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Income of the Urban Elderly in Postreform China: Political Capital, Human Capital, and the State

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Using data from a 1992 nationally representative survey of the elderly in urban China, this study examines the impact of political and economic reforms on income stratification. Drawing upon the existing literature on the differential impact of market reforms in socialist states, we develop and test three hypotheses: one stressing the increasing importance of returns to human capital, one stressing the ability of communist elite to convert their political capital into new sources of power in emerging markets, and one stressing the continued importance of redistributive activities of the party-state. Our results support, to varying degrees, all three hypotheses. We interpret this as a reflection of the complex nature of stratification mechanisms during Chinese economic reforms.

Key Words: China; elderly; income inequality; market reforms; retirement

Beginning in 1978, the Chinese government has implemented an array of economic and political reforms aimed at promoting economic growth and reducing bureaucratic inefficiencies. Such major reforms as the decollectivization of agriculture, the expansion of autonomy for state enterprises, and the reinstitution of incentive wages and bonuses have stimulated the development of market features in a nominally socialist economy (Perkins, 1986; Shirk, 1989; Walder, 1989). Along with rapid economic growth and social change, these reforms have also given rise to a large body of research aimed at assessing the effects of reforms on income distribution and inequality (e.g., Nee, 1989, 1991, 1996; Walder, 1989; Bian and Logan, 1996; Nee and Matthews, 1996; Xie and Hannum, 1996). As characterized by Xie and Hannum (1996), the two fundamental questions addressed in this work are (1) does the emergence of markets increase or reduce

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income inequality? and (2) do certain groups benefit disproportionately from reforms?

Expectations regarding the effect of market emergence on income inequality are mixed. On the one hand, the Chinese government's stated intention has been to tolerate short-term increases in inequality in order to achieve a common prosperity and thus lower inequality in the long term (Whyte, 1986; Zhao, 1994, in Xie and Hannum, 1996). On the other hand, many observers of market reforms in China and other socialist states expect that market emergence will lead to a reduction in inequality in the short term but greater overall inequality in the mid to long term (Whyte, 1986; Szelényi and Manchin, 1987; Nee, 1991; Bian and Logan, 1996; Szelényi and Kostello, 1996). This second hypothesized trend in inequality has received some empirical support. Walder (1990) and Zhao (1990) both show declines in urban income inequality in the public sector following wage reforms in 1985, but more recent evidence suggests that, despite continued low levels of overall inequality in urban China (Khan et al., 1993; Xie and Hannum, 1996), income inequality has increased significantly in recent years (Khan and Riskin, 1998), particularly in the growing market sector (Zhao, 1993; Nee and Cao, 1996) and among the young (Parish and Tang, 1997).

Theoretical discussions concerning the differential impact of market reforms in state socialist economies stress three important mechanisms of income determination: human capital, political capital, and the continuing redistributive activities of the state. In this paper, we draw upon these theoretical perspectives in order to develop testable hypotheses regarding the experience of one specific subpopulation in China, the retired urban elderly. While clearly not representative of the larger population, the experience of this group offers a unique opportunity to examine the relative importance of the different hypothesized mechanisms of income determination during market reforms.

THREE THEORETICAL PERSPECTIVES

Most of the studies to date on income determination in postreform China fall within the so-called ''market transition debate'' (Szelényi and Kostello, 1996). This debate revolves around the *relative* importance of human and political capital during market reforms in transforming state socialist economies. On one side of the debate is ''market transition theory'' associated with the work of Nee (e.g., 1989, 1991, 1996). According to market transition theory, economic reforms in state socialism gradually replace bureaucratic redistributive coordination with market coordination and thus favor producers with productive skills over government bureaucrats. As a result, the role of political capital (i.e., party membership or cadre status) for resource allocation will diminish, and the returns to human capital will increase.

As an alternative to market transition theory's emphasis on the role of market emergence, several scholars have stressed the specific nature of existing institutions and the role of path dependence (Fligstein, 1996; Oberschall, 1996; Parish and Michelson, 1996; Stark, 1996; Szelényi and Kostello, 1996; Walder, 1996).

These scholars are concerned less with whether former cadres lose redistributive power than with whether they are able to develop new sources of power in the emerging market economy. The central hypothesis of this perspective is that the politically privileged under socialism do maintain, or even strengthen, their advantageous position in the transition from socialism to market-oriented economies. Among the specific mechanisms for maintaining economic advantages during economic reforms, the information networks and connections amassed by former party functionaries are thought to be particularly important (Hankiss, 1990; Staniszkis, 1991; Róna-Tas, 1994; Bian and Logan, 1996; Mateju, 1996; Parish and Michelson, 1996; Szelényi and Kostello, 1996; Walder, 1996). This view has been called the ''surviving elite'' or ''power conversion'' hypothesis (Oi, 1986; Hankiss, 1990; Staniszkis, 1991; Róna-Tas, 1994; Mateju, 1996).

Empirical evidence from past studies is, for the most part, ambiguous. While some studies report increasing returns to education (Walder, 1990; Bian and Logan, 1996), particularly among young workers (Parish and Tang, 1997), and in the state sector (Bian and Logan, 1996; Nee and Cao, 1996; Parish and Tang, 1997), Xie and Hannum (1996) find lower returns to education in cities with higher economic growth. These studies do, however, agree that returns to human capital in postreform China remain extremely low by international standards. Evidence concerning returns to political capital has also been mixed, with Walder (1990) reporting decreasing returns to party membership, while Xie and Hannum (1996) and Bian and Logan (1996) find no relation between reforms and returns to political capital.

Both perspectives in the market transition debate share a fundamental concern with the relative importance of individual characteristics (i.e., political and human capital) in determining the stratification order. In market transition theory, market reforms favor those with productive skills; in the ''power conversion'' thesis, those with political capital under socialism are better than ordinary citizens at seizing opportunities in the production and distribution of goods and services in emerging markets.

While the relative importance of individual characteristics is emphasized in the market transition debate, the role of structural factors has not been overlooked. Instead, we are reminded that postreform China is a continuation of a party-state and authoritarian society, in which prereform hierarchical position remains an important determinant of the stratification order. The fact that reforms have led to far less marketization of labor than of goods and commodities (Xie and Hannum, 1996) is of particular relevance to this perspective. It remains the case that nonproductive labor market attributes, such as employment in state-owned enterprises (Lin and Bian, 1991; Walder, 1992; Zhou et al., 1997) and political loyalty (Walder, 1995a), are of central importance in determining individual welfare in postreform China. The continuing advantages associated with these nonproductive attributes are seen as evidence that prereform redistributive mechanisms continue to be an important mechanism of income determination in postreform China.

