Acquired but Unvested Welfare Rights: Migration and Entitlement Barriers in Reform-Era China

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Abstract

Scholars studying Chinese development have long acknowledged the significance of the *hukou* system in impeding internal migration and defining welfare entitlements. However, another crucial barrier is often overlooked: the incomplete transferability of acquired welfare rights. By examining the case of the Urban Employee Basic Pension System, this paper aims to understand how the limited transferability of acquired rights acts as an obstacle to labour migration and entitlement accomplishment. It also seeks to explore the factors that are accountable for the low level of welfare rights transferability. Our findings suggest that migration and entitlement barriers today may not be so much a question of a particular form of *hukou* exclusion but more of a problem of insufficient rights portability. An in-depth understanding of the structural constraints of China's reform-era migration and rights attainment needs to take into account the transferability of welfare entitlements for migrant workers, and go beyond a narrow conceptualization of the *hukou* system per se.

Keywords: urban employee basic pension system; transferability; basic pension; unvested welfare rights; *hukou* system; China

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Scholars studying Chinese development have acknowledged the significant role of the *hukou* 户口 system in impeding internal migration and defining welfare entitlements.[1] However, many overlook another crucial barrier: the lack of transferability of acquired welfare rights.[2] A transition from a planned economy to a

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1 Low-level urbanization during the period of planned economy was, as has been widely recognized, a corollary of *hukou* policy restricting rural–urban migration. Chan and Zhang 1999; Chan 2009, 208–210. A comparative study points out that the *hukou* system results in much more limited access to welfare entitlements than immigration policies in Germany and Japan. See Solinger 1999, 456–463.

2 Welfare rights are a matter of formal legal status to access welfare provisions. For the list of urban welfare provisions that are accessible to migrants, see Zhang and Li 2016, 897. Transferability refers to the capacity to carry acquired rights from one locale to another. See Turner 1993, 6. In this study, the terms "transferability" and "portability" are used interchangeably, even though they sometimes have slightly

 doi:10.1017/S030574101800084X First published online 18 June 2018

market economy has substantially reduced the functionality of the *hukou* system in deterring the flow of labour. Today, migrants account for 18 per cent of China's population, and the vast majority of rural migrants (equivalent to one-third of the total population of urban residents, or nearly 85 per cent of all migrants) live in cities.[3] In addressing such massive migration, the central government has pledged to enhance the welfare rights of migrant workers.[4] Accordingly, city governments have lifted restrictions that prevent migrant workers from accessing contributory welfare entitlements on the grounds of local *hukou* status. Nonetheless, the picture is not entirely rosy as welfare rights are not portable. Rights attainable in one city are lost or curtailed when migrant workers choose to move to another city.[5] That is to say, inter-city migration can reduce eligibility or access to welfare benefits, which can impact decisions regarding such migration. In this context, a deeper understanding of rights transferability will provide a previously missing dimension to what has typically been a *hukou*-based analysis of institutional constraints on migration and welfare rights.

A mobile labour force needs portable welfare rights. The absence of, or limitations on, the transferability of welfare rights undermines the development of a dynamic labour market, the establishment of a nationally integrated social security system, equality in social security, and uniformity in old-age protection across the country.[6] The lack of transferability can discourage migration, as migrant workers may lose a substantial portion of their welfare benefits if they change location. It can also create a non-neutral effect in terms of the financial burden on different regions, which can then jeopardize the sustainability of social protection and the unity of the national social security system.

China is not the only country that needs to deal with the transferability of welfare rights. The issue in the context of international migration has drawn academic attention.[7] In addition, there is literature on "internal" portability in the context of switching welfare providers within one country.[8] However, in contrast, the Chinese experience has not been analysed rigorously. Works on China's social security have focused on several issues: unequal access and limited coverage, inter-jurisdictional disparity, and insufficient funding.[9] While many have raised concerns about the lack of rights transferability and the resultant

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footnote continued

different connotations, with portability being more associated with rights and benefits at the individual level and transferability referring more to obligations and interests at the regional level.

3 NBS 2017, 2.

4 CCCCP and State Council 2014.

5 Dorfman, Holzman and World Bank Team 2013, 3; Lu and Piggott 2015, 439.

6 Pedersen, Pytlikova and Smith 2008; Mayda 2010; d'Addio and Cavalleri 2015; Holzmann and Werding 2015; Jousten 2015.

7 Holzmann and Koettl 2015; Jousten 2015; d'Addio and Cavalleri 2015.

8 Sieveking 2000.

9 Sun and Maxwell 2002; Zheng 2007; Impavido, Hu and Li 2009; Pozen 2013; Huang 2015.

detriments,[10] far less is known with respect to the practical transferability of rights. Few analyses quantify the loss of eligible benefits owing to non-portability at the individual level. Also, existing studies pay little attention to financial redistribution at the regional level which may obstruct transferability.

Gaps in existing research motivate this paper. Focusing on the Urban Employee Basic Pension System (*chengzhen zhigong jiben yanglao baoxian zhidu* 城镇职工基本养老保险制度, UEBPS hereafter), which is one of the three pillar pension systems in China,[11] this paper aims to present an understanding of how the limited transferability of acquired rights acts as a barrier to labour migration and entitlement attainment. It further seeks to explore factors that hinder those who wish to transfer their pensions and so lead to a low level of transferability. Empirically, three issues are investigated: the changes to personal pension benefits caused by migration; the regional redistribution of the financial burden of pensions; and the fragmentation of pension administration. The analysis shows that migrant workers are not able to fully preserve their accrued rights over their working lives. Unfair redistribution of the financial burden of pension rights and the fragmentation of the UEBPS across regions are accountable for the limited transferability of this benefit. Given the scarce literature on the transferability of welfare rights for Chinese migrant workers, this finding helps to enrich scholarship on China's labour mobility by addressing these under-studied issues.

The paper proceeds as follows. It begins by presenting an overview of the UEBPS. It then continues with a systematic analysis of the constraints on the transferability of pension rights, and concludes by pointing to intellectual and policy implications.

