

Explaining Life Chances in China's Economic Transformation: A Life Course Approach

Xueguang Zhou

Department of Sociology, Duke University

and

Phyllis Moen

Department of Sociology, Cornell University

Published online September 6, 2001

In this study, we develop a life course argument to link institutional change and individuals' life chances. We argue that timing (in terms of a particular cohort's stage in the life course) plays a critical role in moderating potential impacts of large-scale social changes on individual life chances because (1) life stage induces distinctive cohort responses to opportunities and risks in socioeconomic transformations, and (2) life stage (and, hence, cohort) is also closely correlated with one's position in the existing social structure. We situate our study in the context of the recent socioeconomic changes in the People's Republic of China, 1980–1994. We test our theoretical arguments and hypotheses in an empirical study of career pathways, using a national sample of urban workers drawn from 20 Chinese cities. Our findings show distinctive cohort variations in (1) patterns of job shifts, indicating cohort-based responses to opportunities and risks, and (2) the determinants of economic resources (personal income), reflecting variations in allocative mechanisms in shaping career pathways across cohorts.

© 2001 Academic Press

Key Words: social change; life course; cohort; social stratification; China; careers.

Large-scale societal transformations inevitably have fundamental impacts on individuals' life chances. These impacts are often caused by drastic changes in

This research is supported by a Spencer Fellowship, grants from the National Science Foundation (SES-9212936 and SBR-9413540) as well as from the Alfred P. Sloan Foundation (Sloan FDN 96-6-9, 99-6-3). We thank Liren Hou for his able research assistance. We thank the Departments of Sociology at Fudan University and the People's University, as well as the Institute of Sociology at Tianjin Academy of Social Sciences and, in particular, Weida Fan, Qiang Li, Yunkang Pan, and Xizhe Peng for their assistance in data collection.

Address correspondence and reprint requests to Xueguang Zhou, Department of Sociology, Duke University, Box 90088, Durham, NC 27708-0088.

the processes and mechanisms of resource allocation and social stratification, including the reallocation of opportunities and risks among social groups. What is less apparent, however, is that these impacts are often shaped by important contextual considerations that are not an integral part of sociologists' traditional theoretical explanations. In this paper, we argue and demonstrate that life course timing is such a contextual construct and that the life course location of particular cohorts at the time of major socioeconomic upheavals plays a critical role in mediating the impacts of opportunities and risks. Thus a life course framing provides an important lens through which we can understand and explain the links between institutional change and individual life chances.

We situate our study in the context of the recent economic transformation in the People's Republic in China. Since the 1980s, large-scale institutional changes have profoundly altered the landscape of China's state socialist society and generated corresponding microlevel changes in the life chances of individuals of all walks of life. Many studies have documented the impacts of economic transformations on China's system of social stratification (Bian and Logan, 1996; Nee, 1989, 1991, 1996; Walder, 1995; Xie and Hannum, 1996; Zhou, 2000; Zhou et al., 1996, 1997). These studies have primarily focused on the key mechanisms of social stratification identified in the literature, such as human and political capital and occupational status, to assess the impacts of institutional changes. Little attention has been given to the contingent processes that shape the links between the macroinstitutional changes and individual life chances, including an understanding of the timing of social upheavals in individuals' biographies. For example, in our previous work (Zhou et al., 1997), we analyzed job shift patterns across distinctive historical periods to assess institutional changes and found noticeable changes as well as continuities in China's reform era. But our analytical model in that study did not take into consideration factors that are related to workers' stage in the life course. Indeed, to simplify the analysis in that earlier study, we assumed that the effects of the covariates in any period would be uniform for all individuals in the sample population, regardless of their life course stage. Most recent studies of the impacts of institutional changes in transitions from state socialism published in major sociological journals did not incorporate life course location. Research designs in these studies tend to focus on intergroup or interindividual differences and do not address a basic and obvious question: In assessing the relationship between changing life chances and large-scale social changes, do individuals' stages in the life course matter?