TABLE 1
Hypothesized Effects of Political and Human Capital under Economic Reforms

Explanatory variable	Outcome variable: Postretirement labor force participation and earnings	Outcome variable: Nonwage income
Human capital	Hypothesis 1: (Market transition theory) (+)	
Political capital	Hypothesis 2: (Power conversion hypothesis) (+)	Hypothesis 3: (State intervention hypothesis) (+)

THE CASE OF THE URBAN ELDERLY: THREE HYPOTHESES

In this paper, we examine the determinants of two primary sources of income for the urban elderly to assess the relative importance of human capital, political capital, and prereform hierarchical position as determinants of income in the postreform era. The elderly constitute a large and rapidly growing subpopulation in China that has largely been ignored in previous research on income stratification. Furthermore, the experience of the elderly population under economic reforms provides a unique case for testing hypotheses derived from the three theoretical perspectives concerning the differential impact of reforms. Before turning to these hypotheses, let us first discuss the two primary mechanisms through which economic reforms may have affected income distribution among the elderly in urban China: (1) the emergence of a postretirement labor market and (2) the extension of preferential pensions to a large group of party cadres. Together, these changes have affected the elderly population in China in a way that facilitates direct tests of the principal mechanisms of income determination in each of the three theoretical perspectives outlined above. First, the emergence of a postretirement labor market clearly represents an increased role for market distribution channels central to market transition theory and the ''power conversion'' hypothesis. While the emergence of labor markets is obviously important for the working-age population as well, the fact that reemployment opportunities for the retired elderly predominantly lie in this sector of the economy enables a direct test of the market returns to human capital and political capital. Second, the windfalls to cadre status provided by the expansion of preferential pension benefits suggest an increased role for prereform hierarchical position in accentuating income inequality. Considering the interaction of these two mechanisms of stratification with human capital and political capital, we specify three testable hypotheses regarding the effects of reforms on income determination among the elderly. These hypotheses are depicted in Table 1.

Hypothesis 1. The emergence of a market for postretirement employment benefits elderly with high levels of human capital.

Previous literature has suggested that the emergence of a market sector has enabled well-educated and highly skilled Chinese elderly to substantially supple-

ment their pension income through postretirement employment (Davis, 1993; Hayward and Wang, 1993). Although employment after retirement is not officially encouraged, the increased priority on economic development means that skills which have been out of favor for years (e.g., foreign languages and managerial skills) are now in high demand, providing those in possession of such skills access to lucrative employment opportunities in the emerging market sector. According to these scholars, the result of emerging markets has been the growth of highly paid postretirement jobs open only to a minority of retirees, for whom it is apparently not unusual to make more money after ''retirement'' than before. Evidence of high returns to human capital in the emerging labor market for retirees would fit neatly with market transition theory.

Hypothesis 2. The emergence of a market for postretirement employment benefits elderly with high levels of political capital.

The demand-driven return to employment postulated in hypothesis 1 is not the only plausible scenario envisioned within the market transition debate. Applied to the elderly population, the power conversion thesis suggests that retired party elite will draw upon their information networks and connections to take advantage of lucrative opportunities in the emerging market for retirees. Empirical analyses have consistently shown that cadres continue to enjoy income advantages during market reforms (Oi, 1986; Bian and Logan, 1996; Parish and Michelson, 1996), and it also appears that cadres have actually fared better than others in private market entrepreneurship (Nee, 1991). Economic advantages enjoyed by retired cadres in the postretirement labor market, if observed, would be consistent with the power conversion thesis.

Hypothesis 3. Expansion of preferential pension benefits, as a byproduct of economic reforms, has provided substantial rewards to prereform hierarchical position. Specifically, it has resulted in large economic rewards to elderly party cadres who once played a central role in the party-state.

The retirement of old cadres has been an important element of both political and economic reforms (Song, 1980; Olson, 1988; Lee, 1991; Manion, 1991). In 1978, the government expanded the preferential pension treatment known as *lixiu* to an increasingly broad range of elderly cadres in an attempt to rejuvenate cadre ranks and decrease the bureaucratic inefficiency thought to be hindering economic growth. *Lixiu* (an abbreviation of a term translated by Davis (1988, p. 231) as ''withdraw from work for recuperation''), which had previously provided disabled PLA (People's Liberation Army) officers with retirement benefits superior to those of regular pensioners, was now extended to all cadres who began work for the party prior to 1949. The extension of this preferential treatment may be seen as an inducement to retirement for a highly privileged, yet redundant, group of cadres who were reluctant to retire.[1] This ''buy-out'' policy has resulted in a

[1] Following a 1982 policy change, pension benefits for *lixiu* recipients depend on the year in which work for the party began. Those who started work before 1937 receive 14 months worth of their preretirement salary per year, those joining before 1942 receive 13.5 months salary, those who joined

sizable number of urban elderly receiving huge returns to their political capital. Hence, the expansion of *lixiu* benefits has played two seemingly contradictory roles in postreform China: on the one hand, it has helped remove the old communist guard from administrative posts and thus paved the way for a new group more interested in market reforms; on the other hand, it has, at the same time, entailed a large payoff to political capital. It is important to recognize that these returns to *lixiu* status do not represent any productive or redistributive value that may be associated with the political capital possessed by these former cadres. On the contrary, the premiums associated with *lixiu* status are based on purely political attributes valued by the state. This windfall to elderly cadres is an unintended consequence of economic and political reforms, consistent with the theoretical perspective stressing the continuing role of the state as a redistributive agent (Walder, 1992; Zhou et al., 1996, 1997).

We would like to emphasize that these three hypotheses are by no means mutually exclusive. In fact, all three hypotheses can be derived from market transition theory under proper scope conditions.[2] The possibility that all three may find support in the experience of the urban elderly suggests that the relationship between economic reforms and income distribution is a complex one; an understanding of income stratification during China's transition to a market economy must take full account of how specific political and economic institutions interact as determinants of individual outcomes in the postreform Chinese economy (Walder, 1995b, 1996; Xie and Hannum, 1996). In Table 1, we illustrate the relationships among the three hypotheses by emphasizing their different foci with respect to the explanatory and outcome dimensions. It is shown, for example, that although both hypotheses 1 and 3 highlight political capital as an explanatory factor, they differ in the outcome variable emphasized. In the former, the emphasis is on postretirement employment and earnings, while in the latter, it is on nonwage income consisting of pension benefits and government subsidies.