Overview of the UEBPS

The current UEBPS reflects tremendous changes in the urban welfare regime. Initially, the regime was designed to deliver social security to the urban working population through work units. Up until the mid-1980s, urban workers' pensions were provided by their employers through an enterprise-funded system.[12] This system made pensions virtually immobile, since changing work units meant losing all previously accumulated pension benefits provided by former employers. With the restructuring of the urban labour market, a revised pension framework was introduced. The new framework was geared towards integrating the roles of various parties (government, employer and employee) in pension provision. It increased individual responsibility and defined government support as a last resort. Following pilot studies conducted in Shanghai and Guangzhou, a new urban pension system was rolled out nationwide in the late 1990s in place of

10 Zhao and Xu 2002; Salditt, Whiteford and Adema 2008; Pozen 2013; World Bank and Development Research Centre of the State Council, PRC 2014.

11 The other two are the urban resident basic pension system and rural resident basic pension system. Each pillar is independent from the others.

12 Zhao and Xu 2002, 396.

the traditional enterprise-based one.[13] Pension responsibilities that formerly rested with enterprises had now shifted to local governments.

The UEBPS is financed by employers and employees in the form of monthly premiums, which are adjusted periodically (see Table 1).[14] A general trend is a moderate increase in the employee's contribution and a moderate decrease in the employer's contribution. Employees currently pay a premium of 8 per cent of their pensionable wage (PW) (column B), which is subject to the lower and upper limits of the contribution base (CB).[15] The CB is defined as the local average wage in the previous year (column A). The employer contributes a premium of 21 per cent of the employee's PW (column C). The employee's contributions are deposited into individual accounts (column D), along with any local government subsidies, collective subsidies and financial assistance from other socio-economic organizations. Contributions to individual accounts are credited with interest annually, which is based on the nominal interest rates on one-year term deposits declared by state financial institutions. Prior to 2006, part of the employer's contribution (about 12 to 14 per cent of the total contribution paid by the employer) was credited to individual accounts, with the rest being diverted to the local pension pool (column E). Since 2006, however, all contributions made by employers are paid into the local pool.

Monthly-paid pension benefits (the cash amount provided to beneficiaries) comprise two components which are financed by: (1) the basic pension (*jiben yanglaojin* 基本养老金), which is payable from the local pension pool,[16] and (2) personal savings (*geren yanglaojin* 个人养老金), which have accumulated in the individual account. Payment is based on an annuity factor, which is set as a monthly "annuity" of 1/139th of the accumulated balance for those who retire at 60 and 1/175th for those who retire at 55. Nonetheless, pension benefits are paid for the remaining life term of the beneficiary. Once the reserve accumulated in the individual account has been depleted, the benefit will be paid out at the same rate from the locally pooled fund. Local governments take both the longevity risk and the risk of any shortfall in meeting benefit payments. Any remaining balance in the individual account when the insured beneficiary dies can be inherited by others. Participants who complete the vesting period are entitled to the basic pension once the statutory retirement age (60 for men and 55 for

13 State Council 1997.

14 Table 1 takes Shanghai as an illustrative example. Policy characteristics in other regions are not remarkably different, although the actual contribution bases and rates may not be identical.

15 The upper limit (300%) is applicable to employees whose income level is three times higher than the local average, and the lower limit (60%) applies to those with an income below the local average. For employees from rural areas, the PW is set at 55% of the CB.

16 According to the policy, the value of the basic pension of the beneficiary is specified as $\frac{CB}{2}(1 + PIPS) \times N \times AR$, where CB is the contribution base; N is the total number of years of contribution; AR is the accrual rate set as 1%; and $PIPS$ is the member's indexed pensionable salary, which is a ratio of the historical average of the member's pensionable wage to the local average wage over the member's contribution period. See State Council 2005.

https://doi.org/10.1017/S030574101800084X Published online by Cambridge University Press

Table 1: **UEBPS Premiums, Shanghai Municipality**

Year	Contribution base (yuan/month)	Employee's premium (%)	Employer's premium (%)	Contributions deposited in individual account (%)	Employer's contribution to local pension pool (%)
	A	B	C	D	E
1993	356.00	3	25.5	6	22.5
1994	471.00	3	25.5	6	22.5
1995	617.00	4	25.5	7	22.5
1996	773.00	4	25.5	7	22.5
1997	889.00	5	25.5	8	22.5
1998	952.00	5	25.5	8	22.5
1999	1,005.00	6	25.5	9	22.5
2000	1,179.00	6	25.5	9	22.5
2001	1,285.00	6	22.5	9	19.5
2002	1,480.00	6	22.5	9	19.5
2003	1,623.00	7	22.5	10	19.5
2004	1,847.00	8	22.5	11	19.5
2005	2,033.00	8	22	11	19
2006	2,235.00	8	22	8	22
2007	2,464.00	8	22	8	22
2008	2,892.00	8	22	8	22
2009	3,292.00	8	22	8	22
2010	3,566.00	8	22	8	22
2011	3,896.00	8	22	8	22
2012	4,331.00	8	22	8	22
2013	4,692.00	8	22	8	22
2014	5,036.00	8	21	8	21
2015	5,451.00	8	21	8	21
2016	5,939.00	8	20	8	20

Source:

Compiled according to data published on the Shanghai Municipal Bureau of Human Resources and Social Security website, http://www.12333sh.gov.cn.

women) is reached.[17] Those who fail to meet the vesting provision can withdraw savings from their individual accounts for a lump sum payment but are not eligible for the basic pension.

Across the country, regionally-based pension pools formed along administrative lines (county, city, prefecture or province).[18] The function of a pension pool is to build up capital in order to compensate for any deficits if there are insufficient individual contributions and savings. The level of pooling is highly localized as a result of the decentralization of social spending and assignment of fiscal revenues, and only recently have efforts been made to create pools at the provincial level. China is among the most decentralized countries in the world when it comes to intergovernmental fiscal relations and government

17 The vesting period, defined as the period of membership to the UEBPS which an individual must have completed before being entitled to basic pension, is set at 15 years.