If the answer is yes, then we need to develop theoretical arguments and adopt appropriate research designs to explicitly address these issues (see also Elder, 1974). In this study we develop a life course argument for assessing the impacts on life chances of the large-scale social changes in China. Our premise is that drastic institutional changes do not affect people's lives in terms of their career pathways and resources in the same way; rather, life course factors shape the possibilities and payoffs for workers in various cohorts. We argue that the economic transformations in China present differential opportunities and risks

for individuals in different cohorts precisely because they experience these transformations at different stages of their life course. Thus, the impacts of the economic reform play out through individual life biographies, generating distinctive patterns of life chances for different cohorts of individuals. In this paper, we first develop theoretical arguments as to how life course factors affect life chances in the form of career pathways and resources among different cohorts of labor force participants in urban China. Second, we empirically examine the role of life course factors in job shift patterns and the distribution of economic benefits in an era of economic transformations (1980–1994).

INSTITUTIONAL CHANGES AND LIFE COURSE IMPLICATIONS

Social Changes, Life Course, and Life Chances

The starting point of our study is the recognition that life course factors play a critical role in moderating the impacts of social changes on individual life chances; that is, dramatic institutional changes have differential impacts on individuals at different life stages (e.g., Elder 1974, 1995; Giele and Elder, 1998). “Life course” refers to the biographical patterning of events, resources, and roles over the life span (e.g., Giele and Elder, 1998; Hen and Moen, 2000; Kohli, 1986; Mayer and Tuma, 1990; Settersten and Mayer, 1997). In contemporary societies, the life course itself has been increasingly institutionalized by the state (Mayer and Müller, 1986; Mayer and Schöpflin, 1989). Major social and economic upheavals, often induced by shifting state policies, can serve to restructure institutional resources, constraints, and options associated with different life stages. Thus the timing of historical events in terms of life stage (or age) is critical in producing cohort differences in both exposure and response to social change, given cohort members’ distinctive biographies as well as their embeddedness in the current social structure. Cohort (based on age at birth or age at the time of a major role shift such as ending school, marrying, or entering the workforce) captures two related temporal dimensions: historical experience and biographical life stage (in addition to biological age). Looking at particular transitions (such as job shift shaping career paths) requires consideration of both institutional options and constraints and workers’ strategies of action (Chudacoff, 1998; Heinz, 1996; Kohli, 1986; Mayer and Mueller, 1986; Riley, 1987; Riley and Riley, 1994; Moen, 1994).

An underlying theme in life course analysis is the notion of cumulative advantage (or disadvantage), with individuals privileged earlier in life experiencing subsequent benefits from their social location (e.g., Elder, 1995; Merton, 1968). As Elder (1974) showed in his classic study of the Great Depression, impacts of dramatic social upheavals may result in both cross-cohort and within-cohort variations. We believe that both variations are present in the Chinese case. People in different cohorts occupy different positions in career development and in the stratification structure, and, consequently, differ in their vulnerability to social dislocations accompanied by large-scale social changes. Hence, individ-

uals in different cohorts experience unique impacts of historical transformations at least in part because of their advantaged (or disadvantaged) position in the social structure. Thus life stage serves as a marker of both (1) distinctive age-graded risks and options and (2) distinctive, cohort-related social locations in the opportunity structure.

These ideas are especially useful for our understanding of variations in life chances in light of China's economic transformation. In times of social upheaval, two broad historical and organizational processes affect individual life chances. The first is the *changing opportunity structure*. Along with large-scale socioeconomic transformations, old institutional arrangements are undermined and new institutional arrangements emerge. These changes alter existing opportunity structures for individuals in different locations of the social structure. The second process *reflects the impacts of societal transformations on changing career pathways and mechanisms of attainment*. In the Chinese context, Nee (1989, 1991, 1996) posits that the expansion of markets provides new opportunities outside the redistributive economy and alters the mechanisms of social stratification in favor of producers over redistributors. However, these changes appear to affect different social groups in different ways. For instance, recent studies have also shown the persistence of political power in the emerging stratification order (Bian and Logan, 1996; Xie and Hannum, 1996; Zhou, 2000; Zhou et al., 1997). That is, those who hold positional power in the state bureaucracy benefit from both their political authority and market opportunities, reflecting the persistence of cumulative advantage of those already advantaged in the existing system of stratification. How can we explain these patterns and anomalies?

We believe that a life course perspective can provide insight into these issues. To illustrate our main theoretical arguments, we consider the interrelationships among institutional changes, individual life chances, and the moderating role of the life course in China's reform processes. Although our discussion is situated in the Chinese context, these ideas are broad and can be easily extended to other contexts.

