Can Information Influence the Social Insurance Participation Decision of China's Rural Migrants?*

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Abstract

This paper uses a randomized information intervention to shed light on whether poor understanding of social insurance, both the process of enrolling and costs and benefits, drives the relatively low rates of participation in urban health insurance and pension programs among China's rural-urban migrants. Among workers without a contract, the information intervention has a strong positive effect on participation in health insurance and, among younger age groups, in pension programs. Migrants are responsive to price: in cities where the premiums are low relative to earnings, information induces health insurance participation, while declines are observed in cities with high relative premiums.

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1 Introduction

One well-documented and common feature of economic development involves a structural change in which labor moves from agriculture to non-agricultural sectors, and from rural to urban areas. With higher productivity, incomes and standards of living rise, but individuals and families are often exposed to new sources of risk. Declines in fertility and increased population mobility, which frequently accompany structural change, make traditional means of risk-coping through support of family members less reliable. Lack of insurance against risk in urban areas may make migration plans temporary and limit the extent to which rural migrants make permanent decisions (and investments) related to their future in the city. Rising average incomes and improvements in administrative capacity, however, enable governments to introduce social insurance systems capable of helping their citizens face a range of uncertainties, including potential adverse health and employment shocks and the risk of poverty in old age.

Even as governments recognize the importance of providing social insurance to their populations, implementation may be fraught with both poor understanding of social insurance programs among intended beneficiaries and institutional features that create disincentives to participate. Mandating participation by firms and employees, and even by the informal sector, is fraught with the problem that enrolling in social insurance may reflect a choice. Research on Latin American economies, for example, contains numerous examples in which the high "labor tax wedge" associated with employer-based social insurance creates incentives for both firms and workers to "exit" from the formal sector (Levy, 2008; Perry et al., 2007).[1]

Globally, China's rural-urban migrants are one of the largest populations of informal sector workers not covered by social insurance. As of 2015, there were 160 million rural migrants working in China's cities, of whom 130 million had moved within the past 15 years (Frijters et al., 2015). While the sheer number of migrants is unprecedented, it is not sufficient to offset current labor shortages in urban areas. Migrant labor supply is limited by policies that treat migrants as 'guest workers' in cities, which leads to shorter migration spells than if migrants viewed their moves to be permanent (Meng, 2012). Recognizing that continued increases in the supply of labor to urban areas requires facilitating longer-term migration, China's government has initiated reforms aiming to increase migrant participation in urban employee health insurance and pension programs. Recently introduced laws, the Labor Contract Law (2008) and Social Insurance Law (2011), require employers to make contributions to health, unemployment and work injury insurance and pensions for migrant

[1] Outside of a few studies in Latin America, existing research on program participation focuses mainly on developed countries (see, for example, Ashenfelter, 1983; Chetty and Saez, 2013; Chetty et al., 2013; Grogger, 2003).

workers. Although these new laws have been in place for ten and seven years, respectively, migrant participation remains low. The 2015 wave of the Rural-Urban Migration in China survey (RUMiC), for example, indicates that only 30 percent of migrant workers were enrolled in urban health insurance or pension programs.

What explains the slow progress in expanding migrant participation in urban social insurance programs? Earlier research has highlighted the following contributing factors: poor incentives for local governments to enforce laws, the possibility that employers try to avoid making contributions to employee social insurance accounts, and the lack of enthusiasm among migrants for participation, which may be due to the fragmented nature of the system and consequent lack of geographic portability of enterprise contributions (Meng and Manning, 2010; Meng, 2012; Giles et al., 2013; Gallagher et al., 2014). Posessing little or no prior experience with urban employee social insurance schemes, China's migrants may lack full understanding of the potential benefits from enrollment and participation in these programs.[2] More importantly, given the complexity of the social insurance schemes (the costs, benefits, as well as enrollment procedures), which vary across regions and by type of job, migrants may find it difficult to maneuver through these complications and simply decide against participation.[3] Lack of knowledge about the benefits and costs of insurance or inability to figure out how to enroll may then interact with strong employer preferences for avoiding contributions to generate the current low levels of participation.

This paper exploits a field experiment to assess the extent to which lack of information about urban employee health insurance and pension programs contributes to low participation among rural migrants. The study utilizes the existing Rural-Urban Migration in China (RUMiC) longitudinal survey and a random selection of approximately 35% of respondents from the 2015 survey round who were provided detailed information regarding the costs and future benefits of participating in the health insurance and pension programs available in their respective cities. Respondents were also informed as to whether social insurance programs were portable or not in the event that they moved home or to another city, and how to contact the representatives in local social-protection bureaus responsible for enforcing laws and regulations governing employer participation. In the following wave of the RUMiC survey, implemented later in 2016, respondents were then asked about their actual and planned participation in these insurance programs.

Over the full RUMiC sample, the average information intervention effect is not statistically significantly different from zero. Consistent with a pre-specified plan to examine

[2]While many migrants had prior experience with health insurance through China's New Rural Cooperative Medical System (NRCMS), evaluations have found that this system increased health system participation, but afforded little protection against financial risk (Wagstaff and Lindelow, 2008; Wagstaff et al., 2009).

[3]Gallagher et al. (2014) find that a high share of migrants understand that they are eligible to participate in social insurance, but it is unlikely that migrants understand program details or benefits.

heterogeneity across workers with and without a contract, however, this "zero average effect" masks considerable heterogeneity across cities and workers in formal and informal sectors. For individuals with an employment contract (formal sector employment), program participation rates were already quite high at 76% for health insurance and 74% for pension programs in 2015. For this subgroup the intervention had a limited effect. By contrast, for the 68% of workers in the informal sector, the information intervention led to a 3.2 percentage point increase in enrollment in health insurance, which is a 23% increase from the baseline 13.8% enrollment rate. Informal sector migrants in cities with low relative premiums were even more responsive to the information intervention: we observe 6.7 and 11.2 percentage point increases in health insurance participation among migrants in cities at the 25th and 10th percentiles of the relative premium distribution, respectively.

The effect of the intervention on pension program participation is also positive and significant for those informal sector workers young enough to contribute for the fifteen year minimum necessary to reap full benefits from the program.[4] We find a 3.9 percentage point increase for young informal employees, which is an economically significant 26% increase from their baseline 15% enrollment rate. Interestingly, for those older workers who could not work long enough to reap full pension benefits, the information intervention led to increased earnings by roughly half the minimum required employer contribution to individual pension accounts, which suggests that older workers may share the value of forgone pension contributions with their employers.

In contrast with the decision to participate in health insurance, pension program participation is not sensitive to the city-wide relative premium. One explanation for the difference in responsiveness may derive from the fact that health insurance available from rural counties (through an NRCMS policy) is a closer substitute for urban employee health insurance than the subsidized new rural pension for urban employee pensions.[5]

The paper adds to a growing body of research investigating how information frictions influence individual behavior in different settings (e.g., Chetty et al., 2009; Liebman and Luttmer, 2015; Bergman, 2015). The canonic approach exploits relatively inexpensive interventions that enable individuals to make more informed decisions, and thus 'nudge' them into

[4]Without fifteen years of participation at retirement age, older workers effectively lose employer contributions and, at mandatory retirement age, may only withdraw their own deposits to an employee account.

[5]Even as it requires the beneficiary to cover costs of returning to one's home county when ill, and the likelihood of receiving lower quality health care, with lower reimbursement rates, from a rural health facility ((WHO, 2010; Müller, 2016)), NRCMS insurance still offers some relief from the risks of current health shocks. The new rural pension program, by contrast, only provides a basic benefit of 60 to 100 RMB Yuan per month (9 to 15 US dollars), and is insufficient to insure against poverty in old age. Further, even though receiving basic benefits from both the new rural pension program (NRPP) and the urban pension program is not allowed under current law, this is not enforced or well-understood, and thus migrants may expect the rural program to complement any receipts from the urban employee pension program. Thus, it is not clear that these two programs are not substitutes.

optimal choices that they might not otherwise make (Chetty, 2015). Among these studies those which are closest to this one examine the role of information on participation in health insurance programs by informal sector workers and the poor in both developing and developed countries (see, for example, Thornton et al., 2010; Das and Leino, 2011; Guthmuller et al., 2014; Wagstaff et al., 2016). Most of these studies, however, fail to find a positive impact of information alone on health insurance participation, and even when subsidies are included with information the impact on health insurance participation is not judged to be economically significant (Wagstaff et al., 2016).

This study makes several contributions to the literature on social insurance participation. First, it provides strong evidence from a large developing country on a population, rural migrants, whose social insurance participation will likely shape the country's urbanization process in fundamental ways. The positive and economically meaningful impacts of the information intervention on the decisions of workers lacking contracts suggest that participation can be increased by as much as 23-26% by simply raising awareness among China's rural migrants of both the benefits of social insurance programs, and how to participate in them. Second, even older individuals, who cannot receive full benefits from participating in the pension program, experienced wage increases after the information intervention. This provides the first analytical evidence suggesting collusion between employers and employees to avoid social insurance participation, which has long been suspected by economists working in China, and points to design flaws in the current pension scheme. Third, the impact of improving understanding of social insurance among China's rural migrants may be stronger when paired with incentives: the interaction of a price effect and provisions of information on health insurance participation suggests that premium subsidies might be a means of expanding coverage.[6] Fourth, while previous studies tend to examine either decisions related to pensions or health insurance, this paper examines the impact on participation in both programs. By doing so, we are able to examine how information and prices differentially affect participation in programs differing in design features, and insuring against risks with different time horizons. Our findings indicate that the responsiveness of the information intervention differs considerably with the availability of potential substitutes.

The paper is structured as follows. Section 2 presents background on migration and the migrant social insurance participation decision. Next, section 3 introduces the main data source, the randomized information intervention, and the empirical approach. Results are presented in section 4 and then a final section discusses policy implications and directions for future research.

[6]Instead of using randomized subsidies to identify the interaction of price and information, as in (Guthmuller et al., 2014; Thornton et al., 2010; Wagstaff et al., 2016), this paper first controls for potentially endogeneous city-fixed effects and then identifies the heterogeneous effect of the information by interacting the treatment with the city-wide relative prices of health insurance and pensions.

2 Migrant Social Insurance Participation

Rural-urban migration has played a significant and well-appreciated role in China's economic growth miracle (Bosworth and Collins, 2008; Tombe and Zhu, 2015). During the 1990s and 2000s, rural China was an abundant source of young workers (16-25 years of age), who supported the growth of labor-intensive industries. Despite their significant contributions, migrants are treated as "guest workers" in cities under China's household registration (*hukou*) system: the social insurance programs and services benefitting urban locals are either not available to migrants, or are unsubsidized and much more expensive. Lack of access to social insurance in cities leads migrants to return to rural areas when sick or unemployed, to raise their families or to care for elderly family members (see, for example, Giles and Mu, 2007; Meng, 2012). Consequently, *hukou* restrictions shorten the duration of migrant stay in cities (which currently average to 8-9 years), limits the potential stock of migrant labor supply in cities as older migrants return home, and thus exacerbates a labor shortage and contributes to rising labor costs.

Recognizing that permanent migration may help to solve labor shortage problems, the central government has introduced laws and regulations requiring employers to contribute to the social insurance accounts of migrant employees. The 2008 Labor Contract Law stipulates that all workers are entitled to participate in urban social insurance programs, that details of the schemes should be explicitly written into labor contracts and that all migrant workers should have a written contract (Gallagher et al., 2014; Meng, 2017). In 2010, the central government provided new guidelines on pension portability, which allows migrants to transfer 12% of their employer's contribution, in addition to their own contributions, to accounts either in new migrant destinations or in their home counties (State Council, 2009). In mid-2011 a new Social Insurance Law explicitly stipulated that employees should participate in social insurance programs, and that the self-employed may participate voluntarily. Further, fines may be imposed on employers who fail to make contributions to their employees' accounts in a timely manner (National People's Congress, 2011).

Despite efforts of the central government, the urban social insurance participation rates of migrant workers in urban programs remain low. Evidence from the RUMiC survey suggests only a modest increase in pension and health insurance participation rates over the period from 2008 to 2016 (see Panels A and B of Figure 1). By 2016 the health insurance and pension participation rates for the full sample were both just over 34%, with higher rates for employees than the self-employed. Among employees (Panels C and D of Figure 1), it is evident that higher participation rates are strongly associated with having a written contract. Participation rates among individuals without written contracts are similar to those of the self-employed. While participation among employees increased between 2011 and 2012, when fines were imposed on employers who failed to contribute their share to

social insurance payments (see Panel 2 of Appendix Table A.1), the rate of increase was slow until 2015. Between 2015 and 2016 there was another significant increase within the RUMiC sample, which is likely driven by the information intervention that is the focus of this paper. There are several potential reasons for slow progress in increasing participation among migrants.

First, although the central government has passed laws and developed policies aimed at increasing the health insurance and pension participation rates of migrants, implementation details and the enforcement of laws and regulations are left to local governments. As local leaders are generally evaluated based on how well they meet growth targets, the prospect of rising labor costs is a frequent concern and reduces incentives to enforce laws requiring employers to make payroll contributions. Unless they are particularly law-abiding, employers have no incentive to make voluntary contributions when enforcement is not effective. Previous studies have found that formal sector firms, which are more likely to face inspections (particularly state-owned enterprises, foreign invested and joint venture firms), generally provide written contracts to their workers and make social insurance contributions to their employees (Giles et al., 2013; Li and Freeman, 2015). The majority of migrant workers, however, are not working in large, formal sector firms.

Second, the financing of social insurance schemes is also left to local governments, but decentralized administration continues to limit portability of social insurance accounts, and thus limits migrant willingness to participate. While payments made by firms and young, healthy migrants are positive contributions to local health insurance and pension funds, most local governments are reluctant to transfer funds to other regions when migrants relocate as this would have immediate budgetary consequences. The main sticking point centers on how the employer portion of accounts is handled. Although they comprise two-thirds to 75% of total health insurance and pension fund accounts, a migrant is only able to transfer 12% of employer contributions. Further, even transfering one's own contributions when moving faces hurdles as the fund manager accepting the transfer is required to match the employer contribution if it is not transferred, and this is a stipulation that destination governments almost never accept. These obstacles to portability mean that migrants, with relatively short time-horizons in the city, have weaker incentives to participate in social insurance than local residents (Giles et al., 2013).

Third, as program details are formulated by local governments, rules vary along multiple dimensions: by type of insurance, by type of employment, and, more importantly, across regions – the program specifics that a migrant finds in a new city are very likely to be different from those learned through prior experience. Program specifics, including premium and benefit levels, are both complicated and vary considerably accross cities, and are frequently

neither available nor understandable to migrant workers.[7] As an example of program complexities, Appendix A.2 summarizes information on the costs and benefits of health insurance and pensions for two of the 13 cities in which the information intervention was implemented.[8] These ***simplified*** policy details were summarized after a careful reading of the city-level websites and confirmed with follow-up phone conversations with city-level bureaucrats charged with managing the programs. In the face of such complexity and incomplete information, migrants are left to make uninformed decisions. Combined with short time horizons in the city, they may find it easier to opt out, especially when employers offer to collude with employees to avoid participating. Further, nearly a third of migrants are self-employed and the costs of participating for this group are even higher as they must make both the employer and employee contributions.