DATA AND VARIABLES

To test the three hypotheses depicted in Table 1, our study analyzes data from a 1992 survey of urban residents aged 60 and over. The Survey of the Support for the Elderly in Urban China (SSEUC) is a large-scale, nationally representative survey conducted in 1992 by the China Research Center on Aging. As the first systematic data source on the elderly population in China, this survey contains rich information on a variety of demographic, economic, and health measures for nearly 10,000 persons aged 60 and older living in urban China. Given that the three hypotheses presented in Table 1 are relevant to retirees only, we base our analyses on the 7208 retirees in the survey (73% of all respondents). Recognizing

before 1945 receive a 13-month salary, and those who joined before 1949 are given a 12-month salary. These benefits are much higher than those for regular (*tuixiu*) retirees, which, on average, are 60 to 75% of preretirement salary (Davis-Friedmann 1985; Manion 1992, 1993, p. 51).

[2] We thank a reviewer for pointing this out.

that, in the contemporary Chinese context, retirement is more meaningful as a marker for the beginning of pension receipt from a career job than as an indicator of economic inactivity, we define retirement as the exit from a career job for which there is a ''pension'' system. This definition excludes two subgroups of the urban elderly, those who did not have career jobs and those who have career jobs but have not yet retired.[3] The first group is predominantly (89%) female and likely includes elderly persons who have recently migrated to cities to join their families. By excluding this group, our analysis unfortunately ignores an important source of stratification among the urban elderly, i.e., nonuniversal pension coverage. The second group is extremely small in number (less than 1% of the sample) and consists primarily of men in professional occupations and cadres. Our analysis sheds new light on the experience of the urban retiree population, even though these sample restrictions mean that the results are not generalizable to the entire elderly population.

SSEUC contains information on nine sources of income for retirees; pension income, postretirement wages for the reemployed, support from the government, support from residence and street committee, support from children, support from relatives, interest income, rent income, and other income. Support from the government includes all forms of government subsidies (both cash and in-kind) other than pension. Given the general importance of nonmonetary government transfers for individual well-being in China (e.g., Khan et al., 1993), we expect this to be an important source of income for the elderly. Support from residence and street committee, support from children, support from relatives, and other income also consist of both cash and in-kind benefits.

In previous studies of income determination among the general urban Chinese population (Byron and Manaloto, 1990; Walder, 1990; Knight and Song, 1993; Xie and Hannum, 1996), income has been modeled as a function of typical human capital variables such as years of schooling and years of work experience, as well as variables such as party status, which reflect the importance of political advantage in the Chinese labor market. However, in our analyses of how specific reform-related variables affect the income of the retired elderly, the heterogeneous nature of postretirement income necessitates somewhat more complex modeling. In particular, it is necessary to consider separately the income derived from pension and other forms of public support (relevant to hypothesis 3) and the income generated from postretirement employment (relevant to hypotheses 1 and 2). While the former is nearly universal for the retired population under our definition of retirement,[4] the latter is received only by the 18% of retirees who were reemployed at the time of the survey. For the sake of simplicity, we collapse

[3] Two other observations with a total income of zero were excluded from the analyses based on our belief that, for retirees, given the variety of income sources surveyed, zero income is likely to be the result of misreporting, either of income itself or of pension status.

[4] Pensions were reported as received by 99.4% and 99.7% reported receiving some form of public support.

the various sources of income so that

$$Y_T = Y_1 + Y_2 + Y_3,$$

where Y_1 is public support income (= pension + support from the government + support from residence and street committee), Y_2 is postretirement wage income, and Y_3 is other income (= support from children + support from relatives + interest income + rent income + other income).[5]

Examination of the bivariate relationships between income and *lixiu*/reemployment status offers some preliminary evidence regarding the postulated mechanisms of income determination. Table 2 presents mean income (by source), broken down first by sex and then by both *lixiu* status and reemployment status. From the figures in this table, it is readily apparent that those with *lixiu* status constitute a small minority (15% of retired men and 5% of retired women) that is significantly better off, on average, than regular (*tuixiu*) retirees. For retired men, the average premium associated with *lixiu* status is 29%. The corresponding figure for women is 49%. This difference is primarily the result of much higher pensions for *lixiu* retirees. Reflecting both higher preretirement income levels for cadres and preferential pension benefits, average pension for *lixiu* men (women) was 57% (89%) higher than that for regular retirees. It is also clear that government support comprises a significant proportion of income for the retired elderly and that, on average, *lixiu* retirees receive higher levels of these subsidies than do regular retirees.

The data also indicate substantial differences in income level by work status after retirement. In fact, these differences are even greater than those observed between *lixiu* and *tuixiu* retirees. The average total income of reemployed men is 70% greater than that of other men. For women, the difference is 75%. These striking income differences at the aggregate level confirm the assumption underlying our study that both *lixiu* benefits and postretirement employment are important mechanisms of income stratification among the Chinese elderly.

To test our three hypotheses, however, we need to develop more realistic multivariate models that can be applied to the individual-level data in SSEUC. We conduct this analysis in two stages. In the first, we test hypotheses 1 and 2 by examining the effects of political and human capital on (a) participation in the postretirement labor market and (b) wages earned therein (Y_2). According to hypothesis 1, higher levels of human capital should be associated with both a higher likelihood of participation in this labor market and significantly higher wages earned therein. In this context, we measure human capital by educational attainment, work experience, and preretirement occupation. It is expected that retirees from professional and technical occupations will be particularly well positioned to take advantages of opportunities in the labor market for retirees. We test hypothesis 2 by examining the effect of political capital on the same two dependent variables. Political capital is also measured by preretirement occupa-

[5] All income measures are expressed in *yuan* per month in 1992.