First, to highlight the critical role of the life course, we need to make a distinction between the emergence of new opportunities and access to these opportunities. Social changes are those processes that alter old opportunity structures and create new opportunities. However, it is important to recognize that access to these new opportunities is not equally distributed among members of a society. We argue that access to new opportunities is moderated in important ways by one's location in the life course. In this respect, it is useful to note that social changes produce both opportunities and risks for the individuals experiencing them. Consider the emergence of market opportunities in China's economic transformation. Job opportunities in foreign firms and other nonstate firms (e.g., private firms) have indeed substantially altered previous opportunity structures under state socialism. But, these new types of jobs present both opportunities and risks. Private firms, for instance, tend to offer better monetary payoffs based on their competitive advantages in the marketplace relative to those firms

in the state sector. But they are also more exposed to the higher risks associated with market fluctuations and business cycles. More important, persistent state intervention into the marketplace means that fluctuations in state policies make those relying on market opportunities especially vulnerable.

In this light, we expect to find noticeable cohort-based differences in response to these opportunities. Kahneman et al. (1982) have shown that individual judgments under uncertainty reflect heuristics and bias rather than rational calculation. Given the uncertainty of market opportunities and of policy stability, individuals' decisions related to career progression depend heavily on their interpretations of their past experiences. Thus one's own biography provides the vantage point from which to assess the potential risks and benefits attached to new options. Those who have experienced extreme fluctuations in the past tend to weigh heavily the potential costs of (future) adverse state policies and adopt a risk-averse attitude. This consideration is especially relevant given the fluctuation and turmoil in China's political history (Zhou et al., 1996). Older individuals, for example, may be especially risk averse in response to new types of jobs outside of the state sector and see them more as risks than opportunities.

Second, the effects of allocative mechanisms are also closely associated with, and moderated by, life course factors. Because of evolving opportunity structures over time, members of different cohorts are allocated into different locations in the social structure. This is especially true in a rapidly changing society like China. For example, different cohorts of individuals have been entrenched into different types of work organizations in the organizational hierarchies in China. Most of those who entered the labor force before 1966 worked in state and collective sectors, as a result of state push toward nationalization and collectivization in the 1950s. In contrast, a large proportion of "the children of the Cultural Revolution"—those who entered the work force between 1966 and 1979—were forced to work in rural areas (Zhou and Hou, 1999). Even when they returned to urban environments in the 1980s, the urban labor market structure was drastically changed; as a result, a large number of this cohort began their careers in the nonstate sector. Finally, those who entered the work force in the reform era (since 1980) faced a very different range of career alternatives, especially given a contracting state sector and an expanding nonstate sector.

Thus, different social institutions offer competing incentives for different cohorts in the processes of China's economic transformation. For instance, in the hierarchy of work organizations in China, state-owned firms, until quite recently, offered better job security and extensive welfare programs compared to collectives and private firms (Bian, 1994; Walder, 1986, 1992; Zhou et al., 1997). That is, the earliest cohorts who launched their career paths prior to 1966 and typically were concentrated in state firms have benefited disproportionately from the redistributive institutions. At the same time, they were especially vulnerable in the private-sector marketplace, given their lack of education and training compared with younger cohorts. As a result, changes in the allocative mechanisms between redistribution and markets have had distinctive impacts on individuals in

different locations in the social structure, which in turn is closely associated with one's stage in the life course at the time of these changes and, hence, one's cohort.

Hypotheses

We now consider the empirical implications of these ideas for understanding the role of life course timing on the emerging patterns of social stratification in urban China in the reform era of the 1980s and 1990s. Our discussion focuses on two sets of empirical patterns. First, to capture distinctive career pathways, we focus on patterns of job shifts to assess cohort variations in response to changes in the opportunity structure and to shed light on life course-based redistribution of opportunities and risks. Specifically, we examine the determinants of job shifts across different types of work organizations in the era of economic transformation (1980–1994). Second, we examine cohort variations in economic benefits (e.g., personal income). Our purpose is to examine cohort-based differences in access to different sources of economic benefits and how competing allocative mechanisms affect cohorts in different ways in the time of major social changes.

