts, already in 1997 a
“survey of 10 cities showed that 67 percent of laid-off workers were living in poverty
and 31 percent had no income at all at the time of the interview.”3 In the five or six
years that followed, many of these suddenly jobless workers went on to protest their
difficulties surviving, in response to that situation.4 Accordingly, the early
declarations of the scheme’s intent always referred to sustaining social stability
among its very top goals. In fact, that focus on maintaining order has persisted to the
present, despite the program’s officially changed perspective of late.

The scheme is labeled the Minimum Livelihood Guarantee (in Chinese the
zuidi shenghuo baozhang, or, for short, the “dibao”; its recipients are called dibaohu,
or dibao persons (or, alternatively, households). Its stated purpose is to cater to
anyone living in a household whose per capita income falls below a locally-set norm.
The opening circular, issued in 1997, noted that the three conditions for qualifying
for the aid then were at that time merely these: a person had to be without a source
of income, have no work ability and be without a legal supporter; could be an
individual whose term for drawing unemployment relief had ended but who had not
been able to get reemployed, and whose family’s average income was lower than the
local minimum standard for poverty; or could be a person either still at work or laid-
off whose wages or basic livelihood allowance--or a retired person whose pension--
did not bring the person’s household average income up to the local poverty line.5

3 Feng Chen and Mengxiao Tang, “Labor Conflicts in China; Typologies and Their
4 Ching Kwan Lee, Against the Law (Berkeley, University of California Press, 2007) and
William Hurst, The Chinese Worker after Socialism (New York: Cambridge University Press,
2009).
5 “Guowuyuan guanyu zai quanguo jianli chengshi jumin zuidi shenghuo baozhang zhidu de
tongzhi” [Circular of the State Council on the national establishment of the urban residents’
29], dbs.mca.gov.cn/article/csdb/cvfg/200711/20071100003522.shtml, accessed August 13,
2013.
In 1999, when this draft order was formalized as a set of regulations [tiaoli], the payments were still to go to all people living together in families where the average income was lower than the local poverty norm [fan gongtong shenghuo de jiating chengyuan renjun shouru diyu dangdi chengshi jumin zuidi shenghuo baozhang biaojun de]. In short, the inclusivity of the 1997 circular was retained in this official communique; this would not be surprising, for this document was disseminated just in the very midst of the then-unfolding so-termed “furlough” (xiagang) program entailing tens of millions of layoffs.

But—and here is where the similarity with the industrialized, democratic West appears—sometime in the late 2000s centrally-set rules about this benefit seemed to switch, and the conception undergirding it to return to an earlier model of income support, as the Guarantee’s guiding principles, at least on paper, started to delimit more narrowly whom should be its beneficiaries. That past program, tracing back to the 1950s, had been targeted just at a special group, those termed the “sanwu” or the “three withouts”—people with no source of livelihood, no labor ability, and no legal supporter—and only these absolutely destitute individuals were eligible for funding. The dibao, to the contrary, had, from the late 1990s, been billed as an inclusive, universal project, for all the impoverished with city registration.

Illustrating (and, one could say, publicly enunciating, this switch), a September 2012 “Opinion” promulgated under the signature of the State Council suggested a harking back to the prior, sanwu program when it specified “the old, under-age, seriously ill and seriously disabled” as its beneficiaries.

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“keypoint assistance targets.” At the same time, as in welfare in the West, the new order strongly emphasized the priority of connecting the *dibao* with employment, as it encouraged “active employment” and demanded “increased employment support” for potential recipients who “had the ability to labor.”

Soon after the announcement of that State Council command, the Ministry of Civil Affairs similarly charged the localities with urging grantees to get jobs, characterizing this as “an unusually important issue.” The Ministry’s relevant document went on to identify what its authors viewed as a “nationwide phenomenon, even one common throughout the whole world,” whereby “a large number of low-income people would rather eat [meaning depend upon] the *dibao*, and are unwilling to work.” That communication also directed officials at lower administrative levels to “increase the level of employment aid for targets having the ability to work.”

Another kind of evidence for this alteration in the specification as to who should be served by the scheme comes from my own fieldwork. In 2009, after interviewing some dozens of *dibaohu* beginning in 2007, and knowing one such household intimately going back to the late 1990s, for the first time Solinger learned that the adult members of the family had been assigned

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9 Ibid.

menial make-work positions that afforded them some wages. The mother was assigned an eight-hour per day position as a security guard at a gate to her community, earning 500 yuan per month, and the father was occasionally called upon to help out officials in the community, getting reimbursed for the effort. Prior to that time the adults in the family were left to their own devices and simply handed an allowance each month.

Furthermore, in the summer of 2012 at several of the interviews we conducted in the central China city of Wuhan—whether with *dibao* holders or with the community officials who handed out the money—there were often mentions of the sudden “stringency” that was then greeting applications for the benefit. As one leader explained,

> A person who is under 50 years of age and has work ability can’t get the *dibao* now; the policy is very strict now. If he can’t find work, that’s not a condition for getting the *dibao*. We encourage them to go work.

All of these bits of information would seem to indicate that, as in the democratic countries of the West, China’s leadership had adopted a decision to demand work from its impoverished citizens.  

In a different community [*shequ*] of the same city, the *dibao* manager asserted that,

> Now, it’s almost impossible for a healthy laid-off person to get the *dibao*. Only the seriously ill and disabled can get it. Getting the allowance depends on age and ability to work; it’s only for the old, weak, those with ill health and the disabled. If one has working ability,

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11 Email exchange from the son of the family, September 2, 11, 2009.
12 Interview with the head of a community and the director of the *dibao* program in that community, Wuhan, June 26, 2012.
he’s unlikely to get it. In the past, the policy was more relaxed and there were lots of laid-off people [getting it].\textsuperscript{13}

Yet one more sign of this turn is statistical. According to government yearbooks, in 2002, when the numbers of laid-off workers (officially designated \textit{xia}gang \textit{zhigong}, meaning staff and workers who had stepped down from their posts) were at a peak, nearly half (44 percent) of all the \textit{dibao}’s recipients were either laid-off workers or unemployed persons.\textsuperscript{14} At that time, the old \textit{sanwu} (“three withouts”) people constituted just 4.5 percent of the total.\textsuperscript{15} But by 2009, the category of \textit{xia}gang no longer existed, such people either having retired or been folded into the ranks of the unemployed beginning a few years before, and the equivalent divisions were just the registered and unregistered unemployed.