TABLE 2
Income Distribution by Sex, *Lixiu* Status, and Reemployment Status

	N	Y_1	Pension	Government support	Residence committee support	Y_2	Y_3	Children	Relatives	Interest	Rent	Other	Total (Y_T)
Total (both sexes)	7206	152.59	(94.79)	(57.68)	(0.13)	20.90	23.54	(14.13)	(1.30)	(3.14)	(3.00)	(1.97)	197.03
Men (total)	4413	167.33	(107.97)	(59.24)	(0.12)	27.66	23.10	(13.14)	(1.17)	(3.45)	(2.82)	(2.53)	218.09
Tuixiu	3741	155.66	(99.47)	(56.06)	(0.14)	30.15	23.40	(13.48)	(0.94)	(3.36)	(3.14)	(2.48)	209.21
Lixiu	665	233.78	(156.47)	(77.26)	(0.06)	13.69	21.53	(11.21)	(2.47)	(3.97)	(1.03)	(2.87)	269.01
Not reemployed	3397	165.03	(105.49)	(59.40)	(0.14)	0.00	22.81	(13.27)	(1.11)	(2.88)	(3.35)	(2.20)	187.84
Reemployed	1016	175.03	(116.27)	(58.68)	(0.08)	120.13	24.09	(12.68)	(1.39)	(5.34)	(1.04)	(3.64)	319.24
Women (total)	2793	129.31	(73.96)	(55.21)	(0.15)	10.23	24.22	(15.70)	(1.50)	(2.66)	(3.28)	(1.09)	163.76
Tuixiu	2646	125.81	(70.88)	(54.79)	(0.14)	9.89	24.34	(15.73)	(1.53)	(2.57)	(3.42)	(1.10)	160.04
Lixiu	140	199.31	(134.08)	(64.91)	(0.33)	17.11	21.30	(14.33)	(1.07)	(4.48)	(0.48)	(0.95)	237.72
Not reemployed	2495	127.68	(72.38)	(55.16)	(0.13)	0.00	24.00	(15.77)	(1.52)	(2.19)	(3.47)	(1.05)	151.67
Reemployed	298	143.00	(87.12)	(55.62)	(0.26)	95.85	26.12	(15.08)	(1.33)	(6.65)	(1.65)	(1.41)	264.97

Note. All values in *yuan* per month. Y_1, public support income; Y_2, postretirement wage income; Y_3, other income. As a result of 14 missing values for *lixiu* status, *N* by *lixiu* status does not equal total *N*.

TABLE 3
Summary Statistics of Variables Used in the Analysis

	Mean	SD
Dependent variables		
Postretirement employment status (reemployed = 1, else = 0)	0.182	0.386
Postretirement income (*yuan* per month in 1992)	20.901	55.478
Public support income (*yuan* per month in 1992)	152.595	56.991
Independent variables		
Per capita family income (*yuan* per month in 1992)	131.668	88.488
Age	67.607	5.999
Sex (female = 1, male = 0)	0.388	0.487
Years of schooling	5.039	4.794
Lixiu status (*lixiu* = 1, *tuixiu* = 0)	0.112	0.315
Years since retirement	10.494	5.383
Age at retirement	57.119	5.348
Health (unhealthy = 1, else = 0)	0.197	0.398
Marital status (married = 1, else = 0)	0.760	0.427
Previous occupation		
Professional–technical	0.146	0.354
Cadre	0.135	0.342
Office worker	0.081	0.272
Commercial worker	0.090	0.287
Service trade worker	0.084	0.278
Agriculture–fishing	0.004	0.065
Production–transportation	0.425	0.494
Other	0.027	0.161
Military	0.008	0.086
Province		
Beijing	0.072	0.259
Tianjin	0.051	0.221
Shanghai	0.131	0.338
Heilongjiang	0.061	0.240
Shaanxi	0.048	0.213
Shanxi	0.056	0.230
Jiangsu	0.115	0.319
Zhejiang	0.223	0.416
Hubei	0.052	0.223
Sichuan	0.109	0.311
Guizhou	0.039	0.194
Guangxi	0.043	0.202

tion, with former cadres and military officers expected to have better access to the productive and redistributive resources that facilitate success in the newly emerging labor market for retirees. In the second stage, we test hypothesis 3 by estimating a model for Y_1, the sum of all sources of income that reflect the redistributive policies of the state, in order to measure the net return to *lixiu* status. Descriptive statistics of the variables used in these analyses are presented in Table 3.

By limiting our focus to public support (Y_1) and postretirement wages (Y_2), we exclude other potentially important sources of income, such as support from children. However, this restricted definition of total income (i.e., $Y_T \approx Y_1 + Y_2$) covers, on average, nearly 90% of retirees' income (see first row of Table 2) and, more importantly, allows us to build parsimonious statistical models for the determination of these two primary sources of income. Since hypotheses 1 and 2 are concerned with postretirement labor force participation and wages, and hypothesis 3 with public support, the decomposition of total income into these two main components enables direct testing of the hypotheses. This will be shown in the following two sections.

POSTRETIREMENT LABOR SUPPLY AND WAGE INCOME

In this section, we test the two hypotheses derived from the different theoretical perspectives in the market transition debate. If it is found that opportunities in the emerging labor market for retirees benefit a select group of highly educated, highly skilled elderly, the results would be consistent with the market transition hypothesis. If it is found that former party elite take greater advantage of these opportunities than their peers, there is evidence consistent with the predictions of the power conversion hypothesis. However, these two hypotheses are not necessarily competing with each other. It is entirely possible that both human capital and political capital provide advantages in emerging labor markets. A third possibility, not central to the market transition debate, is that participation in the postretirement labor market is motivated primarily by economic necessity. With high inflation outpacing pension increases in the postreform period, some retirees may find it necessary to continue working in order to supplement insufficient pension levels.[6]

Reemployment

Based on our knowledge of the substantial income advantages associated with postretirement employment (Table 2), we first tested hypotheses 1 and 2 by examining the determinants of participation in the postretirement labor market. As in previous analyses of the labor supply and earnings of married women (Gronau, 1974; Heckman, 1974), we posit that all retirees possess some unobserved reservation wage (Y_2^*, $0 \leq Y_2^* < \infty$), which is determined by factors such as the economic status of the individual, his/her desire and physical ability to work, and family characteristics. Furthermore, each individual is able to command some wage ($0 \leq Y_2$) in the labor market for retirees. This offered wage is determined in a manner similar to that of working-age individuals (i.e., based on experience, skills, education, and political capital). Retirees choose to take employment when the offered wage exceeds their reservation wage. We specify

[6] This possibility is not limited to retirees. Economic necessity (low wages and "off-duty" assignments in the state sector) has also driven many working-age Chinese to enter the free labor market.

this process of selection into reemployment as a standard probit model where the dependent variable, Z^*, measures the difference between offered wage and reservation wage ($Z^* = Y_2 - Y_2^*$). We observe the latent variable Z^* for individual i as

$$z_i = 1 \text{ (working)} \quad \text{if } Z_i^* > 0$$

$$z_i = 0 \text{ (not working)} \quad \text{if } Z_i^* \leq 0.$$

Let Z^* be a linear function of explanatory variables plus a disturbance term:

$$Z^* = \gamma_0 + \alpha \ln Y_1^* + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + \gamma_4 X_4 + \gamma_5 X_5 + \gamma_6 X_6 + \gamma_7 X_7 + \gamma_8 X_8 + \epsilon_1, \quad (1)$$

where ϵ_1 is the residual term, which for convenience is assumed to follow a standard normal distribution; Y_1^* is nonemployment income; two specifications are used: $Y_1^* = Y_1$ in specification (1) and Y_1^* = per capita household income in specification (2); X_1 is age; X_2 is sex; X_3 is age at retirement; X_4 is years of schooling; X_5 is health status; X_6 is marital status; X_7 is a vector of dummy variables representing preretirement occupation; and X_8 is a vector of dummy variables representing province of residence.