Finally, even as bringing rural residents into urban social insurance schemes is an explicit policy objective, existing rural programs may be viewed as substitutes for "expensive" urban insurance schemes. With respect to health insurance, 81 percent of rural migrants in the baseline (2015) survey were enrolled in the New Rural Collective Medical System (NRCMS) program. Even as it is a highly imperfect substitute for coverage through the urban employee health insurance program, the existence of this alternative may contribute to delays in enrolling in the urban program.

In this paper, we examine migrant participation in urban health insurance and pension schemes. The two programs have been available to employed registered residents of the city since the 1990s, but have only encouraged participation of rural-urban migrants since the New Labor Contract Law in 2008. Although the programs vary significantly in terms of premia and benefits across cities, all cities required joint employer-employee contributions to these programs at the time of the information intervention. With respect to the urban employee health insurance program, nominal employee and employer contributions average 2% and 6%, respectively. The urban employee pension scheme has a greater burden, with individuals contributing at least 8% of their monthly earnings while employers contribute 14-21% of the average wage in the firm. At retirement, only those workers who have contributed for at least 15 years may receive a full pension that includes employer contributions. Those workers who have contributed for less than 15 years may still receive a lump sum payment from their own accummulated contributions, but they will not receive a pension payment, nor the employers' contribution, which will remain with the city pension authorities.

[7]When designing this intervention, one of the co-authors put in considerable effort to find details on policies and procedures for each of the 15 RUMiC cities. Apart from Guangzhou, Dongguan and Shenzhen, website information for other cities was either not up-to-date or difficult to understand. When local social welfare bureaus were contacted by phone, there was typically either no answer or a long queue (more than 20-30 minutes wait-time to speak with a representative).

[8]The information for the remaining cities is available upon request from the authors.

3 Research Design and Sample

As discussed above, local cadres' promotion incentives, the lack of portability, the lack of certainty in policies relating to the future for migrants and their families, and the complexity of social insurance schemes may all contribute to low participation rates among China's migrant workers. This paper focuses on the extent to which information about schemes and enrollment processes affects participation in urban pension and health insurance programs. The data used in this study come from the Rural-Urban Migration in China (RUMiC) survey.

3.1 The RUMiC Survey

The Rural-Urban Migration in China (RUMiC) survey is a longitudinal study with nine rounds: the initial wave was carried out in 2008, with additional rounds conducted annually during each of the last 8 years. Migrants are surveyed in 15 cities, including such coastal migrant destinations as Guangzhou, Shenzhen, Dongguan, Shanghai, Wuxi, Nanjiang, Hangzhou, and Ningbo, as well as major cities in interior regions, including Chengdu, Chongqing, Wuhan, Hefei, Bengbu, Zhengzhou and Luoyang. Unlike other surveys of migrant workers in China, in which migrants are sampled primarily by urban residential address, the RUMiC uses a workplace sampling strategy. In contrast with urban local residents, rural migrants frequently move to cities alone and often live in factory dormitories or other workplaces. Even in cases in which migrants bring their families to the city, high urban rents deter them from living in the type of urban residences that comprise standard sample frames (such as those maintained by the National Bureau of Statistics). More conventional urban household sampling frames tend to yield a biased sample of migrants, over-representing those who are more affluent, have longer tenure and more secure positions in the city than the "representative" migrant. By using a sampling frame based on a census of work-places, RUMiC avoids this bias.[9]

Although RUMiC is designed as a longitudinal survey, the young and mobile nature of the migrant population leads to some attrition between annual survey waves. To maintain sample size, the RUMiC team randomly draws a refreshment sample for each wave, designated as a "New Household Sample." Thus, the RUMiC survey has two sub-samples in each year: the non-attrited households from the previous year's sample ("old-households"), and a new representative refresher sample ("new households") (Meng, 2013). The implementation of the RUMiC surveys normally begins in late March to early April each year, after migrants return from visiting their homes during the Chinese New Year. Because tracking takes time and there is also a need to draw and enumerate refresher samples, the survey typically runs for 6-8 months and is completed by November. This paper uses RUMiC survey data from

[9]For detailed discussion of RUMiC sampling procedure, see Gong et al. (2008).

the 2015 and 2016 waves. In the 2016 survey round, the information inervention end-line, 28.3 percent of respondents from the 2015 baseline had attrited from the sample.

3.2 Information Intervention

To provide relevant information to migrants randomly selected for treatment, pamphlets were developed through extensive consultations with relevant program managers and staff responsible for administering health insurance and pension programs in each city. This pamphlet discusses city-specific features of health insurance and pension programs, and summarizes program rules, which vary significantly across cities and for different categories of employment (e.g., wage employment and self-employment). In discussions with local bureaucrats, the rules, premiums, and the benefits for each type of worker (as shown in Online Appendix A.2) were verified. Online Appendix A.3 provides an example of the easy-to-understand pamphlet provided as a guide to workers in Dongguan. In addition, the pamphlets use lay terms to highlight the risk-management benefits of participating in pension and health insurance programs.

The information intervention was implemented between early December 2015 and the end of January 2016. The city-specific information pamphlets were distributed to a randomly selected sample of 35% of the 2015 RUMiC sample in 12 of 15 survey cities (and the randomization was done within cities). As the Shanghai RUMiC sample size is significantly larger than the rest of the cities, we randomly selected 25% rather than 35% of the 2015 sample for treatment. This decision was driven by cost and time considerations.[10]

The information intervention was implemented by 33 enumerators, of which 64% were university students (either undergraduate or graduate) and the rest were RUMiC survey firm enumerators.[11] In each city, enumerators received classroom and field training from one of the coauthors over a two day period. In the intervention, enumerators first presented a small gift and an information pamphlet to each of the randomly selected sample respondents. After a short introduction, the enumerator read a brief summary of the benefits and costs of participating in pension and health insurance programs from the first page of the pamphlet.

[10]The 2015 survey was completed later than previous rounds, and the Guangzhou and Zhengzhou surveys ran through the end of 2015 with data available even later. These cities were not included in the intervention because there was not sufficient time to both distribute the pamphlets and allow respondents time to react before the 2016 RUMiC survey. In addition, within the 13 included cities, households lacking a working migrant worker, defined as someone with a rural *hukou* and currently working and not retired (aged 16-55 for women and 16-60 for men), are excluded from the random selection for the intervention sample. Further, 8 households (from both treatment and control groups), were not included because their homes were too far from the city center. In total we excluded 304 households, which accounted for 6.9% of households in the 13-city sample.

[11]Of the 13 cities, 8 used enumerators from the survey firm and 5 used students. When students were used as enumerators, a person from the survey firm was hired to accompany students to the enumeration site to insure that the target respondent was interviewed.

The enumerator next identified key characteristics of the respondent to determine which of the more detailed program information and enrollment procedures to highlight, including whether he/she is a wage employee or self-employed, and whether or not he/she holds local *hukou*.[12] Using these characteristics, the enumerator located the programs and policies that applied to the respondent and provided him/her with detailed and relevant information. After doing this, the enumerator then pointed out the contact details (address and phone number) for social insurance related consultations at the local Bureau of Labor and Social Security. Finally, the respondent was asked whether he/she had any further questions. If so, the enumerator answered the question(s) and if not, the respondent was informed that there would be a confirmation phone-call made from survey headquarters to confirm the receipt of the gift and pamphlet. The total information delivery process was designed to take less than 25 minutes.

When respondents were not found on a first effort, enumerators followed a protocol that required repeated efforts at contact by phone or SMS every two to three days over a two-week period. To increase the probability of contact, calls were made at different times of the day. An individual was only classified as attrited if no contact was made after two weeks of successive efforts. Conditional on participating in the 2015 survey round, only 6-7% of the respondents who were randomly assigned for the information treatment did not receive the pamphlet.

The 2016 RUMiC survey (the 9th wave) began in late March 2016, two months after the information intervention, and was completed eight months later in November 2016. In addition to the normal survey questions, those respondents to whom the pamphlet was delivered were also asked to confirm whether they received the pamphlet, and whether they understood the information provided in the pamphlet. All respondents (in both the treatment and control groups) were asked whether they intended to participate in health insurance and pension programs in 2016 if they were not already covered. Participation, both intended and actual, are the main outcome variables in the analysis below. We include social insurance participation intentions for two reasons. First, as the information treatment (pamphlet delivery) occurred not long before the 2016 survey round began in some cities, it is possible that respondents interviewed at that time simply did not have sufficient time to enroll in pension or health insurance. Indeed, when we estimate actual participation against survey month and city fixed effects, survey month has a strong positive effect on participation: the later the follow-up survey was implemented in 2016, the more likely that the respondent had enrolled. Intention to participate, on the other hand, shows a weak negative correlation with survey month. Second, use of intended behavior is not uncommon in the literature on information

[12]'Local *hukou*' (local residential registration) could be either rural or urban, as long as it is located within the metropolitan region. Thus, although RUMiC targets rural-urban migrants, it does include some "local" rural migrants.

interventions and decisions related to social insurance, particularly when not enough time has passed to observe actual decisions. Liebman and Luttmer (2015), for example, similarly examine how an information intervention affects future intentions over when to draw social security benefits in the US.[13]

Concerns related to attrition are also relevant when considering use of an information experiment jointly with the RUMiC survey. Due to the young and mobile nature of the migrant population, attrition across RUMiC waves is a possible concern. From 2015 to 2016, the attrition rate was 28.3%, which is similar to the 28% reported in (Chetty and Saez, 2013). Nevertheless, as the information intervention was implemented in the 2015 sample while the outcome of interest (insurance participation) was recorded in the 2016 wave, one might worry that attrition could affect randomization. To check this concern, a balance test is conducted in the data subsection and robustness checks employ sample selection models and reweighting approaches to examine potential attrition bias.

3.3 Estimation Strategy and the Model

Assuming implementation protocols were followed and that a balance test is passed, the random assignment of the information intervention allows us to identify whether poor understanding of the urban health insurance and the pension programs and enrollment procedures reduces the likelihood that respondents participate in them. We also model the decision to participate in social insurance as a function of a city fixed-effect, exogenously provided information and initial period participation, firm and individual characteristics. The binary choice, Y_{1ij}, of whether to participate in health insurance and pension programs, is modeled as:

$$Y_{1ij} = \alpha + \beta T_{ij} + \theta Y_{0ij} + \mathbf{X}'_{0ij}\gamma + \mathbf{W}'_{0ij}\kappa + \delta_j + \varepsilon_{ij}, \tag{1}$$

where the subscripts 0 and 1 indicate variables measured in the pre-treatment (2015) and post-treatment (2016) survey rounds, respectively. Y_{0ij} is a lagged (pre-treatment) participation indicator; T_{ij} indicates that individual i in city j was assigned to receive the information treatment between the 2015 and 2016 survey rounds; $\mathbf{X}_{0ij}$ is a set of pre-treatment (2015) individual-level controls, which include age,[14] gender, education, marital status, number of children, whether an individual is self-employed, an interaction between the self-employed

[13] In a robustness check, we examine results using actual participation as the dependent variable to estimate the model.

[14] In addition to age in years, we also include two indicator variables: whether the respondent is a woman and over 40, and a man and over 45, respectively. These threshold indicators are included because pension rules mandate that participants cannot receive full benefits without paying the premium for 15 years, and the retirement age for migrant women and men in China is 55 and 60 years, respectively. As they cannot expect to receive full benefits, individuals already within 15 years of the retirement age threshold may have less motive to participate in a pension program.

indicator and lagged participation, and indicators for whether he/she would remain in the city permanently if policy permitted and whether he/she is working or not. $\mathbf{W}_{0ij}$ is a set of pre-treatment firm size and ownership indicator variables for the employer of individual i; and δ_j are city fixed effects, which control for both time invariant city-level factors and within city changes between years 0 (2015) and 1 (2016), including systematic changes in the costs and benefits of the health insurance and pension schemes.[15] The coefficient of interest in equation (1) is β, the average treatment effect of exposure to the information intervention.

Existence, or lack, of a written employment contract introduces one potential source of heterogeneous impacts. In design of the intervention and at the pre-analysis stage, the team anticipated that the effect of providing information about social insurance will differ considerably depending on whether a respondent has an employment contract. As shown in Figure 1, health insurance and pension participation rates for those with employment contracts in 2015 were 72%, while participation was only 13% for those without a written contract. As it is likely that those without a written contract will be most affected by the information intervention, we estimate equation (1) including an indicator for "no written contract" in 2015, NC_{0ij}, and the interaction of NC_{0ij} and the treatment indicator, T_{ij}:

$$Y_{1ij} = \alpha + \beta T_{ij} + \pi NC_{0ij} + \varphi T_{ij} * NC_{0ij} + \theta Y_{0ij} + \mathbf{X}'_{0ij}\gamma + \mathbf{W}'_{0ij}\kappa + \delta_j + \varepsilon_{ij}, \qquad (2)$$

In this specification, the coefficients of interest are β, which indicates the treatment effect for individuals with a written contract in 2015, and $\beta + \varphi$, treatment effect for individuals without a written contract in 2015. φ indicates whether or not the treatment effects for the two groups differ.

Subsequent to the intervention, recognition of the variation in premiums across cities and apparent heterogeneity in responses to treatment, led the team to examine whether the effects of providing information varied with relative premia.[16] Another plausible factor influencing participation decisions are the magnitudes of premiums relative to earnings for health insurance and pension programs. As will become apparent in our discussion of results below, premiums vary considerably by city, and information may interact with price in influencing the decision to participate. To this end, we next estimate models in which the treatment indicator, T_{ij}, is interacted with a city relative price (premium) variable:

[15] As the randomization was implemented separately in each of the 13 cities in the sample and city level costs and benefits vary significantly, the baseline model includes the set of city fixed effects, δ_j, along with the treatment indicator and lagged participation. Further, as randomization into treatment was implemented at the household level, we equally weight each household in the following analysis to provide efficient estimates (Athey and Imbens, 2017). Household members may also share cost and benefits of social insurance in China, and social insurance participation is a joint decision of household members, especially for poor migrant households.

[16] While examining this dimension of heterogeneity was not part of a pre-analysis plan, the cities (and all the differences across them) were chosen as part of the pre-analysis as they were part of the baseline survey.

$$Y_{1ij} = \alpha + \beta T_{ij} + \phi T_{ij} * P_j + \theta Y_{0ij} + \mathbf{X}'_{0ij}\gamma + \mathbf{W}'_{0ij}\kappa + \delta_j + \varepsilon_{ij}, \tag{3}$$

where P_j is the premium required for self-employed individuals in city j divided by the city average monthly earnings of migrants in the RUMiC sample.

The premium paid by the self-employed is used for three reasons. First, an employee may participate in the health insurance or pension programs at the self-employed price if employers are not participating. Second, labor markets are competitive, and when employers participate, costs associated with employer contributions are passed on to employees through a lower monthly salary net of social insurance contributions. Thus, the self-employed premium is a base price that provides a reasonable proxy for the cost of participation faced by both employees and self-employed migrants. Finally, even as the self-employed and employee contributions differ, these premiums vary simlarly across cities.

The coefficients of interest from Equation (3) are β and ϕ. As the city fixed effect controls for city premium levels, the coefficient on the treatment*premium interaction, ϕ, identifies how the treatment effect varies with the city level relative premium. β is the average treatment effect when the relative price is zero.