Job Shift Patterns: Cohort Difference in Response to Opportunities

It is clear that recent economic transformations are having profound impacts on the lives of urban residents in China. With the rise of the private sector, including the presence of joint ventures and foreign firms, job opportunities have greatly diversified beyond the traditional state sector. Consistent with these changes in opportunity structures has been corresponding shifts in the distribution of resources such as income. For instance, the decline of the redistributive state has limited access to, and economic benefits associated with, jobs in the state sector. By contrast, job opportunities in emerging sectors tend to offer better economic payoffs. However, these transformations have also produced greater risks in terms of job and economic security; welfare and other benefits associated with prior social and economic institutions can no longer be taken for granted. Although a job in the private sector may offer higher wages, the lack of job security, fringe benefits, housing, health care, and other welfare benefits may make it less attractive to an employee holding a secure job in the state sector.

The coexistence of competing institutions and incentives has different implications for different cohorts of workers. Older cohorts tend to be well placed in existing redistributive institutions, whereas younger cohorts enjoy fewer benefits even when they are located in the state sector, because of their brief time in the labor force and the recent reform of the welfare system. By contrast, market-induced opportunities tend to favor those in the earlier stages of their life course for several reasons. First, younger workers tend to have better educational preparation. This is especially true in China, given that access to higher education and vocational training expanded greatly since the beginning of the economic

transformation (e.g., Zhou et al., 1998). Second, younger cohorts are likely to have less biographical experience of loss; thus they are more likely to be risk taking and mobile in response to opportunities. This line of argument points to a general proposition: for older cohorts, more risks (either perceived or real) are attached to emerging economic opportunities; consequently it is less likely that members of earlier cohorts will take advantage of these opportunities. Therefore, we expect to find significant cross-cohort differences in responses to emerging opportunities and risks:

Hypothesis 1. In this era of market reform in China, there is a declining rate of job shifts across cohorts, net of the effects of other factors. In particular, younger cohorts tend to have higher rates of job shifts, especially from the state sector to the nonstate sector, which is closer to market opportunities.

We also expect significant variations in the effects of allocative mechanisms across cohorts. Individual responses to opportunities are moderated by their social locations; social location, in turn, is shaped by both historical experience and life stage, both of which are reflected in cohort membership. For instance, those with positional power or who work in high-status organizations tend to benefit more from their current jobs than those in peripheral positions or organizations. Given that members of earlier cohorts are more entrenched (compared with later cohorts) into the redistributive system of state socialism, we expect significant cohort differences in the effects of these allocative mechanisms. That is, the behaviors of older workers (located in earlier cohorts) are more likely to be governed by the allocative mechanisms of the redistributive institutions of state socialism; on the other hand, younger cohorts may exploit market-oriented advantages (e.g., education) and be less bounded by their locations in the redistributive economy. Behaviorally, then, the younger cohorts would be more sensitive to market-related mechanisms of allocation. Thus, we expect to find that

Hypothesis 2. In the era of market reform in China, those with positional power (e.g., cadre) and those located in work organizations closer to the redistributive authority (e.g., governmental agencies) tend to have lower rates of job shifts to the nonstate sector. This effect is significantly stronger for workers in older cohorts, compared to those in younger cohorts. In contrast, younger cohorts tend to be more sensitive to market mechanisms such as returns to formal education.

Determinants of Personal Income: Cohort Variations in Sources of Economic Resources

If social stratification processes are moderated by life course factors, we should also expect to find significant variations in the association between stage of the life course and sources of economic resources. That is, patterns of the distribution of economic resources provide information on the consequences of

cohort differences in response to opportunities and risks. For this purpose, we examine cohort variations in the determinants of personal income.

Given our recognition that large-scale economic transformations in China involve competing institutions and incentives for individuals and that there are significant variations among cohorts in their response to these opportunities and risks; logically we expect that patterns of determinants of economic resources also reveal significant cross-cohort variations. Two considerations motivate our hypotheses. First, as previously noted, there is a close link between cohort membership and the extent to which workers are entrenched into the state socialist redistributive system. Each cohort entered the work force in distinctive historical contexts. Large-scale nation building and nationalization in the evolution of state socialism in China point to the fact that the older cohorts were more likely to be incorporated into the existing institutional structure of redistribution. By contrast, significant institutional changes in the past two decades (and dramatic state policy shifts during the Cultural Revolution) produced social dislocations and much more heterogeneous organizational locations for the younger cohorts (Zhou et al., 1996, 1997).

