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## How much do we know about the impact of the economic downturn on the employment of migrants?

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**ADB Working Paper Series**

**How Much Do We Know about the  
Impact of the Economic Downturn  
on the Employment of Migrants?**

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**Xin Meng, Sherry Tao  
Kong, and Dandan Zhang**

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**Abstract**

The employment shock of late 2008 in the People's Republic of China (PRC) may have been a product of three different events: (i) the contractionary macroeconomic policies introduced by the government and the central bank in 2007 to slow growth, (ii) the introduction of the new Labor Contract Law at the start of 2008, and (iii) the reduction in export orders due to the global financial crisis from the second half of 2008. These three events occurred sequentially, and their impact on employment has been borne most heavily by rural–urban migrants. Using unique data that track 5,000 migrant households in 15 cities from 2008 to 2009, this paper documents the size of the employment impact of the economic downturn, investigates the geographic location and industry distribution of the effect, and examines the types of migrant workers who lost their jobs in 2008 because of the economic downturn. We find that job loss is not confined to export manufacturing industries, nor is it restricted to coastal cities where export industries are located. We interpret this widespread job loss to indicate that the employment shock that took place in the PRC at the end of 2008 and early 2009 was a response to both the global financial crisis and domestic economic policies.

**JEL Classification: J64**

## Contents

1.	Introduction.....	1
2.	Background .....	2
3.	The Size of the Employment Effect.....	3
3.1	Existing Estimates.....	3
3.2	RUMiCI Survey and Tracking Method.....	4
3.3	Estimates of the Adverse Employment Impact Using RUMiCI Data .....	6
4.	Who has Borne the Brunt of the Economic Downturn? .....	18
5.	Conclusion.....	21
	References .....	22
	Appendix A: GDP and Import-Export Values in 2006, by City.....	23
	Appendix B: Relationship Between Probability of Being Tracked and Age .....	24

## 1. INTRODUCTION

The recent global economic downturn has had a significant impact on employment in many countries, and the full effect is yet to be felt, with the Organisation for Economic Co-operation and Development (OECD) expecting unemployment rates of around 10% next year. In the People's Republic of China (PRC) the economic downturn has been relatively mild: the economy is still expected to grow by at least 6% in 2009. But labor productivity growth in the PRC over the last few decades has been so significant that even such high output growth is not enough to offset the already apparent job losses.

The employment effect in the PRC may be a product of three different events<sup>1</sup>: (i) the contractionary macroeconomic policies that were introduced by the government and the central bank in 2007 to slow growth but that are likely to have the same effect on the economy as the current crisis; (ii) the introduction of the new Labor Contract Law at the start of 2008, considerably increasing the cost of unskilled labor and prompting employers to cut their labor inputs; and (iii) the reduction in export orders due to the global financial crisis from the second half of 2008. These three events occurred sequentially and their impact on employment has been borne most heavily by rural–urban migrants, who provide much of the labor in the export and the low-cost, labor-intensive industries in the PRC. The close timing of these events will make it difficult to estimate the contribution of each factor. But it is useful to bear in mind that the PRC economic downturn of mid-2008 to early 2009 was the outcome of these combined events.

Generally speaking, the same set of people—rural–urban migrants—have been hit hardest by these three events. In 2008, around 130 million rural–urban migrants worked in the cities and accounted for one-third of the total urban labor force. These migrants are heavily involved in the export industries and in building and construction, both of which have been particularly affected by the downturn. The disproportionate burden of the adjustment on migrant workers is an important policy issue. Not only should we be concerned by their uneven share of the cost of the economic downturn but the sheer numbers of these workers suggest that if the economic crisis is not handled well the heavy job losses among migrants may affect the stability of the economy and society.

In this paper we address two issues. First, we document the extent of employment loss and its geographic location and industry distribution. Second, we determine the types of migrants that have borne the brunt of the downturn.

The Rural–Urban Migration in China and Indonesia (RUMiCI) Project, a 5-year project funded by the Australian Agency for International Development (AusAID), Australian Research Council, and Ford Foundation that began in the second half of 2007, provides a unique set of data to help in understanding these issues. As a major part of the research, we surveyed 5,000 migrant households in 15 cities. In the course of sampling, interviewing, tracking, and re-interviewing this group of migrants, we accumulated a detailed record of what has been happening.

The paper is structured as follows. The next section gives background information on the economic policy environment before and during the economic downturn. Section 3

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<sup>1</sup> Policies leading to the closure of high-pollution businesses in many cities may also have been another contributory factor. Yulin city in Gansu province has reportedly closed 297 highly polluting firms since 2007 (see [http://www.gscn.com.cn/get/sx/0810708522783270\\_60.html](http://www.gscn.com.cn/get/sx/0810708522783270_60.html)).

discusses the size of the employment impact, and Section 4 examines the types of migrant workers who lost their jobs in 2008 because of the economic downturn. Conclusions are given in the last section.

## 2. BACKGROUND

Along with double-digit growth in 2006, the PRC's trade surplus and foreign reserves both hit new highs in 2007. In the first half of 2007 the main concern was the rapid growth in asset prices; in the second half it was the rise in the consumer price index and the producer price index. PRC policy makers took quick action to control the overheating economy. Lending rates and deposit rates were increased six times in 2007 and the reserve requirement ten times, reaching their highest levels in more than two decades. The primary policy agenda that emerged from the Central Economic Work Conference in December 2007 involved preventing the economy from overheating and structural inflation from becoming a broad-based one. These contractionary macroeconomic policies had an important role in slowing down economic growth in 2008.

The new Labor Contract Law was passed at around the same time. It was formally approved at the 28th National People's Congress in June 2007 and took effect on 1 January 2008. The law requires employers to sign permanent (open-term) contracts with all workers who have had two fixed-term contracts under the same conditions or have been with the same employer for at least 10 years. In addition, employees and unions must be informed of any layoff and retrenchment plan at least 1 month before it is implemented and the plan has to be approved by the local labor bureau. Employers must pay their laid-off workers 1 month's salary for every year of employment, up to 12 months' salary.

The significance of this law was, to some extent, reflected in its polarized drafting and the highly contentious debates that attended its adoption (Cooney et al. 2007). On the one hand, the rising labor disputes and other social problems undermined social stability and called for a national labor law. Moreover, the government had embarked on a development strategy that emphasized industrial upgrading and promoted social harmony. Proponents of the law argued for a set of regulations aligned with the PRC's development agenda that would further workers' interests, particularly through greater employment security and income protection. Enterprises that could not afford the higher labor costs would disappear. On the other hand, the law instantly raised labor costs, limiting the flexibility of corporations to structure their employment arrangements and possibly "over regulates employment relationship" (Zhao and Lim 2008).