These latter two groups accounted by then for only 39 percent of the \textit{dibao} subjects, while the disabled and the \textit{sanwu}, together had jumped up to 11.7 percent.\textsuperscript{16} While there are a number of possible explanations for the apparent switch in priority, to be discussed just below, at least on the surface the data would seem to bolster a case that the pauperized and those incompetent to work had gotten a large boost at the expense of the able-bodied jobless, in the preferences of those allocating aid.

\textsuperscript{13} Interview, Wuhan, Hongshan district, June 30, 2012.
\textsuperscript{14} Most simply, a person was “unemployed” if s/he had no further connection to his/her former firm, whereas a “laid-off” workers at least in name continued to maintain “labor relations” with the firm, meaning that the firm remained responsible for contributions to the worker’s welfare funds. In truth, neither one had a job any longer.
\textsuperscript{15} Up through 2006, “disabled” was not a separate accounting category.
Causal Factors: a Quick Comparison

How and why could this transformation have come about in China?

For the European Union, Anton Hemerijck refers to what he calls a “recalibration” of welfare, according to which various cutbacks were enforced by the member states in response to “intensified international competitiveness, relative austerity, demographic ageing and the changed structure of labor markets and families.” Hemerijck asserts that these states were compelled in that climate to adapt their systems of support to better cope with these challenges.\(^{17}\)

Hemerijck reasons that, in addition, the “high unemployment, strained, social benefits and public finances” that resulted from these assaults “put enormous pressure on elected politicians.”\(^{18}\) Nonetheless, despite what the work of another political scientist would not have predicted, these states have seen a “shift from a predominantly passive welfare state, narrowly focused on equality in terms of..redistribution between large social aggregates..to a more active welfare state, supported by new normative discourses on the centrality of paid work..”\(^{19}\)

The reference here is to the research of Paul Pierson, who, as Hemerijck phrased it, has focused on the “vested interest networks with considerable insider lobbying power” that make changes in welfare programs problematic, and to Pierson’s attention to the “political constituency constraints of electoral retribution, on the one hand, and organized interest

\(^{18}\) Ibid., 9.
\(^{19}\) Ibid., 107.
opposition against welfare reform, on the other.”

Obviously, in Pierson’s perspective, politicians’s preoccupation with reelection dominates and constrains their handling of welfare policy.

In China not all of these threats have loomed (although some of them—new international competition, ageing, and an alteration of the configuration of labor markets, with the surge in layoffs of the late 1990s—did, but not always to the same extent as in Europe). But it could be that the international financial crisis of 2008, which significantly restricted China’s export markets and the ongoing economic slowdown that came in its wake, did contribute to a rethinking of the philosophy of state handouts.

Besides similar pressures, according to the work of Tao . Liu, there is another element contributing to some analogies between the dibao and Western welfare. Even from the earliest days, dibao designers drew upon examples from the U.S. and Europe, according to Liu, including copying American procedures of means-testing and cash transfers and its (at least originally) comprehensive coverage of all indigent people, along with its low level of benefits. Unfortunately, in addition to the more generous aspects of foreign examples, Liu also was told in his interviews that Britain’s 1834 New Poor Law was influential. That law introduced the principle of “least eligibility,” according to which relief for the unemployed and the poverty-

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21 This concern is also a chief theme in Pierson’s first book, Dismantling the Welfare State? Reagan, Thatcher, and the Politics of Retrenchment (Cambridge: Cambridge University Press, 1994).
stricken must be set at a level, both qualitatively and quantitatively, well below that currently prevailing in a given place in terms of wages and conditions of employment.

The late Tony Judt contrasted this precept, which, he observed, made a reappearance—following the generalized rejection of the postwar welfare state in the 1990s—in the dictates of “modern welfare reform,” which turned a system featured by serving “rights bearing citizens” having “an unconditional claim upon the attention and support of the collectivity...[and in which] no category of person [was] excluded or less ‘deserving’” into a plan governed by a “‘discretionary’ approach [that] makes an individual’s claim upon the collectivity once again contingent on good conduct.” The reform “reintroduces a *conditionality* to social citizenship; only those with a job are full members of the community,” Judt charged.23

But even if there are likenesses, both in causal factors and by way of direct borrowing, there is a crucial difference politically. Most crucially, pressure on politicians in China comes not from voters, since, in authoritarian China—where there are no elections at levels above the villages and the urban “communities” [shequ]—they are not accountable to their constituents. Instead, the source of stress that governs their moves is above their heads.

Ballot casters and economic troubles aside, there are a range of reasons in the China case that could explain the statistical drop in the percentage of unemployed people being granted the allowance and the discouragement to people fit to labor from applying for it. These reasons include a movement to train and reemploy former workers who had been

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relieved of their previous postings, along, in some cities, with concerted efforts to arrange new situations for them, as for the Wuhan family noted above. In Shanghai, local levels of administration, such as the street [jiedao] create temporary jobs such as assisting the police [xiejing] or helping out urban management officials [chengguan xiezhu renyuan] or as shegong, serving as underlings for social workers. Though the wages for such posts are minimal, as forms of public sector employment the positions are much in demand, and priority for them is accorded the *dibaohu*.24

There are also very petty types of work supplied by local governments, such as sweeping the streets, standing guard at gates or serving as a cashier, that pay a wage that may be small but that is still, if barely, sufficient to remove the recipients from the *dibao* rolls.25 *Dibao* officials in Hongshan district, Wuhan alleged that they had gradually found new work for their local laid-off after 2005, in the sanitation, sweeping, service and security realms, as well as driving taxis, and that these people derived incomes from those positions that surpassed the local poverty norm. These officials were able to arrange these placements by using their networks with other units; doing so earned their *shequ* a star for reemployment.26

Older dismissed workers reached retirement age by the end of the decade and obtained their pensions; by 2008, this had already occurred for many of them, who then had to relinquish their *dibao* allowance.27 As one community leader stated, “Very few people with a pension can get the

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24 Intervews with Xiong Yihan, a Fudan University scholar who is studying welfare issues, Shanghai, June 20, 2012 and email from him, August 9, 2013 and interview with community leader, Jing’an district, Shanghai, June 26.
25 Interview with *dibao* manager, Wuhan, June 26, 2012.
26 Interview, June 29, 2012.
27 Interview with social worker, Shanghai, June 27, 2013.
There were also policies piloted in a number of cities that could account for the drop in beneficiaries. These were one-time severance payments [*maiduan gongling*] that left some laid-off persons with assets that exceeded the poverty line; or an exchange agreement [*xiebao*] between some of these people and their firms, according to which the enterprise continued to turn in welfare payments for the furloughed, even as these people ceased to be its working, wage-earning employees. Other *dibao* subjects, leaving their hometowns to find informal work, were counted by their local *dibao* officials as earning incomes above and beyond the poverty line, and so were pushed from the poverty lists.