Second, seniority was used as a main principle in the redistribution of economic benefits and promotion in prereform China (Zhou and Suhomlinova, 2000). As a result, older cohorts, through their seniority in work organizations, tend to enjoy more redistributive benefits than younger cohorts. Thus, the benefits of positional power associated with the redistributive system should be especially salient for older cohorts, but less so for younger workers. Similarly, benefits from one's location in certain types of work organizations should also be significantly different across cohorts. These structural characteristics are coupled with the fact that individuals in the youngest cohort who are in less desirable jobs in the state sector may have a stronger incentive and more opportunities to seek alternative jobs in the nonstate sector, which leads to more equalizing of benefits within the younger cohort. These considerations suggest that

Hypothesis 3. The youngest cohort benefits more from returns to education than do older cohorts in the era of economic reform.

Hypothesis 4. Positional power and employment in the state sector tend to benefit older cohorts more than younger cohorts, whereas younger cohorts are more likely to benefit from employment in occupations and organizations that are closer to markets (e.g., private or hybrid firms).

DATA

The empirical analyses are based on life histories of a sample of 5,000 residents and their spouses drawn from 20 cities in China through interviews conducted in 1993 and 1994. We collected retrospective information on respondents' locations in types of work organizations, occupations, and residences, as well as their shifting education and political status (party membership) over time.

We selected six provinces (Hebei, Heilongjiang, Gansu, Guangdong, Jiangsu,

and Sichuan), each of which represents a conventional geographic region in China. In each province, we chose the capital city to represent large cities (population over 1 million). We also randomly selected a medium-sized city (population between 200,000 and 1 million) and a small city (population under 200,000) based on the 1990 Yearbook of Chinese Cities (State Statistical Bureau, 1990a). The sample size in each city was proportional to the population in a city of that size in that province. We also included Beijing, China's capital, and Shanghai, its largest industrial city. These 20 cities cover a variety of geographic locations and different types of urban economies.

We chose a stratified random sample of each city's residents. In China, a metropolitan city is composed of residential districts. Each district is composed of residential streets, and each residential street is organized into residential blocks (*juweihui*). We selected residential blocks in each city using a systematic sampling scheme. That is, we selected every n th residential block based on the official residential statistics. We used an analogous sampling scheme to select households in each residential block. Finally, we randomly selected a member of the household between ages 25 and 65 to be interviewed. If the respondent was married, we also interviewed his/her spouse using an identical questionnaire.

The data yield an urban labor force sample whose composition varies over time. Individuals enter our analyses when they enter the labor force and leave the analyses when they exit from the labor force (e.g., retirees). We also exclude the income records for those who were in the rural labor force in a particular year because incomes in rural and urban areas are not comparable.

RESEARCH DESIGN

Defining Cohorts

In this study, we delineate three historical cohorts to capture respondents' location in the life course at a particular point in time. By *historical cohort* we refer to those individuals who entered the labor force in the same historical period, rather than those of the same age. Because of the political fluctuations in China, individuals entered the labor force at significantly different ages. For instance, the closure of colleges during the Cultural Revolution forced millions of high school graduates into the labor force. Periodic changes in educational curriculums led to variations in age of entry into the workforce. More important, historical cohorts based on workforce entry capture each cohort's distinctive experiences of the macropolitical and economic changes in China over the past 50 years.

For our research purposes we specify three cohorts: (1) those who entered the labor force between 1949 and 1965; (2) those who entered the labor force during the Cultural Revolution (1966–1979); and (3) those who entered the labor force during the era of economic transformation (1980–1994). We also consider within

cohort variations in the timing of labor force entry by incorporating age into our analysis.

Dependent Variables

To examine life course effects we focus on two indicators of life chances conceivably affected by the changing economic climate and opportunity structure in China:

(1) Career pathway: We compare cohort differences in their entries into various types of work organizations as well as subsequent patterns of job shifts across different types of work organizations in the reform era (1980–1990) to assess their differences in response to opportunities and risks.

(2) Personal income: We use the logarithm of total personal income (Chinese yuan/month) as an outcome variable. We collected information on respondents' basic income, bonus, and income from other sources. Thus, total income reflects both rewards from the current job and other sources based on one's skill or position. Income is inflation-adjusted using provincial-level information (State Statistical Bureau, 1990b). We select 1993 as the focus of our analysis because it is the most recent year in which we have complete information for all respondents in our sample.

Independent Variables

Gender. We use a dummy variable (Female = 1) to examine gender-based variations in the redistribution of economic rewards.