Employers reacted sharply long before the law was passed. While it was still being drafted, some factories were already geared to evade responsibility and the potential additional costs under the new law. Employers used two coping strategies (Wang et al. 2009). One was "creative compliance" (evasion). Employers would coerce employees to resign—and thereby forfeit important seniority claims—and then rehire them as new employees. Huawei Technologies Co. Ltd, the PRC's biggest maker of telecommunication network equipment, reportedly encouraged more than 7,000 employees to take up the "voluntary resignation" scheme at the end of 2007 to avoid permanent contracts with employees of more than 10 years (*People's Daily* 2007). The other coping strategy used by employers was to reduce employment, with stronger and more immediate implications for migrant workers. Many labor-intensive manufacturers began to shutter their factories and shift production to even-lower-wage regions of the

PRC or Southeast Asia. Wang et al. (2009) state that, by one account, 1,000 footwear and accessory producers had reduced output or closed up shop in Guangdong by early 2008. Some moved to the PRC hinterland, others to Viet Nam and Burma, where labor was cheaper and legally defenseless. Similarly, after the law took effect, already feeling the pinch of weakening export demand, business owners hurried to shed workers and rearrange work contracts to circumvent the regulations (*Asia Times Online* 2008).

By early to mid-2008, while the government still feared the overheating of the economy, coastal exporters and textile manufacturers were having to contend with rising costs and weak global demand. Meanwhile, property markets in some cities were softening. The employment impact of the external shock had taken shape. Rising costs and the slowdown in exports was reported to have contributed to the closing of at least 67,000 factories across the PRC in the first half of 2008, forcing laborers to scramble for other jobs or to return home to the countryside (Wong 2008; *China Digital Times* 2008).

It became increasingly clear that overheating was no longer the main challenge. The PRC quickly realized it had to refocus on sustaining economic growth amid a global slowdown. Accordingly, the policy agenda shifted from preventing overheating and broad-based inflation to ensuring stable economic growth and controlling inflation. Policymakers halted the yuan's appreciation and boosted tax rebates to help exporters. The People's Bank of China cut interest rates in mid-September 2008, for the first time in 6 years. In addition, many provinces introduced measures delaying or reducing social welfare payments by enterprises in difficulties, or even exempting the enterprises altogether from such payments for up to 1 year (Shi, 2009).

### **3. THE SIZE OF THE EMPLOYMENT EFFECT**

#### **3.1 Existing Estimates**

How badly has the employment of migrants been affected by contractionary macroeconomic policies, the new Labor Law, and the global financial crisis? Three recent surveys reveal a very gloomy picture. According to a January 2009 survey by the Ministry of Agriculture in 150 counties and 15 provinces known as major migrant-originating areas, around 15.3% of the 130 million migrant workers—20 million—have lost their jobs because of the global financial crisis.<sup>2</sup>

Another official survey by the National Bureau of Statistics among 68,000 rural households in 31 provinces, 857 counties, and 7,100 villages between the end of 2008 and early 2009 shows that, of the 140 million or so rural migrants who worked in cities in 2008, 50% had returned to their home villages by the end of the year. Eighty percent of those who returned home went back to the cities after the Chinese New Year, while 20% (10% of the total migrant labor force) chose to stay on in their rural hometowns.

The third source of information is a series of small surveys conducted by the Xilu Migrants Survey Group between November 2008 and January 2009. Of the 809 individuals surveyed, 89.5% had returned home for the Chinese New year by 14

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<sup>2</sup> The data came from Xiwen Chen, director of the Chinese Communist Party's Office on Rural Policy, during a news conference in Beijing on 2 Feb. 2009.



January, 12 days before the holiday. Forty-six percent of the returning migrants said that they had returned earlier than usual, mostly (in 76% of cases, or 35% of the total migrant labor force) because their workplaces had shut down, downsized, or forced them to take extended holidays. Of those who had returned home for the Chinese New Year, 69% indicated that they would definitely be going back to the cities, 7.2% suggested that they would not do so, while the remaining 24% had not decided either way at the time of the survey.

All of the three studies seem to indicate a similar size of adverse impact from the economic downturn. But these studies are based primarily on surveys in the migrant-originating areas and on the stated intentions of the migrants to return to the cities. In addition, the timing of these studies around the Chinese New Year may have biased the results because migrant workers usually quit their jobs to go home and then find new jobs after coming back. What really happened is not revealed in the literature. Did the workers really go back to the cities as they said they would, and if so could they find jobs? In this paper, we use more objective information gathered by sampling, interviewing, tracking, and re-interviewing a group of migrants in the RUMiCI survey to gauge the size of the adverse impact of the economic downturn on migrant employment.

### 3.2 RUMiCI Survey and Tracking Method

The RUMiCI project is a research collaboration initiated by the Australian National University and Beijing Normal University. The project surveys three groups of households: 5,007 rural–urban migrants who worked in 15 designated cities<sup>3</sup> in 2008, 5,000 urban households in the same cities, and 8,000 rural households from 10 provinces or metropolitan areas where the 15 cities are located.<sup>4</sup> While the urban and rural household surveys use household survey samples from the National Bureau of Statistics, there is no available sampling frame for rural–urban migrants. Previous migration surveys normally used a household-based sampling methodology, whereby interviewers randomly selected migrants in selected urban neighborhood communities. The main limitation of this sampling method is that only a small proportion of migrants in PRC cities live in urban neighborhood communities. A large proportion of them live in factory dormitories, at the back of the restaurants or construction sites where they work, or in rural suburbs in the vicinity. A sample drawn from city residential communities may be quite unrepresentative of the migrant population. The RUMiCI research team employs a unique and innovative sampling strategy to address this concern.

Essentially, the survey uses a sampling frame based on information collected in a census of migrant workers at their workplaces. More specifically, during the census stage, we first defined the boundaries for the 15 cities so that they included at least part of the areas where there were manufacturing firms with large migrant worker concentrations. These were often at the junction of the city and its surrounding rural areas and often excluded from the definition of the city. Our city areas were then divided into 500 x 500 meter blocks and a number of blocks (equal to around 12% of the sample size for each city) were randomly selected. Within each block, all the workplaces were

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<sup>3</sup> Shanghai, Guangzhou, Shenzhen, Dongguan, Nanjing, Wuxi, Hangzhou, Ningbo, Wuhan, Chongqing, Chengdu, Hefei, Bangbu, Luoyang, and Zhengzhou.