But a larger query looms behind these possibly anecdotal explanations. That is, how can one account for variation among cities in their responses to the new central policy to favor the desperate and discourage the hardy in distributing social assistance? Our answer will employ insights from various directions. But first, we need to explain the sources of our data, and also to point to some of the possible causes for the inter-urban variation suggested in other research.

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28 Interview with community leader, Shanghai, June 26, 2013.
30 One such story can be found in the Chinese references to Scott Neuman, “Authorities: China Bus Fire that Killed 47 Was Arson-Suicide,” NPR, June 8, 2013. www.npr.org/blogs/thetwo-way/2013/06/08/18983285/authorities-china-bus-fire-that-killed-47-was-arson-suicide, accessed on August 5, 2013.
Data Sources and Variation

Data

In addition to our interviews over the years 2007 to 2013 in eight cities (Wuhan, Xi’an, Lanzhou, Shanghai, and Guangzhou, plus three prefectural-level cities in Hubei, namely, Jingzhou, Qiangjiang, and Xiantao), we also consulted statistical yearbooks on population and employment, cities, civil affairs, and finance as well as relevant secondary literature on social assistance programs and unemployment issues, both in China in recent years and in Western Europe and the U.S.

First, we selected 79 cities. We did this by first including all the provincial capitals in the sample, and then randomly selecting two cities from each of the province and autonomous regions from the list of cities published in China City Statistics Yearbook. This yielded a set of metropolises that included the provincial capitals of 26 provinces plus four specially administered municipalities (Beijing, Shanghai, Tianjin, and Chongqing), with Lhasa, the capital city of Tibet, and Urumqi, the capital city of Xinjiang Uygur Autonomous Region excluded for lack of necessary minimum livelihood data, in addition to another 49 medium-sized and smaller cities. In the set as a whole, 44 of the cities, or 55.7 percent of them, had populations exceeding one million people.

We were interested in changes in two dependent variables between the years 2009 and 2012. We selected those two years because those are the only years for which we found detailed information on the numbers of

31 Size of city is controlled during the random selection process. City size is measured by a city’s population size. Any city that has a population below 3 million is in viewed as a small and medium sized city.
recipients that the 600-plus cities of China had categorized into each of ten subcategories among the poor (these categories are the disabled, the “three withouts” [hereafter, the sanwu], the registered unemployed, the unregistered unemployed, those still at work, students, those doing flexible labor, the aged, etc.). These two dependent variables were, first, changes (both rises and falls) between 2009 and 2012 in the percent of registered and unregistered unemployed recipients in each city, as a percent of all dibao recipients in a given city; and changes (both up and down) in the percent of sanwu plus disabled recipients as a percent of all dibao recipients in each city, also from 2009 to 2012.

We decided to combine the two groups of unemployed (the registered and the unregistered unemployed) into one conglomeration, since people comprising these two categories among the dibaohu are all without work and may be viewed similarly by those allocating the funds [in a later version of this paper we hope to check whether that assumption is valid]. We put the disabled category together with the sanwu category since those in these two groups, as the most needy, are likely to be handled similarly.

The reason for choosing these particular dependent variables is that our chief concern was to understand whether or not cities responded to the recent heightened severity in central government regulations concerning the allocation of social assistance [dibao] funds. Furthermore, we wanted to see if cities varied in this respect, and, if they did, what factors about the cities might be correlated with their compliance, or lack thereof, with the central leadership’s shift.
The independent variables we tested were the following: 1) urban population in the city district for each city (shixiaqunei rekou, 市辖区 内 人 口) (2009-2010); 2) percent of city population receiving the dibao (2010); the average wage in a city (200-2011)\(^{32}\); 3) the official unemployment rate for each city (2007-10), especially changes in this rate between 2009 and 2012; 4) the dibao poverty line or norm for the cities where this figure was available (2011)\(^{33}\); 5) urban gross domestic product per capita (2009); 5) revenue per capita in each city for \textbf{YEAR??}; and 6) average expenditure per person per month for each dibao recipient in each city (2009, 2012). There were also several control variables, including city size and regional location. These data were available for all or most of the 79 cities for certain recent years; in each case the most recent year available was chosen.

Here we briefly lay out the rationales for picking each of these seven variables. The first variable, size of urban population, was collected first of all in order to separate cities into large (one million people and above) and medium and small cities (below one million). [In a later version of this paper, we will control for size; in this paper we just want to see the differences, if any, between larger and smaller cities with regard to the two dependent variables.] That figure was also necessary in order to calculate most of the other independent variables (this is true for variables 2), 4), 5), and 7, all of which involved computing percentages of the population figure or working out per capita amounts of other figures, all of which required using the size of the population as the denominator). There are serious inconsistencies in the way urban population is measured across cities, as explained below, but it seems that the shixiaqunei figure is probably the closest figure to being comparable.

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\(^{32}\) This data is limited to 26 cities in 2011.
\(^{33}\) This data is only available in 2011 and are limited to 29 cities.
Variable 2), the percent of population receiving the *dibao*, was needed for understanding the level of relative poverty in each city, that is, the percentage of the whole city’s (stated) population whose income is below the poverty norm in that city and that received the *dibao* in the year(s) in question. Variable 3), official unemployment rate, while highly unreliable as we will explain in more depth below, should nonetheless be more or less comparable across cities (since officials in all cities are subject to the same pressures to report inaccurate figures), and was employed to analyze whether rises and falls in the percentages of unemployed people getting the *dibao* in each city might be correlated with increases and decreases in numbers of people reported as actually having become unemployed in a given city over the years 2007-2010.

