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# Job Satisfaction and the Labor Market Institutions in Urban China

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Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor

## Job Satisfaction and the Labor Market Institutions in Urban China

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## ABSTRACT

## Job Satisfaction and the Labor Market Institutions in Urban China

The determinants of worker job satisfaction are estimated using a representative survey of three major cities in China. Legally segregated migrants, floaters, earn significantly less than otherwise equivalent non-migrants but routinely report greater job satisfaction, a finding not previously reported. We confirm a positive role for membership in the communist party but find that it exists only for non-migrants suggesting a club good aspect to membership. In contrast to earlier studies, many controls mirror those found in western democracies including the "paradox of the contented female worker."

JEL Classification: J28, J61, O17, D73

Keywords: job satisfaction, internal migrants, party membership, China

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#### Job Satisfaction and the Labor Market Institutions in Urban China

#### **1. Introduction**

China recorded a twelve fold increase in real GDP from the start of its economic reform in 1978 to 2005. This remarkable growth has been attributed, in part, to labor market institutions that help maintain extremely low labor costs. The absence of independent unions, a history of little or no employment protection and weak labor standards all provide something resembling at-will employment. In addition, China has a legally segregated labor market with its rural migrant workers (floaters) accounting for as much as a third of the urban labor force but explicitly treated as secondary workers in the city. Many reports show that these secondary Chinese workers have harsh conditions with low or no job security, long hours without overtime pay and with the loss of social benefits that were tied to their original location. Indeed, the United Nations (2005, p. 3) has noted "with deep concern the *de facto* discrimination against internal migrants in the fields of employment, social security, health service, housing and education that indirectly results from the restrictive household registration system (*hukou*) which continues to be in place despite official announcements regarding reforms."

This study provides a unique look at the role that Chinese labor market institutions play in determining the job satisfaction of workers. Previous examinations of job satisfaction have disproportionately examined North American or European workers despite the rise of China as the world's fourth largest economy. Those studies that do examine workers in China are typically limited to a single occupation or workplace and have not focused on the role played by institutions (see Nielsen and Smyth 2008 for more on this point). We estimate the determinants of job satisfaction for Chinese workers across three major cities using the typical controls that have

emerged in the economics literature but also focusing on the role played by migrant worker status and on the roles of unionization, state ownership and party membership.

Despite suggestions in earlier work that "China is different," we find that the controls broadly behave as in other economies. Of particular interest may be our confirmation of the "paradox of the contented female worker." As in other economies, women appear to have greater job satisfaction all else held constant. At the same time, the determinants of job satisfaction emerge as broadly similar for both genders. Our examination of the institutions provides a rich portrait. First, in contrast with Nielsen and Smyth (2008), we find that the migrants are generally more satisfied with their job despite earning substantially less. We take this result to reflect their comparison of their city jobs to those left behind in the countryside. It appears to be this comparison that matters, rather than one to the permanent city residents. Yet, this may change over time and we examine the role that duration since migration might play. Second, we show how party membership and working for a state owned enterprise may be linked with greater job satisfaction. Critically, while this link holds for legal urban residents, it does not hold for migrants. Party membership, in particular, holds no value for migrants. This finding leads us to suggest that membership is a type of club good that does not transfer as workers migrate to the city. We also show that unionization is uniformly irrelevant in determining job satisfaction, suggesting that it provides few benefits or genuine opportunities for workplace voice.

In the next section we defend our decision to investigate the job satisfaction of workers in China and explain some of the unique labor market institutions that make it an interesting investigation. The third section presents the data we use and provides descriptive statistics. The fourth section presents the results across a variety of specifications and subsamples. The final section draws conclusions and suggests further research.

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#### 2. Job Satisfaction in China: Setting the Stage

Hamermesh (2001, p.2) makes clear why economists should study the determinants of job satisfaction: 'Only one measure, the satisfaction that workers derive from their jobs, might be viewed as reflecting how they react to the entire panoply of job characteristics. Indeed, a potentially useful view is that job satisfaction is the resultant of the worker's weighting in his/her own mind of all the job's aspects. It can be viewed as a single metric that allows the worker to compare the current job to other labor-market opportunities.' Hence, job satisfaction is a more global measure allowing economists to get closer to the fundamental concept of the aggregate well-being generated from a job, a concept poorly proxied by earnings alone. While such selfreported measures of satisfaction have been criticized as subjective, Blanchflower and Oswald (1999) explain that such measures have been successfully used for years by social psychologists and do correlate in expected fashions with many objective outcomes. For example, workers with lower self-reported job satisfaction have higher absenteeism and are more likely to quit (Clark et al., 1998). Further, higher job satisfaction within a firm correlates positively with its performance (see Ostroff, 1992; for a recent study see Freeman et al, 2008) and, within service industries, job satisfaction correlates positively with customer satisfaction (Rogers et al., 1994). Indeed, recent evidence by Krueger and Schkade (2008) confirms the reliability of such measures and argues for their continued use by economists.

The interest by economists in job satisfaction has yielded a series of reasonably consistent and robust findings. Job satisfaction is higher for the youngest and oldest workers (Clark et al., 1998), for women (Bender et al. 2005, Sloane and Williams 2000 and Clark 1997) for non-union workers (Clark, 1997; Bender and Sloane, 1998; Heywood et al., 2002) and for the less educated (Clark and Oswald, 1996). Moreover, job satisfaction measures tend to be reliable showing little variation within and between surveys for the same worker (Kristensen and Westergaard-Nielsen 2007). Yet, all these findings come from European and North American samples that need not carry over to China. Certainly, both Loscooco and Bose (1998) and Nielsen and Smyth (2008) argue that China may be different with, for example, men likely to report greater job satisfaction. This difference could arise because Chinese women have a long history of more nearly equal labor force participation and expectations about work while still suffering discrimination. The "paradox of the contented female worker" found in western democracies should not apply in this view. Thus, one objective of this study is to explore the extent to which the correlates confirmed in other countries apply in China.