<sup>4</sup> The RUMiCI project is funded by the Australian Research Council, the Australian Agency for International Development (AusAID), and the Ford Foundation.

covered by the census. The questions included the industry type, the total number of workers, and the total number of migrant workers. The data obtained from this census of workplaces were then used as the sampling frame and simple random sampling was used to select our sample individuals. Once we had located the individual migrants, the their households were also interviewed.<sup>5</sup>

Relative to household-based sampling, the advantage of using workplace-based listing information is that it includes all the migrants who are working regardless of where they live. The sampling method excludes migrant households whose members are *all* unemployed at the time of the sampling. Fortunately, as most migrants have no access unemployment benefits or any other safety net, those who cannot find a job generally do not stay in the city. As a result, the unemployment rate for migrants has been low (see, for example, Du, Gregory, and Meng [2006]).

In October–December 2007 the project team conducted a block census in the 15 cities. The sampling and survey took place between March and May 2008, after the migrants had gone back to the cities from their annual home visit during the Chinese New year. In the 15 cities 5,007 migrant households were interviewed. During the sampling in March–April 2008 we observed that a sizable number of workplaces, mainly in Dongguan, Shenzhen, and Guangzhou, had already shut down. The survey company indicated to us that this was the result of the implementation of contractionary macroeconomic policies and the introduction of the new Labor Law.

Because this was to be a 5-year project, a tracking strategy was developed. An important feature of the migrant population is its high degree of geographic mobility, making tracking very difficult. At the time of the survey we recorded the individual migrants' work and home addresses and other contact details in the cities as well as in their home villages. We also recorded the phone numbers of three close relatives or friends of each interviewee so that we could track them even if they and their households moved. These are normal tracking strategies adopted by any panel survey. We realized, however, that our sample population was different and that, because of its high mobility, we might have to enhance the simple tracking design. We therefore thought of further tracking incentives. First, we decided to conduct three lottery activities each year for all our respondents. The prizes in the first year ranged from CNY50 to CNY2,000, and the prize amounts are set to increase each year. The lottery is designed to cover only 1.5% of the respondents, but if an individual participates in the survey for 5 years the probability of receiving a prize goes up to 20%. Only when an individual is successfully tracked is his or her name entered in the lottery. The respondents were told all this at the time of the survey interview. We hoped that this would encourage them to keep us informed of their whereabouts. Another incentive strategy we devised was to send a present to each respondent's rural home each year before the Chinese New Year, in the hope of strengthen the link between the respondents and the project team.

Five months after the first survey (October 2008) we contacted all the respondents to confirm their contact details and send each one a small gift. At the same time, we revealed the first lottery results. Soon after, in December and again in February 2009, we conducted two more rounds of tracking.<sup>6</sup> However, despite all these efforts, the 2008

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<sup>5</sup> For detailed information regarding the sampling methodology, see <http://rumici.anu.edu.au/>.

<sup>6</sup> The 2009 Chinese New Year was on 26 January 2009. Normally migrant workers return to their rural home villages for the Chinese New Year and go back to the cities 15–20 days after the holiday. Our last tracking was therefore conducted after 15 February 2009, at the time most of the migrant workers had gone back to the cities.

survey had a very high attrition rate, closely associated with the economic downturn. To compensate for the high attrition rate, we carried out a re-sampling based on 2007 census data before the 2009 survey. But first we had to validate the 2007 census framework, given the economic downturn. We revisited 13% of the census blocks (64 blocks) from the original total of 489 blocks surveyed in 2007 to find out whether the workplaces recorded at the time had changed their operating status.<sup>7</sup> This small-scale re-census provided us with another set of information for determining whether the original workplace had shut down, had changed to a new entity, or had not changed. It did not, however, give us information about the degree of downsizing within existing workplaces. Hence, it gave us a lower-bound estimation of the impact of the economic downturn.

### **3.3 Estimates of the Adverse Employment Impact Using RUMiCI Data**

Table 1 presents the number of workplaces and rural migrant workers, by city and industry, according to our 2007 census data. The table shows that, among our census migrants, 67% were employed in services and wholesale–retail trade, while 18% were in manufacturing. Manufacturing was heavily concentrated in the coastal regions. In addition, more than 70% of the migrants were employed in eight coastal cities (Guangzhou, Dongguan, Shenzhen, Shanghai, Nanjing, Wuxi, Hangzhou, and Ningbo). These data gave us a starting point for describing the employment status of rural–urban migrants in our sample cities before the economic downturn, and for comparing the data with employment data after the downturn.

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<sup>7</sup> The total number of blocks surveyed in 2007 and the number of blocks re-surveyed in 2009 are listed in Appendix A.

**Table 1: Distribution of Workplaces and Rural Migrants, by City and Industry, 2007**

<b>City (Number of workplaces)</b>	<b>Construction</b>	<b>Manufacturing</b>	<b>Education and Government Organizations</b>	<b>Various Types of Agencies</b>	<b>Services</b>	<b>Wholesale and Retail Trade</b>	<b>Total</b>
Bangbu	42	260	54	91	3,412	3,551	7,411
Chengdu	1,121	1,033	1,475	6,461	94,695	81,656	186,440
Chongqing	1,280	1,668	756	1,513	54,768	35,219	95,205
Dongguan	1,344	6,049	1,253	2,108	42,345	50,777	103,876
Guangzhou	550	2,201	2,699	4,952	54,732	48,863	113,996
Hangzhou	404	1,374	1,159	2,210	36,392	31,421	72,960
Hefei	1,130	706	477	1,377	30,406	27,298	61,394
Luoyang	192	947	414	207	10,049	6,956	18,766
Nanjing	916	1,374	1,168	3,595	55,938	35,880	98,871
Ningbo	274	535	162	635	11,591	9,163	22,360
Shanghai	2,091	3,772	1,804	9,553	105,370	87,002	209,592
Shenzhen	1,311	2,639	1,090	2,970	43,150	37,683	88,843
Wuhan	1,205	4,367	1,857	2,460	62,223	53,036	125,149
Wuxi	914	5,044	914	2,133	27,689	19,633	56,326
Zhenzhou	1,628	4,379	767	1,404	44,072	35,220	87,471
<b>Total</b>	<b>14,404</b>	<b>36,348</b>	<b>16,049</b>	<b>41,667</b>	<b>676,833</b>	<b>563,359</b>	<b>1,348,661</b>