The fourth variable, GDP per capita, a datum that is also questionable (mainly because it assumes that cities have are comparable in what they report to be their “urban populations,” and yet these data cannot be consistently compared across cities, as explained below), was utilized to compare the relative wealth of the different cities. Here we calculate GDP in terms of output produced just within the city district, namely “renjun diqu shengchan zongzhi” (人均地区生产总值).

Variable 5), revenue per capita, was used for the same purpose, that is, to compare the relative wealth of the various municipalities, even though has the same flaw. Variable 6), average *dibao* expenditure per person, helped to determine whether the generosity or stinginess of that expenditure has any bearing on increases or decreases in the percentage of total outlay going to the unemployed and to the destitute in each city over the years 2009-2012.

We were also interested in finding out whether *increases* in the percentage of unemployed recipients from 2009 to 2012 in a given city shows a negative
correlation with decreases in the percentage of disabled and sanwu, and whether the converse is so as well. The logic in this case is to discover whether these categories are supported in a zero-sum way, such that a trade-off is made: when the unemployed as a group get a larger share of the funds, does that mean that the disabled and sanwu will see a cut? We also consulted national-level data on unemployment rates for 2002, 2006, 2007, 2008, 2009, 2010, and 2011, and tables on the breakdown of dibao recipients into the various categories of the indigent from 1996 to 2012. Before examining the quantitative findings, we first lay out some qualitative findings pertaining to inter-city variation in dibao allocation.

Qualitative Evidence of Variation

Secondary literature, along with recent interviews in Wuhan and Shanghai, yielded qualitative information that suggests bases for variation among cities. To begin with, Tang Jun, the most central Chinese scholar involved in the design, operation, and evaluation of the dibao program, stated in a 2003 publication that, “With the exception of Beijing, Shanghai, Shandong, Jiangsu, Zhejiang, Fujian, and Guangdong, all the other provinces got the central government’s financial subsidies.” One can recognize immediately that these seven provincial-level units are uniformly situated along the east coast; they also constitute the wealthiest geographical segment of the country. According to Tang’s information, then, the leaders of these places are not dependent upon the central government for funding for the dibao, and so they are free to frame their own policies of social assistance.

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35 Gallagher, op. cit., 139 notes, for instance, that Shanghai’s “rapidly developing economy afforded the local government much space in which to formulate policies” that diverged from those of central governmental ministries.
At least in Shanghai, according to one source—and perhaps in other cities of high status—the city has hold of a pot of some four billion yuan per year that it could conceivably draw upon for subsidies to low-income residents.\textsuperscript{36}

The metropolises in these provinces are also jurisdictions from which ambitious officials can reasonably expect that—if they perform well in the eyes of their superiors—their path to further upward mobility should be relatively smooth. Put a bit differently, politicians assigned to govern a city that is wealthy and whose economic development is progressing well will probably assume that they have a good chance at promotion, so long as they keep social order under control in their city, and provided that nothing goes wrong regarding the economy during their time in office there.

One could thus hypothesize that local leaders in such places would be especially concerned—compared with officials elsewhere—to ensure that the very most critical objectives of the central government (and Party) be observed. For, as Pierre Landry has written, “the Party is able to link political rewards with performance among the small but critically important subset of local officials who perform unusually well.”\textsuperscript{37} This feat must be eminently more achievable in municipalities that are more prominent nationally, and where economic development has been successful. And as Landry has also pointed out, “mayors are upwardly mobile: In recent years, the composition of the top echelon of Party leaders [i.e., those promoted to rule in national offices in either the Party or the state] has reflected the importance of experience as mayors and municipal party secretaries

\textsuperscript{36}Daniel Ren, “Shanghai’s low-paid workers struggling as city races ahead,” \textit{South China Morning Post}, April 2, 2011. This piece claims that the funds come from the city’s auctions of vehicle license plate numbers.

for promotion to higher political office.”

As noted above, ensuring social stability remains at the core of the goals of the social assistance program. This career consideration surely molds the motivations of these municipal officials at least as much as the prospective ballot tally does in democracies, despite that the incentive comes from the opposite direction (from above in China, not from below).

Indeed, several scholars have found that there are “soft” and “hard” targets and “priority targets with veto power” sent down to local officials. According to Maria Edin, “priority targets with veto power” are the most pivotal for lower-echelon officials ambitious about upward mobility. For, in her words, “veto power implies that if [such] leaders fail to attain these targets, this would cancel out all other work performance, however successful, in the comprehensive evaluation [done of them] at the end of the year.” Moreover, she continues, “completion of priority targets constitutes the basis for personnel decisions.” “Priority targets with veto power are exclusively used for key policies of higher levels” she explains, as she notes that, “There are two [of these] which are enforced nation-wide, mirroring the importance which the Communist Party places on these policies: family planning and social order.” Accordingly, urban cadres, especially those having an eye on advancement and, unlike officials in smaller or poorer cities, a reasonably high chance of attaining that promotion, would choose to ensure social order above all else. They are likely to make this choice even when achieving (or sustaining) order—as by refusing to cut

38 Ibid., 81 and Chapter Three as a whole.  
39 The term was changed to “social harmony and stability” and repeated a number of times in the 2012 State Council “Opinion” (Guowuyuan guanyu jinyibu jiaqiang).  
40 The critical references on the “cadre responsibility system,” whose soft, hard, and especially for the purposes here, “priority targets with veto power,” of which social order is one of two, are discussed in Maria Edin, “State Capacity and Local Agent Control in China: CCP Cadre Management from a Township Perspective,” The China Quarterly, No. 173 (2003): 35-52, especially 36-45. See also Susan H. Whiting, Power and Wealth in Rural China: The Political Economy of Institutional Change (Cambridge: Cambridge University Press, 2001), 100-117.  
41 Edin, op. cit., 39, 40.
back on the social assistance given to unemployed workers (which, if done, could lead to protests)—means ignoring a short-term order to make such cutbacks, especially when that short-term order can be very likely to produce unrest.