More fundamentally, our interest revolves around the unique institutional aspects of the Chinese labor market. Key among these aspects is the internal system of residential registration. This system dates from 1950 and provides the urban labor market a barrier from rural migration that is unique among developing nations (Buckley 2001 pp. 21). Since the mid-1980s the economic reforms have attracted huge numbers of rural workers to urban areas looking for work and while there has been some easing of the barrier, "it remains extremely difficult (except through costly and mostly illegal means) to transfer household registration from a rural to a urban location (Buckley 2001 pp. 22)." In particular, a series of social benefits are tied to work units and their locations and migrants are unlikely to be eligible. These include housing, pensions, health care and education. As a consequence, migrants are often men who leave their family in the countryside and work in urban areas without a formal contract and without these social benefits (Zhao 1999). These migrants move between temporary spells of employment giving rise to their nickname "floaters."

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Past research has confirmed significant labor market differences between urban residents and rural migrants that cannot be explained by observed productivity differences. Thus, the migrants earn significantly lower wages and have significantly lower occupational attainment even holding constant typical labor market observables such as education, training and experience (Meng and Zhang 2001). Rural migrants remain concentrated in the worst jobs that are "dirty, dangerous and demeaning" (Nielsen and Smyth 2008; Maurer-Fazio and Dinh 2004). They often leave families behind, seldom assimilate with the urban population and portrayed negatively by the urban media (Daven 2000). Thus, it is not surprising that as secondary workers earning lower wages and without job security, benefits or formal protection, the rural migrants have been hypothesized to have lower job satisfaction than urban residents (Nielsen and Smyth 2008).

An alternative view recognizes that these workers have selected to become floaters and could have remained in the countryside. Many of the critical determinants of job satisfaction turn on the role of expectations. Thus, women are thought to be more easily satisfied as they expect less from employment than do men (Clark 1997) and better educated workers are thought to be less easily satisfied as they have high expectations. Similarly, the crushing poverty of the countryside may inform the job satisfaction of rural migrants causing them to have greater job satisfaction than urban residents who only compare themselves to other urban residents. Yet, Zhao (1999) argues that actual comparison may be more complex than rural farm poverty and urban floater. He shows that the most desired move out of rural farm work is into rural nonfarm work and that migrants often leave out of frustration and inability to find rural nonfarm work. In fact, Nielsen and Smyth's (2008) survey finds the job satisfaction of migrants to be insignificantly different from that of urban residents. Unexplored remains the role of the duration since migration. Workers' expectations presumably change with the time they have been working in

the urban labor market. as they compare themselves less with those in the countryside and more with other urban workers. We will directly test for the role that being a rural migrant plays on job satisfaction and will also examine the role of the duration since migration.

While not recognized in the Chinese constitution, the Communist Party serves as the supreme political authority through its monopoly control of all state functions including the army and legislature. The number of citizens belonging to the party has been increasing and is now over 70 million. Membership in the party is often seen as an "investment in political capital" that can lead to favorable jobs, allocations and licensing (Appleton et al. 2009). Potential members undergo rigorous screening and, as a consequence, membership has alternatively been seen as an indicator of unmeasured productivity (Li et al. 2007). While each path of causation generates an apparent wage premium for membership, we examine whether, conditional on earnings, membership is associated with greater job satisfaction. If earnings are the only consequence of membership, one would anticipate no additional impact on job satisfaction yet there may be benefits in terms of status, access to decision makers and the ability to obtain non-wage benefits that suggest a positive influence. Interestingly, many of these potential benefits may be thought of as club goods available to members but dependent upon participation in the local club that allocates them (Buchanan 1965). This suggests that even if we confirm a role for membership it may not extend to migrants who leave their club as part of the migration.

China has witnessed a gradual but steady increase in the share of production originating from privately owned enterprises (Bai et al.2007). Yet, state owned enterprises remain of critical importance in many sectors and the consequence of ownership on job satisfaction remains a very open question. Previous large scale examinations of Chinese job satisfaction do not have indicators of ownership (Nielsen and Smyth 2008). Smaller examinations comparing a few workplaces yield conflicting evidence with some following a typical finding from developing countries that job satisfaction is lower in state owned enterprises (Wang 2008 and Asiedu and Folmer 2007).<sup>1</sup> This may reflect positive selection by workers into private firms, as the more able have a better chance of being rewarded, and the ability of these firms to be more selective in hiring. Privately-owned enterprises in China receive many fewer government allocated employees and have more autonomy in recruitment and hiring (Zhu 2005). Yet, state owned enterprises follow more traditional practices with a greater emphasis on equality that could be perceived positively by some workers (Zhu 2005). Thus, the *a priori* role of ownership remains unclear and our testing will provide evidence.

Our primary objectives are to see the extent to which traditional models of jobs satisfaction are replicated using a broad Chinese sample and to focus on the unique aspects of the labor market during transition. These include the role of migrant status, and of duration since migration, the role of the communist party as a determinant and the influence of working for a state-owned firm.

#### 3. Data

The study utilizes data from the 1998 Survey of Occupational Mobility and Migration (SOMM) collected by the Fafo Institute for Applied International Studies in Oslo and the National Research Center for Science and Technology for Development in Beijing. The former is an independent non-profit research institute, and the latter is part of the Ministry of Science and Technology of China. Workers were surveyed in three major Chinese cities: Beijing, Wuxi, and Zhuhai. These three cities were selected on purpose to "explore the effects of the transition in cities of different scale, region, and with different economic profiles" (Drury and Arneberg, 2001, p. 4). Beijing, as

the capital of China, is dominated by the public service sector and large state enterprises. Its labor market is more diversified due to its size, but is less open compared with the market in the other two cities. Wuxi is a flourishing industrial city near Shanghai in the Yangtze River Delta area of Jiangsu province, and has followed a model of development that is based on collective and township-village enterprises. It is also a city chosen by the central government to test its new state enterprise reform policies. Zhuhai, as one of the earliest special economic zones in China, is dominated by joint-venture and foreign investment firms, and has the most developed labor market of the three. All three cities have absorbed a large inflow of rural immigrant workers due to their fast economic development, and together provide a good representation of well-developed cities in China.