Age and age². We use the first-and-second order effects of age to measure the effect of work experience or seniority, as part of human capital. Age also captures the effects of delayed or rushed timing in labor force entry as a result of state policies.

Education. Formal education is a conventional measure of human capital. We distinguish the following educational levels: (1) junior high education or below (the reference category); (2) senior high (including *Zhongzhuan*); and (3) college (including *Dazhuan*).

Occupation. Occupational groups are closely related to the positional power of social groups. We distinguish high-rank cadre, low-rank cadre, high-rank professional, low-rank professional, office worker, service worker, skilled worker, and unskilled worker (the reference category). The Chinese bureaucratic hierarchy has mainly four levels: *bu* (ministry), *ju* (department), *chu* (division), and *ke* (section). We classify those holding ranks at or above *chu* level as high-rank cadres and those at or below *ke* level as low-rank cadres. In the Chinese professional system there are senior engineer, engineer, assistant engineer, and technician levels (or equivalent levels in other professional occupations). We classify those at or above engineer level as high-rank professionals and those at or below assistant engineer level as low-rank professionals. Because of the rare

events of job shifts, for the analysis of job shift patterns, we use broadly defined categories of cadres and professionals and a residual category of all other types of workers (the reference category).

Work organization. We distinguish the following types of work organizations:

1. Government agencies include ministries, commissions, bureaus, and offices at various levels of the Communist party, central and local governments.

2. Public organizations, in Chinese terminology, are nonprofit organizations in the public domain, such as educational and research institutions, and organizations in the medical, publishing, broadcasting, and entertainment sectors. Although they are not the administrative organs of the state, most of these organizations are affiliated with state or local governments through financial and institutional linkages.

3. State-owned firms. Included in this category are those work organizations in manufacturing, processing, and other production and service sectors that are directly owned by the state but which may be administered by central or local governments.

4. Collective firms. Organizations in this category are not directly under the administration or financial support of the planning economy. Often they are sponsored by local governments (such as district-county government or residential offices). This type of organization has the least redistributive benefits but is closer to market transactions and is less regulated by the government than are state firms.

5. Private-hybrid firms. This includes private entrepreneurs, firms with mixed property rights, such as partly collective-owned and partly private-owned, or joint ventures between state-owned firms and foreign firms.

For the analysis of income, we further distinguish two categories within state-owned firms: central government-owned and local government-owned firms. The former includes those firms that belong to the central or provincial government. The latter includes those that are owned or managed by local governments (city or districts within the city). These firms benefit from redistribution associated with the state sector but to a lesser extent than do central government-owned firms. We also distinguish self-employed from hybrid firms.

Control variables. For job shift patterns, we include measures of percentage of industrial output in collective firms and percentage of industrial output by hybrid firms to control for structural changes over time. We include a set of dummy variables to indicate respondents' residential location (city) to control for city-specific variations in the analysis of income.

Models and Methods

For the analysis of job shift patterns, we use the logit model for discrete-time event history analysis (Allison, 1995). An event history model allows one to incorporate time-varying covariates to account for the rate of event occurrence (Tuma and Hannan, 1984). The model takes the form

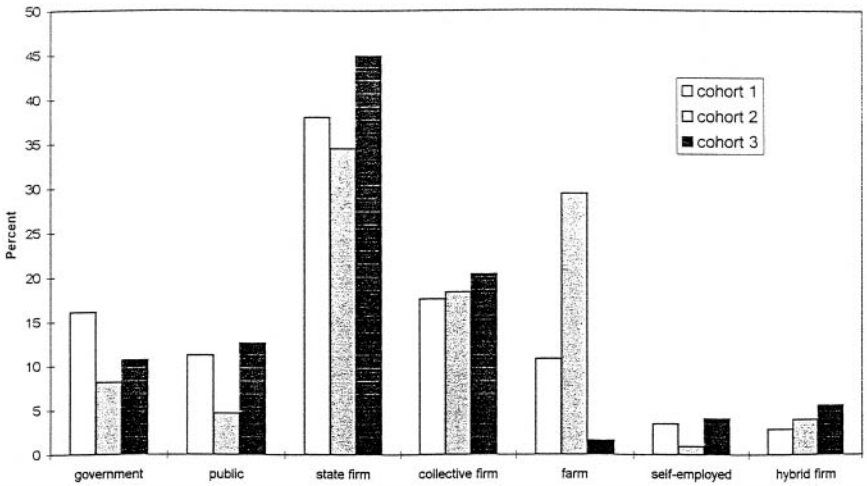


FIG. 1. Distribution of first-job destinations, by cohort. Cohorts based on year of entry into the labor force (Cohort 1, 1949–1965; Cohort 2, 1966–1979; Cohort 3, 1980–1994).

$$\log(P_{it}/(1 - P_{it})) = \mathbf{x}(t)' \beta,$$

where P refers to the conditional probability that individual i experiences an event at time t , given that an event has not already occurred to that individual, \mathbf{x} the set of time-varying covariates, and β the estimates of the corresponding parameters.