Less well-to-do and smaller municipalities, to the contrary, depend for large portions—or in some cases nearly all—of their welfare subsidies. For one example, according to a colleague’s research in summer 2013 in central China’s Hubei, more than 70 percent of that province’s *dibao* outlays has come from the Ministry of Finance since 2009.42 And interviews in prefectural cities in that same province in 2010 revealed that upper-level subsidies to them for the *dibao* came close to 100 percent.43 The percentage of the *dibao* funds sent from above to cities in the far west, where poverty is rampant but local finances tight, is bound to be similarly high. It would be logical to assume that politicians in those places were far more apt to follow the latest *dibao* directives from the central government than were those managing richer regions who could be autonomous in this regard. (And, as just implied, compared to better situated local politicians, such officials should be less likely to entertain reasonable hopes for higher promotion.)

Indeed, to back up this surmise, in the past couple of years there has been a new slogan charging localities with “using rewards [for good implementation of the *dibao* program] to substitute for [pure] subsidies [*yi jiang dai bu*].”44 And in the Ministry of Finance’s 2013 report to the annual meeting of the National People’s Congress in March, one could find the following statement, “We increased subsistence allowances for urban [and rural] residents living in areas

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42 Interview, Wuhan, June 19, 2013, with Fenghua Zhou, a faculty member at a local university who is researching this issue.
43 Qianjiang got 99 percent of its *dibao* funds from the central government, and Xiantao got 98 percent of theirs (interviews, July 6 and July 8, respectively).
44 Interview, Wuhan, with local scholar, June 19, 2013; the phrase also is in *Guowuyuan guanyu jinyibu jiaqiang, op. cit.*
that receive central government subsidies by an average of 15 yuan per person per month,\textsuperscript{45} demonstrating the power of the central government to determine the level of subsidies granted to those lower level jurisdictions for whose funding it is responsible.

Other factors may also distinguish the behavior of officialdom in monied and more independent municipalities from those in more deprived locations, though it is difficult to determine definitively in which direction. While either sort of city—depending upon its chief industrial sectors, its level of foreign investment, and the condition, size and number of its state-owned enterprises—could have produced large numbers of laid-off workers in the critical 1997-2002 years, it is likely that the more affluent domains had higher numbers of registered unemployed people.

This is because to be registered as unemployed, one would have to have worked for a firm that had paid into its employees' unemployment insurance fund continuously over a period of years; the firm ought also still to be in existence and contributing to the fund at the time a worker wished to register as jobless. One could imagine that in cities in straits the majority of the discarded workforce would exist simply as unregistered unemployed, having been cast off by firms that were going under. These contradictory comments may imply that one cannot deduce from the process of sacking staff itself whether a city had higher or lower levels of people left jobless as of the early 2000s.

Another point that may be germane here is that spots where the laid-off were exceptionally numerous, among which were Shenyang (29 percent of the workforce) as well as throughout the northeast generally; and Tianjin, Chongqing, Nanjing, and

Xi’an (where, in each of which, the figure ranged around 20 percent), were apt to have been the sites of massive protests in the period around the year 2000. Current-day leaders in these localities are likely to be loath to withdraw the dibao from able-bodied workers who were once delivered it, thereby handing them a pretext for running to the roads in demonstration once again.

**Quantitative Findings**

**Problems with City Population and Unemployment Data**

**City population data**

There are serious inconsistencies in the way urban population is measured across cities. But it seems that the figure for the population in the city district (shixiaqunei renkou, 市辖区内人口) is probably the closest figure to being comparable. The difficulty affects any measure that uses “urban population” as its denominator, such as in using GDP per capita to compare wealth among cities. This is, first of all, because many Chinese “cities” now contain large stretches of rural areas and rural-registered population. And some cities include their rural-registered residents (those holding a nongmin hukou) as part of their total “urban population” while others do not.

Another issue is that some cities include their suburban populations as part of their total “urban population,” but not all cities do. Moreover, given wide rural-urban disparities in income, these issues render not only the term “urban population” one that is inconsistently used among cities; in addition, many city _per capita_ indicators are simply not reflective of the true city situation. The value of such

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47 Lee on the northeast, *op. cit.* and Hurst, *op. cit.*

48 For instance, Landry, *op. cit.*, 99 states that he uses GDP per capita to represent a city’s overall wealth.
indicators, instead, is a function of the proportion of the "ruralness" in any given city’s “urban” districts.⁴⁹

As for GDP itself, most cities report their total GDP (that of the “whole city” (quanshi 全市)), a space which definitely includes many rural residents who are not counted as part of the “city’s” population. But then these cities often go on to count only the “urban-registered” as members of their “urban populations,” omitting any count of the rural migrants residing in the city but lacking urban registration. The numbers of such migrants in some cases amount to as much as a third of the city’s formal, official urban population. Such variable counting renders it impossible to be confident about comparing cities with regard to any measure that was calculated with “urban population” in its denominator. This also means that calculations such as those for variables 2), 4), and 5) will be questionable. Nonetheless, we have no other more reliable information upon which we can rely.

Urban unemployment data

For urban unemployment, as noted above, we chose to use numbers for both the registered and the unregistered unemployed, since all the people counted in these conglomerates are people without jobs. We used the interval 2007 to 2010 to check for changes in cities’ unemployment rates, figuring that shifts in that period ought to be reflected in cities’ choices about dibao selection and delivery during the years 2009 and 2012, the years for which we have the breakdowns of categories of dibao recipients for each city.