Finally, we estimate a model including a full set of interactions: the contract indicator and its interaction with the treatment, as in Equation (2), the city premium (captured by city fixed effects) and the city premium interacted with the treatment, as in Equation (3), as well as interactions between city premium, contract, and treatment, or:

$$\begin{aligned} Y_{1ij} =& \alpha + \beta T_{ij} + \phi T_{ij} * P_j + \varphi T_{ij} * NC_{0ij} + \lambda NC_{0ij} * P_j + \mu T_{ij} * NC_{0ij} * P_j \\ &+ \pi NC_{0ij} + \theta Y_{0ij} + \mathbf{X}'_{0ij}\gamma + \mathbf{W}'_{0ij}\kappa + \delta_j + \varepsilon_{ij}, \end{aligned} \tag{4}$$

3.4 Summary Statistics and Balance Test

Balance tests and summary statistics are presented in Table 1. In panel A, a balance test is shown for all the control variables in the full sample of the base year (2015), and the test for 2015 respondents remaining in the 2016 wave is shown in Panel B.

The first two columns of Panel A present mean values of key variables for control and treatment groups, separately, in the base year and column 3 shows the difference between the two groups. From these summary statistics it is evident that all individual characteristics are similar across the treatment and control groups in the base year. However, some imbalances are observed for firm level characteristics: workers in the treatment group are more likely to be in small firms than their counterparts in the control group and the treatment group has a slightly higher share of workers in foreign/joint venture firms. Further, the share of treatment and control group is not balanced in Shanghai. Because of these imbalances, controlling for these characteristics in the estimations is important. Panel B presents the same balance test

for the panel respondents in the 2016 sample, where we observe results similar to those for the 2015 full sample.

Panel C presents the summary statistics for the total 2016 sample as well as for those with and without an written contract, separately. Column 7 shows that the average age of respondents is 37. Note that 18% of women and 15% of men are above the age thresholds at which beginning participation could not lead to full pension benefits at retirement. Men comprise 57% of the respondents, and the average years of schooling of respondents is nearly 9 years and 75% of the sample are married, and have 1.16 children. Nearly all respondents, 99.6%, were working in the previous year, with 36% self-employed, and *hukou* policy permitting, 64% would prefer to stay in the city permanently. When comparing those with a contract (Column 8) to those without (Column 9), it is clear that migrants in the formal sector (with a written contract) are younger, more educated, more likely to be men, less likely to be married and have fewer children. Employees with a contract are more likely to work in large firms (with more than 100 workers) than those without a contract. In addition more than 60% of workers with a contract work in firms that are state/collectively owned, domestic private, or foreign/joint venture firms. The corresponding share for those without contracts is only 19%.

4 Results

4.1 Intention-to-Treat Estimates

As the information intervention was randomly assigned, we use an 'assignment to treatment' indicator to estimate the intention-to-treat (ITT) effect. Table 2 presents the OLS estimation of equation (1) in Panel A, and it is evident that, after controlling for base year health insurance and pension participation, the average effect of assignment to the information intervention is zero (model 1), and the effect does not change as base period individual controls and firm-level controls are added in models (2) and (3), respectively. As the RUMiC survey is sampled through workplaces, standard errors in all models are clustered at the workplace of the household head.

Heterogeneity of Treatment with Contract Status. This average zero impact, however, masks considerable heterogeneity in the effect of the information intervention on individuals with and without written employment contracts. To examine this difference, Panel B of Table 2 presents the OLS estimates of equation (2). The bottom line of the panel shows the treatment effect on individuals without contracts by adding the coefficient on treatment (β) to that on the interaction between treatment and the indicator for not having a contract

in the base year (2015) (φ in equation (2)). The brackets under the treatment effects are p-values from F-tests for significance of $\beta + \varphi$. Coefficients on the indicator variable for "no contract" suggest that individuals without a written contract in 2015 were less likely to participate in both health insurance and pensions. From the coefficient on the no-contract-treatment interaction term it is evident that for health insurance participation, the impact of the information intervention is significantly different for respondents with and without contracts in 2015. For those with contracts in the base year, there is no information intervention effect. Given that before the intervention 77% of our sample with written contracts already had health insurance, this should not be a surprise. The effect on those without contracts, though, is positive and statistically significant. On average the intervention increased health insurance participation for those previously without a contract by 3.2 percentage points, or a 23.2 percent increase over the 2015 participation rate of this group (which was 13.8%).

Participation in pensions, however, was not affected by the information intervention, regardless of whether the individual had a contract or not. This result was puzzling at first, and led us to explore heterogeneity in treatment effects with age of the recipient in a post hoc analyses: one explanation lies with the fact that a fairly large proportion of the sample was within 15 years of retirement age (18% of men and 15% of women) and could not enjoy the full benefits of pension participation. To examine this possibility, those individuals within fifteen years of the retirement age are excluded. For this restricted sample, the estimated results for the average treatment effects and heterogeneous effects are reported in Panel C of Table 2. Although the information intervention had a zero average effect for this group, the impact for those without a written contract is positive and statistically significant. In particular, for "young" individuals without a contract, the intervention increased pension participation by 3.9 percentage points, or a 25% increase in the participation rate of this group.

To understand the difference in treatment responses to pension participation of the "young" and "old" samples, we examined the wage responses to treatment for each group and show results in Table (3). To do this, we estimate models of ln(wage) in 2016 on the information treatment, 2015 ln(wage), and standard city fixed effects in model 1. Pre-treatment (2015) individual level controls (age, age-squared, gender, years of schooling, marital status and number of children) are included in model 2, and model 3 includes pre-treatment firm size and ownership indicator variables. With inclusion of the lagged ln(wage) term, the coefficient on the treatment may be interpreted as the contribution of the intervention to the increase (or decrease) in wages in the following period.[17] In the bare bones estimates (model 1) and models with a full set of pre-treatment controls (model 3), we find that older employees

[17] One might alternatively estimate this change by regressing the change in log wage on pre-treatment variables.

(within 15 years of retirement), experience a 7.2 percent wage increase with treatment even as their pension program participation remains unchanged. We observe no similar increase in the wage earned by the younger sample, even as they increase participation in the urban employee pension program. Thus, while older workers can expect to gain less from pension enrollment, the information intervention appears to have facilitated a bargaining outcome in which they have split the surplus from not participating with their employers. In the RUMiC cities, where the average employee contribution is 8% and the employer contributes between 14% and 21%, the magnitude of the "bargained" outcome makes intuitive sense: employers grant some higher return to employees, but generally less than half of the mandated employer contribution.[18] As both employers and employees lose contributions made to the urban employee pension fund on behalf of older employees, it is incentive compatible for both older workers and their employers to engage in this type of bargaining.

Heterogeneity of Treatment with the Relative Premium. Apart from possessing a contract, differences in relative premium levels across cities may also introduce heterogeneity in the treatment effect. To understand the potential for this heterogeneity, Figure 2 plots the unconditional city-level treatment effect versus the relative premiums for health insurance and pension programs, respectively.[19] A significant negative relationship is observed for health insurance: in cities with a higher relative premium the unconditional treatment effect was negative between 2015 and 2016, while in cities with a low premium, we observed a positive increase in participation. With respect to pensions, one observes no association between participation and premiums, but this is driven by one city, Luoyang. Excluding Luoyang one also observes a negative relationship, but this is much weaker than for health insurance. Thus, it is plausible that in cities where premiums were high, migrants decided to withdraw from social insurance once informed of prices and benefits, whereas participation rates increased subsequent to receiving information in those cities where premiums were relatively low.

To allow for the treatment effect to vary with local health insurance and pension premiums, equation (3) is next estimated and results are presented in Panel A of Table 4. Recall that in this specification, the included city fixed effects control for differences in labor market conditions across cities, the average earnings of migrants and in the unobserved city-level

[18] Based on conversations with both migrants and their employers, researchers have believed that this bargaining outcome exists (Giles et al., 2013; Meng, 2017), but the wage response of older workers who cannot fully benefit from pension participation offers the first corroborating empirical evidence that informed workers may bargain with employers for higher wages.

[19] Specifically, we first obtain coefficients from the health insurance and pension participation models estimated with city-specific information treatment indicators (city dummies interacted with the information treatment) in models that control for the city fixed effects and then plot the coefficients on the city-treatment interactions against the city-level relative health insurance and pension premiums, respectively.

differences in characteristics of migrants attracted to the city. The interaction of the relative price (or relative premium) with the treatment thus allows us to identify variation in treatment effects with the relative cost of insurance. The coefficient on the relative premium and the treatment interaction term for health insurance is negative in all three specifications. The baseline model suggests that after controlling for the relative price level (through the city fixed effect), the price elasticity on the treated group is a negative 0.94, indicating that 1% increase in the relative health insurance premium reduces participation by 0.94 percentage points. Controlling for individual observables increases the price elasticity to 1.11, and in the third model, when firm size and ownership characteristics are also included, the price elasticity increases to 1.18. Next, in Panel B of Table 4, additional interactions of the information treatment, city-level relative premium and contract status are included, and we note that the price elasticity among employees without a contract is of greater magnitude at negative 1.56. Evident also in Figure 3, the treatment effect for health insurance is of larger magnitudes in cities with lower relative premiums. As calculated at the bottom of Table 4 the treatment effect increases from 2.9 percentage points at the median relative price (0.075) to 6.7 and 11.2 percentage points at the 25th and 10th percentiles of the city-relative premium distribution, respectively.[20] When premiums are relatively low, information frictions may inhibit health insurance participation. At the same time when the premiums are high and participants lack information because part of the premium is paid by the employer, some may make an uninformed decision to participate. Upon receiving more accurate information and recognizing that their wages could be higher if they do not participate, some employees may withdraw from the urban health insurance program.

One might be concerned that job-switching may drive movement toward non-participation in cities where health insurance premiums are high. Of individuals who exited from health insurance programs between 2015 and 2016, only 15% had started a new job since the information intervention, and these were evenly distributed across all cities. Thus, it is unlikely that involuntary changes in employment in high premium cities can explain the effect of higher relative premiums on participation in health insurance.

In contrast to the role of relative price in the impact of information on health insurance participation decision, there is no evidence that the relative pension premiums interact with information to influence participation in pension programs. Coefficients on the information treatment interacted with the relative premium are not statistically significant for pensions (Panel A of Table 4), even after excluding Luoyang, the outlier in Figure 2. Even among respondents without a contract, as evident in Panel B of Table 4, the treatment effect does not vary with relative pension premiums.

[20] As the base 2015 participation rate in urban employer health insurance was 13.8% for employees without health insurance, this reflects 21, 49 and 81 percent increases in participation rates as relative health insurance premia decline from the median to the 25th and 10th percentiles.

Why do we observe a difference between health insurance and pension participation responsiveness to relative premiums? An imperfect substitute, in the form of health insurance through the new rural collective medical system (NRCMS), is available for migrant workers in their home counties. Although migrants face the cost and inconvenience of a return migration trip when ill, this may be viewed as a reasonable, if highly imperfect substitute for the urban employee health insurance program.[21]

4.2 Treatment-on-the-Treated

As discussed in Section 3, roughly 7% of respondents who were assigned to the treatment group did not receive a pamphlet and explanation of the benefits from participating in health insurance and pensions. While a rather small proportion, estimates of the effect of treatment on the treated tend to be larger in magnitude than "reduced form" intent-to-treat estimates. To estimate the treatment-on-treated, we employ an instrumental variables approach in which the variable T_{ij} in equations (1), (2), (3), and (4) is an indicator of actual receipt of a pamphlet and information, and assignment to the treatment is used as an instrument. The results for the four equations are presented in Table 5. As one would expect, with a strong correlation between intended and actual treatment, the instrument is quite strong and there is no reason to be concerned with weak instrument bias.[22]

For health insurance, shown in Panel A, the estimated treatment effects are larger than intention to treat effects, as one might expect, and qualitatively very similar. For example, controlling for city-varying price effect, the average treatment on the treated effect is 9.9 percentage points in model 3 (sixth column of Table 5), whereas the intention to treat effect is 9.1 percentage points (see model 3 under health insurance as reported in Panel A of Table 4). For the subgroup of individuals without contracts in the base year, controlling for the city-varying price effect, the treatment effect on the treated is 16.4 percentage points while the intention to treat effect is 14.7 percentage points (see model 3 of equation (4) as reported in column 3 of Panel B in Table 4).

Panel B of Table 5 shows the comparable treatment-on-treated results for the pension program participation decision of respondents young enough to make 15 years of contributions before reaching retirement age. With this restricted sample, the treatment-on-the-treated effect for individuals without a contract is positive and statistically significant at the slightly larger magnitude as those shown for the intention-to-treat effect in Table 2. As in the estimation for intention-to-treat effects, the treatment-on-treated estimates also suggest that there

[21] As of 2015, nearly 81 percent of rural migrants reported that they had NRCMS insurance in their home counties. It is notable that when an indicator for NRCMS participation in 2015 is included as a covariate, results examining the decision to participate in urban employee health insurance are stronger.

[22] As the F-statistics are over 1000, we do not report these values in Table 5. The first stage estimation results are available upon request.

is no effect of the information intervention on pension participation for the total sample.[23]

4.3 Assessing the Potential for Bias Due to Attrition

Due to the mobile nature of the migrant population, one observes considerable attrition between RUMiC waves. Between 2015 and 2016 the sample attrition rate was 28.3%, thus it is reasonable to consider whether attrition might affect both randomization and the interpretation of our results. To examine this question, we first compare Panels A and B of Table 1. From the table, note that most individual characteristics are balanced for the total sample as well as for the panel respondents, hence, they should also be balanced for those who attrit after the 2015 wave. The imbalances in firm-level control variables and in city dummy variables across control and treatment groups are quite similar for both the total sample and the stayers, suggesting no significant variation in imbalances between stayers and attritors.

Although we do not observe a difference in the balance test between the attritors and the stayers, attrition may still affect our randomization in unobserved ways. To examine the extent to which this is the case, we first employ a Heckman sample selection correction model to control for attrition bias. More specifically, we estimate an attrition equation. For equations (2) and (3), the sample selection models are specified as:

$$Pr(Att_{ij}) = \alpha + \beta T_{ij} + \pi NC_{0ij} + \phi T_{ij} * NC_{0ij} + \theta_{ij} Y_{0ij} + \mathbf{X}'_{0ij}\gamma + \mathbf{W}'_{0ij}\kappa + \mathbf{Z}'\lambda + \delta_j + \varepsilon_{ij},$$

and

$$Pr(Att_{ij}) = \alpha + \beta T_{ij} + \phi T_{ij} * P_j + \theta_{ij} Y_{0ij} + \mathbf{X}'_{0ij}\gamma + \mathbf{W}'_{0ij}\kappa + \mathbf{Z}'\lambda + \delta_j + \varepsilon_{ij}, \tag{5}$$

where $\mathbf{Z}$ is a set of instruments identifying attrition and all the other variables are the same as in equations (2) and (3). The results obtained from equation (5) are then used to calculate an Inverse-Mills ratio, which, in turn, is included in the estimation of equation (2) to control for potential sample selection bias. The instruments used in equation (5) follow a strategy of using respondent baseline attitudes toward the survey to predict attrition (e.g. Mu, 2006) and are drawn from two questions answered by enumerators in the 2015 survey. The first question is "Do you think the respondent was careful and serious in answering the questions? 1. very serious throughout the survey; 2. fair; 3. not very serious." An indicator variable is set equal to one if the enumerator reported that the respondent was "very serious throughout the survey" or "fair." The second question asked "To what extent do you think the respondent's answers are reliable? 1. very reliable; 2. relatively reliable; 3. fair; 4. relatively not reliable; and 5. not reliable." For this instrument, an indicator variable is set equal to one if the response was 'very reliable', 'relatively reliable' or 'fair,' and zero

[23]The results are available upon request from the authors.

otherwise. These two variables reflect individuals' engagement with the survey, which should not be directly related to the decision to participate in insurance.