The survey randomly samples workers, with selection being carried out separately for local and migrant workers. A two-stage cluster sampling approach was used to obtain the local resident sample. In the first stage, a random stratification sample of Residential Committees was selected based on location and size.<sup>2</sup> In the second stage, a random sample of households within each Residential Committee was chosen to take part in a household survey. A separate group of clusters based on the neighborhood-level police stations was selected to obtain the migrant sample, and a random sample of migrant households was then selected to take part in the survey.

The survey questionnaire had two parts. The first part was conducted at the household level and aimed to collect information about all of the household members, and the second part was for a randomly selected household member aged 16 or above. As migrants are minorities in the city, these individuals had to be over-sampled to achieve a suitably sized migrant sample. The detailed working history information over the previous five years (1994-1998) was collected from the selected individuals. Together, the two parts of the survey obtained both detailed household information and detailed working history information of an adult member within each household. We use this data for our study because the survey was the first major integrated survey of residents and migrants in cities in China and stands as an under-utilized resource. The target sample size of the survey was 7,835 households, and the final completed sample contained 7,326 households. The sample sizes for Beijing, Wuxi, and Zhuhai were 2,446, 2,437, and 2,443, respectively. Due to missing information, our final sample contains 4,296 workers, of which 1,967 are migrant workers and 1,530 migrant workers from rural area. The difference represents migrants between cities.

The SOMM provides a five-point scale of overall job satisfaction (from not satisfied at all to very satisfied). We follow the convention of examining the determinants of the probability of reporting each level of job satisfaction. The underlying latent variable is assumed to follow a cumulative normal, and the determinants are estimated by maximum likelihood using an ordered probit procedure (McKelvey and Zavonia, 1975). The estimated coefficients and cut-points can be used to predict the influence of critical variables on job satisfaction. The controls largely follow the economics literature on job satisfaction including demographics, employment relations, industrial and regional dummies, and human capital variables. These are outlined in Table 1 and include 13 variable definitions from which we create 12 dummy indicators.

The mean shows that average satisfaction level for floaters is only modestly lower, 2.45 vs. 2.52 and the difference, .07, is not statistically significant. Table 2 breaks the distribution down again revealing a higher concentration of the floaters among the lower categories. The only statistically significant difference is the proportion in the slightly satisfied which is disproportionately the urban residents rather than the floaters. Thus, examining the raw data

suggests only modestly lower job satisfaction among floaters. As a comparison, the average job satisfaction for women is a statistically significant .9 higher.

The means indicate that floaters earn less, are younger on average, have less education and are disproportionately male. As anticipated, they are much less likely to be provided pensions or medical insurance and are heavily concentrated among manual (blue-collar) workers.

The methodology is to start with a parsimonious specification and add more controls searching for durable partial correlations. We will pay particular attention to the roles played by gender, migrant status and the other institutional indicators. Most estimates will include the comparison wage which is the worker's actual wage minus that predicted from a stand earnings equation. The inclusion of comparison wage follows from Clark and Oswald (1996) who view it, in part, as the difference between actual and expected earnings. We emphasize that none of our critical results depend on use of comparison earnings. While it emerges as a very important determinant of job satisfaction, the pattern of results remains unchanged if it is replaced by a simple measure of earnings itself. The earnings equations generating the comparison wage are presented in Appendix Table 1 and appear fairly standard with men earning more and education and experience taking conventional roles. The floaters earn significantly less in the combined sample, a result being generated by a large decrement in earnings for male floaters. Holding all else constant, male floaters earn nearly 10 percent less than comparable non-floaters.

Unlike results from western democracies, the education variables will not routinely emerge as significant determinants of job satisfaction. On the other hand, age emerges as a positive determinant of job satisfaction. Our attempts to add an age squared term or other nonlinearities were rejected by the data for adding nothing to the explanatory power thus while older workers are more satisfied, we found no evidence that younger workers are also more satisfied. We cannot confirm the typical U-shaped relationship in age but do confirm a direct effect. As a consequence, none of our estimates will include terms beyond age itself.

#### 4. Results

The parsimonious estimation of job satisfaction is shown in column 1 of Table 3. Here the controls include the comparison wage, gender, age, education, marital status, party membership, city dummies and migrant status. The comparison wage emerges with the anticipated large and significantly positive coefficient. Women also emerge as significantly more satisfied, a finding in common with those based on Europeans and North American studies but not routinely found in previous studies of China. The coefficient implies a marginal effect indicating that women are 2.2 percentage points more likely to be in highest level of job satisfaction. The results also confirm that married workers express greater job satisfaction. Neither of the city dummies are statistically significant determinants.

Party membership emerges as a strong positive determinant. The evidence suggests that members are 3.5 percentage points more likely to be in the highest satisfaction category. This large effect emerges as statistically significant despite the inclusion of the earnings variable that might be thought to capture part of the return to membership. Thus, the benefits of members apparently go beyond simple remuneration and may include prestige, access and a variety of fringe benefits.<sup>3</sup>. The city-to-city migrants are not significantly different in job satisfaction in this parsimonious specification but the rural-to-city migrants emerge as significantly *more* satisfied. Thus, despite the lack of social benefits, employment protection or labor standards, the floaters emerge as 2.2 percent more likely to be in the highest job satisfaction category. This result suggests that the poor conditions of floaters relative to urban residents do not make their urban

employment undesirable. It may still be superior to their alternative rural employment opportunities. Certainly, self-selection would suggestion that migrants would move only in the expectation that the move would improve their circumstances.