<b>% of Employment, by Industry and City</b>	<b>Construction</b>	<b>Manufacturing</b>	<b>Education and Government Organizations</b>	<b>Various Types of Agencies</b>	<b>Services</b>	<b>Wholesale and Retail Trade</b>	<b>Total Employment</b>
Bangbu	7.91	13.78	0.30	1.44	30.32	46.24	24,859
Chengdu	10.69	3.08	0.57	6.37	45.83	33.45	877,242
Chongqing	9.22	4.68	1.24	0.82	48.76	35.28	642,618
Dongguan	1.24	26.29	3.23	1.72	12.55	54.97	2,274,729
Guangzhou	1.30	23.23	2.88	6.07	40.09	26.43	1,041,502
Hangzhou	7.06	17.64	2.48	2.69	36.98	33.15	548,258
Hefei	10.10	5.35	1.29	8.94	36.33	37.99	293,956
Luoyang	8.33	12.92	2.23	0.52	38.85	37.15	95,874
Nanjing	16.86	15.86	1.19	10.21	38.16	17.73	672,406
Ningbo	26.06	8.99	5.07	10.14	28.21	21.55	216,356
Shanghai	8.35	10.85	1.50	11.88	41.29	26.13	1,479,731
Shenzhen	7.21	21.81	0.99	2.77	36.32	30.91	949,059
Wuhan	5.17	28.90	3.08	2.88	36.49	23.47	911,481
Wuxi	9.40	40.82	2.00	6.03	22.01	19.75	1,024,504
Zhenzhou	21.48	8.21	1.27	1.60	34.49	32.96	434,452
<b>Total share of employment (%)</b>	8.36	18.25	2.04	4.68	34.00	32.68	
<b>Total employment</b>	991,995	2,475,530	266,698	667,909	4,282,078	2,802,816	11,487,028

Source: 2007 Census Data.

We based our assessment of the employment situation since the economic downturn on two data sources: the block re-census data and the sample tracking data.

We classified our block re-census workplaces into those that had been shut down and those that had not. We then used this information together with the 2007 census data to draw implications regarding the proportion of workplaces in each industry within our 2007 census blocks that had shut down and, using probability distribution as weight, to generate an implied shutdown ratio for the city as a whole. In addition, with the 2007 census data on the number of migrants employed in each workplace, we were able to calculate the implied employment impact of the shutdowns.<sup>8</sup> Table 2 shows the proportion of workplaces that have shut down since the economic downturn, by city and industry. In all 15 cities, around 9% of the workplaces have shut down since November–December 2007. Among these cities, Wuhan and Dongguan have had the highest proportion of shutdowns and almost all industries in both cities have been adversely affected. In the 15 cities as a whole, shutdowns have been highest in construction, manufacturing, and various types of agencies.

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<sup>8</sup> In normal years businesses may also shut down but new ones will take their place. Our data excluded cases where a new business replaced the old one. Thus, we believe that our data closely reflect the impact of the economic downturn with respect to business shutdowns. Of course, it would be ideal if we could compare the shutdown rate arrived at with our data with observations from a period without the economic downturn. Unfortunately, such data are not available at this point. However, by this time next year, the RUMiCI project should be able to obtain data in a normal economic environment if the PRC economy has recovered by then. If so, we can go back to correct our current estimates.

**Table 2: Distribution of Closed Workplaces and Shutdown Rate, 2009****Panel A: Number of Closed Workplaces (weighted by industry–city sampling weight)**

<b>City</b>	<b>Construction</b>	<b>Manufacturing</b>	<b>Education and Government Organizations</b>	<b>Various types of agencies</b>	<b>Services</b>	<b>Wholesale and Retail Trade</b>	<b>Total No. of Closed Workplaces</b>
Bangbu	0	0	0	272		991	1,263
Chengdu	140	0	0	0	455	1,884	2,480
Chongqing	0	0	0	0	5,353	3,953	9,307
Dongguan	672	3,074	501	527	11,934	15,118	31,826
Guangzhou	0	0	257	990	5,711	6,261	13,220
Hangzhou	101	89	145	0	6,000	5,308	11,643
Hefei	0	0	238	172	3,062	3,140	6,613
Luoyang	96	0	0	0	412	598	1,106
Nanjing	0	153	156	1,514	6,978	11,012	19,811
Ningbo	91	76	0	41	874	1,857	2,940
Shanghai	0	0	361	546	6,144	10,741	17,792
Shenzhen	82	0	0	858	2,123	1,489	4,553
Wuhan	0	662	929	1,757	25,075	31,389	59,811
Wuxi	166	1,244	0	711	4,214	4,945	11,279
Zhenzhou	814	0	0	0	5,650	4,892	11,356
<b>Total</b>	<b>2,163</b>	<b>5,297</b>	<b>2,586</b>	<b>7,388</b>	<b>83,985</b>	<b>103,578</b>	<b>204,999</b>

**Panel B: Shutdown Rate (%)**

<b>City</b>	<b>Construction</b>	<b>Manufacturing</b>	<b>Education and Government Organizations</b>	<b>Various types of agencies</b>	<b>Services</b>	<b>Wholesale and Retail Trade</b>	<b>Total No. of Closed Workplaces</b>
Bangbu	0.00	0.00	0.00	37.50	0.00	9.76	5.17
Chengdu	20.00	0.00	0.00	0.00	0.63	2.52	1.57
Chongqing	0.00	0.00	0.00	0.00	6.74	7.01	6.67
Dongguan	36.36	44.93	21.05	23.08	22.14	24.44	24.65
Guangzhou	0.00	0.00	6.25	12.20	8.07	7.31	7.69
Hangzhou	20.00	5.13	5.56	0.00	12.71	12.97	12.11
Hefei	0.00	0.00	14.29	6.67	6.01	8.02	6.85
Luoyang	50.00	0.00	0.00	0.00	1.69	4.00	2.63
Nanjing	0.00	7.69	6.67	25.81	8.89	11.76	10.80
Ningbo	25.00	6.45	0.00	2.90	5.19	9.09	7.21
Shanghai	0.00	0.00	6.25	3.51	3.77	6.58	4.94
Shenzhen	6.06	0.00	0.00	17.81	4.27	3.25	4.27
Wuhan	0.00	15.15	37.50	62.50	34.62	49.15	40.64
Wuxi	18.18	21.95	0.00	17.65	11.07	15.81	13.91
Zhenzhou	46.15	0.00	0.00	0.00	10.14	10.47	10.30
<b>Total</b>	<b>12.88</b>	<b>11.89</b>	<b>9.14</b>	<b>11.96</b>	<b>9.48</b>	<b>12.20</b>	<b>9.16</b>

Source: 2009 Re-census Data.