A respondent's level of trust in the social insurance system and own trustworthiness may be positively correlated, and so one might worry that trustworthiness revealed in these answers could be correlated with whether an individual participates in the social insurance programs, rendering these variables problematic. To overcome this potential problem, the vector of individual controls, $\mathbf{X}_{1ij}$, includes a self-assessed indicator of trust in some models to directly control for this potential channel through which the exclusion restriction would be violated.[24] As this question on trust was only answered by individuals who were present at the time of the 2015 survey, the sample with responses on trust is reduced by one-third.

We estimate the sample selection correction model for equations (2) and (3) using the Heckman two-step method and confidence intervals are estimated using a bootstrap with 1,000 replications. The selected results of the first stage estimation of equation (5) are reported in Online Appendix A.4. For the full sample estimation, the two instruments are jointly statistically significant with signs and magnitudes that are intuitively reasonable. Those who are regarded as serious about the survey and with answers to questions judged to be more reliable are also more likely to participate in the next survey round. The weak-IV F-tests for the two specifications are 14.36 and 14.18. For the smaller sample that includes the trust measure, the IVs are weaker with F-test statistics of 11.[25]

The selected results for the sample selection correction model of equations (2) and (3) are reported in Table 6. The results reported in Panel A include the full sample without controlling for trust, Panel B uses the sample individuals with the trust measure and includes the trust variable among controls, while Panel C uses the trust sample and does not control for trust. The results in Panel A show that controlling for sample selection bias does not change our main results. The coefficient on the level of intention to treat controlling for city premium varying treatment effect is 10.6 percentage points as opposed to the 9.1 percentage points in the model not controlling for attrition bias. In addition, the sample selection correction term, λ, is statistically insignificant. In the case of equation (2), the intention to treat effect for those without a contract in the base year is 3.7 (0.001-0.071) percentage points, instead of 3.2 percentage points when not controlling for attrition.

When we exclude individuals with missing trust variable (the sample size falls from 6,396 to 4,037 in the first step estimation and from 4,587 to 2,881 in the second step) and controlling

[24]The question on trust reads "In general, do you think majority of people can be trusted or one should be careful when dealing with people in general? 1. Majority of people can be trusted; 2. One should always be careful; 3. Do not know". We define the 'trust' dummy variable as those who answer "1".

[25]We also used instruments separately. While the IV in the trust sample passes the rule of thumb test for strong instrument, the F-test on reliableness IV is 6.9. The second stage results do not differ much from those reported below. These results are available upon request from the authors.

for trust (Panel B of Table 6), the estimated intention to treat effect for equation (3) with control for price-varying treatment effect falls from 10.6 percentage points for the full sample to 9.2 percentage points. For equation (2), the intention to treat effect for individuals without contracts in the base year fell from 3.7 percentage points for the full sample to 2.9 percentage points for the trust sample and it is no longer statistically significant at the 5% level. These changes in estimated effects are driven by reduction in the sample size. Moving to Panel C (with the trust sample and excluding the trust variable among the set of regressors, $\mathbf{X}$), the estimated intention to treat effect does not change from that with controlling for trust estimation, suggesting that our results from the sample selection correction model are robust to a potential violation of exclusion restriction.

We further test the potential attrition bias by using an inverse probability weighting (IPW) method suggested by Fitzgerald et al. (1998). The simple approach assumes that selection is only explained by observables. Equation 5 is first re-estimated without the instrumental variables, Z_{ij}, and then the inverse of predicted probabilities is used to weight each individual in the full sample, including both attritors and stayers. These weights are then used to estimate Equations (2) and (3) to obtain the sample selection corrected estimates of the treatment effect. The estimated results using this IPW re-weighting method are reported in Panel D of Table 6, and provide further confirmation that our estimates are unlikely to suffer from appreciable attrition bias. While neither approach above provides an iron-clad control for attrition related to unobservables, we are reassured by the fact that results from both of these commonly used methods point to very minor and statistically insignificant bias in the same direction.

4.4 Other Robustness Checks

In this subsection, we further test the robustness of our estimated treatment effects. First, as we note above the dependent variable in the participation models includes 2016 both actual and stated intentions to participate. The main reason for this is that, in some cities, the survey was conducted only a short time after the information intervention, and some respondents who received the information treatment may not have had enough time to act on an intention to change their behavior. This is evident in Figure 4, where the survey month is plotted first against the proportion of respondents who increased actual participation in health insurance and pension programs between 2015 and 2016, and second, against the proportion of those who indicated that they intended to participate in 2016. As duration between the intervention and 2016 survey round increases with the 2016 survey month, the figure shows that actual additional participation increases with duration between surveys while the intention to participate decreases.

To examine whether the treatment effect has the same trend when using actual partici-

pation, we estimate equations (2) and (3) as ordered-probit models, in which the dependent variable is replaced by a variable with 3 categories: those who did not participate and have no reported intention to participate in 2016 are coded as zero, those with intention to participate before the end of 2016 are coded as 1, and those who actually participated are set to 2. Selected marginal effects are reported in Table 7. Panel A reports the marginal effects from health insurance models and Panel B reports the marginal effects from pension participation estimates.

After controlling for price-varying treatement effects and lagged participation, as in equation (3) (and shown in columns 5 and 6 of Table 7), the groups which were assigned to the information intervention have a higher proportion of respondents both intending to participate and actually participating. The increase in actual participation is 6.4 percentage points, while the increase in intention to participate is 0.5 percentage points. Both effects are precisely estimated at the 5% significance levels. The relatively low intention to participate effect reflects the 5.1 percent of respondents from the full sample who indicated intention to participate in 2016, but who have not yet enrolled. The 0.5 percentage point is roughly 9.7%. Thus, the assignment to the treatment induced around 9.7% more respondents to intend to participate relative to the control group. We report two sets of results for equation (2): the treatment and treatment interacted with the base-year no-contract indicator (Columns 1 and 2) and the treatment interacted with both base-year contract and base-year no-contract indicators (Columns 3 and 4). We use this approach because it is not easy to conduct a joint test in ordered probit estimation. Columns 3 and 4 confirm the size of the treatment effect for each group as well as the precision of the estimates. These results show that assignment to the treatment increases both intention to participate and actual participation for those without a written contract in the base year.

Second, recognizing that workers without a contract also inlcude the self-employed, one might be concerned that the stronger result among workers without a contract is driven by self-employment and not presence of a contract. To assess this, we split the sample into those who are wage-employed and self-employed at baseline in 2015, and estimate separately. In Table 8, we show that the magnitude of the "no contract effect" is larger among the wage employed and still significant at the 10% level. The direction of the treatment effect is similar for the self-employed group, and the magnitude is still economically, if not statistically, significant. This leads us to conclude that the information intervention had most purchase among wage-employees without a contract in 2015.

Third, because the proportion of the sample randomly selected for the pamphlet distribution differs between Shanghai and the rest of the cities, we test whether this may affect our results by adding an interaction term between the assignment to the treatment and the Shanghai dummy. We also estimate an equation with Shanghai excluded from the sample.

These results together with the original estimation of Equation (3) are reported in Panel A of Table 9. Comparing results across the panel, it is clear that the difference in sampling proportion between Shanghai and other cities does not affect the estimated treatment effect.

The fourth sensitivity test examines potential spillover effects. Although the information experiment is based on random assignment, it is possible that some individuals are working in large workplaces where members of both the treatment and control groups are present, and information may be spread from treated individuals to those who are in the control group. Similarly, migrants who move from the same sending county to the same destination city are often part of the same network, and within such a network, information may flow between members of the treatment and control groups. To test for these types of spillover effects we generate two dummy variables: one indicating individuals from a workplace where both treated and control respondents coexist (mixed firm); the other indicating that a home-county network has members of both control and treatment groups (mixed home-county). These two dummy variables are then interacted with the treatment assignment dummy variable. Three different specifications are estimated for equation (3): 1. including the mixed firm dummy and its interaction term with the assignment to treatment; 2. including the mixed home-county dummy and its interaction term; 3. including both mixed-firm and mixed-home county dummies together with their interaction terms with assignment to the treatment. The results are presented in Panel B of Table 9. As can be seen from these results, spillover effects are not affecting our main results.

5 Conclusions

In both China and the international policy communities there is broad recognition that social insurance has an important role to play in the process of economic development and urbanization. Indeed, the 2019 World Development Report (World Bank, 2019) emphasizes the importance of extending social insurance coverage to informal sector workers, which in China are primarily rural-urban migrants lacking formal contracts. There is a tendency for those providing policy advice, however, to simply assume that "mandating participation" in a social insurance scheme will be sufficient to cover informal sector workers. The China experience, however, should offer caution to the belief that mandates alone will suffice to raise participation. Informal sector workers, including new migrants from the countryside are often not participating in urban employee social insurance schemes for a number of reasons. Finding a way to bring such informal sector workers into social insurance systems, even with mandates and a government with relatively high administrative capacity, may pose a challenge for policy makers in many settings. Results from this paper suggest that lack of information may contribute to reducing participation among those workers who lack

contracts, and that providing information may be a relatively low cost means of raising coverage.[26]

The China example also raises the prospect that fiscally decentralized systems targeting different populations may lead to only nominal "universal coverage."[27] While most migrants have access to insurance through their home counties, through the New Rural Collective Medical System (NRCMS), accessing subsidized care requires returning home when ill or suffering an injury. Thus, in practice, it is often not feasible for rural migrants to access care through NRCMS insurance. Even with lower reimbursement rates and less certain quality at rural clinics, existence of this alternative likely contributes to price sensitivity when receiving information about the urban employee health insurance system. In cities where relative premiums are low, lack of information deters participation in health insurance, whereas in places where premiums are relatively high, the same lack of information actually leads to higher levels of participation.

This information intervention was particularly effective for informal sector employees who did not have a written contract in the base year. For this group, the base year rate of participation in the urban employee health insurance program was relatively low at 13.8%. With assignment to information treatment, the participation of this group increased by 3.2 percentage points. The treatment effect also varied considerably with the city relative health insurance premium, with the treatment effect increasing from 2.9 percentage points at the median relative premium to 6.7 and 11.2 percentage points as the relative premium declined to the 25th and 10th percentiles of the city relative premium distritubion. In the context of the findings of Wagstaff et al. (2016) and Thornton et al. (2010), this constitutes a dramatic increase within one year, and offers promise of boosting participation through relatively low cost education drives aimed at informing informal sector workers about the benefits of health insurance and other forms of social insurance.

Information interventions alone, however, are unlikely to bring full urban health insurance coverage to the rural migrant population. A one year boost in coverage of 3.2 percentage points still leaves more than 80 percent of migrants without employment contracts lacking health insurance coverage in the cities where they work. While further research may demonstrate the potential for information interventions to have a cumulative effect over time and to be reinforced by steps to reduce the transaction costs associated with enrolling (Capuno et al., 2016), we view it likely that institutional reforms unifying health insurance programs

[26] In spite of mandates, some employers may simply decide not to make contributions on behalf of their employees. This may be particularly likely for smaller firms facing little likelihood of an audit from the labor bureau.

[27] Yu (2015) among others have declared China's success in providing universal health insurance to 1.3 billion people, yet as survey-based research has confirmed, rural migrants tend to remain without coverage or are covered by rural policies that are difficult to exercise when working and living in distant cities.

across urban and rural areas and providing premium subsidies for lower income workers may be necessary to approach full coverage.

With respect to pension program participation, the effect of providing information was also positive and significant for informal sector workers young enough to contribute for sufficient time to receive a full benefit at retirement. Unlike health insurance, pension program participation does not vary with relative premiums, but this likely reflects the fact that the new rural pension program, with low basic benefits, is not perceived to be a substitute for pension insurance under the urban employee pension scheme. Further, and in contrast to the rural and urban health insurance programs, receiving a benefit from the urban employee pension system may not preclude expectations of receiving accrued benefits under the new rural pension as well.

The wage response to the treatment effect offers corroborating evidence that older informal sector workers bargain with employers over wages in lieu of enrollment in the mandated urban employee pension program. While the information treatment increases the likelihood that informal employees more than fifteen years from retirement age will enroll in the urban employee pension, the treatment has no effect on the participation of older workers. A positive treatment effect on wage of 7.2%, however, is consistent with a bargained outcome in which an employer offers a higher wage to informal workers in lieu of contributions to a pension that brings fewer benefits to both. With respect to China's urban employee pension program, this suggests that formal participation may be increased if workers with fewer than fifteen years in the program are able to draw on both employer and employee contributions at retirement. More broadly, the pension results suggest that while providing program and process information may be a low cost means of increasing enrollment, success in expanding participation in a social insurance program also requires careful attention to incentives embedded in program details.