18 West 1999, 165.

expenditures. Under the current tax-sharing fiscal system, subnational governments account for around 80 per cent of total budgetary expenditures and bear almost full responsibility for the provision of vital public services including education, health, minimum living guarantees, social housing, and community services.[19] City governments draw the resources to meet welfare commitments mainly from their own jurisdictions, resulting in a fragmented UEBPS, with various pension pools across different levels of government.

UEBPS membership does not distinguish between rural and urban, or along *hukou* lines. In an important move aimed at equalizing the entitlements of local and non-local workers, it was stipulated that the UEBPS should cover any migrant with an employment contract. However, various sources indicate that only a small portion of the migrant workers in urban areas with rural *hukou* are covered by the scheme. In Shanghai, which has been a magnet for migration, it was reported in 2015 that 3.5 million rural workers were enrolled in the UEBPS, corresponding to 35 per cent of all migrants in the city and 25 per cent of participants in the system.[20] One survey found that, nationwide, 166 million rural workers employed outside of their hometowns had signed up for pension insurance as of 2013, with a participation rate of 15.7 per cent.[21] Other sources have reported membership gaps between migrant and non-migrant workers. By 2013, 25.3 per cent of migrant workers had joined the UEBPS, far lower than the 80 per cent participation rate of local workers.[22] By 2015, roughly 55.85 million rural migrant workers were enrolled in the UEBPS, representing 33 per cent of all rural out-migration workers.[23] Assuming enrolees were all contributing members, they made up 16 per cent of all contributors to the system.

The fragmented UEBPS, which combines individual accounts with various pension pools, improves pension transferability but does not guarantee full transferability of long-term benefits. Individual accounts function to smooth labour mobility across employers within a local pension pool. Nonetheless, inter-pool moves are not addressed, because moving from one pool to a new pool results in the loss of accumulated benefits. Until 2010, no national guidelines existed for the transfer of accumulated pension rights between jurisdictions. If workers left the city where they had paid in contributions, their basic pension relationships were terminated and the accumulated payments from their individual accounts were refunded as a single lump sum. Migrant workers therefore experienced vesting loss, that is, withdrawal from the UEBPS before completion of the vesting period.

In 2010, regulations regarding pension transfers were promulgated to reduce the loss of benefits owing to labour mobility.[24] These regulations took several

19 World Bank, and Development Research Centre of the State Council 2014.
20 Shanghai Municipal Centre of Social Security Management, Shanghai Municipal Centre of Health Management and Shanghai Municipal Centre of Employment Promotion 2015.
21 NBS 2014.
22 National Health and Family Planning Commission of China 2014.
23 MHRSS 2016.
24 MHRSS and MOF 2009.

steps towards improving the transferability of any entitlements by permitting the aggregation of contribution periods and the exportability of partial benefits in cases of labour migration across jurisdictions, thereby ensuring future vested rights to some extent. A worker can transfer the accumulated amount of the individual account plus up to 60 per cent of the contributions made by the current employer (i.e. exportability of 60 per cent of the pooled fund) to the new work jurisdiction. The pension relationship can be switched and the years of contribution in different jurisdictions can be totalized.

While pension rights are partially transferable, there are practical barriers. Eligibility for transfers is dictated by specific requirements, including age threshold, vesting conditions, and *hukou* registration (Figure 1). These specifics aside, what stands out is a sort of unequal treatment between entry to and exit from local pension pools. The eligibility requirements are skewed against establishing vested rights in the new pool. While transfer out of the current pool is relatively easy, transfer to the new pool seems much more difficult. Restrictions on rights transferability are further increased by the double vesting liabilities imposed on the disbursement of the basic pension benefit in any given locale. Specifically, access to the basic pension depends not only on the liability of 15 years' totalization that aggregates all contribution periods in all jurisdictions but also on the liability of at least a ten-year period of contributions to the current pool.[25] Those who complete the first liability but fail to satisfy the second can only return to their place of *hukou* registration to draw pension benefits. Heretofore, the requirements prevented workers from gaining better benefits in a place where they only made a short period of contribution but where the basic pension funded by the local pension pool was high. In short, the current transfer policy for pension rights means that the costs to the benefit can be raised at both individual and system levels. At the individual level, this refers to annuity loss: a migrant worker's accrued pension rights are calculated on the basis of the accrual income rate in the place where (s)he is entitled to draw pension benefits without taking full account of the income level in each of the places where (s)he made prior contributions to the UEBPS. At the system level, the current pension transfer regulations provide a windfall profit for the pool a worker leaves, but create a burden for the pool a worker joins, producing unfair financial redistributions across jurisdictions.

Annuity Loss of Basic Pension at the Individual Level

In quantifying the transferable loss of pension benefits as a result of migration, the basic pension carries significant weight because it is not made for full portability in policy and because it resets the level of eligible benefits. First, pension benefits consist of two components: the basic pension and personal savings. While there is little difficulty transferring personal savings, the basic pension,

25 Ibid.

Figure 1: **Conditionality of Pension Rights Transfer**

(1) Eligibility for transfer to the new pool

Non-local *hukou* registers

- Aged under 50 (males) or under 40 (females)
- Signing a local employment contract and creating a local UEBPS account, or
- Changing employment with the permission of authorities at the county level or above and creating a local UEBPS account

Local *hukou* registers

- Signing a local employment contract and creating a local UEBPS account
- Making no consecutive contributions for more than 10 years in any other localities

(2) Eligibility for transfer out of the current pool

- Returning to place of *hukou* registration, or
- Changing employment with the permission of authorities at the county level or above, or
- Terminating a local employment contract and seeking new employment in other localities

Source:
MHRSS and MOF 2009.

financed by the employer's contribution, is not fully transferable. Second, the basic pension accounts for a large fraction of the total benefit. Table 2 shows that, of the total amount of pension benefit, the actuarial value of the basic pension was about two to four times as high as that of the personal savings. Ratio differences between columns suggest that the basic pension is more important for rural migrant workers who are often engaged in low-paid jobs and whose personal contributions to their pension are generally low.