Matching the closed workplaces with the number of migrant workers they hired in November–December 2007 allowed us to examine the employment effect of the shutdown. Table 3 presents the industry and city distribution of the impact of the shutdown on migrant employment for both calculations. On average, around 13% (1.4 million) of the migrant employment in the 15 surveyed cities has been affected by the shutdowns in the economic downturn. Among the 15 cities, Dongguan, where around 34% of the migrant employment has been affected, is the worst hit. The other cities that have been badly affected are Wuxi and Ningbo, where around 20% of the migrant employment has been affected by shutdowns. If we believe that the global financial downturn has mainly affected export-oriented cities, we may rank our 15 cities according to their export concentration. Appendix A gives the 2006 the share of export value in city gross domestic product for each of our 15 cities and ranks them accordingly. Shenzhen and Shanghai rank first and third, but surprisingly their migrant employment has been among the least affected by shutdowns. This suggests that perhaps factors other than the global downturn are at work here.

**Table 3: Proportion of Rural Migrant Employment Affected by Shutdowns (%)**

City	Construction	Manufacturing	Education and Government Organizations	Various Types of Agencies	Services	Wholesale and Retail Trade	Total Proportion of Migrants Affected	Total No. of Migrants in Shut-Down Workplaces
Bangbu	0.00	0.00	0.00	0.00	0.00	8.78	2.57	523
Chengdu	0.00	0.00	0.00	0.00	0.00	1.30	0.25	1,083
Chongqing	0.00	0.00	0.00	0.00	1.73	0.78	1.30	7,151
Dongguan	6.17	70.88	0.00	22.96	14.05	22.38	33.69	766,808
Guangzhou	0.00	0.00	0.43	28.51	5.18	8.25	5.68	60,400
Hangzhou	0.00	3.41	1.05	0.00	8.75	1.90	4.43	20,552
Hefei	0.00	0.00	66.67	0.00	3.32	7.52	4.19	12,348
Luoyang	77.95	0.00	0.00	0.00	0.82	1.85	12.31	8,727
Nanjing	0.00	0.00	7.61	66.53	3.94	11.81	10.28	65,426
Ningbo	70.42	0.00	0.00	0.12	3.63	10.75	22.33	48,539
Shanghai	0.00	0.00	13.89	18.23	2.52	2.46	4.17	78,485
Shenzhen	0.42	0.00	0.00	15.05	2.77	14.25	4.56	41,911
Wuhan	0.00	2.16	1.96	95.51	1.51	27.68	9.43	77,173
Wuxi	26.89	29.04	0.00	13.95	3.42	24.02	19.98	188,434
Zhenzhou	2.10	0.00	0.00	0.00	3.59	8.23	3.61	15,886
Total	7.87	23.54	2.25	23.78	3.96	15.05	12.64	1,393,447
<b>Total no. of migrants affected</b>	81,969	573,735	5,276	164,157	152,633	415,677	1,393,447	
<b>Total no. of original number of migrants</b>	1,674	6,252	26	2,010	1,547	5,436	16,945	

Source: 2009 Re-census Data.

Further, the impact on migrant employment has been felt in both the traded goods industry (manufacturing) and the non-tradable goods industry (wholesale and retail trade). In Wuhan, 28% of migrant employment in the wholesale-retail trade sector has been affected. From this point of view, it seems that both domestic policies and the global financial crisis have had sizable impact.<sup>9</sup>

Note that the shutdown effect is a lower-bound estimate of the extent of the effect of the total economic downturn on employment. From our re-census data, we could not gauge the size of the downsizing in the existing workplaces. Our tracking data for the 5,007 migrant households surveyed in 2008 may shed some light in this regard. However, using tracking data to infer the effect of the economic downturn effect on employment can be quite tricky, as in a normal environment one expects a certain attrition rate. The literature does not provide a benchmark attrition rate for an average population in a normal economic environment. The Household, Income and Labour Dynamics in Australia (HILDA) survey and the British Household Panel Survey (BHPS) may provide such benchmarks. Between the first wave and the second wave, HILDA had an attrition rate of around 13.2%, while the rate for BHPS was 12.4% (Watson and Wooden 2004). We could therefore regard the 12%–13% attrition rate for HILDA and BHPS as a benchmark for an average population in a normal economic environment.