With the above specification, Eq. (1) is estimable via maximum likelihood (ML). The ML results are presented in Table 4.[7] On the whole, these results offer some evidence in support of hypothesis 1 and no evidence in support of hypothesis 2. For two measures of human capital, years of schooling and retirement age (used as a proxy for work experience), coefficients are significant and positive, but their substantive importance is rather small. The marginal effects of each variable on the probability of working for specification (2), presented in the last column, show that the average effect of a 1-year increase in each variable is to increase the probability of reemployment by 1%.[8] Preretirement employment in professional/technical occupations is associated with a probability of reemployment that is 9% higher than the reference category of production and transportation work. The higher probability of postretirement employment for retirees from these high skill occupations is consistent with an application of market transition theory to the postretirement labor market.

Our measures of elite political status, preretirement employment as a cadre or military officer, are negatively related to the likelihood of active participation in the postretirement labor market. Retired cadres are 7% less likely than retirees from production/transportation occupations to be reemployed. Retired military

[7] We have chosen to use the more conservative White heteroskedastic consistent standard error estimates in this and subsequent estimations. It should be noted, however, that in no case did this choice of more conservative standard error estimates affect inferences regarding statistical significance.

[8] Because marginal effects are individual-specific in nonlinear models, we have chosen to present the average marginal effect across all retirees (i.e.,$1/N \Sigma \hat{\gamma}_k \phi(\hat{\gamma}' x_i)$, where $\phi(\hat{\gamma}' x_i)$ is the standard normal density of the predicted value of Z^* for individual i).

TABLE 4
Probit Coefficient Estimates for Postretirement Employment Function

	Model 1		Model 2		
	γ	SE(White)	γ	SE(White)	$\frac{1}{N}\sum(\partial f/\partial x)$
Constant	3.868	0.389	4.458	0.356	
ln public support income	−0.162	0.046			
ln per capita family income			−0.289	0.037	−0.112
Age	−0.070	0.004	−0.071	0.004	−0.028
Sex (female = 1, male = 0)	−0.596	0.050	−0.519	0.049	−0.201
Retirement age	0.020	0.005	0.021	0.005	0.008
Years of schooling	0.027	0.005	0.030	0.005	0.012
Health status (unhealthy = 1, else = 0)	−0.692	0.060	−0.691	0.060	−0.268
Marital status (married = 1, else = 0)	−0.070	0.050	−0.075	0.050	−0.029
Previous occupation					
Production–transportation (excluded)					
Professional–technical	0.235	0.066	0.225	0.066	0.087
Cadre	−0.195	0.066	−0.181	0.066	−0.070
Office	0.207	0.071	0.207	0.071	0.080
Commercial	0.009	0.073	0.009	0.073	0.003
Service	0.008	0.074	0.016	0.075	0.006
Agriculture–fishing	−0.288	0.303	−0.323	0.310	−0.125
Other	−0.095	0.131	−0.114	0.131	−0.044
Military	−0.633	0.341	−0.619	0.332	−0.240
Province					
Beijing (excluded)					
Tianjin	−0.249	0.103	−0.337	0.105	−0.131
Shanghai	−0.038	0.080	−0.026	0.080	−0.010
Heilongjiang	−0.601	0.108	−0.694	0.108	−0.269
Shaanxi	−0.884	0.126	−1.020	0.128	−0.396
Shanxi	−0.312	0.098	−0.401	0.101	−0.156
Jiangsu	−0.375	0.087	−0.447	0.088	−0.173
Zhejiang	−0.392	0.076	−0.422	0.076	−0.164
Hubei	−0.313	0.105	−0.312	0.105	−0.121
Sichuan	−0.070	0.083	−0.108	0.083	−0.042
Guizhou	−0.483	0.122	−0.518	0.126	−0.201
Guangxi	−0.377	0.121	−0.379	0.122	−0.147
N	7158		7158		
Model χ^2	860.73		883.84		
DF	26		26		

Note. Dependent variable: employment status (employed = 1, not employed = 0).

officers are 24% less likely to be employed, although this estimated effect is only marginally significant ($p = .062$). These results are contrary to the expectations of hypothesis 2.

The estimated coefficients for Y_1^* also contradict the view that postretirement employment functions primarily to improve the economic well-being of either the

educationally or the politically elite elderly. Y_1^* is included as a measure of economic need, for which we use two alternative specifications: an individual's own public support income (Y_1) and an individual's per capita household income. In both specifications, we observe that the estimated coefficient for this measure of need is significantly negative, indicating that financial well-being *reduces* the probability that a retiree was working at the time of the survey. On average, those with less financial security are more likely to be engaged in postretirement employment, suggesting that economic necessity is an important motivation for reemployment. That is, postretirement labor income may serve to compensate for shortfalls in public support. The magnitudes of the effects are such that 10% increases in Y_1 and per capita household income reduce the probability of working by 2 and 3%, respectively. Although these figures appear small, they should be evaluated in light of the fact that only 18% of retirees are actually working. This leads us to suspect that a large proportion of retired elderly who reenter the labor force do so out of financial necessity.

It also appears that, controlling for personal characteristics, employment opportunities are strongly influenced by geographical factors. The figures in Table 4 show that residents of all provinces in the sample (except Shanghai and Sichuan) have significantly lower probabilities of working than do elderly residing in Beijing. It is likely that this reflects regional differences in employment opportunities for retirees. In general, it is in the market sector that retirees are reemployed. Given large regional disparities in the pace of market economy development (Xie and Hannum, 1996), we expect fewer opportunities to exist in provinces that have experienced slower market growth.

Wage Income

While postretirement employment is clearly associated with higher overall income, it is a crude measure of economic welfare that may mask substantial unobserved heterogeneity. To more rigorously test hypotheses 1 and 2, it is necessary to model the earnings distribution among reemployed retirees while statistically controlling for unobservable selectivity into reemployment. That is, we want to empirically examine the question of whether employment opportunities in the postretirement labor market are attracting those with the highest earnings potential. This is particularly important in China, where political factors such as highly politicized school curricula and centrally determined job allocation may make typical human capital variables, such as those used in this analysis, poor indicators of earnings potential in the emerging market sector. By analyzing the determinants of postretirement wages (Y_2) in a two-stage model that controls for unobserved selectivity into reemployment, we further explore unobserved heterogeneity that may underlie both reemployment and earnings potential. We first specify the basic wage function for the reemployed as

$$\ln Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_7 X_7 + \beta_8 X_8 + \epsilon_2, \qquad (2)$$

where all independent variables are defined as in Eq. (1).