Under the current rules, transferability loss at the individual level is a deduction of the actual basic pension from the amount that would have been paid if there had been no inter-jurisdictional moves during the working life of the UEBPS member. Assuming that the member makes one move only, the loss can be estimated by equations 1 and 2:

$$P^a - P^b = \frac{1}{2}\left(W^a - W^b\right) \times \left(m + n + \sum_{1}^{m+n} R_i\right) \times 1\% \tag{1}$$

$$\alpha = \left(P^a - P^b\right)/P^a = \left(W^a - W^b\right)/W^a \tag{2}$$

Where P^a and P^b are the basic pension in the two different jurisdictions. The amount of transferability loss is correlated to years of contribution in the different jurisdictions (m and n) and a ratio of pensionable wage to the CB (R_i). The rate of transferability loss (α) depends on the difference in CB between jurisdictions (i.e. $W^a - W^b$).

Table 3 provides an overview of the possible loss of basic pension that rural migrant workers might suffer.[26] Heilongjiang province is taken as a benchmark,

26 Unless otherwise specified, quantitative analysis hereafter is based on the contribution rate of rural migrant workers.

Table 2: **Ratio of the Basic Pension to Personal Savings**

Province-level jurisdiction	For workers from rural areas	For workers with income below local average	For workers with income 3 X higher than local average
Beijing	3.79	3.59	1.79
Shanghai	3.68	3.48	1.74
Jiangsu	4.29	4.06	2.03
Guangdong	3.71	3.52	1.76
Ningxia	4.20	3.97	1.99
Qinghai	4.09	3.87	1.93
Inner Mongolia	4.57	4.32	2.16
Tianjin	4.11	3.89	1.94
Chongqing	4.49	4.24	2.12
Fujian	4.26	4.03	2.02
Sichuan	4.54	4.29	2.15
Shaanxi	4.48	4.24	2.12
Tibet	3.50	3.31	1.65
Anhui	4.38	4.14	2.07
Shandong	4.43	4.19	2.10
Shanxi	4.32	4.09	2.04
Liaoning	4.07	3.85	1.93
Xinjiang	4.18	3.95	1.98
Hainan	4.58	4.33	2.17
Zhejiang	3.76	3.55	1.78
Yunnan	4.17	3.59	1.97
Gansu	4.33	4.10	2.05
Hunan	4.41	4.17	2.09
Hubei	4.40	4.16	2.08
Guizhou	4.35	4.11	2.06
Jilin	4.32	4.09	2.04
Guangxi	4.14	3.91	1.96
Hebei	4.21	3.98	1.99
Jiangxi	4.45	4.21	2.11
Henan	3.98	3.77	1.88
Heilongjiang	3.98	3.77	1.88

Source:

Calculated based on provincial pension parameters.

Note:

The estimates assume that workers contribute to the UEBPS for 15 years and then are entitled to pension benefits for 139 months.

simply because its CB is the lowest among all provincial units. By comparing Heilongjiang with other provinces, one can easily observe changes in the basic pension caused by inter-provincial migration. As shown, the impact on the expected basic pension would be negative or positive for a worker who moves to another province when compared to a worker who does not move. Column A identifies the potential losses (indicated by a minus sign) caused by moves from higher-income to lower-income provinces, while column B demonstrates the potential gains that result from the reverse moves. The reduction in the basic pension varies widely, ranging from 1.64 per cent (from Henan to Heilongjiang) to over 45 per cent of the full basic pension (from Beijing to

Table 3: **Changes in Basic Pension Benefit**

Province-level jurisdiction	To Heilongjiang (%)	From Heilongjiang (%)
	A	B
Beijing	−45.10	82.14
Shanghai	−36.84	58.34
Jiangsu	−34.18	51.92
Guangdong	−28.81	40.48
Ningxia	−26.86	36.73
Qinghai	−26.75	36.52
Inner Mongolia	−25.73	34.64
Tianjin	−25.34	33.94
Chongqing	−25.20	33.69
Fujian	−22.63	29.25
Sichuan	−22.14	28.43
Shaanxi	−21.87	28.00
Tibet	−20.49	25.76
Anhui	−20.16	25.25
Shandong	−19.90	24.85
Shanxi	−17.75	21.58
Liaoning	−17.58	21.34
Xinjiang	−16.67	20.01
Hainan	−16.26	19.41
Zhejiang	−14.27	16.65
Yunnan	−13.63	15.78
Gansu	−13.47	15.57
Hunan	−13.05	15.01
Hubei	−13.05	15.00
Guizhou	−12.83	14.72
Jilin	−10.92	12.26
Guangxi	−10.48	11.71
Hebei	−10.26	11.44
Jiangxi	−10.13	11.27
Henan	−1.64	1.67
Heilongjiang	0.00	0.00
National average	−27.13	37.24

Source:
Calculated based on equations 1 and 2, and provincial pension parameters in 2014.

Heilongjiang), depending on the actual income gap between the province a worker leaves and the province (s)he moves to. A higher gap leads to a greater reduction. Conversely, the basic benefit increases, ranging from 1.67 per cent (from Heilongjiang to Henan) to 82 per cent (from Heilongjiang to Beijing). According to the national average, the reduction and increase rates are 27.13 per cent and 37.24 per cent, respectively.

In practice, an increase in basic pension for rural migrant labour is an unlikely scenario. First, the dual vesting period prevents rural workers from gaining access to the basic pension with only a few years of contribution to the local pension pool. Following job opportunities, rural migrants move frequently and work in multiple jurisdictions. Many of them have a truncated history of contributions during their working lives and are therefore unlikely to surpass the vesting period in a specific city in order to access the basic pension.[27] Consequently, their only feasible option is to retreat from the UEBPS and withdraw their payments from their individual accounts without entitlement to basic pensions.