Official urban unemployment is another datum that is totally unreliable. This is because, perhaps in the interest of not arousing public disapproval or popular withdrawal of faith in the government—or even inciting widespread protest—the regime reports that the rate of unemployment is lower than it actually is. Central level politicians also urge that the rate in each city be kept at levels that are lower than they in fact probably are, and officials governing cities are loath to report higher rates.\textsuperscript{50} Examples are the charge from the National Development and Reform Commission in March 2008 that the rate be kept at about 4.5 percent;\textsuperscript{51} the next year, perhaps reflecting the global slowdown that year, the then-Premier was slightly less ambitious, calling for holding the rate “under 4.6 percent.”\textsuperscript{52}

In early 2013, possibly a sign of the ongoing economic slowdown, again the Premier demanded just keeping “the registered urban unemployment rate at or below 4.6 percent.”\textsuperscript{53} This order came near the start of a set of “general requirements, major targets and macroeconomic policies for this year’s economic and social development,” in the Premier’s annual Government Work Report. “The purpose” of [all of] this work,” he cautioned, “is to preserve law and order and promote social harmony and stability.” Meanwhile, two surveys of eight thousand households around the country conducted in August 2011 and again in June 2012 revealed rates of 8.0 and 8.5, for the two times, respectively.\textsuperscript{54}

\textsuperscript{50} Duckett and Hussain, \textit{op. cit.}, 213.
Furthermore, as Jane Duckett and Athar Hussain learned in fieldwork in six cities in 2002 and 2005, not only are those who rule municipalities primed by career incentives to declare to their superiors that their levels of the registered jobless are near the national target. Their own ability to collect employment data that is accurate is seriously constrained as well. Problems include that data are collected by more than one municipal bureau in addition to being tabulated by several sub-provincial levels of government, and the information systems meant to consolidate this data are substandard, at best. “The result,” they judge, “is that not only are real unemployment rates not known,” but they tend to gather statistics for only state-connected enterprises and, thus, “labor departments may not even know of the existence of many firms since they appear and disappear rapidly.”

As further evidence of the researcher’s inability to make use of the official unemployment data, of all the 79 cities for which we have employment data, in cities in which the unemployment rate dropped between the years 2007 and 2010, only three cities (Changzhi, Shangrao, and Tongchuan) showed a decrease of three percent or more; of those where there was a rise in unemployment over those years, just three (Lishui, Xinyu, and Shizuishan) exhibited a rise over 4.4 percent. All six of these cities are small, two of them in rural provinces in the far west; two more in Jiangxi province and one in Shanxi, both less developed provinces; and just one, Lishui was in a wealthy, coastal province (Zhejiang). All the other cities claimed to have experienced only very minimal changes in their rates, almost all of them hovering at or below four percent.

family-value. The surveys were conducted by Prof. Gan Li of Southwestern University of Finance and Economics of China and Texas A&m University in the U.S.

55 Duckett and Hussain, op. cit., 213-221. Another source, on the difficulty in calculating the numbers of unemployed, is Dorothy J. Solinger, “Why We Cannot Count the Unemployed,” The China Quarterly, 167 (2001), 671-88.
Given these major deficiencies in two of our variables, we have to admit to the limitations of our findings. Still, these are the available data and they are what we are compelled to work with. We believe that we can make an assumption that, regardless of the actual figures submitted, most cities, being under the same constraints imposed by the central government, ought to behave relatively comparably when recording and reporting their unemployment information. We also expect that, even if the unemployment rates made public are somewhat far from the mark, at least they should probably accurately indicate whether levels of unemployment rose or dropped in a city in the intervals of interest.

Quantitative variation

The first important finding, one that was contrary to our expectations, and so that led us to pursue other explanations for our data, was the result that there was no significant relationship between the magnitude of change in the unemployment rate, whether up or down, from 2007 to 2010 in the cities for which we have employment data, on the one hand, and changes between 2009 and 2012 in the percentage of total dibao recipients in a city who were either registered or unregistered unemployed people, on the other hand.
Table 1. Correlation matrix on changes in unemployment rate from 2007 to 2010 and changes in total dibao recipients who were either registered or unregistered unemployed people

<table>
<thead>
<tr>
<th></th>
<th>Unemployment rate change from 2007-2010</th>
<th>Changes in dibao recipients who are registered and unregistered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate change from 2007-2010</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Changes in dibao recipients who are registered/unregistered</td>
<td>0.0046 (0.9708)</td>
<td>1.0000</td>
</tr>
</tbody>
</table>


This finding would seem to indicate that, assuming that local decisionmakers are intentionally favoring or slighting unemployed people, they are making these decisions independently of a change in the magnitude of the numbers of people out of work, whether up or down.

A second finding is that there does tend to be somewhat of a zero-sum relationship between giving allowances to the needy (sanwu + disabled) and giving them to unemployed people: Descriptive statistics demonstrated that when the percentage of the unemployed (both registered and unregistered) among all recipients decreased between 2009 and 2012 (29 cities from the 79 city sample), 16 cities observed an increase of disabled dibao recipients. The reverse was also the case: When the percentage of the unemployed (both registered and unregistered) among all recipients increased between 2009 and 2012 (50 cities from the 79 city sample), 30 cities observed a decrease of sawu dibao recipients. This suggests that policy makers may see a trade-off between subsidizing unemployed people and assisting the most needy, namely, those who are disabled and the sanwu.
The next set of findings, our third, has to do with the relative wealth or lack thereof in a city. We discovered that there is a positive and significant relationship between the amount of what is termed “budgetary revenue,” for which there is data (as distinct from off-the-books, or “extra-budgetary” revenue, for which we do not have data) per capita in a city and the average dibao expenditure in a city. Here we ran a correlation matrix again and the positive correlation is significant at .10 level.

Table 2: Correlation matrix between average dibao expenditure (per person) in 2012 and budgetary revenue per capita in 2010.

<table>
<thead>
<tr>
<th></th>
<th>average dibao expenditure 2012</th>
<th>budgetary revenue per capita 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average dibao expenditure 2012</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>budgetary revenue per capita 2010</td>
<td>0.1898 (0.0939)</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: Data to calculate budgetary revenue per capita (budgetary revenue and urban population) are from China City Statistics Yearbook 2007, 2010; dibao data are from Ministry of Civil Affairs of the People’s Republic of China. 2012 data: [http://files2.mca.gov.cn/cws/201207/20120725095058088.htm](http://files2.mca.gov.cn/cws/201207/20120725095058088.htm); 2009 dibao data:

The message here is that more well-off cities, that is, cities having higher budgetary revenue, spent more on their dibaohu.

Relatedly, and fourth, among the cities that decreased the percentage of recipients who were needy (the sanwu and the disabled) between 2009 and 2012, the higher the dibao expenditure per capita was in 2012, the more significant the decrease in the percentage of needy recipients was in that year [TING: THIS IS FROM WORK YOU SENT ME ON JUNE 5. PLEASE INSERT HERE.] We draw from this finding that richer cities decreased the proportion of the recipients in
their cities who were needy; given the third finding reported above, this should imply, additionally, that these wealthier cities increased the percentage of their recipients who were unemployed, contrary to the orders of the central government.