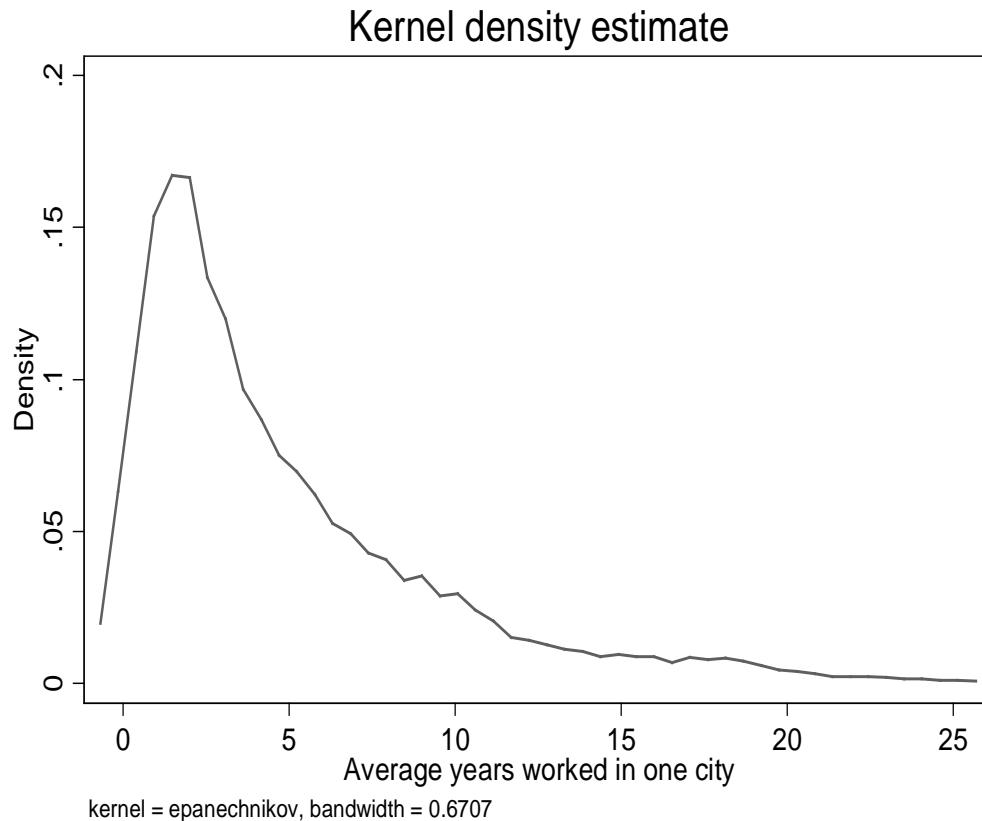
Our sample population, however, is much more mobile, and hence the attrition rate for the average population represented in HILDA and BHPS may not be a suitable benchmark for our purpose. In developed countries, the highly mobile population is the youth, in particular young men (see, for example, Olsen [2005]). The group aged 20–24 in the HILDA survey had an attrition rate of 23.4% between wave 1 and wave 2 (Watson and Wooden 2004).

The migrant population represented in our sample, although older, with an average age of 28 years, faces a very different institutional environment from that of the youth in developed countries. Because of the restrictions on access to jobs in the formal sector and to social services and social safety net in the cities, migrants' jobs are very insecure and there is no safety net to rely on in case of job loss (Meng 2000; Meng et al., forthcoming). Hence, migrants tend to move around much more than the average population or even ordinary youth.

Using the data on the length of time since the first migration and the number of cities migrants have worked in since the first migration, we can calculate the average length of stay of migrants in one city. In our 2008 sample of 5,007 migrant household heads, the median length of stay in one city for work purposes is 3 years (see Figure 1). Thus, the average annual mobility should be around 30% without the economic downturn. With this information as well as information about a "normal" mobile population in the HILDA survey, we can expect a normal attrition rate of around 30% for our sample between the first and second wave in a normal situation without the economic downturn.

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<sup>9</sup> Of course the global financial crisis has also affected the non-tradable goods sectors, such as real estate and banking. However, the slowdown in those sectors will have limited impact on the employment of rural-urban migrants, as most of the migrants are unskilled.

**Figure 1: Kernel Density Estimate**

Source: Authors' calculations.

As discussed earlier, we tracked our 5,007 migrant households three times, in October 2008, December 2009, and February 2009. Each time, our targeted population was the 5,007 original households surveyed. The attrition rate for each of these tracking dates is reported in Table 4. The attrition rate for the first tracking in October 2008 was 34.2%, already higher than what we expected under a normal economic environment. The second tracking 2 months later resulted in a 39.4% attrition rate for the original 5,007 sample households, or an additional 5.2 percentage point loss. Relative to the 3,296 households tracked in October 2008, the second attrition rate was 16.7%. Finally, just before we embarked on the second survey, the third tracking recorded an attrition rate of 48.8% with respect to the original sample (14.6 percentage points below the first tracking), or 24.9% with respect to the sample of 3,035 households in the second tracking. This third and final tracking gave us an attrition rate 18.8 percentage points higher than our expected attrition rate for a normal economic environment. This may serve as an upper-bound estimation of the employment effect of the economic downturn.

**Table 4: Attrition Rates for the Three Tracking Dates**

Item	Tracking Date		
	Oct 2008	Dec 2008	Feb 2009
% of original sample	34.17	39.38	48.77
% of last tracking sample		16.76	24.89
% of first tracking sample			32.55
Total sample	5,007	5,007	5,007
Total sample in previous tracking		3,296	3,035
Total sample tracked this period	3,296	3,035	2,565

Source: RUMiCI 2008 Survey and Tracking Data.

The industry and city distributions for the total lost sample from the third tracking (February 2009) are presented in Table 5. The table shows that all the cities had lost more than 30% of the original sample by the third tracking. The cities that had lost more than 50% of the original sample were Guangzhou, Dongguan, Nanjing, Hangzhou, Ningbo, and Wuhan. Although most of these cities, except Wuhan, are from the coastal region, where the export industries are concentrated, the cities with the highest and third-highest export concentration, Shenzhen and Shanghai, are not part of this list. It is also interesting to see that Nanjing and Ningbo had extremely high rates of attrition, more than 10 percentage points higher than that of Dongguan, whose export concentration exceeds that of the two other cities by a large margin.

**Table 5: Proportion of Migrants Not Tracked in February 2009, by City and Industry**

City	Construction	Manufacturing	Education and Government Organizations	Various types of agencies	Services	Wholesale and retail trade	Total % not being tracked	Total no. of migrants not being tracked
Bangbu	57.89	60.00	42.86	0.00	42.50	42.42	45.73	200
Chengdu	59.26	60.00	27.78	56.25	53.97	39.64	49.75	401
Chongqing	46.34	32.00	71.43	38.89	42.26	34.96	40.00	400
Dongguan	50.00	52.63	0.00	66.67	49.02	41.94	50.17	301
Guangzhou	45.45	53.45	64.71	53.85	52.94	58.18	54.89	400
Hangzhou	71.79	50.48	35.29	37.50	49.67	44.74	50.25	400
Hefei	50.91	36.36	56.52	27.27	37.80	29.36	38.04	350
Luoyang	50.00	68.42	60.00	75.00	52.17	31.18	44.50	200
Nanjing	76.47	69.33	78.57	0.00	69.06	67.35	70.00	400
Ningbo	69.35	68.00	0.00	60.00	62.67	48.28	62.00	200
Shanghai	55.32	63.33	17.65	55.00	53.88	38.66	49.10	503
Shenzhen	50.00	43.66	25.00	34.88	36.25	29.17	36.75	302
Wuhan	65.79	60.68	38.89	50.00	52.48	52.50	55.53	400
Wuxi	15.79	41.11	0.00	0.00	31.75	45.00	34.67	200
Zhenzhou	61.19	34.78	33.33	37.50	53.76	24.79	41.43	350
Total	59.23	53.33	38.74	42.93	50.76	39.87	48.75	5,007

Source: RUMICI 2008 Survey and Tracking Data.