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Table 1: Balance Tests and Summary Statistics

	2015 Sample			2016 Panel Sample					
	Panel A: 2015 Balance Test			Panel B: 2016 Balance Test			Panel C: 2016 Summary Stats		
	Control	Treated	Diff	Control	Treated	Diff	Total	W/t Contract	With Contract
Main Outcomes									
Health Insurance with Intention				0.418	0.435	0.016	0.424	0.225	0.768
Pension with Intention				0.429	0.442	0.013	0.434	0.237	0.773
Health Insurance excl. Intention				0.371	0.376	0.005	0.372	0.159	0.742
Pension excl. Intention				0.381	0.376	-0.006	0.379	0.172	0.738
Baseline Indiv. Charact.									
2015 Health Insurance	0.339	0.337	-0.002	0.361	0.370	0.009	0.364	0.141	0.751
2015 Pension	0.338	0.348	0.010	0.357	0.381	0.024	0.365	0.155	0.730
Age	34.98	35.41	0.430	37.08	37.26	0.190	37.14	38.20	35.30
	(10.39)	(10.50)		(10.12)	(10.16)		(10.13)	(10.27)	(9.62)
Woman aged >40	0.149	0.164	0.015	0.179	0.185	0.006	0.181	0.219	0.114
Men aged >45	0.114	0.115	0.002	0.144	0.149	0.004	0.146	0.155	0.130
Years of Schooling	8.965	8.997	0.032	8.898	8.996	0.099	8.932	8.413	9.831
	(3.13)	(3.12)		(3.16)	(3.14)		(3.15)	(3.06)	(3.11)
Dummy for Males	0.567	0.570	0.003	0.565	0.586	0.021	0.572	0.559	0.595
Dummy for Being Working	0.996	0.997	0.001	0.995	0.997	0.002	0.996	0.994	1.000
Written Contract	0.370	0.360	-0.009	0.368	0.363	-0.005	0.366	0.000	1.000
Self-Employed	0.305	0.318	0.013	0.354	0.367	0.014	0.358	0.564	0.000
Willing to Stay Permanently	0.615	0.615	0.000	0.646	0.640	-0.006	0.644	0.656	0.622
Married	0.697	0.706	0.009	0.749	0.742	-0.007	0.746	0.787	0.677
Number of Children	1.068	1.096	0.028	1.159	1.165	0.006	1.161	1.256	0.997
	(0.90)	(0.89)		(0.88)	(0.88)		(0.88)	(0.87)	(0.87)
Firm Level Controls									
Firm Size	4.528	4.342	-0.187**	4.323	4.204	-0.119	4.281	3.186	6.178
	(2.62)	(2.51)		(2.58)	(2.50)		(2.55)	(2.19)	(1.94)
Firm Ownership									
State and collective	0.070	0.063	-0.007	0.072	0.068	-0.004	0.071	0.028	0.145
Domestic private	0.272	0.254	-0.017	0.246	0.231	-0.015	0.241	0.150	0.398
Foreign and joint venture	0.088	0.106	0.017*	0.090	0.110	0.020*	0.097	0.015	0.239
Self-employed	0.561	0.568	0.008	0.584	0.583	0.000	0.583	0.802	0.204
Other	0.009	0.009	0.000	0.008	0.008	0.000	0.008	0.004	0.015
City Indicators									
Dongguan	0.065	0.069	0.004	0.059	0.064	0.005	0.061	0.025	0.122
Shenzhen	0.065	0.066	0.001	0.071	0.072	0.001	0.071	0.051	0.107
Luoyang	0.065	0.067	0.002	0.076	0.078	0.002	0.077	0.084	0.064
Hefei	0.089	0.093	0.004	0.085	0.096	0.011	0.088	0.114	0.044
Bengbu	0.044	0.045	0.002	0.043	0.040	-0.003	0.042	0.061	0.009
Chongqing	0.086	0.092	0.007	0.089	0.106	0.017*	0.095	0.100	0.087
Shanghai	0.131	0.087	-0.044***	0.125	0.084	-0.041***	0.111	0.113	0.108
Nanjing	0.088	0.088	0.000	0.091	0.071	-0.020**	0.084	0.077	0.096
Wuxi	0.044	0.048	0.004	0.042	0.048	0.005	0.044	0.021	0.085
Hangzhou	0.091	0.095	0.004	0.080	0.088	0.009	0.083	0.080	0.088
Ningbo	0.047	0.051	0.004	0.041	0.048	0.007	0.043	0.029	0.068
Wuhan	0.095	0.101	0.005	0.096	0.097	0.000	0.096	0.120	0.055
Chengdu	0.092	0.097	0.005	0.102	0.108	0.007	0.104	0.125	0.067
No. of Observations	4244	2152		3005	1582		4587	3112	1475
P-value of F-test for Joint Sig.			0.138			0.236			

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Note: Standard deviation in parentheses. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 2: OLS Estimation of Information Treatment Effects

	Panel A: Average Treatment Effects					
	Health Insurance			Pension		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Treated	0.008	0.011	0.011	-0.004	0.000	-0.000
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)
Lagged Dependent Variable	0.656***	0.546***	0.534***	0.627***	0.519***	0.504***
	(0.016)	(0.025)	(0.026)	(0.017)	(0.025)	(0.026)
R-squared	0.488	0.519	0.523	0.453	0.501	0.505
No. of Observations	4,587	4,587	4,587	4,560	4,560	4,560
	Panel B: Heterogeneous Treatment Effects					
	Health Insurance			Pension		
Treated	-0.030	-0.024	-0.028	-0.028	-0.020	-0.023
	(0.020)	(0.019)	(0.019)	(0.020)	(0.019)	(0.019)
Treated*No-Contract	0.062**	0.056**	0.060**	0.042	0.032	0.035
	(0.026)	(0.025)	(0.025)	(0.027)	(0.025)	(0.025)
No-Contract	-0.187***	-0.161***	-0.140***	-0.219***	-0.171***	-0.144***
	(0.023)	(0.026)	(0.026)	(0.024)	(0.027)	(0.026)
Lagged Dependent Variable	0.562***	0.545***	0.533***	0.519***	0.519***	0.504***
	(0.021)	(0.025)	(0.025)	(0.022)	(0.025)	(0.026)
R-squared	0.505	0.519	0.524	0.479	0.501	0.506
No. of Observations	4,587	4,587	4,587	4,560	4,560	4,560
No-Contract Treatment Effect	0.032**	0.032**	0.032**	0.014	0.012	0.012
Treated+[Treated*No-Contract]	[0.045]	[0.049]	[0.042]	[0.405]	[0.476]	[0.452]
	Panel C: Pension with Restricted Sample					
	Average Effects			Heterogeneous Effects		
Treated	0.002	0.011	0.012	-0.035	-0.028	-0.030
	(0.016)	(0.015)	(0.015)	(0.022)	(0.021)	(0.021)
Treated*No-Contract				0.072**	0.066**	0.071**
				(0.032)	(0.031)	(0.031)
No-Contract				-0.195***	-0.157***	-0.124***
				(0.029)	(0.032)	(0.032)
Lagged Dependent Variable	0.641***	0.496***	0.480***	0.544***	0.496***	0.480***
	(0.018)	(0.031)	(0.032)	(0.027)	(0.031)	(0.032)
R-squared	0.489	0.530	0.536	0.507	0.531	0.537
No. of Observations	2,925	2,925	2,925	2,925	2,925	2,925
No-Contract Treatment Effect				0.037*	0.038*	0.039*
Treated+[Treated*No-Contract]				[0.097]	[0.078]	[0.059]

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.

Notes: The additional variables included in Model 1 are a vector of city fixed effects; in Model 2 we also add individual level controls (age, gender, education, marital status, number of children, dummies for self-employment, dummy for working and an interaction between self-employment and lagged (2015) dependent variable and dummy for "willingness to remain in the city permanently if policy permits."), while Model 3 adds firm level controls (pre-treatment firm size and ownership indicator variables) as well.

Robust standard errors clustered at workplace of household head are in parentheses. P-values are in brackets. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 3: ln(Wage) Regression Results for Pension Eligible and Non-Eligible Wage Earners

	Sample of "older" workers			Sample of "younger" workers		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Assigned to Treatment	0.072**	0.058*	0.072**	0.012	0.014	0.012
	(0.033)	(0.033)	(0.034)	(0.027)	(0.026)	(0.026)
Lagged ln(Wage)	0.343***	0.301**	0.294**	0.649***	0.584***	0.575***
	(0.123)	(0.123)	(0.121)	(0.049)	(0.051)	(0.051)
Individual controls	No	Yes	Yes	No	Yes	Yes
Firm level controls	No	No	Yes	No	No	Yes
City fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	381	381	381	705	705	705
R-squared	0.476	0.499	0.517	0.436	0.462	0.468

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.

Notes: "Older" workers are those workers within fifteen years of retirement age (men over 45, and women over 40), and who cannot expect to receive the employer contribution as part of their pension. "Younger" workers (men and women who are under 45 and 40, respectively) can expect to receive full benefits at retirement. The additional variables included in Model 1 are a vector of city fixed effects; in Model 2 we also add individual level controls (age, age squared, gender, education, marital status, number of children), while Model 3 adds firm level controls (pre-treatment firm size and ownership indicator variables) as well. Robust standard errors clustered at workplace of household head level are in parentheses. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 4: OLS Estimation of Treatment Effects with Relative Premium Interactions

	Panel A: Average Treatment Effects					
	Health Insurance			Pension		
	Model 1	Mode 2	Model 3	Model 1	Mode 2	Model 3
Treated	0.073**	0.087***	0.091***	-0.009	0.001	-0.006
	(0.032)	(0.031)	(0.032)	(0.047)	(0.046)	(0.046)
Treated*Price	-0.939**	-1.105***	-1.176***	0.067	0.060	0.110
	(0.436)	(0.425)	(0.426)	(0.276)	(0.263)	(0.263)
Lagged Dependent Variable	0.655***	0.544***	0.532***	0.641***	0.496***	0.480***
	(0.016)	(0.025)	(0.026)	(0.018)	(0.031)	(0.032)
R-squared	0.489	0.520	0.524	0.489	0.530	0.536
No. of Observations	4,587	4,587	4,587	2,925	2,925	2,925
	Panel B: Heterogeneous Treatment Effects					
	Health Insurance			Pension		
	Model 1	Mode 2	Model 3	Model 1	Mode 2	Model 3
Treated	0.026	0.030	0.034	0.027	0.037	0.030
	(0.042)	(0.041)	(0.041)	(0.066)	(0.065)	(0.064)
Treated*No-Contract	0.118*	0.112*	0.113*	-0.043	-0.048	-0.047
	(0.065)	(0.064)	(0.064)	(0.094)	(0.091)	(0.091)
Treated*Price	-0.878	-0.858	-0.985*	-0.385	-0.404	-0.374
	(0.589)	(0.584)	(0.582)	(0.400)	(0.391)	(0.385)
No-contract dummy	-0.139***	-0.121**	-0.088*	-0.070	-0.029	-0.004
	(0.047)	(0.047)	(0.047)	(0.063)	(0.066)	(0.066)
No-contract*Price	-0.799	-0.702	-0.862	-0.739**	-0.750**	-0.707**
	(0.636)	(0.619)	(0.612)	(0.353)	(0.344)	(0.349)
No-contract*Price*Treated	-0.679	-0.689	-0.616	0.693	0.683	0.709
	(0.856)	(0.848)	(0.849)	(0.551)	(0.528)	(0.525)
Lagged Dependent Variable	0.558***	0.542***	0.529***	0.546***	0.500***	0.484***
	(0.021)	(0.025)	(0.026)	(0.026)	(0.032)	(0.032)
R-squared	0.507	0.521	0.526	0.508	0.532	0.538
No. of Observations	4,587	4,587	4,587	2,925	2,925	2,925
No contract treated price effect	-1.557**	-1.547**	-1.601***	0.308	0.279	0.335
	[0.013]	[0.012]	[0.010]	[0.402]	[0.421]	[0.337]
No contract treatment effect						
At median premium	0.029*	0.027*	0.028*	0.031	0.033	0.034
	[0.077]	[0.084]	[0.072]	[0.173]	[0.143]	[0.123]
At 25th percentile premium	0.067**	0.066**	0.068**	0.022	0.025	0.025
	[0.002]	[0.002]	[0.002]	[0.409]	[0.350]	[0.349]
At 10th percentile premium	0.112***	0.110***	0.114***	0.014	0.017	0.015
	[0.002]	[0.002]	[0.002]	[0.684]	[0.607]	[0.642]

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: The additional variables included in Model 1 are a vector of city fixed effects; in Model 2 we also add individual level controls (age, gender, education, marital status, number of children, dummies for self-employment, dummy for working and an interaction between self-employment and lagged (2015) dependent variable and dummy for "willingness to remain in the city permanently if policy permits."), while Model 3 adds firm level controls (pre-treatment firm size and ownership indicator variables) as well.
Robust standard errors clustered at workplace of household head are in parentheses. P-values are in brackets.
Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Effect of Treatment on the Treated (IV Results)

Panel A: Health Insurance	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	Without Price Interaction: Eq 1			With Price Interaction: Eq 3		
Received a Pamphlet	0.009	0.012	0.011	0.079**	0.094***	0.099***
	(0.013)	(0.013)	(0.013)	(0.035)	(0.034)	(0.034)
Received a Pamphlet*Price				-1.009**	-1.188***	-1.263***
				(0.465)	(0.452)	(0.452)
No. of Observations	4,587	4,587	4,587	4,587	4,587	4,587
	Without Price Interaction: Eq 2			With Price Interaction: Eq 4		
Received a Pamphlet	-0.031	-0.026	-0.029	0.048	0.032	0.038
	(0.021)	(0.020)	(0.020)	(0.046)	(0.045)	(0.045)
Received a Pamphlet*No-Contract	0.066**	0.059**	0.064**	0.104	0.125*	0.126*
	(0.027)	(0.026)	(0.026)	(0.071)	(0.071)	(0.071)
No. of Observations	4,587	4,587	4,587	4,587	4,587	4,587
No-Contract Treatment Effect	0.035**	0.033**	0.035**	0.152***	0.157***	0.164***
RP+[RP*No-Contract]	[0.043]	[0.048]	[0.040]	[0.005]	[0.003]	[0.002]
Panel B: Pension	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	Without Price Interaction: Eq 1			With Price Interaction: Eq 3		
Received a Pamphlet	0.002	0.012	0.013	-0.009	0.002	-0.006
	(0.017)	(0.016)	(0.016)	(0.049)	(0.047)	(0.047)
Received a Pamphlet*Price				0.068	0.060	0.111
				(0.280)	(0.267)	(0.266)
Observations	2,925	2,925	2,925	2,925	2,925	2,925
	Without Price Interaction: Eq 2			With Price Interaction: Eq 4		
Received a Pamphlet	-0.038	-0.030	-0.033	0.030	0.041	0.033
	(0.024)	(0.023)	(0.023)	(0.072)	(0.071)	(0.070)
Received a Pamphlet*No-Contract	0.076**	0.070**	0.075**	-0.047	-0.052	-0.052
	(0.034)	(0.032)	(0.032)	(0.102)	(0.098)	(0.098)
Observations	2,925	2,925	2,925	2,925	2,925	2,925
No Contract treatment effect	0.038*	0.040*	0.042*	-0.017	-0.011	-0.019
RP+(Rp*No contract)	[0.096]	[0.076]	[0.057]	[0.804]	[0.868]	[0.778]

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: The additional variables included in Model 1 are a vector of city fixed effects; in Model 2 we also add individual level controls (age, gender, education, marital status, number of children, dummies for self-employment, dummy for working and an interaction between self-employment and lagged (2015) dependent variable and dummy for "willingness to remain in the city permanently if policy permits."), while Model 3 adds firm level controls (pre-treatment firm size and ownership indicator variables) as well.
Robust standard errors clustered at workplace of household head are in parentheses. P-values are in brackets.
Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Correcting for Potential Attrition Bias

Panel A: Heckman two-step model – Total sample				
	Contract Interaction			Price Interaction
Treated	-0.018			0.106
	[-0.060,0.026]			[0.035,0.177]
Treated*Contract		-0.018		
		[-0.060,0.026]		
Treated*No-Contract	0.055	0.037		
	[0.001,0.105]	[0.001,0.071]		
Treated*Health Insurance Price				-1.289
				[-2.245,-0.336]
F-Statistics	14.36	14.36		14.18
Panel B: Heckman two-step model - Trust sample with trust control				
	Contract Interaction			Price Interaction
Treated	-0.019			0.092
	[-0.063,0.023]			[0.008,0.165]
Treated*Contract		-0.019		
		[-0.063,0.023]		
Treated*No-Contract	0.048	0.029		
	[-0.011,0.110]	[-0.009,0.068]		
Treated*Health Insurance Price				-1.190
				[-2.185,-0.118]
F-Statistics	10.60	10.60		10.45
Panel C: Heckman two-step model – Trust sample but no trust in model				
	Contract Interaction			Price Interaction
Treated	-0.020			0.091
	[-0.063,0.023]			[0.009,0.165]
Treated*Contract		-0.020		
		[-0.063,0.023]		
Treated*No-Contract	0.048	0.029		
	[-0.010,0.110]	[-0.009,0.066]		
Treated*Health Insurance Price				-1.186
				[-2.187,-0.127]
F-Statistics	10.97	10.97		10.81
Panel D: Correcting sample attrition bias by re-weighting				
	Health Insurance		Pension	
Treated	0.101***	-0.031	0.003	-0.032
	(0.033)	(0.020)	(0.047)	(0.023)
Treated*Price	-1.350***		0.046	
	(0.437)		(0.266)	
Treated*No-Contract		0.061**		0.069**
		(0.026)		(0.032)
No. of Observations	4,587	4,587	2,925	2,925