Similarly, fifth, of the cities that increased the percent of the unemployed among their *dibao* recipients in 2012 as compared with 2009, when the *dibao* expenditure per capita was comparatively higher in a city in 2012, the extent of the increase in unemployed among the city’s *dibao* also rose between 2009 and 2012.

**[TING: PLEASE MAKE SURE I SAID THIS CORRECTLY.] [ALSO, TING: THIS IS FROM JUNE 6. PLEASE INSERT THE MOST RELEVANT EVIDENCE FROM YOUR WORK HERE.]** Again, we conclude that wealthier cities were more prone to favor the unemployed over this three-year interval, as opposed to helping the needy, and that more wealthy cities are even more prone to do so.

Sixth, and once again underlining the same general point, if we look just at 2012 data, we find that 2012 *dibao* expenditure per person correlates significantly with the percent represented by the two groups of unemployed people among the *dibao* population in a city in that same year: higher expenditure per capita in 2012 meant comparably more unemployed recipients. In other words, richer cities (those that pay a higher expenditure per recipient, as we learned from the fourth finding above) also have a relatively larger percentage of unemployed people among their *dibao* recipients. **[TING: THIS FINDING COMES FROM WHAT YOU SENT ME ON APRIL 30, AT 22:57:02. PLEASE PUT IN HERE JUST THE MOST RELEVANT BIT OF WORK—THIS COMES FROM WHEN YOU DID: “CORRELATE 2012 DB EXPDTR/RECIP WIT %2UE DB POP IN ‘12”]**

The seventh finding is that the lower the *dibao* expenditure in a city in 2012, the more the increase in needy recipients from 2009 to 2012; putting this together
with the finding just above, this is in line with finding three above about the zero-sum relationship between the respective percentages of needy and unemployed recipients in a given city. [TING: PLEASE USE YOUR WORK THAT YOU SENT ME ON JUNE 5 FOR THIS.] Thus, poorer (or less well-off) cities are the ones most apt to respond to central governmental demands that the unemployed should be taken off the rolls—or, perhaps, that new entrants to the program should tend less to be unemployed and more to be needy. This is what we would have predicted, given that less well-off and poorer cities are dependent upon higher levels for their dabao funds.

And the eighth finding, possibly the one of greatest interest, extends the inference just above: among the 79 cities for which we were able to find unemployment data, only 29 of them (44.5 percent) reported a lower overall percentage of unemployed recipients in 2012 as compared with 2009; these are the cities that seem to have responded to central government orders to cut back on their unemployed recipients. Of these 29, 11 were provincial capitals or specially-administered municipalities. This is just 38 percent of the cities at that level.

But if we look at the most recent year for which we have data, the year from 2011 to 2012, the year in which the central government seems to have become more forceful in its request to cut back on the unemployed among recipients, we find that 35 cities (50.7 percent, a higher percent than we saw between 2009 and 2012, presumably showing heightened compliance in the most recent year) reduced the percentage of unemployed among the recipients. Of these, only one, Chongqing, was a specially-administered municipality, while only six others were provincial capitals. This means that just six out of the total 26 provincial capitals [TING: CAN YOU PLEASE CHECK IF THIS IS RIGHT—I MEAN, DO WE HAVE THIS DATA FOR ALL 26 PROVINCIAL CAPITALS—ALL BUT LHASA?] for which we
have data (only 23 percent, or less than one quarter) chose to obey the order from Beijing to cut back on unemployed recipients. [TING: THIS IS FROM MAY 19.

PLEASE ADD IN RELEVANT TEST] In sum, it appears that in cities that are provincial capitals or specially-administered municipalities, the municipalities where officials are likely to be most ambitious, when there is a conflict between a short-term goal set above their heads (such as to get able-bodied, unemployed persons to work) and a “priority target with veto power,” namely, maintenance of social order, officials choose to meet the target most closely connected to movement up the promotion ladder, i.e., the “priority target.”

Finally, we constructed a four-cell table, showing the relationship between the rise and fall of officially reported unemployment between the years 2007 and 2010, on one hand, and the rise and fall in the percentage of dibao recipients who were unemployed people (both registered and unregistered) in the various cities, between the years 2009 and 2012. For this, we made an assumption that, even though the actual rates of unemployment officially reported were probably not accurate, it is still likely that the direction in which the unemployment level moved in a city, whether up or down, over those three years, was correctly recorded. (See Appendices 3, 4, 5, and 6.)

We also assumed that if there were any kind of relationship between reported unemployment and handouts to unemployed people there should have been a certain time lag. This is because local officials making decisions about how to distribute their dibao funds would have done so at least in part in reaction to what was happening in the labor market in the prior year or two. Finally, we also remained cognizant of the autonomy of officials in richer cities with respect to dibao funds, and of the descisive impact on local officials’ careers that central leaders’ assessments of
those leaders have--based on these leaders’ fulfillment of central-level orders, especially for social order, a priority target with veto power.

The findings in the four-cell table were these: of the 79 cities we investigated, y20 (or about one quarter of these) saw a rise in unemployment between 2007 and 2010 and an increase in the percentage of their dibao recipients who were unemployed over the years 2009 to 2012. This is not a surprising finding. Besides, Harbin, a provincial capital where there had been large numbers of layoffs in the years around 2000, is one of these cities; Tianjin, one of the places noted above as having seen as much as a fifth of its workforce laid off in the recent past, is another. One could easily surmise that such locales would try to ensure that no cause were given for more demonstrations.

The next cell, occupied by just six cities, saw unemployment rise from 2007 to 2010, but the percentage of dibao recipients who were unemployed declined between 2009 and 2012. These cities, mostly small and poor (Shuozhou in Shanxi, Tonghua in Jilin, Xinyu in Jiangxi, and Yuxi in Yunnan are four of the six), are likely to be heavily dependent upon the central government for the funds for their dibao, such that their leaders may well be queasy about disobeying the recent central-level regulations on turning able-bodied people to work, not allowing them to depend upon welfare money, to sustain their livelihoods. The two provincial capitals in this set (Shaanix’s Xi’an, in the west, and Inner Mongolia’s Huhehaote, in the far north) are both far from the coast and not highly well-off.