The primary variables of interest in this equation are the same as those in Eq.

(1). Measures of human capital (i.e., professional/technical background, years of schooling, and experience) reflect skills that are hypothesized to command higher wages in the labor market for retirees. Former cadres and military officers are hypothesized to possess connections and information networks which may provide them better access to productive and redistributive resources in the postretirement labor market. The other variables, sex, age, and region of residence, are all expected to affect postretirement earnings in the same way that they affect earnings among the working-age population (Xie and Hannum, 1996).

Estimation of Eq. (2) is complicated by the fact that the dependent variable, $\ln Y_2$, is observed only for the 18% of retirees who have chosen reemployment. A result of this censoring process is that $\mathrm{E}[\epsilon_2 | Y_2 \text{ is observed}] = \mathrm{E}[\epsilon_2 | z^* > 0 = \epsilon_2 | \epsilon_1 > -\gamma' X] = 0$ may not hold, thus violating an assumption necessary for the estimation of unbiased parameters through ordinary least squares (OLS). If the correlation between ϵ_1 and ϵ_2 (ρ) is equal to zero, then $\mathrm{E}[\epsilon_2 | Y_2 \text{ is observed}] = 0$, and Eq. (2) is estimable via OLS. However, if $\rho \neq 0$, OLS parameter estimates will be biased.

Allowing for the potential correlation between ϵ_1 and ϵ_2, we estimate Eq. (2) using both OLS and a two-stage Heckman-type selection model (see Heckman, 1979; Maddala, 1983; Winship and Mare, 1992; Greene, 1993).[9] In this selection model, the first stage equation models the process of selection into postretirement employment based on data for the entire sample. This equation has already been estimated (Eq. 1) and reported in Table 4. In the second stage, information obtained from Eq. (1) is used to estimate Eq. (2). This approach essentially treats the potential censoring bias as an omitted variable problem, where the omitted variable captures the correlation between ϵ_1 and ϵ_2. Specifically, the omitted variable representing selection into postretirement employment is defined as

$$\lambda_i = \frac{\phi(Z_i^*)}{\Phi(Z_i^*)},$$

where the numerator and denominator are, respectively, the density function and the cumulative distribution function of the standard normal distribution evaluated at Z_i^*. The Heckman selection model accounts for selectivity by using a consistent estimator of λ_i as an additional regressor in the estimation of Eq. (2). This regressor, $\hat{\lambda}$, is calculated using the fitted values of Z_i^* (i.e., $\hat{\gamma}' x_i$) from the estimation of Eq. (1),

$$\lambda_i = \frac{\phi(\hat{\gamma}' x_i)}{\Phi(\hat{\gamma}' x_i)}.$$

Consistent estimates for β_k ($k = 0, 1, 2, 3, 4, 7, 8$) may now be obtained from OLS regression of $\ln Y_2$ on X and $\hat{\lambda}$. Equation (2) may thus be rewritten as

$$\begin{aligned} &\ln (Y_2 | z_i = 1) \\ &\quad = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 \hat{\lambda} + \epsilon_3, \end{aligned} \tag{3}$$

where $\beta_9 = \rho\sigma_2$, and σ_2 is the standard deviation of ϵ_2.

[9] The notation used to describe the model below closely follows that in Greene (1993, Chap. 22).

Since σ_2 is always positive, β_9 and ρ are of the same sign. A positive estimate of β_9 would indicate a positive correlation between the error terms of Eqs. (1) and (2) (ρ), implying that high paying jobs in this labor market are attracting retirees with high earnings potential. Thus, a positive estimate of β_9 would lend support to hypotheses 1 and 2. In contrast, a negative estimate of β_9, and thus a negative estimate of ρ, would accord with the results in Table 4, suggesting that, on average, the decision to work after retirement is motivated more by economic necessity than by opportunism. Therefore, while postretirement employment has an unambiguously disequalizing impact on the income distribution of the elderly, implications for the nature of income stratification will differ substantially depending on the sign and magnitude of β_9, or ρ.

The results of the estimation of Eq. (3) by both OLS and the Heckman two-stage model are presented in Table 5. The highly significant coefficient for $\hat{\lambda}$ indicates that the OLS parameter estimates are biased.[10] The estimated value of ρ (-0.379) indicates a strong negative relationship between participation in the postretirement labor market and wages earned therein. Higher earnings potential is associated with a lower probability of working. The marginal effects of a unit change in the explanatory variables, presented in the last column of Table 5, offer limited support for hypotheses 1 and 2.[11] Given reemployment, all three measures of human capital are associated with higher earnings. Each additional year of education and experience is associated with 2% higher wages, and former professional and technical employees receive 6% higher wages. The returns to education and experience reflect both a higher likelihood of reemployment and higher wages, and the returns to preretirement employment in highly skilled

[10] Comparing the coefficients from the Heckman model in the third column with those from the OLS estimation in the first column, we can see the direction and magnitude of the bias caused by selectivity. Because $\rho < 0$, coefficients in the OLS estimation will be biased downward (upward) for those variables with negative (positive) coefficients in the selection equation. For example, as women (sex = 1) are less likely to work, the OLS estimate of the coefficient for sex is lower than the estimate in the model controlling for selection, ($-.410$ and $-.288$, respectively).

[11] As all explanatory variables in the income function (Eq. 2) are also included in the selection function (Eq. 1), their presence in $\hat{\lambda}$ must be accounted for in calculating the marginal effect of a unit change in x_k on the dependent variable $\ln Y_2$. Taking the derivative of Eq. (3) with respect to x_{ik} gives the expression

$$\frac{\partial \mathrm{E}[y_i | z_i = 1]}{\partial x_{ik}} = \beta_k - \gamma_k \beta_9 \hat{\delta}_i,$$

where

$$\hat{\delta}_i = \hat{\lambda}_i^2 + \hat{\lambda}_i * (\hat{\gamma}' x_i).$$

The marginal effect of a change in x_k will thus differ across individuals due to the presence of the fitted values from the estimation of Eq. (1) in the expression above. Marginal effects are therefore calculated in the same manner as those for Eq. (1) (i.e., averaging individual marginal effects for all reemployed retirees).