The second column of Table 3 presents the full specification that includes dummy variables for 13 industries, size of employer, hours of work and other labor market institutions. The results support those from western democracies confirming that hours of work is a negative partial correlate of job satisfaction. The size of employer plays a weak role with the middle size employer being associated with greater job satisfaction than the small employers but with no differences associated with the largest size employer. Many of the industry dummies emerge as significant but unions play no role, consistent with their lack of voice. Finally, state owned enterprises appear to be associated with somewhat higher job satisfaction even holding all other determinants constant.

We next explore the role of gender in greater detail to explore whether China also displays the paradox of the contented female. We follow Bender et al. (2005) and Clark (1997) examining if the regime of determining job satisfaction differs by gender. We divide the sample and separately estimate the determinants for men and for women. These separate estimates are shown in columns 3 and 4 of Table 3. There are some apparent differences in pattern of significance for individual coefficients. Thus, although positive for both men and women, the coefficient on age is only significant for men. Similarly, while the coefficient for hours is negative for both men and women, it passes significant tests only for women. The basic similarity in size and sign of the coefficients suggests we should run a likelihood ratio test to examine of the overall pattern of differences by gender. We do this by nesting the specification in column 2 within a fully stacked gender interaction model. Thus, the likelihood ratio test examines whether the set of gender interactions add sufficiently to explanatory power and represents a non-linear version of the well known Chow test. The log likelihood on stacked model was -5536 and two times the difference generated a test statistic of 36.2. The resulting chi-square test with 29 degrees of freedom fails to reject the hypothesis of equal coefficients, no added explanatory power, at even the 10 percent level (p-value = .1678). Thus, the data reveals a pattern that shares both similarities and differences with those from western democracies. On the one hand, we do find evidence that women are more satisfied. On the other hand, the determinants of their satisfaction are essentially the same as those for men. The difference in levels of satisfaction appears to be a simple shift factor.

Yet, even if the entire specification fails to find significant gender differences in regimes, it remains possible that individual variables may have significantly different influences by gender. As a robustness check, we estimated a modified version of the specification in column 2 that removed the simple gender variable and left the base group as male city residents. To this five dummies were added that identified female city residents, male and female city-to-city migrants and male and female rural-to-city migrants. The pattern of the other coefficients in column 2 remained largely unchanged and all five of the new dummies emerged as positive and statistically significant. Thus, female city residents emerged as significantly more satisfied than their male counterparts. The coefficient of female rural-to-city migrants emerged as significantly larger than that for male rural-to-city migrants (at five percent) and the coefficient on female city- to-city migrants merged as significantly larger than that on male city-to-city migrants (at ten percent). Thus, females in all migration statuses appear more satisfied than their male counterparts in the same migration status. Moreover, both male and female migrants are more satisfied than are city residents of the same gender.<sup>4</sup>

A second likelihood ratio test is used to explore what happens if we divide the sample by migratory status. Our approach was to put both classes of migrants together into a single category and again create a full stacked interaction. The test rejects the equality of coefficients but primarily because of a significant difference on a single coefficient, that on party membership. If one allows for this difference, the remaining interactions do not significantly add to explanatory power. In the first column of Table 4, we present this result. While the other controls remain essentially as in Table 2, column 2, the coefficient on party membership increases in both size and significance indicating that party membership among city residents is associated with a very large 4.1 percentage point increase in the likelihood of being in the highest satisfaction category. At the same time the coefficient on the interaction of membership with migrant status is also statistically significant, even larger in size but negative. Indeed, the sum of the two coefficients yields a negative but insignificant net effect. Thus, party membership is extremely valuable to city residents but completely irrelevant to migrants. It may have been relevant in their original location but the benefits simply do not move to the new location. This result supports the view that membership has critical elements of a club good and that value of the club is dependent upon remaining in a worker's original location.<sup>5</sup> Interestingly, our tests separating the two migratory categories suggest that the value of membership transfers for neither the city-to-city nor rural-tocity migrants.

We now add further controls in an effort to test the continuing durability of the relationships we have identified. Specifically, we have indicators of two fringe benefits that are likely to increase job satisfaction but are more likely among permanent city residents. In column 2, we add indicators of employer provided pensions and health insurance. As anticipated, they are strong positive determinants of job satisfaction with pension provision increasing the likelihood

of reporting the highest level of job satisfaction by 4.6 percentage points and insurance increasing that likelihood by 1.9 percentage points. Also as anticipated, the inclusion of these two controls holds constant one of the factors that tends to make the conditions of migrants worse and so causes the estimated relative job satisfaction of the migrants to increase. Interestingly, the inclusion of these two indicators causes the state ownership coefficient to decline and lose statistical significance suggesting that one of the advantages of working in a state owned enterprise may be differential access to fringe benefits. Despite this change, the basic result from column 2 is the stability in the general pattern of results we identified earlier. The roles of migratory status, party membership, unionization, gender and the other controls remain unchanged.

In column 3, we provide the most complete specification which adds occupational dummies to the specification presented in table 3. Again, migrants are crowded into manual (blue-collar) and low level service occupations and we anticipate job satisfaction may differ by occupation. All three of the occupational dummies take significant positive coefficients relative to the base occupation of manual workers. As anticipated, controlling for occupation (the segregation of migrants) causes their estimated relative job satisfaction to increase still further. Yet, the inclusion of occupation does little to change the other results and even brings the coefficient on state-ownership close to significance. The one marked change is the growth in the coefficient associated with the highest educational category. Holding occupation constant those with a college degree or above are significantly less satisfied. This result now fits the typical result from the studies of western democracies and the notion that higher education may generate unfilled job expectations.