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: All regressions are using the Model 3 specification (see note to Table 2). For Heckman model, the 95% bootsraping percentile confidence intervals are in the square brackets, which are calculated by pair cluster bootstrap with 1000 replications. The sample size of Panel A is 4,587, and the sample size of Panels B and C is 2,881. For reweigting results, robust standard errors clustered at workplace of household head are in parentheses. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 7: Actual vs Intended Participation (Marginal Effects from Ordered Probit Models)

Panel A: Health Insurance	Equation 2				Equation 3	
	One Interaction		Two Interactions			
	Intention	Actual	Intention	Actual	Intention	Actual
Treated	-0.001	-0.017			0.005**	0.064**
	(0.002)	(0.018)			(0.002)	(0.026)
Treated*Price					-0.069**	-0.820**
					(0.030)	(0.343)
Treated*No-contract	0.003*	0.038*	0.002*	0.021*		
	(0.002)	(0.022)	(0.001)	(0.012)		
Treated*Contract			-0.001	-0.017		
			(0.002)	(0.018)		
No. of Observations	4,587	4,587	4,587	4,587	4,587	4,587
Panel B: Pension	Equation 2				Equation 3	
	One Interaction		Two Interactions			
	Intention	Actual	Intention	Actual	Intention	Actual
Treated	-0.003*	-0.038*			-0.002	-0.030
	(0.001)	(0.022)			(0.002)	(0.040)
Treated*Price					0.013	0.193
					(0.013)	(0.234)
Treated*No-contract	0.004***	0.062**	0.002	0.024		
	(0.002)	(0.027)	(0.001)	(0.015)		
Treated*Contract			-0.003	-0.038*		
			(0.002)	(0.022)		
No. of Observations	2,925	2,925	2,925	2,925	2,925	2,925

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: All regressions are using the Model 3 specification (see note to Table 2). Robust standard errors clustered at workplace of household head are in parentheses. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 8: Are their Differences in Effects on Employed and Self-Employed Workers?

Panel A: With Contract Interaction	Health Insurance		Pension (restricted sample)	
	employed	self-employed	employed	self-employed
Treated	-0.026	0.024	-0.031	0.039
	(0.019)	(0.021)	(0.021)	(0.028)
Treated*No-Contract	0.067**		0.070*	
	(0.032)		(0.040)	
No. of Observations	2,638	1,949	1,848	1,077
R-squared	0.546	0.284	0.530	0.349
No-contract treatment effect	0.041*		0.039	
Prob >F	[0.098]		[0.224]	
Panel B: With Price Interaction	Health Insurance		Pension (restricted sample)	
	employed	self-employed	employed	self-employed
Treated	0.101***	0.058	-0.013	0.006
	(0.035)	(0.073)	(0.055)	(0.075)
Treated*Price	-1.514***	-0.448	0.067	0.194
	(0.469)	(0.958)	(0.321)	(0.420)
No. of Observations	2,638	1,949	1,848	1,077
R-squared	0.546	0.284	0.529	0.349

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: All regressions are using the Model 3 specification (see note to Table 2). Robust standard errors clustered at workplace of household head are in parentheses. P-values are in brackets. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

Table 9: Additional Sensitivity Tests

Panel A: Test for difference in sampling proportion for Shanghai

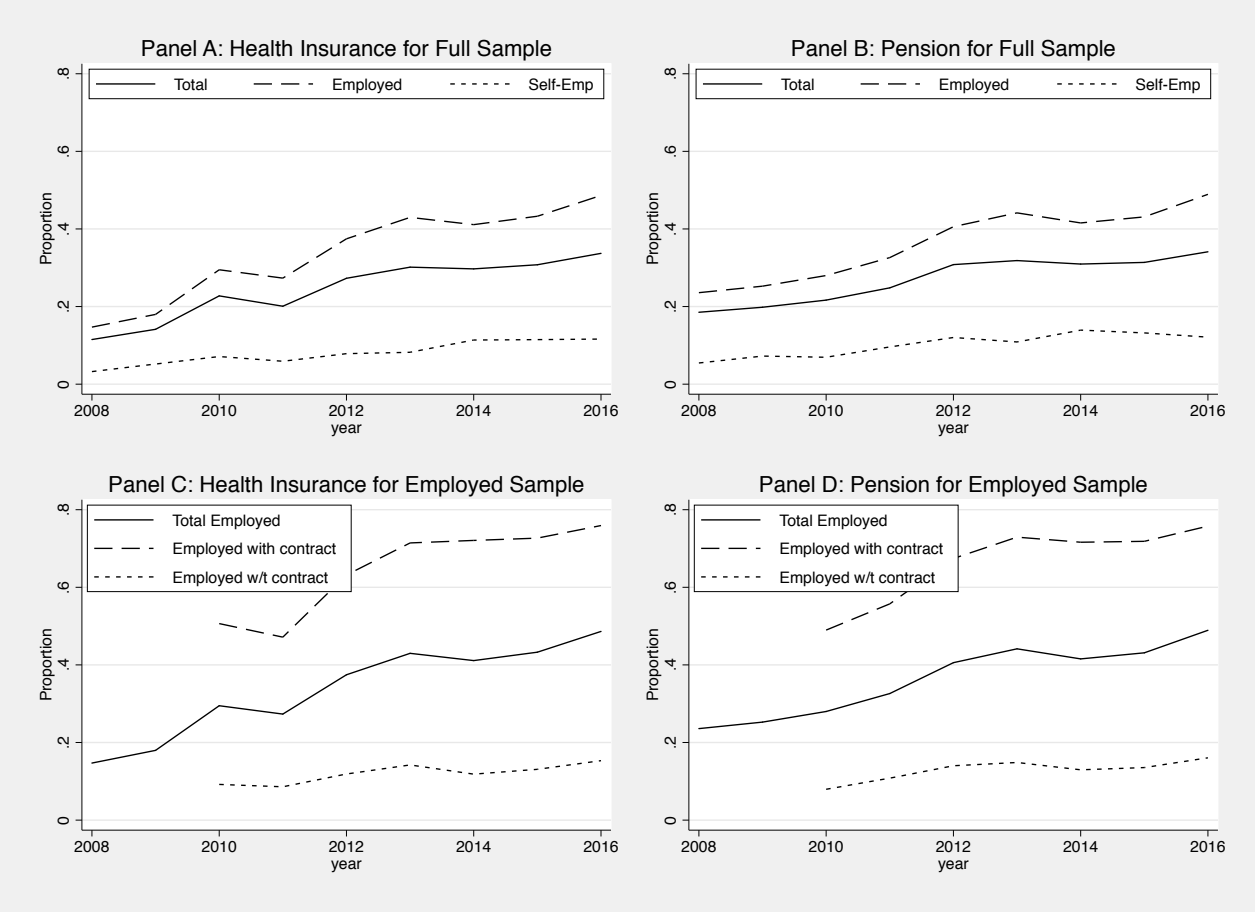
	Health Insurance			Pension		
	Original	Include SH*Treat	Excl. SH	Original	Include SH*Treat.	Excl. SH
Treated	0.091***	0.089***	0.088***	-0.006	-0.016	-0.018
	(0.032)	(0.033)	(0.033)	(0.046)	(0.046)	(0.046)
Treated*Price	-1.176***	-1.122**	-1.105**	0.110	0.197	0.211
	(0.426)	(0.466)	(0.465)	(0.263)	(0.275)	(0.275)
Treated*Shanghai		-0.015			-0.053	
		(0.043)			(0.061)	
No. of Observations	4,587	4,587	4,064	2,925	2,925	2,596
R-squared	0.524	0.524	0.516	0.536	0.536	0.533

Panel B: Test for spillover effect

	Health Insurance			Pension		
	Firm spillover	Home-cnty spillover	Both	Firm spillover	Home-cnty spillover	Both
Treated	0.087***	0.118***	0.113***	-0.010	0.012	0.013
	(0.033)	(0.035)	(0.037)	(0.046)	(0.048)	(0.048)
Treated*Price	-1.170***	-1.035***	-1.029***	0.151	0.193	0.212
	(0.426)	(0.424)	(0.425)	(0.265)	(0.266)	(0.267)
Mixed-firm	-0.016		-0.015	-0.014		-0.013
(both treated & control)	(0.019)		(0.019)	(0.023)		(0.023)
Treated*Mixed-firm	0.019		0.019	0.010		-0.012
	(0.027)		(0.027)	(0.036)		(0.035)
Mixed-home cnty		-0.015	-0.015		0.001	0.001
(both treated & control)		(0.015)	(0.015)		(0.018)	(0.018)
Treated*Mixed-home cnty		-0.051*	-0.050*		-0.049	-0.050
		(0.027)	(0.027)		(0.032)	(0.032)
No. of Observations	4,587	4,587	4,587	2,915	2,915	2,915
R-squared	0.524	0.525	0.525	0.536	0.536	0.537

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: All regressions are using the Model 3 specification (see note to Table 2). Robust standard errors clustered at workplace of household head are in parentheses. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.

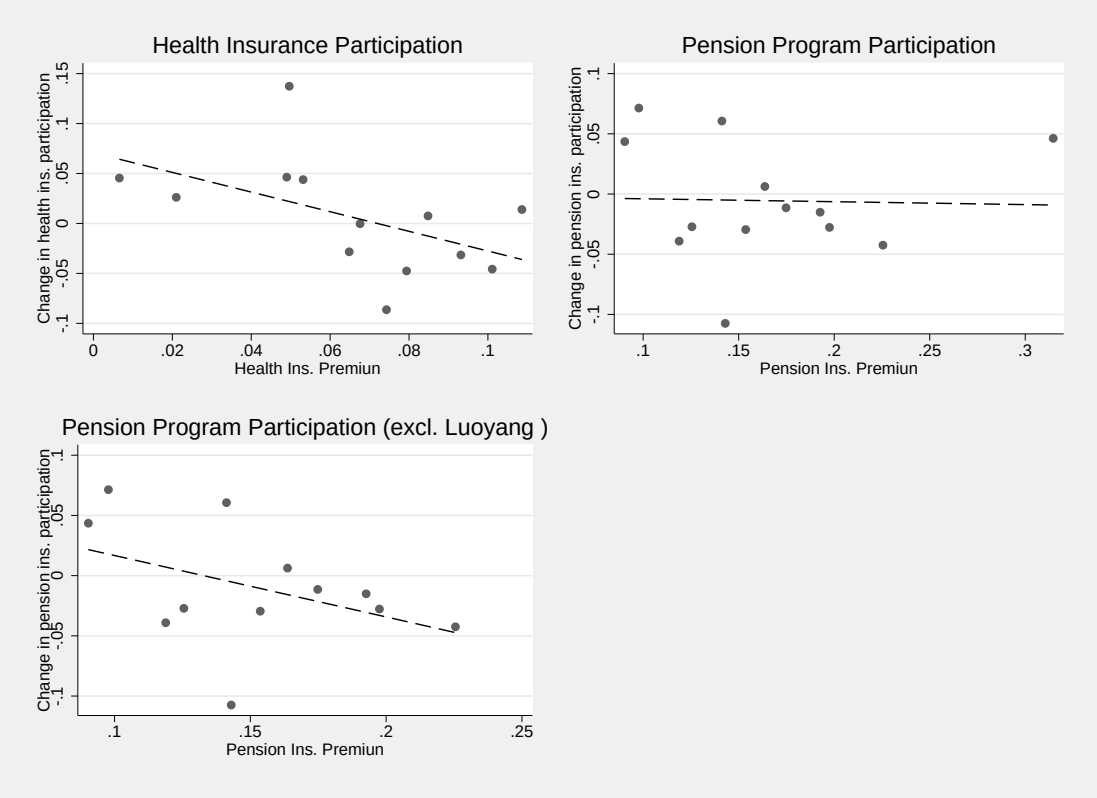
Figure 1: Rates of Participation in Urban Employee Health Insurance and Pension Programs among China's Rural Migrants



Source: 2008-2016 waves of the Rural-Urban Migration in China (RUMiC) Survey.

Notes:The employed sample of migrants excludes self-employed workers. Of the total 2015 RUMiC sample 32 percent, 30 percent and 38 percent were employed with a contract, employed without a contract and self-employed, respectively.

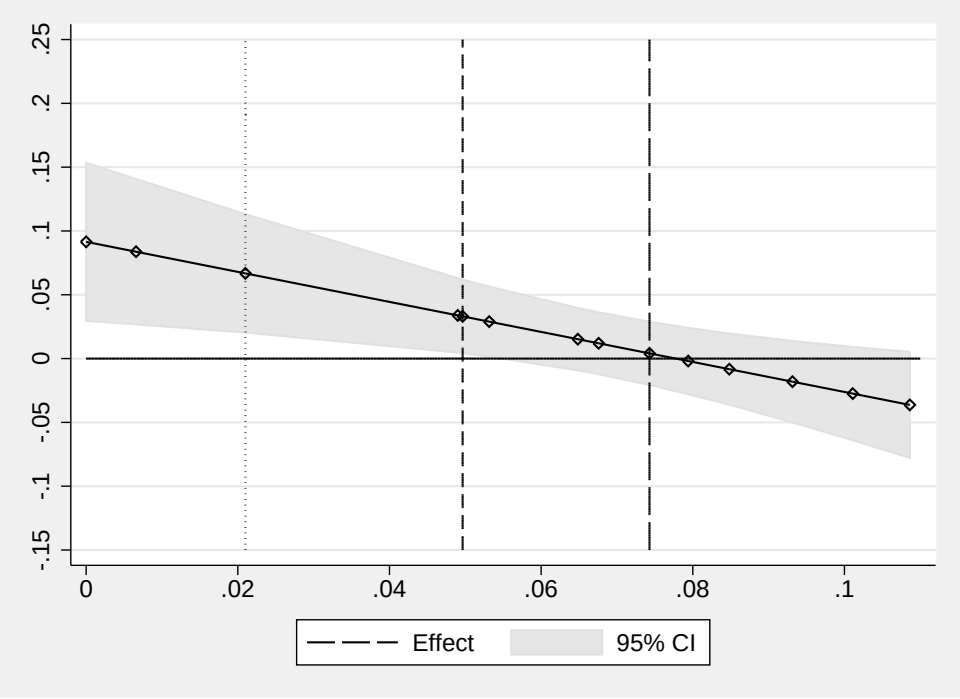
Figure 2: How Does the City-Level Information Treatment Effect Vary with Relative Premiums?