TABLE 5
Coefficient Estimates for Two-Stage Estimation of Postretirement Wage Function

	OLS		Heckman two-stage		
	β	SE (White)	β	SE[a]	$\partial(y\|z=1)/\partial x$
Constant	5.754	0.478	5.374	0.344	
Age	−0.037	0.006	−0.024	0.005	−0.038
Sex (female = 1, male = 0)	−0.410	0.065	−0.288	0.053	−0.391
Years of schooling	0.015	0.006	0.011	0.005	0.017
Retirement age	0.017	0.008	0.014	0.006	0.018
Previous occupation					
Production–transportation (excluded)					
Professional–technical	0.053	0.073	0.011	0.066	0.056
Cadre	0.036	0.066	0.074	0.069	0.038
Office worker	0.051	0.056	0.008	0.068	0.049
Commercial worker	0.065	0.090	0.069	0.080	0.071
Service trade worker	0.055	0.106	0.048	0.082	0.052
Agriculture–fishing	0.270	0.140	0.317	0.348	0.253
Other	−0.035	0.180	−0.009	0.152	−0.032
Military	−0.134	0.333	−0.011	0.487	−0.134
Province					
Beijing (excluded)					
Tianjin	0.335	0.094	0.391	0.099	0.325
Shanghai	0.455	0.099	0.460	0.075	0.455
Heilongjiang	0.348	0.108	0.464	0.112	0.326
Shaanxi	0.119	0.120	0.295	0.148	0.092
Shanxi	0.169	0.115	0.226	0.099	0.147
Jiangsu	0.143	0.102	0.212	0.088	0.123
Zhejiang	0.034	0.092	0.105	0.074	0.021
Hubei	0.206	0.121	0.253	0.109	0.191
Sichuan	−0.093	0.095	−0.072	0.076	−0.094
Guizhou	−0.129	0.144	−0.042	0.127	−0.145
Guangxi	0.321	0.127	0.398	0.128	0.323
$\hat{\lambda}$			−0.273	0.005	
ρ			−0.379		
Variables from selection equation					
ln income					−0.057
Health status (unhealthy = 1, else = 0)					−0.137
Marital status (married = 1, else = 0)					−0.014
N	1310		7158		
R^2	0.169				
Model χ^2			1107.27		
DF			50		

Note. Missing values of $\hat{\lambda}$ generated in the estimation of the employment function were recoded as 0. The income measure used in two-stage estimation is per capita family income from model 2 of Table 4. Dependent variable: Natural logarithm of postretirement income (ln Y_2).

[a] Full-information standard errors estimated using Heckman procedure in Stata 5.0.

occupations reflect a higher probability of working only. An apparent 4% return to cadre status is based upon an insignificant coefficient in the wage equation.

Apart from regional effects, the variables with the strongest effect on earnings are sex and poor health. Controlling for other factors, women earn 39% less than men, while those in poor health earn 14% less than their healthy counterparts. The negative effect of health status on earnings is indirect, manifested through a lower probability of working, while that of sex reflects both the lower probability of women working and the lower wages received if they do. There are also large regional effects, with residence in Tianjin, Shanghai, Heilongjiang, Hubei, Shanxi, Jiangsu, and Guangxi associated with earnings at least 10% higher than in the reference category of Beijing. Recalling that the probability of postretirement employment is much higher in Beijing than in the other provinces (except Shanghai and Sichuan), these marginal effects indicate that wages are substantially higher in postretirement labor markets outside of Beijing. One possible explanation for these results is that the retiree labor market in Beijing is larger and more competitive and is thus characterized by relatively lower wages.

In summary, the results in Tables 4 and 5 suggest that the primary motivation for engaging in work after retirement is economic necessity. However, there is also some limited support in favor of hypotheses 1 and 2. We found that human capital is associated with both a greater likelihood of postretirement employment and slightly higher wages if reemployed. Elderly with more education and market skills are therefore able to substantially supplement their pension income. Former cadres, on the other hand, are significantly less likely to be reemployed, but appear to enjoy somewhat higher wages if reemployed.

PUBLIC SUPPORT INCOME

In this section, we examine the determinants of public support income (Y_1) to test the hypothesis that reform-related redistributive activities of the state, in the form of preferential pensions, are an important mechanism of income stratification among the retired elderly. We let public support income be a log-linear function of several individual-level characteristics:

$$\ln Y_1 = \varphi \ln Y_4 + \eta_1 X_1 + \eta_2 X_2 + \eta_3 X_3 + \eta_7 X_7 + \eta_8 X_8 + \eta_9 X_9 + \epsilon_4, \quad (4)$$

where Y_4 is preretirement income in 1992 *yuan*,[12] X_1 is years since retirement, and X_9 is retirement status (i.e., *lixiu* or *tuixiu*). The other variables are the same as in Eq. (1).

In Eq. (4), $\varphi + \eta_3(x_3)$ may be interpreted as the rate at which public support income replaces real preretirement income for an individual who retired at age x_3 and for whom all other independent variables are zero: a male living in Beijing who retired from a production or transportation job in 1992 with *tuixiu* status. Our

[12] Reported values of preretirement income include both cash and in-kind receipts. These values were converted to 1992 *yuan* using published values of the national Consumer Price Index in the 1993 China Statistical Yearbook (State Statistical Bureau 1993).

primary interest in this equation is in the magnitude of the coefficient of *lixiu* status (η_9) after we control for other relevant characteristics. Given the dominant role of pension income in determining Y_1 and the structurally close link between preretirement income and pension level, preretirement income (Y_4) is an important determinant of public support income.[13] Because the preretirement income of *lixiu* retirees is much higher than that of regular retirees, failure to control for preretirement income would bias the results in favor of our hypothesis of substantial positive returns to *lixiu* status.[14]

Our earlier definition of *lixiu* benefits in footnote 1 may give the impression that the pension level of retirees with *lixiu* status is determined formulaically, thus making the modeling strategy described above a somewhat tautological test of hypothesis 3. The data in SSEUC suggest otherwise. We find that the average replacement rate (i.e., pension income ÷ real preretirement income) for *tuixiu* retirees (.568) is statistically indistinguishable from that of their *lixiu* counterparts (.572).[15] One main reason for the apparent discrepancy between official policy and actual practice is that much of pension and pension-like public support (i.e., Y_1) is now provided by work units (*danwei*) rather than directly by the central government. Depending on a *danwei's* profitability and own discretion, actual pension and pension-like public support can vary greatly (Davis, 1988, 1993).