As an additional check, we reran all of our estimates using the actual wage as a determinant rather than the comparison wage. There are very few substantive changes. As an illustration, we show the full sample test from column 2 of Table 3 using the actual wage. This estimate is the final column of Table 4. The role of migrants, state-ownership and party membership continue to play the same role. The differences that emerge in this estimate and the others using the actual wage are less indication that marriage is associated with greater job satisfaction and much stronger indications that education is negatively associated with job satisfaction.

Finally, we return to our estimation of job satisfaction for the sample of migrants separately. We emphasized earlier that the major statistical difference in this subsample was the absence of role for party membership and this is evident in the first column of Table 5. Comparison income, marital status, age and gender continue to play the same role as in the sample at large and in the sample of permanent city residents. We experimented with duration of time since migration as a further explanatory variable to those shown in column 1. It emerged with a small negative coefficient that was statistically insignificant. Our expectation was that duration might cause the comparisons and expectations of migrants to become focused on others living in the city and as a consequence might be associated with a diminution in job satisfaction. In other words, the migrants no longer compare their current situation to life in countryside but to those they view around them. There is no evidence of this. It remains possible that duration brings offsetting benefits such as larger networks and increased familiarity with the urban setting and job market. It may also be the case that the influence of duration differs by some of the observable characteristics, a possibility we explore next.

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In particular, there may be gender differences in the role of duration. Female migrants appear less likely to be separated from spouses and family when working in the city than are male migrants. This may improve networking and improve job satisfaction over time. It may also lead to selection effects in which only those women with higher job satisfaction remain in the city. Moreover, Liang and Chen (2004) have argued that long term female migrants may suffer less gender discrimination in urban locations (such as Shenzhen the location of their study) than in the rural location from which they come. In particular, they show that female migrants are more likely to move into a professional job over time than are male migrants and that moving to an urban area increases the employment options of women more than men. As a consequence, we suspect gender differences may be evident in the role of duration on job satisfaction.

We test this in the second column of Table 4 in which we include both the duration variable and the interaction of duration with gender. The results are dramatic. They suggest that for women longer duration is associated with significantly greater job satisfaction. This result speaks to the benefits of integration and familiarity. Yet, for men there is no influence of duration at all. On net, they neither benefit from integration nor change their expectations. Greater duration does not change their apparent countryside comparison. Again, this might be anticipated if men are typically separated from spouses and families and recognize they may eventually return to the countryside.

An important point about including the gender specific duration effects is that it eliminates the influence of gender itself since the coefficient on gender drops to around a third of its previous size and to insignificance. This change suggests that the reason that female migrants are more satisfied than male migrants is that duration brings benefits to women but not to men. Thus, at first arrival there is no difference in job satisfaction by gender but it emerges as duration

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increases. The mean difference in satisfaction by gender from column 1 is reflected in the coefficient of approximately .143. Examining the coefficients in column 2 shows that this mean difference will be achieved after a duration of around 3.6 periods [(.143 - .056)/.024 = 3.63]. Thus, the influence of duration shows strong gender patterns that help explain why female migrants are more satisfied then male migrants.<sup>6</sup>

The overall pattern regarding migrants suggests that with only a parsimonious set of controls they report greater job satisfaction, especially so for the rural migrants. None of our further investigations did anything to change this result. Duration since migration might be anticipated to cause the migrants to judge themselves against urban peers and so be associated with lowered satisfaction. We found no evidence for this. Instead, we found that the job satisfaction of men is not associated with duration while that for women actually increases with duration. Thus, while we share the concerns of the United Nations and others about the consequences of limiting mobility, we cannot help but note that the migrants routinely report greater satisfaction. This was evident even before controlling for the lack of access to fringe benefits and the occupational segregation that represent part of differential treatment of migrants. Obviously, after controlling for these, the greater satisfaction is even more evident.

#### **5.** Conclusions

The broad pattern of determinants of job satisfaction among Chinese workers appears remarkably similar to those from western democracies. Job satisfaction declines with hours worked and increases with earnings or with comparison earnings. It increases with age and, in several specifications, decreases with education. It is higher for married workers and women. All of these results would be predicted from the bulk of studies from Europe and North America but not necessarily from previous studies from China. Indeed, working for a state-owned enterprise has, if anything, a positive influence on good satisfaction, a finding in keeping with western democracies and at variance with much of the evidence from transition economies. A variation from our estimation is that while women report higher job satisfaction, they do not seem to be subject to markedly different determinants of job satisfaction.

The primary focus of our study has been the labor market institutions of China with particular interest on migrant workers. We confirm that rural migrant workers earn significantly less than otherwise equivalent non-migrants. Yet, migrants routinely report greater job satisfaction, a finding not previously reported. We confirm a positive role for membership in the communist party but find that it exists only for non-migrants. Any value that membership might have in the countryside is lost when migrants move to urban areas suggesting a club good aspect to membership. State-owned enterprises are associated with slightly higher job satisfaction but this seems to reflect the greater likelihood of fringe benefits.

Duration of migration was anticipated to change the frame of reference toward the new urban setting. Duration, we suspected, might cause migrants to judge their job satisfaction more harshly. We found no evidence to back this suspicion. Instead, we found that duration was irrelevant for male migrants suggesting a continual segregation and maintenance of their original frame of reference. We venture that this may reflect their temporary status with separation from spouse and family. Duration for women migrants was associated with *higher* job satisfaction suggesting integration and accommodation to the new urban setting.

In sum, we uncovered little or no indication that rural migrants suffer lower job satisfaction. Instead, like many analysts we appear to be picking-up the influence of positive selection. Migrants would not have moved had they not anticipated an improvement in circumstances, an improvement that is reflected in higher job satisfaction. We stress that our study does not aim to evaluate Chinese residency restrictions that would seem to be an inefficient restriction on movement. Nonetheless, the self-evaluation of the migrants of their employment suggests that the restrictions are not responsible for generating undesirable jobs. We recognize that our conclusions are generated by a single cross-section in three large towns, and that longitudinal data would allow potential comparisons of job satisfaction before and after migration as well as following individual workers during the period after migration. While we are not aware of such data, it is important to recognize it might present a different picture.