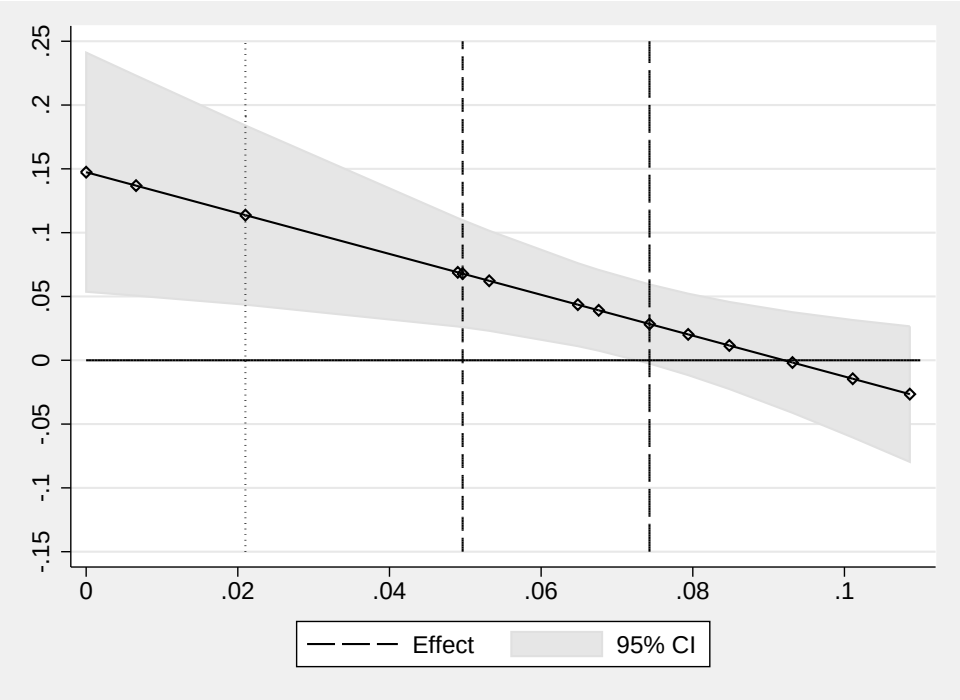
Source: 2015 and 2016 waves of the Rural-Urban Migration in China (RUMiC) Survey, and RUMiC Information Intervention Survey, 2016.

Notes:An estimated city-level treatment effect is plotted against the relative premium for the urban employee health insurance and pension programs in the city. The relative premium is calculated as the premium required for self-employed workers to participate divided by the city-wide average monthly earnings of migrants. The city-level treatment effects are coefficients from the health insurance and pension participation models estimated with city-specific information treatment indicators (city indicators interacted with the information treatment) in models that control for the city fixed effects.

Figure 3: The Treatment Effect for Migrants Declines with the Relative Health Insurance Premium



(a) The effect on all migrants, predicted from Model 3 of Eq. (3)

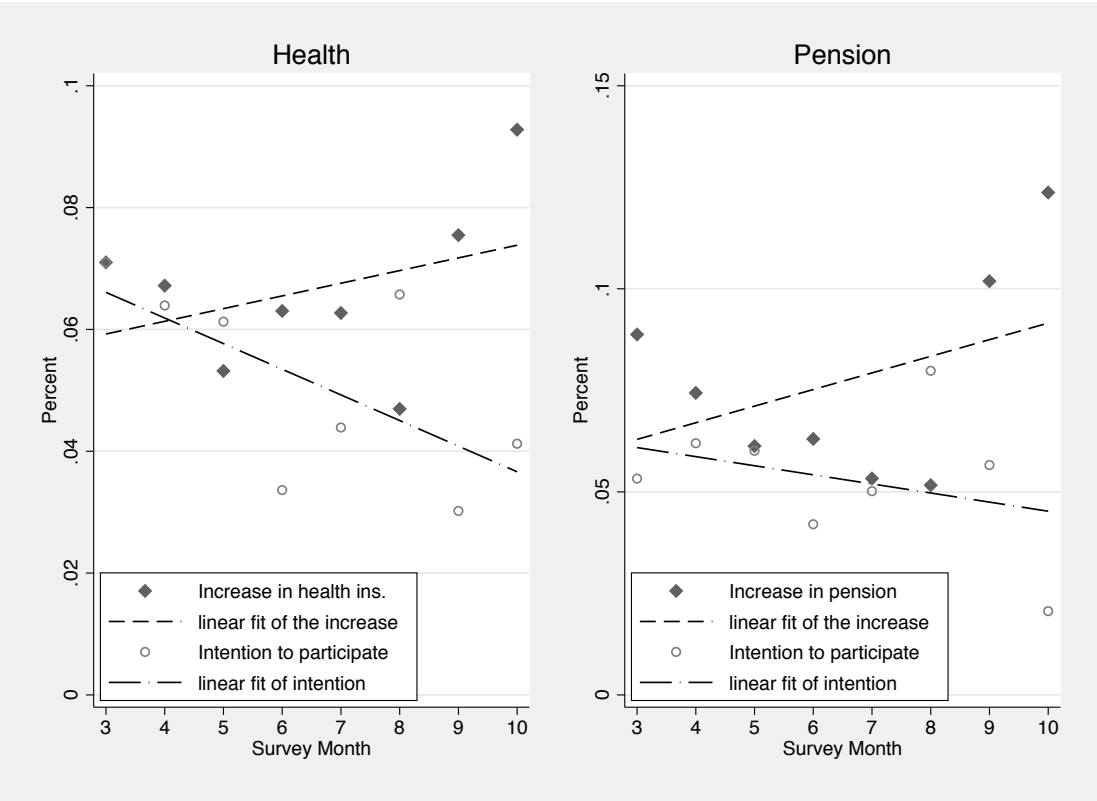


(b) The effect on migrants without a contract, predicted from Model 3 of Eq. (4)

Source: 2015 and 2016 waves of the Rural-Urban Migration in China (RUMiC) Survey, and RUMiC Information Intervention Survey, 2016.

Notes: The dot, dash, long dash lines indicates the 10th percentile, 25th percentile and median relative premiums.

Figure 4: Change in Actual and Intended Participation Over Survey Months



Source: 2015 and 2016 waves of the Rural-Urban Migration in China (RUMiC) Survey, and RUMiC Information Intervention Survey, 2016.

Notes:The figures above show the change in actual and intended participation in health insurance and pension programs, respectively.

Online Appendix

The following tables and figures are intended for a supplementary appendix to be made available on-line.

Online Appendix A.1 Summary Statistics

Table A.1: Annual Participation Rates in Pension Programs and Health Insurance

	Panel 1: Full Sample			Panel 2: 2008 and New Sample			Panel 3: 2008 and Old Sample		
Panel A: Overall participation									
	Total	Employee	Self-emp	Total	Employee	Self-emp	Total	Employee	Self-emp
Panel A1: Health insurance									
2008	11.50	14.71	3.24	11.50	14.71	3.24	11.50	14.71	3.24
2009	14.14	17.97	5.19	14.04	16.83	5.25	14.30	20.39	5.13
2010	22.75	29.48	7.12	20.52	24.90	6.47	25.00	35.05	7.55
2011	20.09	27.33	5.91	18.23	22.26	7.30	21.34	31.40	5.25
2012	27.28	37.46	7.86	31.35	39.02	7.98	25.23	36.48	7.82
2013	30.16	42.99	8.22	27.26	35.93	6.16	31.50	46.89	8.91
2014	29.71	41.12	11.38	28.32	35.31	12.06	30.40	44.62	11.14
2015	30.78	43.28	11.48	29.36	36.10	11.87	31.48	48.00	11.36
2016	33.72	48.62	11.63	31.19	40.34	8.93	34.85	53.45	12.40
Panel A2: Pension									
2008	18.53	23.58	5.46	18.53	23.58	5.46	18.53	23.58	5.46
2009	19.82	25.26	7.24	20.24	24.53	6.85	19.12	26.79	7.64
2010	21.66	27.99	6.94	18.53	22.11	7.05	24.83	35.13	6.86
2011	24.83	32.62	9.59	24.48	28.98	12.28	25.06	35.54	8.31
2012	30.82	40.57	12.02	33.19	40.06	12.13	29.61	40.90	11.99
2013	31.85	44.14	10.87	28.44	36.17	9.64	33.44	48.56	11.29
2014	30.95	41.54	13.93	29.27	35.43	14.87	31.79	45.25	13.60
2015	31.38	43.11	13.21	30.45	37.30	12.55	31.84	46.94	13.41
2016	34.11	48.92	12.12	31.66	40.71	9.59	35.22	53.70	12.85
Panel B: Participation Rate among Employees									
	overall	with contr.	without contr.	overall	with contr.	without contr.	overall	with contr.	without contr
Panel B1: Health insurance									
2010	29.48	50.65	9.20	24.90	42.79	8.09	35.05	59.76	10.63
2011	27.33	47.16	8.59	22.26	39.11	6.62	31.40	53.49	10.22
2012	37.46	63.18	11.88	39.02	63.03	13.36	36.48	63.27	11.00
2013	42.99	71.44	14.21	35.93	64.20	9.51	46.89	75.17	17.17
2014	41.12	72.08	11.85	35.31	64.97	9.10	44.62	76.08	13.66
2015	43.28	72.68	13.08	36.10	61.84	10.77	48.00	79.57	14.69
2016	48.62	75.92	15.32	40.34	67.61	10.15	53.45	80.43	18.62
Panel B2: Pension									
2010	27.99	48.98	7.94	22.11	39.22	6.23	35.13	60.22	10.16
2011	32.62	55.73	10.81	28.98	49.04	10.29	35.54	61.03	11.24
2012	40.57	67.41	14.01	40.06	64.33	14.10	40.90	69.48	13.95
2013	44.14	72.93	14.85	36.17	64.10	9.54	48.56	77.49	18.18
2014	41.54	71.61	12.96	35.43	63.33	10.73	45.25	76.30	14.44
2015	43.11	71.85	13.54	37.30	63.60	11.38	46.94	77.11	15.05
2016	48.92	75.77	16.06	40.71	67.93	10.21	53.70	80.03	19.77

Source: RUMiC Migrant Survey 2008 and 2016.

Online Appendix A.2 Examples of City-Level Health Insurance and Pension Details

Table A.2: Basic features of health insurance and pension schemes in Shenzhen.

Shenzhen		Health Insurance	Pension
Cost	Employees	*First Class:* Employer Contribution: 6.2 % of wage or minimum wage base. Employee Contribution: 2 % of wage or minimum wage base. Minimum Wage Base: 60 % of city-average employee wage in previous year. *Second Class:* Employer Contribution: 0.6% of city average employee wage in previous year. Employee Contribution: 0.2% of city average employee wage in previous year. *Third Class:* Employer Contribution: 0.45% of city average employee wage in previous year. Employee Contribution: 0.10% of city average employee wage in previous year.	Employer Contribution: 13% of payroll. Employee Contribution: 8% of wage. Minimum Wage Base: Minimum wage.
	Self-Employed	Minimum cost to participate *First Class:* 4.92% of city average employee wage in previous year. *Second Class:* 0.8% of city average employee wage in previous year. *Third Class:* 0.55% of city average employee wage in previous year.	Minimum Cost to Participate: 21% of minimum wage.
Benefit	Inpatient	Deductibles: (Same for all three classes) Tier 3 Hospital: 300 Yuan RMB. Tier 2 Hospital: 200 Yuan RMB. Tier 1 Hospital or below: 100 Yuan RMB. Reimbursement Share: First and Second Class: 90% for all hospitals Third Class: Tier 3 Hospital: 75% Tier 2 Hospital: 80% Tier 1 Hospital or below: 85%	After retirement, individuals eligible for pension if they have made 15 years of contributions. Pension = Base pension + Pension from individual account. Base pension is a function of number of years participating in the pension scheme, the total of annual premiums paid into the scheme, and the city-average wage when the pension is paid out. For example, if a participant made payments into the system for X years ($x \geq 15$), and the pay base is the city average wage, then the base pension benefit is X%*city average wage.
	Outpatient	First Class: Individual account covers some medical expense when the out-of-pocket expenses are more than 5% of the average city wage in the previous year, in which case 70% over this threshold may be reimbursed. 30% of expenses at community clinics can be reimbursed. Treatment for some special diseases may be reimbursed. Second and Third Class: No treatments or drugs may be expensed from the individual account, with the exception of some special diseases and drugs which may be partially reimbursed.	The pension paid from the individual account = (accumulation in the account)/139. All of the employee contributions are paid into individual accounts, and 8/21 of payments made by the self-employed are paid into individual accounts.

Table A.2: Basic features of health insurance and pension schemes in Ningbo.

Ningbo		Health Insurance	Pension
Cost	Employees	*Urban Employee Basic Medical Insurance:* Employer Contribution: 11% of previous years payroll + 5 yuan/month Employee Contribution: 2% of average monthly wage in previous year. Minimum Wage Base: 60% of city-average employee wage in previous year. *Migrant Medical Insurance:* Employer Contribution: 3.3% of city-average employee wage in previous year. Employee Contribution: 0.6% of city-average employee wage in previous year.	*Urban Employee Basic Pension:* Employer Contribution: 14% of previous year payroll. Employee Contribution: 8% of average monthly wage in previous year. Minimum Contribution Base: 60% of city-average employee wage in previous year. *Migrant Pension:* Employer Contribution: 14% of previous year payroll. Employee Contribution: 8% of average monthly wage in previous year. Minimum Contribution Base: Minimum wage.
	Self-Employed	*Urban Employee Basic Medical Insurance (min cost to participate):* 7.8% of city-average employee wage in previous year + 5 yuan/month *Migrant Medical Insurance (min cost to participate):* 3.9% of city-average wage in previous year.	*Urban Employee Basic Pension (min cost to participate):* 14.4% of city-average employee wage in previous year. *Migrant Pension (min cost to participate):* 18% of minimum wage.
Benefit	Inpatient	Deductibles: (Same for both schemes) Tier 3 Hospital: 1200 Yuan RMB. Tier 2 Hospital: 600 Yuan RMB. Tier 1 Hospital: 600 Yuan RMB. Community Clinic: 300 Yuan RMB. Reimbursement Share (same for both schemes): Under 35K: 80% (85% for community clinics). 35K-70K: 85% (90% for community clinics). Over 70K: 95%	*Urban Employee Basic Pension:* After retirement, individuals are eligible for a pension if they have made 15 years of contributions. Pension=Base Pension + Pension from individual account. Base pension is a function of number of years participating in the pension scheme, the total of annual premiums paid into the scheme, and the city-average wage when the pension is paid out. For example, if a participant made payments into the system for X years($X \geq 15$), and the pay base is the city average wage, then the base pension benefit is X%*city average wage.
	Outpatient	Both schemes establish individual account which can cover out-patient expenses. The individual account accumulation is more in *UEBMI* scheme than *MMI* scheme. When individual account is used up, *UEBMI* scheme provide additional reimbursement on out-patient expenses as follows. Deductible: those under 45: 900 Yuan those aged 45 or above: 600 Yuan Reimbursement share: Tier 3 hospital: 75% Tiers 2 and 1 hospital: 86% Community clinic: 80% Expense on some special diseases and drugs, and treatment can be partially reimbursed for both schemes.	The pension paid from the individual account = (accumulation in the account)/139. All of the employee contributions are paid into individual accounts, and 8/21 of payments made by the self-employed are paid into individual accounts. *Migrant Pension:* The pension scheme can be discounted as the low standard pension scheme in Ningbo.