Among the six industry groups, construction, manufacturing, and services had lost more than 50% of the original sample. The impact on manufacturing can be traced directly to the global financial crisis because of export intensity, but the impact on construction and services is not so easily explained. The generally high attrition rate across cities and the fact that the non-tradable goods sectors (construction and services) have been hit equally hard suggests that the impact on migrant employment is not only from the global financial crisis but a combined effect of domestic macroeconomic policies and external shocks.

#### **4. WHO HAS BORNE THE BRUNT OF THE ECONOMIC DOWNTURN?**

Another interesting issue to examine is who among the rural–urban migrants have been affected the most by the economic downturn. In this section we use our 2008 survey data combined with the tracking records to investigate this issue.

In the 2008 survey, we collected a rich set of information about the households and individual migrants. Using these data we could identify the individual and household characteristics of the group that we were not able to track previously. We estimated a linear probability model to tell us whether a household had been previously tracked. The independent variables were household and household head characteristics such as household size; household head's age, gender, marital status, years of schooling, years since migration, number of cities worked in since the first migration, job in 2008 (workplace size, whether the workplace was in manufacturing or construction, and whether the individual was self-employed); and a subjective variable to indicate whether the household would prefer to stay on in the city if allowed to do so. City-level dummy variables were also included. The results are reported in Table 6.

**Table 6: Regression Results for Probability of Being Tracked in Each of the Three Tracking Dates**

Item	Oct 2008	Dec 2008	Feb 2009
Age	0.019 [0.005]***	0.020 [0.005]***	0.015 [0.005]***
Age <sup>2</sup> /100	-0.024 [0.006]***	-0.026 [0.006]***	-0.022 [0.007]***
Dummy variable, male	0.022 [0.015]	0.011 [0.015]	0.038 [0.016]**
Dummy variable, married	0.047 [0.022]**	0.037 [0.022]*	0.036 [0.023]
No. of household members	0.019 [0.009]**	0.029 [0.009]***	0.048 [0.009]***
Years of schooling	0.012 [0.003]***	0.016 [0.003]***	0.015 [0.003]***
Year since first migration	0.003 [0.001]**	0.005 [0.001]***	0.007 [0.001]***
No. of cities worked in since first migration	-0.009 [0.003]***	-0.007 [0.003]**	-0.008 [0.003]**
If allowed, will stay in city forever	0.038 [0.014]***	0.032 [0.014]**	0.035 [0.015]**
Working in manufacturing	-0.063 [0.020]***	-0.057 [0.020]***	-0.065 [0.021]***
Working in construction	-0.103 [0.025]***	-0.096 [0.026]***	-0.145 [0.026]***
Self-employed	0.058 [0.041]	0.031 [0.041]	0.014 [0.042]



Item	Oct 2008	Dec 2008	Feb 2009
Bangbu	0.186 [0.042]***	0.272 [0.042]***	0.048 [0.043]
Chengdu	0.157 [0.034]***	0.285 [0.034]***	0.038 [0.035]
Chongqing	0.212 [0.033]***	0.234 [0.034]***	0.128 [0.035]***
Dongguan	-0.111 [0.036]***	0.061 [0.037]*	0.048 [0.038]
Hangzhou	0.085 [0.033]**	0.147 [0.034]***	0.048 [0.035]
Hefei	0.103 [0.035]***	0.301 [0.036]***	0.150 [0.037]***
Luoyang	0.108 [0.041]***	0.185 [0.042]***	0.102 [0.043]**
Nanjing	0.095 [0.033]***	0.158 [0.034]***	-0.136 [0.035]***
Ningbo	0.118 [0.041]***	0.021 [0.042]	-0.039 [0.043]
Shanghai	0.097 [0.032]***	0.213 [0.032]***	0.036 [0.033]
Shenzhen	0.064 [0.036]*	0.260 [0.037]***	0.210 [0.037]***
Wuhan	0.036 [0.034]	0.114 [0.034]***	-0.027 [0.035]
Wuxi	0.062 [0.041]	0.239 [0.042]***	0.220 [0.043]***
Zhenzhou	0.230 [0.035]***	0.275 [0.036]***	0.131 [0.037]***
Firm size	Yes	Yes	Yes
Observations	4,897	4,897	4,897
R-squared	0.07	0.09	0.09

Notes: Standard errors in brackets;

\* Significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Source: RUMiCI 2008 Survey data.

The results were largely consistent across the equations for the three different sets of tracking data. In general, age had a positive effect on tracking but it peaked at around 35–40. By 55 the probability of being tracked reduced to the same level as for those aged 16 (see Appendix B). Males, married individuals, and migrants who had other family members living in the same city with them were more likely to be tracked. In addition, those with higher education and longer migration experience were more likely to be tracked, while those who often changed places and did not want to stay on in the city even if allowed to do so were less likely to be tracked. These results are quite intuitive. If we believe that the attrition rate, to a certain extent, indicates the adverse employment impact of the economic downturn, the above results can be taken to mean that individuals who are single, are not in the primary working age, are less educated, and have less migration experience are more likely to be adversely affected by the economic downturn. These findings are largely consistent with the findings reported in

the literature on unemployment in most countries (Devine and Kiefer 1991; Svejnar 1999).

With respect to employment, it seems that those who worked in manufacturing and construction in 2008 were more likely to have left their previous job than those who worked in tertiary industry. The effect was much stronger for construction than for manufacturing, especially in the third tracking, where the effect on a construction job was twice as high as that on a job in manufacturing. Working in the construction sector in 2008 made it 15% more likely that the individual would leave the job by February 2009. The corresponding probability for manufacturing was 7%. Neither self-employment nor firm size had an effect on the individual's leaving the job.

Contingent on all of the above variables, relative to Guangzhou, almost all cities had a higher probability of being tracked, except Dongguan in October 2008. By the second and third tracking Dongguan had a higher probability of being tracked, while the probability for Nanjing had dropped dramatically to below the level of Guangzhou.

## 5. CONCLUSION

For this paper we used a unique set of data from the RUMiCI project to investigate the employment impact of the economic downturn on rural–urban migrants. We found that, on average, the economic downturn has adversely affected 13%–19% of jobs for rural–urban migrants. This estimate is higher than the 10%–15% cited in the literature using data from migrant-originating regions.