	Means (Standard Deviations)			
Variables	Full-sample	City residents	Floaters	
Job satisfaction (0-4 Likert scale)	2.496	2.520	2.45	
	(0.954)	(0.943)	(0.970)	
Log weekly wage	6.677	6.770	6.515	
	(0.573)	(0.605)	(0.472)	
Usual weekly working hours	954.191	1059.942	769.360	
	(908.897)	(1000.51)	(683.820)	
Dummy for rural floaters	0.364			
	(0.481)			
Dummy for urban migrants	0.103	0.162		
	(0.304)	(0.369)		
Age	32.223	34.404	26.667	
	(10.107)	(9.862)	(7.890)	
Working experience	15.917	18.239	11.887	
	(10.407)	(10.601)	(8.699)	
Education dummies:				
Primary and below (Educ1)	0.087	0.056	0.141	
	(0.282)	(0.229)	(0.346)	
Lower secondary (Educ2)	0.402	0.271	0.632	
	(0.490)	(0.444)	(0.482)	
High school (Educ3)	0.344	0.416	0.218	
	(0.475)	(0.493)	(0.413)	
College and above (Educ4)	0.167	0.258	0.007	
	(0.373)	(0.437)	(0.086)	
Male dummy	0.560	0.539	0.596	
	(0.496)	(0.499)	(0.491)	
Dummy for married	0.635	0.745	0.441	
	(0.482)	(0.436)	(0.497)	
Dummy for divorced or widowed	0.020	0.028	0.006	
	(0.140)	(0.166)	(0.075)	
Dummy for party member	0.139	0.193	0.043	
	(0.346)	(0.395)	(0.204)	
Dummy for public sector workers	0.440	0.552	0.245	
	(0.496)	(0.497)	(0.430)	
Dummy for union members	0.422	0.609	0.095	
	(0.494)	(0.488)	(0.293)	
Firm size dummies:				
1-99 workers (Size1)	0.292	0.307	0.266	
	(0.455)	(0.461)	(0.442)	
100 to 499 workers (Size2)	0.253	0.251	0.255	
	(0.435)	(0.434)	(0.436)	
500 and above (Size3)	0.455	0.441	0.480	
	(0.498)	(0.497)	(0.500)	

## Table 1. Descriptive Statistics of the Main Variables

	N	Jeans (Standard Deviat	,
Variables	Full-sample	City residents	Floaters
Fringe benefit dummies:			
Pension	0.302	0.459	0.029
	(0.460)	(0.498)	(0.168)
Medical insurance	0.273	0.379	0.087
	(0.445)	(0.485)	(0.282)
Region dummies:			
Beijing	0.287	0.338	0.198
5 C	(0.452)	(0.473)	(0.399)
Wuxi	0.322	0.335	0.300
	(0.467)	(0.472)	(0.459)
Zhuhai	0.391	0.327	0.502
	(0.488)	(0.469)	(0.500)
Occupation dummies:			
Leading cadre in government,	0.163	0.245	0.217
professional/technical & related workers	(0.370)	(0.430)	(0.146)
Other non-manual workers	0.159	0.193	0.100
other non-manual workers	(0.366)	(0.395)	(0.301)
Service workers	0.210	0.239	0.167
	(0.407)	(0.423)	(0.374)
Manual workers	0.464	0.324	0.708
	(0.499)	(0.468)	(0.455)
Industry dummies:			(/
Mining, quarrying, electricity, gas &	0.013	0.195	0.002
	(0.114)	(0.138)	(0.431)
water	0.469	0.387	0.614
Manufacturing	(0.499)	(0.487)	(0.487)
Construction	0.100	0.051	0.186
Construction	(0.300)	(0.220)	(0.389)
Transport storage & communications	0.031	0.416	0.012
Transport storage & communications	(0.173)	(0.200)	(0.108)
Wholesale/ retail trade, restaurants	0.120	0.143	0.080
wholesale/ retain trade, restaurants	(0.325)	(0.351)	(0.271)
Danking & insurance	0.012	0.018	0.001
Banking & insurance	(0.107)	(0.132)	(0.025)
Real estate	0.014	0.018	0.006
Kear estate	(0.117)	(0.133)	(0.075)
Social services	0.810	0.091	0.645
Social services	(0.273)	(0.287)	(0.246)
Health care sporting & social welfare	0.021	0.027	0.112
ricardi care sporting & social wellare	(0.145)	(0.163)	(0.105)
Education culture arts & media	0.045	0.068	0.004
Education culture arts & media	(0.207)	(0.251)	(0.658)
Scientific research/ polytechnic services	0.015	0.217	0.003
Scientific research, poryteenine services	(0.121)	(0.146)	(0.556)
Government/ party agencies & social	0.059	0.090	0.005
organizations	(0.235)	(0.286)	(0.070)
	0.017	0.021	0.009
Agricultural and others	(0.128)	(0.144)	(0.928)
Sample size	4430	2818	1612

## Table 2: Distribution of Job Satisfaction

Job satisfaction	Full	City residents	Floaters
Not satisfied at all (0)	3.11%	2.93%	3.43%
Slightly not satisfied (1)	9.81%	9.25%	10.79%
Neither satisfied nor Dissatisfied (2)	35.27%	34.63%	36.38%
Slightly satisfied (3)**	37.98%	39.22%	35.81%
Very satisfied (4)	13.84	13.98%	13.59%

\*\*The difference in proportions is statistically significant at the five percent level.