Second, access to the UEBPS does not necessarily mean rural migrant workers become fully integrated into cities in socio-economic terms.[28] Apart from the *hukou* system, many structural barriers still exist in the urban labour market, which makes it difficult for migrant workers to take advantage of the UEBPS. While rural-registered but urban-residing workers are eligible to participate in the UEBPS that is traditionally reserved for urban-*hukou* residents only, they work predominately in low-paid, unskilled and unstable jobs, often with many uncertainties in host cities. The UEBPS does not help much to ease social integration. Because of their urban inferior status, migrant workers from rural areas often maintain tight links with their rural communities and remain footloose in urban life. Like circular migrants in other parts of the developing world, migrant workers from the countryside often retire to their rural villages in their old age. Some of them have fulfilled the liability of the vesting period accumulated from the years of contribution in each of the cities where they have worked, but they can only withdraw their basic pension in their *hukou*-registered hometown, where the actuarial value of their basic pension benefit is usually much lower than that in the city where they paid in their pension contributions. Their retirement benefit therefore remains undervalued.

Incomplete transferability inhibits participation incentives.[29] Those whose employment histories are spread over two or more different cities and who have contributed to multiple pension pools during their working lives suffer benefit loss. For example, two UEBPS members with the same history of contributions would receive different levels of pension benefit if one had spent all his working life in one jurisdiction while the other worked in more than one jurisdiction. Incomplete transferability has resulted in significantly less than anticipated future returns. By treating the UEBPS simply as severance pay – rather than as security against the risk of no income in old age – many migrant workers have remained outside the UEBPS.

Systemic Barriers to Pension Transferability

Two systemic impediments have been factors in the barriers to pension transferability: the unfair redistribution of the pension burden and the fragmented administration of the pension system.

27 Lu and Piggott 2015, 447.
28 Xu, Guan and Yao 2011.
29 Another factor was high contribution rates, which entailed higher labour costs for employers. Employers who relied on cheap labour from rural areas to compete in a market-oriented economy often circumvented mandatory contribution. Migrant workers, who were usually young and worked in low-wage positions, did not want to set aside part of their meagre incomes and were therefore reluctant to join the UEBPS.

Redistribution of the pension burden at the regional level

The current policy produces different distributive outcomes: the departure of a UEBPS member can bring about a financial advantage for the pension pool of the sending jurisdiction; the introduction of a member can impose a financial burden on the pension pool of the receiving jurisdiction.

Specifically, the financial advantage can be defined as the proportion of the employer's contribution that is not allowed to be transferred out of the local pension pool when the UEBPS member moves out of the jurisdiction. The amount (Q) and the rate (β) can be derived from an algorithm expressed in equations 3 and 4, if we limit our attention to the period of 1993–2015:

$$Q = \sum_{i=1}^{22} P_i \times (w_i + e_i) - \sum_{1}^{9} P_i \times 20\% - \sum_{10}^{17} P_i \times 23\% \tag{3}$$

$$\beta = 1 - \left(\sum_{1}^{9} P_i \times 20\% + \sum_{10}^{17} P_i \times 23\% \right) \Big/ \sum_{1}^{22} P_i \times (w_i + e_i) \tag{4}$$

Where P_i is the amount of the employer's contribution in year i, and w_i and e_i are the premiums paid by the employer and employee in year i, respectively.

Financial burden is an additional amount that is required for the liability of basic pension. This deficit is caused when the total contributions made by the new employer plus the amount of transfer to the local pool are insufficient to cover the future basic pension for the incoming UEBPS member from another jurisdiction, and is calculated using equation 5:

$$T^b - T^a = \sum_{i=n+1}^{m+n} (C_i^b - R_i W_i^a \times 12\%) \tag{5}$$

Where T^b is the amount of an employee's pension benefit paid by the pooled fund in jurisdiction b; T^a is the amount of exportable pooled fund from jurisdiction a plus the employer's contribution in jurisdiction b; C_i^b is the amount of the employer's contribution in year i in jurisdiction b; R_i is a ratio of pensionable wage to the CB; W_i^a, m, and n are denoted in equation 1.

Whenever UEBPS members transfer out of a jurisdiction, the move yields two gains for the pool they were affiliated with at the time. The first gain is the retained contribution in cash terms. As illustrated in Table 4, the retained contribution value per annum was much larger during the period of 1993–1997, worth more than 68 per cent and up to almost 90 per cent of the balance of the total contribution (the contribution paid by the employee plus that of the employer). This was because those who left the pool were not allowed to take away a substantial fraction of the contributions made on their behalf by their employers during that period. Financial gains to this pool were reduced after 1998 as a result of a reduction in pension portability losses, but they were still quite significant (from 19 per cent to 33 per cent). The second gain is the withdrawal of the financial commitment to provide pension benefits for potential pensioners. In addition

Table 4: **Financial Advantage for Sending Jurisdiction (Shanghai Case)**

Year	Financial advantage (yuan)	Rate of financial advantage (%)
1993	749	89.47
1994	793	89.47
1995	1,038	86.44
1996	1,301	86.44
1997	1,232	68.85
1998	471	24.59
1999	564	26.98
2000	603	25.20
2001	466	19.30
2002	619	21.59
2003	768	23.76
2004	874	23.76
2005	1,040	25.83
2006	1,475	33.33
2007	1,626	33.33
2008	1,909	33.33
2009	2,173	33.33
2010	2,354	33.33
2011	2,571	33.33
2012	2,858	33.33
2013	2,942	32.20
2014	2,991	31.03

Source:
Calculated based on equations 3 and 4, and Shanghai pension transferability provision.

to the significant amount of the employer contribution held by the pool, the sending jurisdiction would also be relieved of the responsibility for financing the future basic pensions of out-of-pool workers.

While the monetary gains for sending jurisdictions appear substantial, receiving jurisdictions are typically disadvantaged in the current framework. The receiving jurisdictions bear the risk of financial burden, which is measured by the extra cost incurred in order to fulfil the basic pension commitment to the workers transferred to the local pool. The cost is the difference between the value of accrued benefits for potential insured workers (committed basic pension paid by the pooled fund of the current jurisdiction) and the total amount of social contribution (the contribution made by the new employer to the current pool plus intake transfers) (equation 5).