For the analysis of income determinants, we use the conventional OLS estimation of a multivariate linear regression model that includes individual attributes, education, occupation, type of work organization, and residential location as covariates.

RESULTS

The Historical Context: Cohort Attributes and Evolving Opportunity Structures

To understand the impacts of these changes for the life chances of individuals at different stages of the life course, we first take a close look at the distinctive historical contexts in which different cohorts were situated when they entered the labor force.

Our thesis is that, given fundamental changes in both economic and opportunity structures since the 1980s, cohorts who entered the work force in different historical periods experienced very different opportunity structures. Indeed, as Fig. 1 shows, there are distinctive patterns of first-job destinations across cohorts, reflecting variations in opportunity structures across historical periods. The earliest cohort had the highest proportion entering government agencies. It also had noticeable advantages over the second cohort in entering public organiza-

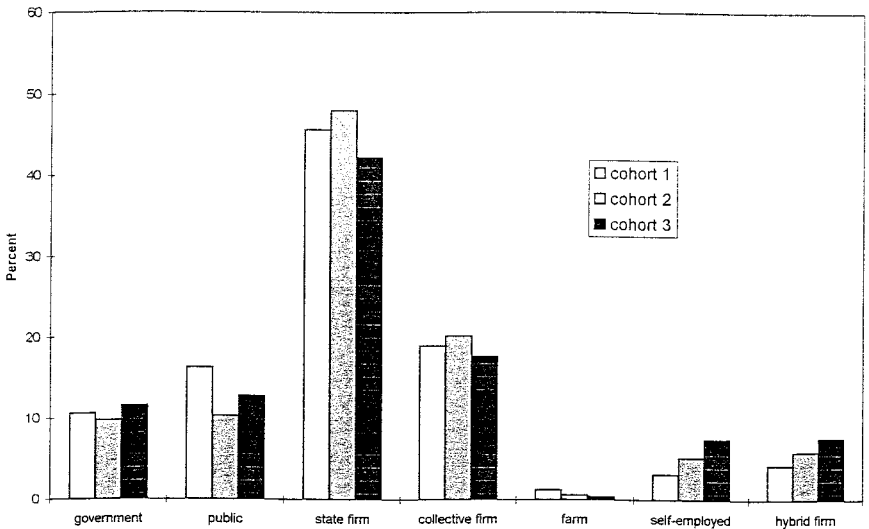


FIG. 2. Distribution across type of work organizations in 1993, by cohort. Cohorts based on year of entry into the labor force (Cohort 1, 1949–1965; Cohort 2, 1966–1979; Cohort 3, 1980–1994).

tions and state firms. However, Fig. 1 also suggests that changes in the opportunity structure did not always evolve in a linear fashion. The youngest cohort has had the largest proportion entering public organizations and state firms. By contrast, the second cohort—who entered the labor force during the Cultural Revolution—had dramatically different job opportunities. They had the smallest proportion entering the state sector and a large proportion sent to rural areas.

But the advantages or disadvantages associated with first-job entry may or may not be perpetuated over the subsequent life course. By 1993 (the most recent year in which we have complete information for all respondents in our sample) there remained noticeable differences as well as similarities among the three cohorts, as shown in Fig. 2. While the proportion of those in government jobs continued to be similar for all three cohorts, a larger proportion of the earliest cohort was most apt to still be in public organizations (compared with the other two cohorts). Overall, the earliest cohort retained the largest proportion in the state sector (government and public and state-owned firms). Note, however, that the second cohort had a lower proportion in government and public organizations than did those in the third cohort. This was mainly due to the social dislocations of the Cultural Revolution when a large number of urban youth were sent to rural areas, most of them returning to urban areas in the late 1970s (Davis, 1992; Zhou and Hou, 1999). The distribution of those in self-employed and hybrid firms reflects cohort effects. The youngest (third) cohort has the largest proportion in these two categories, whereas the first cohort has the lowest. Clearly, workers in the most recent cohort have especially benefited from the emerging market opportunities