1	2	3	4
		Male	Female
.2438**	.2476**	.2267**	.2881**
[.0515]	(.0512)	[.0481]	[.0566]
(13.56)	(13.74)	(9.48)	(10.24)
.1027**	.1069**		
[.0218]	[.0222]		
(3.00)	(3.01)		
.0111**	.0097**	.0114**	.0066
[.0024]	[.0020]	[.0024]	[.0012]
(4.53)	(3.81)	(3.56)	(1.43)
.0691	.0699	.0589	.0738
[.0147]	[.0146]	[0.126]	[.0147]
			(0.78)
.0511	.0241	0185	.0705
	[.0050]		[0.140]
			(0.78)
.0882	0448	0378	0834
			[-0159]
			(0.70)
. ,	.1022**	.1287**	.0905
	[.0208]	[.0265]	[.0177]
			(1.14)
· · · ·	· · · ·	· · · ·	1501
			[0207]
		- ,	(0.91)
			.0566
			[.0114]
			(0.65)
· · · ·	· · · · · · · · · · · · · · · · · · ·	. ,	.1507
			[0.317]
. ,			(1.54)
	· · · · · · · · · · · · · · · · · · ·		.2147**
			[.0441]
			(2.50)
(/			0241
			[0047]
		- ,	(0.34)
	. ,	· · · ·	.1308
			[.0260]
			(0.80)
	· · · · · · · · · · · · · · · · · · ·	· · · ·	0049**
			[0009]
			(2.24)
	.0750*	0024	.1955**
	[.0157]	[0004]	[.0407]
	$\begin{array}{c} .2438^{**}\\ [.0515]\\ (13.56)\\ .1027^{**}\\ [.0218]\\ (3.00)\\ .0111^{**}\\ [.0024]\\ (4.53)\\ .0691\\ [.0147]\\ (1.12)\\ .0511\\ [.0109]\\ (0.78)\end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$

Table 3. Initial Results (dep var: job satisfaction)

Size 2		.0305 [.0043]	.0032 [.0007]	.0456 [.0091]
		(0.50)	(0.06)	(0.75)
City Dummies	YES	YES	YES	YES
Industry Dummies		YES	YES	YES
N	4339	4280	2381	1899
Log likelihood	-5696.2	-5554.3	-3073.6	-2462.4
Chi-squared	282.4**	393.2**	233.1**	193.9**

Square brackets contain the marginal effect on the probability of being in the highest satisfaction category. Asymptotic t-statistics are in parenthesis. \*statistically significant at the 10 percent level \*\*statistically significant at the 5 percent level

	1	2	3	4
Comparison	.2470**	.2487**	.2507**	
Earnings	[.0510]	(.0511)	[.0481]	
C	(13.70)	(13.79)	(13.89)	
Actual				.5178
Earnings				[
-				(14.65)
Female	.1053**	.1060**	.0850**	.1034**
	[.0219]	[.0219]	[.0174]	[
	(2.95)	(2.97)	(2.35)	(2.91)
Age	.0094**	.0097**	.0061**	.0085**
	[.0024]	[.0020]	[.0012]	[
	(3.71)	(3.81)	(2.37)	(3.34)
Education2	.0657	.0564	.0423	0172
	[.0136]	[.0116]	[.0086]	[
	(1.04)	(0.89)	(0.67)	(0.27)
Education3	.0221	.0115	0472	1412**
	[.0046]	[.0024]	[0095]	[
	(0.33)	(0.17)	(0.69)	(2.07)
Education4	0533	0694	2077**	3786
	[0107]	[0091]	[0391]	[]
	(.68)	(0.89)	(2.51)	(4.64)
Married	.1025**	.1130**	.1075**	.0561
	[.0208]	[.0228]	[.0216]	[
	(2.15)	(2.36)	(2.25)	(1.17)
Divorced or	0883	0689	0691	1083
Widowed	[0173]	[0136]	[.0136}	[
	(0.71)	(0.55)	(0.56)	(0.87)
Party	.1854**	.1689**	.1399**	.0990*
Membership	[.0412]	[.0353]	[.0262]	[
	(3.11)	(2.69)	(2.33)	(1.88)
Party Member	2931**	2968**	3086**	
X Migrant	[0511]	[0514]	[0528]	
	(2.45)	(2.48)	(2.58)	
City Migrant	.2167**	.2591**	.2531**	.1824**
	[.0491]	[.0595]	[.0578]	[
	(3.34)	(3.96)	(3.87)	(2.86)
Rural Migrant	.2382**	.2967**	.3111**	.2604**
(Floater)	[.0512]	[.0638]	[.0668]	[
	(4.45)	(5.44)	(5.69)	(4.91)
State Owned	.0788*	.0605	.0740	.0749*
Enterprise	[.0163]	[.0125]	[.0152}	[
	(1.75)	(1.34)	(1.63)	(1.66)
Union	.0541	.0066	.0120	.0349
Membership	[.0112]	[.0013]	[.0024]	[
	(1.13)	(0.14)	(0.24)	(0.73)
Hours of Work	-0032**	0030**	0028**	0034**

**Table 4: Further Estimates on Job Satisfaction** 

	[0007]	[0006]	[0006]	[
	(2.40)	(2.21)	(2.07)	(2.57)
Size 1	.0753*	.0883*	.0639	.0559
	[.0158]	[.0185}	[.0135]	[
	(1.73)	(2.21)	(1.45)	(1.28)
Size 2	.0240	.0292	.0117	.0211
	[.0049]	[.0061]	[.0024]	[
	(0.59)	(0.71)	(0.38)	(0.51)
Pension		.2157**	.2099**	
		[.0465]	[.0449]	
		(4.66)	(5.07)	
Health		.0914**	.0882**	
Insurance		[.0192]	[.0184]	
		(2.10)	(2.02)	
Regional	YES	YES	YES	YES
Dummies				
Industry	YES	YES	YES	YES
Dummies				
Occupational	NO	NO	YES	NO
Dummies				
Ν	4280	4280	4280	4280
Log likelihood	5551.3	5537.3	-5521.5	-5541.5
Chi-squared	399.2**	427.8**	459.3**	419.3**