In the third cell, containing cities where unemployment fell, but where local officials continued to raise the percentage of unemployed people receiving the dibao, there are 30 municipalities, or 38 percent of the total. Here there are cities, such as

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Shenyang, where layoffs were the most numerous in the country (as per above, 29 percent of the workforce there as of the early 2000s), and also a group of cities in Guangdong province (Zhuhai, Dongguan, and Guangzhou), where the national export business is centered, and where, in recent years, businesses have suffered due to the shrinking global market for exports. One can suspect that issues of unemployment are particularly sensitive in such places so that, even though these cities’ reported rates of unemployment have gone down in the past few years, they could still be averse to depriving the unemployed. In addition, Guangdong has been a site of large-scale worker protests since 2010—not over job loss, but nonetheless indicative of the potential militancy of labor there.

There are other, wealthier cities in this cell that fund the dibao without any central government financial subsidies, such as Shanghai and Nanjing, both thriving provincial capitals. Such places finance their dibao program entirely from their own funds and therefore do not have to listen to orders from the central government about how to handle the dibaohu and the allowances for them. And these cities are apt to be governed by officials on an upward career trajectory, so that for them sustaining social order is their highest priority. Besides, as locales with active market economies, they are well endowed to create jobs for their poor.

The last cell, where unemployment fell between 2007 and 2010, and where the percentage of the unemployed among the dibao also fell, holds 23 cities, 29 percent of the whole set of cities. It is quite reasonable for these cities to obey the central government regulations and stop giving funds to all the unemployed there who used to get the money. These cities, like central China’s Wuhan, may, like Wuhan, also have managed to create new work for the unemployed. It is interesting to note here that two medium-sized cities in Jiangsu, Suzhou and Yangzhou, seem to have decided to follow the immediate regulation to stop funding the unemployed,
while the province’s capital city, Nanjing, which is more apt to be governed by an upwardly mobile politician, has increased the percentage of its *dibao* recipients who are unemployed between 2009 and 2012.

This exercise is for the most part speculative, but the data is suggestive, and the results have stimulated some informed thinking. Surely there is an opening for further research that may be able to confirm or deny these inferences.

*Conclusion*
## APPENDICES

Appendix 1. Cities where unemployment rate dropped from 2007 to 2010

<table>
<thead>
<tr>
<th>City</th>
<th>Unemployment 2007</th>
<th>Unemployment 2010</th>
<th>Rate drop 2007-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>0.012</td>
<td>0.007</td>
<td>-0.005</td>
</tr>
<tr>
<td>Shijiazhuang</td>
<td>0.035</td>
<td>0.032</td>
<td>-0.003</td>
</tr>
<tr>
<td>Qinhuangdao</td>
<td>0.040</td>
<td>0.025</td>
<td>-0.016</td>
</tr>
<tr>
<td>Baoding</td>
<td>0.040</td>
<td>0.029</td>
<td>-0.011</td>
</tr>
<tr>
<td>Taiyuan</td>
<td>0.042</td>
<td>0.034</td>
<td>-0.008</td>
</tr>
<tr>
<td>Changzhi</td>
<td>0.046</td>
<td>0.002</td>
<td>-0.043</td>
</tr>
<tr>
<td>Baotou</td>
<td>0.036</td>
<td>0.035</td>
<td>-0.001</td>
</tr>
<tr>
<td>Erduosi</td>
<td>0.045</td>
<td>0.035</td>
<td>-0.010</td>
</tr>
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<td>-0.005</td>
</tr>
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<td>-0.023</td>
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<td>-0.016</td>
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<td>-0.015</td>
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<td>0.012</td>
<td>-0.001</td>
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<td>City</td>
<td>City in Chinese</td>
<td>Growth Rate 2007</td>
<td>Growth Rate 2009</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------</td>
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<td>钦州</td>
<td>0.036</td>
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<td>梧州</td>
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<td>0.037</td>
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<tr>
<td>Zhangye</td>
<td>张掖</td>
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</table>

### Appendix 2. Cities where unemployment rate rose from 2007 to 2010

<table>
<thead>
<tr>
<th>City</th>
<th>城市名</th>
<th>Unemployment 2007</th>
<th>Unemployment 2010</th>
<th>Rate increase 07-10</th>
</tr>
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<tbody>
<tr>
<td>Tianjin</td>
<td>天津</td>
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<td>0.040</td>
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</tr>
<tr>
<td>Shuozhou</td>
<td>朔州</td>
<td>0.012</td>
<td>0.031</td>
<td>0.019</td>
</tr>
<tr>
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<td>呼和浩特</td>
<td>0.036</td>
<td>0.043</td>
<td>0.007</td>
</tr>
<tr>
<td>Dalian</td>
<td>大连</td>
<td>0.018</td>
<td>0.024</td>
<td>0.006</td>
</tr>
<tr>
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<td>通化</td>
<td>0.020</td>
<td>0.023</td>
<td>0.002</td>
</tr>
<tr>
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<td>哈尔滨</td>
<td>0.030</td>
<td>0.034</td>
<td>0.004</td>
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<tr>
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<td>大庆</td>
<td>0.024</td>
<td>0.034</td>
<td>0.010</td>
</tr>
<tr>
<td>Mudanjiang</td>
<td>牡丹江</td>
<td>0.034</td>
<td>0.038</td>
<td>0.003</td>
</tr>
<tr>
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<td>丽水</td>
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<td>0.049</td>
<td>0.044</td>
</tr>
<tr>
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<td>0.053</td>
<td>0.012</td>
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<tr>
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<tr>
<td>Nanning</td>
<td>南宁</td>
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<td>0.030</td>
<td>0.003</td>
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<tr>
<td>Zunyi</td>
<td>遵义</td>
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<tr>
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<td>昆明</td>
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<tr>
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<td>玉溪</td>
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<td>0.015</td>
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<td>西安</td>
<td>0.041</td>
<td>0.050</td>
<td>0.009</td>
</tr>
<tr>
<td>Baoji</td>
<td>宝鸡</td>
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<tr>
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<tr>
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<td>Guyuan</td>
<td>固原</td>
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<td>0.045</td>
<td>0.017</td>
</tr>
</tbody>
</table>

Appendix 3.