Owing to the actuarially unfair structure of the transfer system, additional financial cost is accrued by the receiving jurisdiction that admits workers transferred from the pension pool in another jurisdiction to the local pool. Table 5 presents the magnitude of this cost. Again, Heilongjiang province was chosen as a benchmark, for the same reason mentioned above. As shown, the arrival of a potential pensioner entailed a financial burden for the local pool (indicated by a minus sign). While all receiving provinces were suffering in the sense that their pension pools had to take on the extra burden of paying pension liability, the richer provinces seemed to suffer more. The magnitude of the burden is proportional to the income gap between the sending and receiving provinces. The larger the income gap, the higher the pension burden, since the basic pension, ostensibly funded by a local pension pool, is linked to income level. In Shanghai, the average annual pay-out from the local pension fund was 28,363 yuan per pensioner in 2015; pensioners in the central province of Shaanxi received one-fifth of that in the same year. Table 5 shows that a move from the second highest income province (Shanghai) to the lowest income province (Heilongjiang) yielded 210 yuan in pension arrears for Heilongjiang. For a move in the opposite direction, the arrears for Shanghai were 4,128 yuan, more than 19 times as large as in Heilongjiang. Only in cases where the income gap between two provinces is wide enough to allow the amount of transfer out of a higher-income province to offset the funding effect of a new liability in a lower-income province could the actuarial gain be achieved in the receiving jurisdiction (such as a transfer from Beijing to Heilongjiang in Table 5). Given the potential financial burden on the local pension fund, the rationale behind transferability conditionality is easy to understand, particularly from the perspective of receiving jurisdictions.[30]

Fragmentation of the UEBPS

More fundamentally, the fragmented administration of the pension system accounts for the transferability problems described above. China's pension system is fragmented owing to the existence of multiple pension pools and decentralized administration. Arguably, until national pooling becomes a feasibility, provincial pooling is a choice better than any other. Thus, one reform, pushed at the central level since the 1990s, is to broaden the scope of pension pools, from city or county level to provincial level.[31] In 1991, the State Council issued regulations urging administrative regions that had not implemented provincial-level pools to hand over their pension pools and administration functions to their provincial governments. Since then, all documents promulgated at the central level have repeated this goal.

Two unifications – of pension provisions and of pension governance – are envisaged for the integration of pension pools at the provincial level.[32] Unifying pension provisions should resolve technical issues, while pension governance is related to macro control. Unification in pension provisions refers to the standardization of eligible conditions, the CB, premiums, and benefit formulas within any given province. Concerns about unification in pension governance focus on consolidation of fund collection and (re)allocation, a uniform quality of services

30 Limited available data reveal that, while dispatching 215,000 UEBPS members to other provinces, Guangdong admitted only 62,000 members transferred from other provinces in 2014. Guangdong Provincial Bureau of Social Security Fund Management 2015.

31 State Council 1991; MLSS and MOF 2007.

32 MLSS and MOF 2007.

Table 5: **Redistribution of Pension Burden**

Province-level jurisdiction	To Heilongjiang		From Heilongjiang	
	Amount (yuan/ person)	As % of pensionable wage of the receiving jurisdiction	Amount (yuan/ person)	As % of pensionable wage of the receiving jurisdiction
Beijing	390	1.02	−5,128	7.38
Shanghai	−210	0.55	−4,128	6.83
Jiangsu	−371	0.97	−3,859	6.66
Guangdong	−660	1.73	−3,379	6.30
Ningxia	−754	1.98	−3,221	6.17
Qinghai	−760	1.99	−3,212	6.16
Inner Mongolia	−807	2.11	−3,134	6.10
Tianjin	−824	2.16	−3,104	6.07
Chongqing	−831	2.18	−3,094	6.06
Fujian	−942	2.47	−2,907	5.89
Sichuan	−963	2.52	−2,873	5.86
Shaanxi	−974	2.55	−2,855	5.84
Tibet	−1,030	2.70	−2,761	5.75
Anhui	−1,043	2.73	−2,740	5.73
Shandong	−1,053	2.76	−2,723	5.71
Shanxi	−1,136	2.98	−2,585	5.57
Liaoning	−1,142	2.99	−2,575	5.56
Xinjiang	−1,175	3.08	−2,519	5.50
Hainan	−1,190	3.12	−2,494	5.47
Zhejiang	−1,260	3.30	−2,378	5.34
Yunnan	−1,282	3.36	−2,342	5.30
Gansu	−1,287	3.37	−2,333	5.29
Hunan	−1,301	3.41	−2,310	5.26
Hubei	−1,301	3.41	−2,309	5.26
Guizhou	−1,308	3.43	−2,297	5.25
Jilin	−1,371	3.59	−2,194	5.12
Guangxi	−1,384	3.63	−2,171	5.09
Hebei	−1,391	3.64	−2,159	5.08
Jiangxi	−1,395	3.65	−2,152	5.07
Henan	−1,637	4.29	−1,749	4.51
National average	−741		−3,243	

Source:

Calculated based on equation 5 and provincial pension parameters in 2014.

(such as pension insurance registration, account transfer and continuation), and centralization of service administration at the provincial level.