Square brackets contain the marginal effect on the probability of being in the highest satisfaction category. Asymptotic t-statistics are in parenthesis. \*statistically significant at the 10 percent level \*\*statistically significant at the 5 percent level

	1	2
Comparison Earnings	.2583**	.2601**
1 0	[.0522]	(.0526)
	(9.21)	(9.13)
Female	.1429**	.0564
	[.0293]	[.0114]
	(2.58)	(0.77)
Duration		.0239**
		[.0048]
		(1.97)
Duration X		0242*
Male		[0049]
		(1.74)*
Age	.0142**	.0135**
-	[.0029]	[.0028]
	(3.20)	(2.91)
Education2	.0482	.0530
	[.0147]	[.0107]
	(0.61)	(0.66)
Education3	0229	0162
	[0046]	[0033]
	(0.26)	(0.18)
Education4	1894	1789
	[0345]	[0328]
	(1.35)	(1.20)
Iarried	.1433**	.1288**
	[.0293]	[.0263]
	(2.18)	(1.94)
ivorced or	3004	3353
Vidowed	[0506]	[0553]
	(0.99)	(1.09)
arty Membership	1224	1225
	[0231]	[0232]
	(1.14)	(1.13)
City Migrant	.0102	0094
	[.0020]	[0019]
	(0.09)	(0.14)
tate Owned Enterprise	.0320	.0335
	[.0065]	[.0068]
	(0.45)	(0.47)
Inion Membership	.1277	.1229
	[.0273]	[.0263]
	(1.53)	(1.46)
Iours of Work	0018	0019
	[0004]	[0004]
	(1.07)	(1.09)
lize 1	.0614	.0564

## Table 5: Subsample of Migrants

[.0126	[.0120}
(0.94)	(0.89)
.0156	.0136
[.0037]	[.0028]
(0.27)	(0.23)
YES	YES
YES	YES
1990	1990
-2621.2	-2607.5
180.8**	186.8**
	(0.94) .0156 [.0037] (0.27) YES <u>YES</u> 1990 -2621.2

Square brackets contain the marginal effect on the probability of being in the highest satisfaction category. Asymptotic t-statistics are in parenthesis.

\*statistically significant at the 10 percent level

\*\*statistically significant at the 5 percent level

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## Appendix Table 1: Earnings Equations

	1	2	3
Variables	Full	Male	Female
Log Usual weekly	0.398	0.062(1.66*)	024
working hours	(1.37)	· · · ·	(-0.52)
Male dummy	0.197		0.016
	(12.73***)		(3.35***)
Working experience	0.156	0.017	-0.0003
	(5.06***)	(4.18***)	(-2.82***)
(Working experience) <sup>2</sup>	-0.0003	-0.0004	0.139
	(-5.16***)	(-4.65***)	(3.42***)
Education dummies:			
Lower secondary	0.153	0.153	0.265
	(5.34***)	(3.83***)	(5.67)
High school	0.288	0.286	0.265
C	(9.03***)	(6.49***)	(5.67***)
College and above	0.554	0.534	0.557
-	(14.06***)	(9.87***)	(9.60***)
Dummy for rural floaters	-0.054	-0.099	-0.023
5	(-2.28**)	(-3.19***)	(-0.61)
Dummy for urban	0.028	0.020	0.031
migrants	(1.00)	(0.53)	(0.73)
Dummy for married	0.039	0.123	-0.075
5	(1.62)	(3.97***)	(-1.98**)
Dummy for divorced or	-0.353	0.071	-0.143
widowed	(-0.63)	(0.79)	(-1.94*)
Dummy for public sector	0.0025	-0.0226	0.048
workers	(0.13)	-0.85	(1.61*)
Dummy for union	0.012	0.003	0.012
members	(0.54)	(0.11)	(0.39)
Region dummies:			
Beijing	-0.291	-0.248	-0.346
556	(-13.52***)	(-8.52***)	(-10.78***)
Wuxi	-0.382	-0.357	-0.403
	(-20.16***)	(-13.80***)	(-14.54***)
Dummy for party	-0.001	-0.015	0.034
member	(-0.04)	(-0.49)	(0.90)
Firm size dummies:	( )		
1-99 workers	0.015	0.042	-0.012
	(0.76)	(1.64)	(-0.40)
100 to 499 workers	-0.014	0.013	-0.044
	(-0.80)	(0.52)	(-1.69*)
Fringe benefit dummies:	(	(	( )
Pension	0.020	-0.016	0.060
i choion	(0.96)	(-0.57)	(2.02**)
Medical insurance	0.001	0.002	0.01

	1	2	3
Variables	Full	Male	Female
	(0.06)	(0.01)	(0.43)
Occupation dummies:			
professional/technical &	0.246	0.229	0.274
related workers	(9.10***)	(5.94***)	(6.97***)
Other non-manual	0.143	0.095	0.227
workers	(6.05***)	(3.17***)	(5.76***)
Service workers	-0.017	0.031	-0.053
	(-0.73)	(0.99)	(-1.43)
Industry dummies	Included	Included	Included
$R^2$	0.310	0.3402	0.3681
Sample size	4296	2397	1899

#### ENDNOTES

<sup>1</sup>Such findings can be contrasted with studies from western democracies that often show government employees with greater job satisfaction (Heywood et al. 2002).

<sup>2</sup>Residential committees are neighborhood-level administrative units consisting of 400 to 1000 households.

<sup>3</sup>If party membership reflects greater ability, this finding may suggest the more able have greater job satisfaction.

<sup>4</sup> The full estimate with the five separate gender and migrant dummies is available from the authors upon request.

<sup>5</sup>If party membership simply reflects ability, it would appear that the migrants had greater ability than their rural peers but not other urban residents.

<sup>6</sup> We recognize that our projections about the influence of duration are based on cross-sectional evidence and do not follow particular migrants over time. If migrants differ in vintage, this heterogeneity may in appropriately be identified as an influence of duration.