The decentralization of responsibility for pension payments is likely to assume particular importance under economic reforms as individual *danwei* are forced to tighten budgets in order to improve profitability. This close link between *danwei* profitability and pension support has resulted in reductions, delays, and cancellations of promised pension benefits for retirees from firms experiencing financial troubles under reforms (West, 1996; The World Bank, 1997). Indeed, the inability to make promised pension payments constitutes one potential source of social instability in postreform China.

In addition to preretirement income level and *lixiu* status, other variables thought to influence the level of public support are age at retirement, years since retirement, preretirement occupation, and region of residence. Age at retirement, as a proxy for years of service, is expected to be associated with a higher level of public support income. Years since retirement measure the effect of retirement cohort. More recent retirees have benefited from working during the recent economic boom just prior to retirement. Net of preretirement income, preretirement occupation remains a potentially important determinant of public support.

[13] The specification of Eq. (4) may be questioned for its failure to account for the potential endogeneity of preretirement income. However, because preretirement income (Y_4) temporally precedes postretirement public support income (Y_1), Y_4 cannot be caused by Y_1. It is possible that both Y_4 and Y_1 are jointly affected by factors not accounted for in Eq. (4). Without strong theoretical priors regarding such sources of unobserved heterogeneity, we have chosen to treat preretirement income as exogenous.

[14] The average preretirement income in 1992 *yuan* for *lixiu* retirees was 296 *yuan*, compared to only 174 *yuan* for *tuixiu* retirees.

[15] This is true whether the numerator is public support income (Y_1) or pension income.

TABLE 6
Coefficient Estimates for Public Support Income Function

	η	SE (White)
Constant	3.981	0.140
ln preretirement income	0.225	0.021
Sex (female = 1, male = 0)	−0.124	0.015
Age at retirement	−0.002	0.001
Years since retirement	−0.010	0.002
Lixiu status (*lixiu* = 1, *tuixiu* = 0)	0.258	0.015
Previous occupation		
Production–transportation (excluded)		
Professional–technical	0.153	0.019
Cadre	0.124	0.018
Office worker	0.082	0.021
Commercial worker	0.018	0.015
Service trade worker	−0.010	0.021
Agriculture–fishing	−0.092	0.065
Other	−0.056	0.035
Military	0.362	0.043
Province		
Beijing (excluded)		
Tianjin	0.071	0.018
Shanghai	0.162	0.016
Heilongjiang	−0.326	0.024
Shaanxi	−0.020	0.022
Shanxi	−0.011	0.017
Jiangsu	−0.061	0.017
Zhejiang	0.076	0.017
Hubei	−0.109	0.027
Sichuan	−0.138	0.029
Guizhou	−0.256	0.048
Guangxi	−0.138	0.031
N	7158	
R^2	0.337	

Note. Dependent variable: Natural logarithm of public support income (Y_2).

Equation (4) was estimated via OLS, and the estimated coefficients are presented in Table 6. Hypothesis 3 is supported by the strong positive association between *lixiu* status and public support income ($\eta_9 = .258$). It should be emphasized that this 29% premium associated with *lixiu* status is the return to this form of political capital net of other relevant characteristics.[16] In reality, however, *lixiu* is highly confounded with preretirement occupation, since it is given primarily to government cadres and military personnel. In our sample, for example, only 1% of the 801 *lixiu* retirees were retired from occupations associated with lower incomes than the reference category of production and transportation occupa-

[16] Note that exp(0.258) = 1.29. The same formula is used to interpret other coefficients.

tions. The large majority (64%) worked as party cadres and thus receive a 13% higher level of public support than retirees from the reference occupation. In addition, 87% of the retired military officers ($n = 54$) were *lixiu* retirees. If we consider military occupation a form of political capital, the total return to their political capital should thus be the combination of the preretirement occupation effect and the *lixiu* effect (i.e., 86% relative to non-*lixiu* retirees from production and transportation jobs). Hence, the estimated premium to *lixiu* status (29%) accrues to retirees who already enjoy a clear advantage over other retirees due to their preretirement occupations. As this form of political capital does not confer access to productive or redistributive resources, the large returns to *lixiu* status are evidence of the continuing importance of prereform hierarchical position and arbitrary redistributive policies of the party-state.

DISCUSSION AND CONCLUSION

In this paper, we have employed a rich set of data on the elderly in urban China to test three hypotheses derived from the existing literature on the differential impact of market reforms in socialist states. Two of these hypotheses are derived from the theoretical viewpoints articulated in the market transition debate: market transition theory and the power conversion thesis. These theoretical perspectives are concerned primarily with the benefits derived from access to resources in productive and redistributive processes during the transition from a state-planned economy to a market-driven economy. We have also drawn upon literature emphasizing the continuing importance of the party-state as a redistributive agent and its role in rewarding *nonproductive* political capital to specify and test a third hypothesis concerning the effect of economic reforms on income determination among the retired elderly in urban China.

This third hypothesis received the strongest support. Mostly through a preferential pension policy, *lixiu* retirees enjoy substantially higher nonwage incomes than regular retirees, controlling for other relevant factors such as age, gender, education, preretirement occupation, and region. The policy of expanding *lixiu* status to effectively ''buy'' old cadres into retirement is one striking example of the unintended consequences of reform policies on inequality.

However, at the same time that the state continues to play a major role in shaping social stratification among the elderly in urban China, our results also point to the importance of emerging labor markets. We find some limited evidence that emerging labor markets disproportionately reward human capital, as predicted by the market transition theory, and political capital, as predicted by the power conversion theory. Educated and skilled retirees benefit from a higher likelihood of participating in the postretirement labor market as well as higher wages in this labor market. Former cadres are among the least likely to work, but appear to be rewarded with higher wages when they do. Contrary to the predictions of both the market transition and power conversion theories, however, the primary effect of postretirement employment is actually to compensate for lower levels of political and human capital. Those who are not especially favored

by the state, and thus may otherwise live with meager public support, compensate for their economic disadvantages by engaging in the open labor market. This compensatory effect of emerging labor markets has important substantive implications for income stratification under market reforms that have yet to be emphasized in the literature.

The experience of elderly retirees is clearly not the same as that of prime-age workers, nor is it the same as that of the significant minority of elderly who are not covered by any retirement system. It would thus be naïve to generalize the results of this study to the entire urban population of China. However, the market orientation of the postretirement labor market and the reform-based expansion of preferential pensions make the retired elderly an ideal group for directly testing three hypothesized mechanisms of income determination in contemporary China: human capital, political capital, and the continuing redistributive activities of the state. The fact that our results support all three hypotheses, to varying degrees, reflects the complex nature of stratification mechanisms during the Chinese economic reform and suggests the necessity of taking full account of how specific political and economic institutions interact as determinants of individual outcomes in the postreform economy.

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