Table 6 shows that, by the end of 2014, all provinces (except for Guangdong) had implemented standardized premiums which were universally applicable to employers and employees within the province (Column A). That is to say, uniform mandatory rates of pension contribution from employees and employers had been established in all sub-regions of the province. Many provinces had also unified their policy standards for collecting funds, setting CB and benefit levels, and certifying qualifications for benefit-claiming. Nonetheless, out of

Table 6: **Pension Provision and Administration, by Province (as of 2014)**

Provincial unit	Unified contribution		Standardized benefits	Model of fund transfer	Model of shortfall management	Model of service administration
	Premium	Pension base				
	A	B	C	D	E	F
Beijing	Y	Y	Y	UPCBP	PBP	LA
Tianjin	Y	Y	Y	UPCBP	PBP	HA
Hebei	Y	Y	Y	TLR	PBP	LA
Shanxi	Y	Y	Y	TLR	PBP, PBMR	LA
Inner Mongolia	Y	N	N	TLR	PBP	LA
Liaoning	Y	N	Y	TLR	PBP	LA
Jilin	Y	N	N	TLR	PBP	HA
Heilongjiang	Y	Y	N	TLR	PBP	HA
Shanghai	Y	Y	Y	UPCBP	PBP, PBMR	HA
Jiangsu	Y	Y	Y	OLR	PBP	LA
Zhejiang	Y	Y	Y	OLR	PBP	LA
Anhui	Y	Y	Y	OLR	PBP, PBMR	LA
Fujian	Y	Y	Y	OLR	PBP	LA
Jiangxi	Y	Y	N	TLR	PBP, PBMR	LA
Shandong	Y	Y	N	TLR	PBP	LA
Henan	Y	N	Y	OLR	PBP	LA
Hubei	Y	N	N	OLR	PBP	LA
Hunan	Y	Y	Y	TLR	PBP	LA
Guangdong	N	N	Y	OLR	PBP	LA
Guangxi	Y	Y	Y	TLR	PBP, PBMR	LA
Hainan	Y	Y	Y	OLR	PBP	LA
Chongqing	Y	Y	Y	UPCBP	PBP	LA
Sichuan	Y	Y	Y	OLR	PBP, PBMR	LA
Guizhou	Y	Y	Y	OLR	PBP, PBMR	LA

Table 6: **Continued**

Provincial unit	Unified contribution		Standardized benefits	Model of fund transfer	Model of shortfall management	Model of service administration
	Premium	Pension base				
Yunnan	Y	Y	Y	TLR	PBP	LA
Tibet	Y	Y	Y	UPCBP	PBP	LA
Shaanxi	Y	Y	Y	UPCBP	PBP	HA
Gansu	Y	Y	Y	TLR	PBP	LA
Qinghai	Y	Y	Y	OLR	PBP	LA
Ningxia	Y	Y	Y	OLR	PBP	LA
Xinjiang	Y	Y	Y	OLR	PBP, PBMR	LA

Source:

The authors' compilation based on multiple policy documents. Taking Shanghai as an example, these documents include Shanghai Municipal Bureau of Finance, Shanghai Municipal Bureau of Human Resources and Social Security and Shanghai Municipal Bureau of Medical Insurance 2006; Shanghai Municipal Government 2007; Shanghai Municipal Bureau of Finance, Shanghai Municipal Bureau of Human Resources and Social Security and Shanghai Municipal Bureau of Health 2007.

Notes:

Abbreviations: Y (Yes); N (No); UPCBP (unification of premium collection and benefit payment); TLR (two-level redistribution); OLR (one-level redistribution); PBP (pension budget plan); PBMR (pension budget management regulation); HA (hierarchical administration); LA (localized administration).

China's 31 provinces, six had stipulated various CBs for their sub-regions to determine the amount of contributions (Column B). Also, in six provinces, criteria to decide pension entitlements and benefit levels varied considerably among the sub-regions (Column C).

Within a province, various practices existed within pension governance. In cases of shortfall, three models were operated to ensure adequate financing at the local level for meeting national mandates in pension provisions (Column D). Six provinces had established a unified fund-collection and benefit-payment model for fund allocation and redistribution. In this model, pension pooling is instituted at the provincial level, and fund collection and benefit expenditure are placed under the direct control of the provincial government. This strengthens the sovereign power of the provincial government to redistribute pension assets. Thirteen provinces were using the one-level redistribution model, which meant that fund collection and benefit expenditure were managed at the city or county level. If local pools experience deficits, the provincial government steps in with the necessary funds. The two-level redistribution model was implemented in 12 other provinces. In this model, the financial gap at the local level is plugged using two sources: the prefectural-level government and the provincial government. If the prefectural government lacks the fiscal capacity to meet the demand for financing pension entitlements, the provincial government then bears financial responsibility for local pensioners. The operation of the last two models indicates that many provinces had not at that time established pools with the capacity to cover the entire administrative area.

In order to improve budgeting processes and execution, all provinces had made their own annual pension budget plans (PBP) (Table 6, Column E). Nonetheless, pension budget management regulations (PBMR) were legislated and enacted in only eight provinces. Specifically, pension budget planning is merely financing planning through which the provincial government allocates line-item resources to its low-level governments. It does not play a significant role in monitoring budget execution. The legal base for the treasury function and accountability over the management of pension assets is rather weak. In comparison with pension budget plans, pension budget management regulations assign the provincial government more comprehensive oversight authority on spending, thus the provincial-level budgetary control increases accordingly. The regulations include control processes to manage pension revenues and expenditures. They evaluate performance and are implemented in an effort to harden the budget constraint for local spending units. Put simply, the provinces which introduced pension budget management regulations implemented more unified pension governance at the provincial level.

Table 6 shows that in terms of pension service administration, two different institutional modes existed: localized administration and hierarchical administration (Column F). As shown, localized administration was more predominant than hierarchical administration: only five provinces had adopted hierarchical administration.

In general, local pension services are executed under the aegis of the Ministry of Human Resources and Social Security at the central level and the corresponding social welfare departments at provincial, municipal, and county level. Under localized administration, pension services are administered mainly on a territorial basis. Social welfare apparatuses at different levels are linked by professional relations rather than by leadership relations. Professional relations require consultation on business issues and technical guidance from above, along administrative pathways, but implementation details are left to subordinate bureaus which are absolutely obedient to the local government. The upper-level apparatus does not have absolute policy authority (such as rule-setting for pension provision) over its subordinate. It is local governments who are in fact responsible for supervising and administering local pension matters.