Online Appendix A.3 Pamphlet Example

东莞市外来务工人员

社会医疗养老保险指南

东莞社保部门地址

东莞市人力资源和社会保障局
地址：东莞市万江区107国道石美路段渔涌湾综合大楼

莞城社保局
地址：东莞市莞城区旗峰路309号浩宇大厦二楼

东城社保局
地址：东城大道综合服务楼（新世界花园对面，东城区府旁边）

南城社保局
地址：东莞市南城区袁屋边宏北路2号（东莞市南城汽车客运站斜对面）

万江社保局
地址：东莞市万江区107国道石美段渔涌湾综合大楼（在名泰家居广场旁边）

长安社保局
地址：东莞市长安镇体育路育才街社保大楼

虎门社保局
地址：东莞市虎门镇行政区金龙路63号劳动保障大楼（明苑大酒店对面）

厚街社保局
地址：东莞市厚街镇厚街大道西13号（劳务市场侧）

中堂社保局
地址：东莞市中堂镇北潢西路7号（中堂镇斗朗工业大道江南农批市场旁）

黄江社保局
地址：黄江镇江海城富海大道68号（环保分局对面，中移动黄江分公司旁边）

大朗社保局
地址：东莞市大朗镇升平路71号

常平社保局
地址：东莞市常平镇南城路常平社保分局大楼

石龙社保局
地址：东莞市石龙镇黄洲京瓷北路14-3小区社保大楼

石碣社保局
地址：东莞市石碣镇崇焕中路（镇消防队西侧）

茶山社保局
地址：东莞市茶山镇下朗村马安岭（茶山镇人民政府大院右边）

横沥社保局
地址：东莞市横沥镇财贸路（横沥交通分局侧面）

东坑社保局
地址：东莞市东坑镇东坑大道70号社保大楼三楼（东坑镇政府斜对面）

寮步社保局
地址：东莞市寮步香市大道行政小区

道滘社保局
地址：东莞市道滘镇西部干道道滘路段旁（即道滘绿福大酒楼斜对面）

麻涌社保局
地址：东莞市麻涌镇中麻公路新基路段（邻近新基村路口）

谢岗社保局
地址：东莞市谢岗镇公园街一号

桥头社保局
地址：东莞市桥头镇桥光大道社保大楼

企石社保局
地址：东莞市企石镇振兴路86号（企石购物酒楼对面）

清溪社保局
地址：东莞市清溪镇清风路行政新区社保大楼（电信大楼斜对面）

塘厦社保局
地址：塘厦镇塘龙东路61号社会保险大厦（云海酒店旁边，东浦市场对面）

沙田社保局
地址：东莞市沙田镇港口大道沙田段（海关大楼对面）

洪梅社保局
地址：东莞市洪梅镇桥东路42号（东莞银行洪梅支行对面）

凤岗社保局
地址：东莞市凤岗镇政通路6号社保大楼（位于凤岗国税与工商分局之间）

樟木头社保局
地址：樟木头镇东城区政通路1号社保大楼（国税分局后面，供电公司旁）

大岭山社保局
地址：东莞市大岭山镇大岭山大道368号

望牛墩社保局
地址：东莞市望牛墩镇镇中路花园街1号（南方电网后面、国土分局旁）

松山湖社保局
地址：东莞市松山湖高新技术产业开发区礼宾路1号行政办事中心附楼

注：由于社保政策每年都会调整，具体情况请参见东莞当地人力资源和社会保障局。电话：0769-12333。

免责声明：由于社保政策每年都会调整，请您参保前咨询当地社保部门。如本宣传册与当前政策有所不同，中国外来务工项目不承担任何责任。

社会保障，让生活更美好

中国外来务工人员项目组

亲爱的外来务工朋友，您知道如果您参加了东莞市的社会医疗和养老保险，您可以获得什么福利吗？

医疗保险:
住院费用：超过起付标准以上的费用报销35%–95%;
门诊费用：报销35%–70%的费用。（详情请见第2页）

养老保险：从您退休开始，您可以按月领取养老金，直至去世。（详情请见3页）

如果您离开东莞呢？**如果转入地同意接收**，您可以将您的医疗和养老保险带走，在新的定居地继续享受医疗，养老保险。

要想得到这些福利您需要花多少钱来参加这些保险呢？

东莞社会基本医疗和养老保险

单位雇工：医疗保险每月只需交纳15元，养老保险需缴纳您月工资的8%。

个体户：医疗保险每月缴纳69元，养老保险每月至少缴纳506元。

以上只是东莞社保的大致情况，具体缴费标准和福利待遇需要根据您的具体情况确定。如您想了解详细的保险缴费和福利信息，请翻阅本手册。您也可以前往东莞市各区人力资源和社会保障局（地址见最后一页）或拨打0769-12333来了解相关情况。

一、医疗和养老保险的适合人群

无论您是雇工还是个体户，您都可以参加东莞社会基本医疗和养老保险。

当您离开东莞时，**如果转入地同意接受**，您可将医疗和养老保险转走。

二、参加东莞社会基本医疗保险

1. 费用缴纳:

若您是用人单位的雇工，2015年您每月只需缴纳15.02元，保费由用人单位按月代扣代缴。

若您是个体户，2015年您每月只需缴纳69.12元。

2. 保险待遇:

市内医院住院报销比例:

医院机构等级	起付标准（元）	5万元以下	5万至10万	10万至15万	15万以上
三级	1300	85%	65%	45%	35%
二级	800	90%	70%	50%	40%
一级及以下	500	95%	75%	55%	45%

3. 门诊报销：在参保社区指定的社区卫生服务机构就医，门诊费用可报销70%。如需转诊，在转诊医院的门诊费用可报销35%至70%。对于特殊疾病，门诊费用可报销75%。详情请询问当地社保部门.

4. 大病医疗：在参保年度内，如您个人需要支付的住院或特定门诊费用超过3.5万元，您还有机会获得额外的补助。详情请咨询当地社保部门。

三、参加东莞社会基本养老保险

1. 费用缴纳:

如您是单位的雇工，您需按月工资的8%缴纳保费，保费由用人单位按月代扣。您的保费全部进入个人账户。此外，用人单位和政府会对个人账户进行额外补贴。

如果您是个体户，您有多档保费可供选择，2015年的最低参保费用是每月505.68元。您的部分保费将进入您的个人账户，具体个人账户累计情况请咨询当地社保部门。

2. 保险待遇:

社会基本养老保险享受的方式是参保人员到达法定退休年龄后，从办理退休起，按月领取养老金，直至死亡。退休金额将由缴费数量、缴费年限和退休时平均工资决定。缴费越多、缴费年限越长，退休时社会平均工资越高，则养老金越高。

Dear migrant workers, are you aware of the benefits of purchasing social medical insurance and age pension insurance in Dongguan?

Medical insurance

- Hospital and medical cover: 35% -90% of your expenditure above the minimum standard to receive benefits
- Outpatient treatment cover: 35-%70% of your expenditure (please refer to Page 2 for more details)

Age pension insurance:

- you are entitled to get pension every month from your retirement until death. (please refer to Page 3 for more details)
- If you no longer lives in Dongguan , your previously purchased social medical and age pension insurance can be transferred to the new city you are moving to as long as it is acceptable there.

How much you need to pay to enjoy the benefit of these insurances?

Basic social medical insurance and age pension insurance

- As an employee: the cost is RMB 15 per month for medical insurance and 8% of you monthly salary for an age pension insurance
- If self-employed: the cost is RMB 69 per month for medical insurance and a minimum of RMB 506 per month for an age pension insurance

The above is the standard social insurance information for Dongguan, conditions may change and the premium and entitlement may vary depending on individual situation.

To get more information on premium and entitlement, please read information in this brochure or alternatively, you can visit any of the branch of Dongguan human resources and social insurance bureau (see the first page for the addresses) or call on 0769-12333.

Detailed information:

1. Eligible Population:
   All employees and self-employed are eligible to purchase Dongguan social medical insurance and age pension insurance. When you leave in Dongguan, you can transfer your purchased social medical and age pension insurance to the new city if the new location accepts it.
2. Purchase Dongguan basic social medical insurance
   a) Premium: if you are an employee, the monthly rate is RMB 15.02 in 2015, your employer will deduct this from your salary and pay on your behalf. If you are self-employed, monthly rate is RMB 69.12 in 2015
   b) what's covered?
   Coverage of hospitalization cost (hospital and medical cost)in urban hospital

Hospital classification	Excess (RMB)	Coverage by Total Expenditure (Thousand RMB)			
		<= 50	50 to 100	100 to 150	> 150
Level 3	1300	85%	65%	45%	35%
Level 2	800	90%	70%	50%	40%
<=Level 1	500	95%	75%	55%	45%

   c) coverage for outpatient treatment: 70% expenditure at designated community health and medical clinic within your insured area. When a transfer is requested, 35% to 70% expenditure at transferred hospital. For some specific treatments, a 75% coverage applies, please visit your local social insurance office for more details.
   d) Serious illness treatment: during the insured calendar year, if your out of pocket hospital and outpatient payment is over RMB 35,000, extra coverage may apply. Please visit your local social insurance office for more details.
3. Sign up for Dongguan basic social age pension insurance
   a) Payment rate: if you are an employee, the monthly rate is 8% of your monthly salary, your employer will deduct this from your salary and pay on behalf. This will be paid to your personal withhold account. In addition, your employer and the government will pay extra to your personal withhold account. If you are self-employed, a few options are available . The minimum monthly rate in 2015 is RMB 505.68, partial of this personal payment will be accumulated in your personal withhold account, you can get a statement of your personal withhold account by visiting a local social insurance office.
   b) Benefits: anyone who purchased age pension insurance is entitled to receive a monthly pension from when they reaches the mandatory age for retirement until their death. The pension you received is calculated based on your payment rate, length of your payment, and your salary before retirement. The more and longer you pay for the insurance and the more of salary you receive at retirement, the more of pension you will receive.

Online Appendix A.4 First-Step Results

Table A.3: The first-step results of Heckman selection Model

	Panel A			Panel B			Panel C		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Trustworthiness	0.333***	0.333***	0.330***	0.245*	0.245*	0.241*	0.250*	0.250*	0.246*
	(0.127)	(0.127)	(0.127)	(0.134)	(0.134)	(0.134)	(0.133)	(0.133)	(0.134)
Reliableness	0.143	0.143	0.144	0.174*	0.174*	0.175*	0.176*	0.176*	0.177*
	(0.0904)	(0.0904)	(0.0904)	(0.0967)	(0.0967)	(0.0967)	(0.0966)	(0.0966)	(0.0966)
Treated	0.107		0.179	0.106		0.207	0.105		0.208
	(0.0722)		(0.119)	(0.0750)		(0.127)	(0.0750)		(0.127)
Treated*No-Contract	-0.0363	0.0705		-0.0527	0.0529		-0.0517	0.0532	
	(0.0891)	(0.0552)		(0.0962)	(0.0603)		(0.0961)	(0.0603)	
Treated*Contract		0.107			0.106			0.105	
		(0.0722)			(0.0750)			(0.0750)	
Treated*Price			-1.359			-1.899			-1.911
			(1.580)			(1.678)			(1.678)
Medical Insurance	0.382***	0.382***	0.380***	0.429***	0.429***	0.425***	0.432***	0.432***	0.428***
	(0.0630)	(0.0630)	(0.0630)	(0.0695)	(0.0695)	(0.0695)	(0.0694)	(0.0694)	(0.0694)
No-Contract Dummy	-0.108	-0.108	-0.122**	-0.158**	-0.158**	-0.178***	-0.160**	-0.160**	-0.179***
	(0.0685)	(0.0685)	(0.0615)	(0.0763)	(0.0763)	(0.0688)	(0.0764)	(0.0764)	(0.0688)
Medical Insurance*Self-employed	-0.333***	-0.333***	-0.332***	-0.416***	-0.416***	-0.416***	-0.419***	-0.419***	-0.419***
	(0.127)	(0.127)	(0.127)	(0.143)	(0.143)	(0.143)	(0.143)	(0.143)	(0.143)
In The Labour Force	0.233	0.233	0.233	0.497	0.497	0.491	0.489	0.489	0.483
	(0.231)	(0.231)	(0.231)	(0.527)	(0.527)	(0.524)	(0.524)	(0.524)	(0.522)
Self-employed	0.464***	0.464***	0.464***	0.573***	0.573***	0.574***	0.575***	0.575***	0.575***
	(0.0741)	(0.0741)	(0.0741)	(0.0825)	(0.0825)	(0.0825)	(0.0825)	(0.0825)	(0.0825)
Willing to Stay Permanently	0.170***	0.170***	0.170***	0.189***	0.189***	0.189***	0.189***	0.189***	0.189***
	(0.0455)	(0.0455)	(0.0455)	(0.0478)	(0.0478)	(0.0478)	(0.0478)	(0.0478)	(0.0478)
Married	0.123*	0.123*	0.124*	0.130*	0.130*	0.130*	0.129*	0.129*	0.129*
	(0.0656)	(0.0656)	(0.0656)	(0.0701)	(0.0701)	(0.0701)	(0.0701)	(0.0701)	(0.0701)
No. of Children	0.00434	0.00434	0.00383	0.00250	0.00250	0.00171	0.00412	0.00412	0.00331
	(0.0371)	(0.0371)	(0.0371)	(0.0394)	(0.0394)	(0.0394)	(0.0394)	(0.0394)	(0.0394)
Age	0.0174***	0.0174***	0.0174***	0.0184***	0.0184***	0.0185***	0.0183***	0.0183***	0.0184***
	(0.00400)	(0.00400)	(0.00400)	(0.00454)	(0.00454)	(0.00454)	(0.00454)	(0.00454)	(0.00454)
Dummy for Females Aged >40	-0.0396	-0.0396	-0.0387	0.0373	0.0373	0.0376	0.0359	0.0359	0.0362
	(0.0794)	(0.0794)	(0.0794)	(0.0942)	(0.0942)	(0.0943)	(0.0942)	(0.0942)	(0.0943)
Dummy for Males Aged >45	-0.196**	-0.196**	-0.195**	-0.245**	-0.245**	-0.247**	-0.244**	-0.244**	-0.246**
	(0.0870)	(0.0870)	(0.0870)	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)
Years of schooling	0.00110	0.00110	0.00109	0.00488	0.00488	0.00486	0.00547	0.00547	0.00545
	(0.00765)	(0.00765)	(0.00765)	(0.00878)	(0.00878)	(0.00877)	(0.00875)	(0.00875)	(0.00875)
Dummy for males	0.0710*	0.0710*	0.0708*	0.126**	0.126**	0.126**	0.126**	0.126**	0.126**
	(0.0418)	(0.0418)	(0.0418)	(0.0535)	(0.0535)	(0.0535)	(0.0535)	(0.0535)	(0.0535)
Trust				0.0476	0.0476	0.0470			
				(0.0459)	(0.0459)	(0.0459)			
Observations	6,396	6,396	6,396	4,037	4,037	4,037	4,037	4,037	4,037

Source: RUMiC Migrant Survey 2015 and 2016, RUMiC Information Intervention Field Experiment, 2016.
Notes: Firm size and ownership controls and city fixed effects are also included in the regression. Robust standard errors clustered at household level in brackets. Significance codes: *** p<0.01, ** p<0.05, * p<0.1.