We also found that the migrants whose jobs were most likely to be affected by the economic downturn were those who would normally be affected in any economy. These people were less educated, single, and not in the primary age and had less migration experience.

Perhaps the most interesting result of the study is the wide-ranging nature of the job loss, which has not been confined to export manufacturing but has also been significant in the non–tradable goods sectors—construction, retail, and wholesale. Job loss has occurred in all cities and not just in the cities that generally come to mind when we think of export-oriented employment for migrant workers.

We take this to mean that job loss in the PRC is a response not only to the global financial crisis but also to domestic economic policies, particularly the tight monetary policy over the last few years and the introduction of the Labor Law. Of course, as the economy responds to the global financial crisis this pattern of job loss may change and the loss of jobs in the export sector, at least in relative terms, may become more important.

Only one possible effect of the economic downturn was studied for this paper. In a flexible labor market, the most adjustment may occur not through employment but through changes in wages. Fortunately, the second and later waves of RUMiCI data will allow us to address the issue of the extent to which the economic downturn has affected the wages of migrant workers, their standard of living, the poverty rate for this group of people, and return migration.

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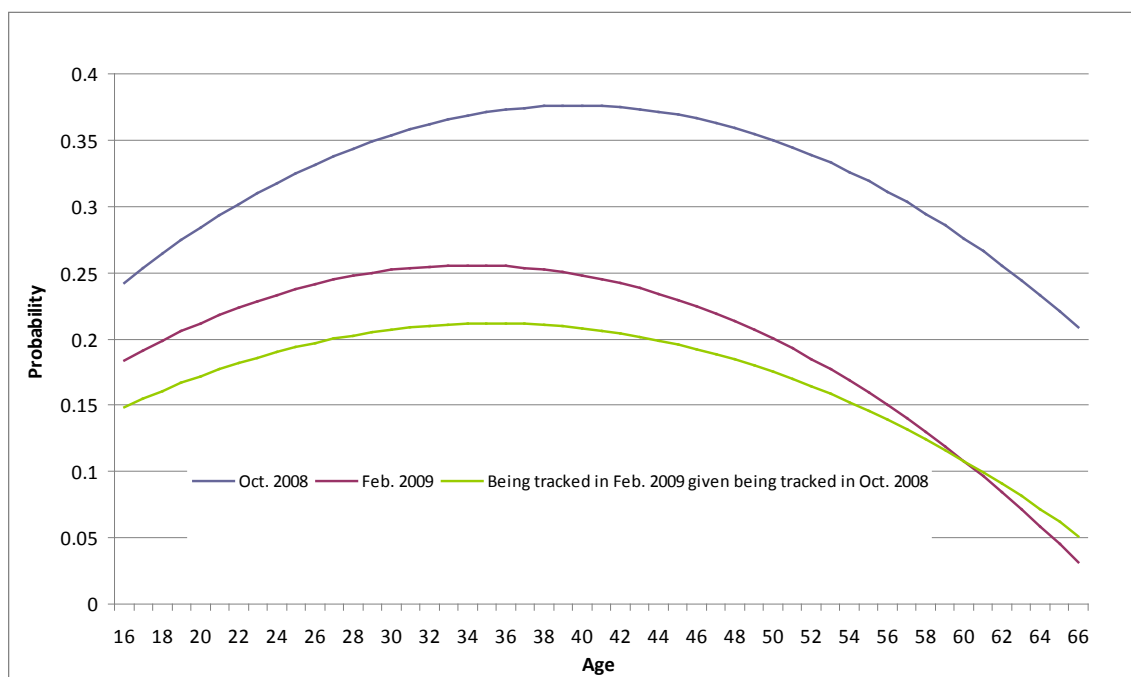
## APPENDIX A: GDP AND IMPORT-EXPORT VALUES IN 2006, BY CITY

City	Local GDP (10,000 yuan) (2005 prices)	Import Value (10,000 US\$)	Export Value (10,000 US\$)	Export Value (10,000 yuan) (1US\$=7.8 yuan)	Import- Export Total Value (10,000 US\$)	Import- Export Total Value (10,000 Yuan) (1US\$=7.8 yuan)	Total Import- Export Value as % of total GDP	Total Export Value as % of GDP	Ranking of export orientation
Shenzhen	57,703,731	10,130,300	13,610,800	106,164,240	23,741,100	185,180,580	320.92	183.98	1
Dongguan	26,008,962	3,684,467	4,737,640	36,953,592	8,422,107	65,692,435	252.58	142.08	2
Shanghai	102,676,400	11,391,624	11,357,306	88,586,987	22,748,930	177,441,654	172.82	86.28	3
Ningbo	27,836,308	1,344,136	2,877,052	22,441,006	4,221,188	32,925,266	118.28	80.62	4
Hangzhou	33,625,701	1,268,100	2,622,800	20,457,840	3,890,900	30,349,020	90.26	60.84	5
Wuxi	32,338,000	1,775,332	2,143,980	16,723,044	3,919,312	30,570,634	94.53	51.71	6
Nanjing	27,749,700	1,416,982	1,736,491	13,544,630	3,153,473	24,597,089	88.64	48.81	7
Guangzhou	59,182,610	3,138,448	3,237,713	25,254,161	6,376,161	49,734,056	84.03	42.67	8
Hefei	10,449,800	146,922	340,723	2,657,639	487,645	3,803,631	36.40	25.43	9
Wuhan	25,705,814	423,464	377,750	2,946,450	801,214	6,249,469	24.31	11.46	10
Chengdu	24,445,849	281,183	414,116	3,230,105	695,299	5,423,332	22.19	13.21	11
Chongqing	34,425,600	211,821	335,192	2,614,498	547,013	4,266,701	12.39	7.59	12
Zhengzhou	19,257,908	70,872	180,763	1,409,951	251,635	1,962,753	10.19	7.32	13
Louyang	12,875,311	25,986	78,075	608,985	104,061	811,676	6.30	4.73	14
Bangbo	3,532,800	2,526	24,913	194,321	27,439	214,024	6.06	5.50	15

Notes: Both export and import value are based on customs records. CNY = yuan, GDP = gross domestic product

Source: Chinese City Statistic Yearbook, 2007

## APPENDIX B: RELATIONSHIP BETWEEN PROBABILITY OF BEING TRACKED AND AGE



Source: RUMiCI 2008 Data.