Under the hierarchical administration, each territorial social welfare apparatus has leadership relations with the corresponding apparatus on the next higher level in the provincial administrative hierarchy, which means that the upper level dictates to the lower level and the lower level must obey. For example, the social welfare apparatus one level up has the authority to investigate the status of the pension revenue and expenditure, management and investment operation of the pension funds. That is to say, the upper-level apparatus has a strong role to play in such institutional arrangements. As a consequence, the mode of hierarchical administration can be considered as a more "centralized" policy implementation than the mode of localized administration.

Taken together, it is evident that, albeit still in progress, the central government's push for the integration of pension pools at the provincial level has not worked as intended. Thus far, only three provincial units (Shanghai, Tianjin, and Shaanxi) have operated a unified pool inside their jurisdictions. In seven provincial units (Liaoning, Shandong, Guangdong, Inner Mongolia, Hubei, Jilin, and Henan), city- or county-level units have remained the basic unit of pension financing and provision. Most provincial-level units have taken positive steps to establish a unified pool but have only managed to achieve unification in pension provision rather than in pension governance. The fragmented state of UEBPS has made pension transferability especially challenging, as jurisdictions differ in pension contribution, entitlement and governance.

Concluding Remarks

In analysing the UEBPS, this paper shows that poor transferability of acquired pension rights creates a conflict between labour migration and retirement security. We examine several barriers to labour mobility and entitlement accomplishment, including pension benefit loss suffered by migrant workers, unfair regional redistributions of the pension burden and the fragmentation of the pension administration system. Migrant workers, as we have seen, cannot fully preserve their accrued pension rights in the sense that they suffer benefit loss each time they switch between jobs in different cities. Those from rural areas pay pension

https://doi.org/10.1017/S030574101800084X Published online by Cambridge University Press

contributions in high-benefit locales (for example, cities) but withdraw their pension benefit in low-benefit locales (for example, villages). They have to accept low replacement rates for their contribution payments. At the regional level, pension transferability may impose additional costs on the receiving jurisdiction when it receives UEBPS members who have transferred from another pension pool. Although the centre's goal is to promote a higher level of pension administration, the mission is in fact still a remote possibility. The locally-administered UEBPS works as an impediment to the complete transferability of pension rights because of the low degree of uniformity in pension governance across jurisdictions.

Given the massive scale of migration, a better understanding of rights transferability takes on intellectual relevance for migration and entitlement barriers in reform-era China. In the context of the Chinese political economy, state-regulated population mobility has long been considered as an important administrative instrument. Initially, the *hukou* system was established to serve as an invisible wall to prevent rural labour from leaving the countryside and to exclude rural migrants from the urban welfare regime. As a result, there was sharp differentiation between urban-registered residents' entitlements and migrants' entitlements. Since its implementation, the *hukou* system has undergone substantial reforms.[33] Market-oriented reforms have diminished its intrusive role in controlling labour migration. Although migrant workers are still excluded from social assistance-type benefits (for example, urban unemployment allowance) provided by city governments, they are granted access to urban contributory benefits financed by themselves and their employers. While the functionality of the *hukou* system becomes less strong in curbing labour mobility and delineating welfare status, the transferability of social benefits seems more relevant in explaining the entitlement gap between rural migrants and urban residents. Our analysis shows that the welfare entitlements of migrant workers are constrained not so much by accessibility but more by the poor portability of acquired rights. This is a reflection of the fact that migration and entitlement barriers today may spring not so much from a particular form of *hukou* exclusion but rather from insufficient rights portability. Notwithstanding various reforms that make the *hukou* system less divisive than it once was in defining welfare eligibility in a particular city, vesting benefit entitlements remains skewed against the migrant population.[34] Thus, a comprehensive understanding of the structural constraints of reform-era migration and entitlement attainment needs to take into account the transferability of social rights for migrant workers. Such an understanding should go beyond a narrow cognition of the *hukou* system per se; it also suggests that reform of the *hukou* system by itself will not be enough to improve the socio-economic status of migrants.

Our analysis shows that greater labour mobility across China is not compatible with the predominantly regional pension systems whose parameters, fund

33 Zhang and Tao 2012, 2,896; State Council 2014.
34 Lu and Piggott 2015.

management, financing and governance are determined at the provincial or municipal levels. In order to promote universal social protection and build a well-functioning social security system that works better for migrant workers moving between urban areas, China needs to design standards for rights transferability that are equitable and more in line with the financial consequences of mobility. Even more importantly, China needs to knit its fragmented social welfare provision into a more coherent framework of support. These challenges appear daunting if not insurmountable. As recently shown by Li Zhang and Meng Li, for most cities, regularly available public resources are insufficient to meet the increasing demand for an ever-expanding scope of public services.[35] Thus, an important issue of such reform that has emerged from this analysis is the recognition of the need for development of an integrated intergovernmental fiscal transfer system that will be capable of closing the financial gap, given that few lower-level governments have sufficient own-source revenues to finance the services for which they are responsible. The necessary reform thus has both redistributive and spatial dimensions. To finance pension transferability under the current framework, the amount transferred from the sending jurisdiction's pooling fund should be consistent with the additional financial cost accrued by the receiving jurisdiction. In the future, greater transferability would be complemented by elevating the pension administration to higher levels, first to the provincial level and ultimately to the national level.

Acknowledgement

This research is supported by the research funding of the School of Social Development and Public Policy at Fudan University.

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摘要: 已有研究普遍认同，户籍制度阻碍人口迁移、导致公民权益不平等。但对权益流动性产生的影响，尚缺乏深入的实证讨论。本文以覆盖农民工的城镇职工基本养老保险制度为例，探讨权益流动的水平以及造成流动水平偏低的因素。研究结果表明，改革时期中国人口迁移和权益实现的障碍，更直接地来自于权益流动性的缺失而非户籍制度的作用。作者认为，

35 Zhang and Li 2016, 905.

在户籍制度不断变革的大背景下，对人口迁移和权益实现的更深入的理解，不能仅囿于对户籍制度本身的认知，对权益流动性的分析更为重要。

关键词: 城镇职工基本养老保险制度; 流动性; 基本养老金; 受限福利权; 户籍制度

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