TABLE 1
Descriptive Statistics of Three Cohorts^a of Workers in Urban China, 1993

	Cohort 1 (The 1949–1965 cohort)	Cohort 2 (The 1966–1979 cohort)	Cohort 3 (The 1980–1994 cohort)
Female	0.33	0.44	0.44
Age	52.5	39.5	28.7
Education			
Elementary	0.24	0.09	0.03
Junior high	0.28	0.40	0.24
Senior high	0.25	0.36	0.46
College	0.18	0.14	0.26
Occupation			
High-rank cadre	0.08	0.02	0.005
Low-rank cadre	0.18	0.13	0.08
High-rank professional	0.17	0.06	0.04
Low-rank professional	0.10	0.13	0.20
Office worker	0.05	0.06	0.09
Service worker	0.09	0.13	0.15
Skilled worker	0.21	0.28	0.26
Unskilled worker	0.10	0.16	0.13
Private entrepreneur	0.02	0.03	0.05
Type of work organization			
Government	0.11	0.09	0.11
Public	0.17	0.10	0.13
Central gov't-owned firm	0.28	0.26	0.24
Local gov't-owned firm	0.18	0.23	0.20
Collective firm	0.21	0.23	0.21
Private/hybrid firm	0.05	0.08	0.12
Total <i>N</i>	848	1742	1076

^a Cohorts based on year of entry into the labor force.

in China. Note that, for members of the third cohort, it is likely that very little time elapsed between first and current jobs due to their relative short career duration.

Overall, these patterns are consistent with our argument that the earliest cohort remains more entrenched in the institutions of state socialist redistribution (the state sector), whereas the most recent cohort is more likely to be located outside the state sector. However, this proposition needs to be qualified: the cross-cohort variations do not follow a linear trend. In particular, the organizational locations of the second cohort appear to be an anomaly. These variations reflect drastic state policy shifts in the past that produced severe disruptions in the normative life course, especially for the second cohort.

Table 1 compares the three cohorts in terms of other characteristics. There is more than a 10-year difference among adjacent cohorts. Some differences across cohorts are due to sampling variations. For instance, the smaller proportion of

women in the earlier (1949–65) cohort reflects the fact that female workers retire early; hence they are no longer in our sample. Other variations, however, reflect substantive differences in the opportunity structures experienced by members of the three cohorts. For example, note the significant variations in formal educational attainment across the three cohorts. Nearly a quarter of the employees in the earliest cohort have at most an elementary education, compared to only about 3% of the latest cohort, reflecting the dramatically increasing educational opportunities over time (Zhou et al., 1998). Similarly, the proportion of those with a college education varies significantly across cohorts. By 1993, 18% of individuals in the first cohort had a college degree, whereas 26% of those in the third cohort had a college degree. In contrast, only 14% of those in the second cohort had a college education. This anomaly can be explained by the closing of colleges during the Cultural Revolution period; this severely limited access to higher education, especially for the second cohort who entered the labor force during this period.¹ There is also evidence that earlier cohorts were in better social positions, given their career progression, than the younger cohort. For example, in 1993, a much larger proportion of the first cohort was in high-rank cadre and professional positions than of the third cohort.

Given these observed cohort-specific differences in both human capital and location in the occupational and organizational structures, we now examine cohort variations in career patterns (with respect to job shifts) and in resources (income).

Response to Opportunities and Risks: Cohort-Variations in Job Shift Patterns

One of the most significant structural changes associated with China's economic transformation is the rise and expansion of the nonstate sector. Because economic benefits have historically been tied to one's work organization, patterns of job shifts provide important information about individuals' changing career opportunities and risks. For instance, Zhou et al. (1997) found that, despite large-scale reform, job shift patterns still reflected the importance of the state sector, as evidenced by relatively higher rates of shifting to the state sector relative to the nonstate sector. What is not clear from their evidence is (1) whether there are significant variations across cohorts in their response to job opportunities across different types of work organizations, and (2) how these observed patterns reflect the moderating role of life course factors in social stratification processes.

To address these issues, we estimate the hazard rates of job shifts, by the three cohorts defined before, toward a distinctive set of work organization destinations

¹ Note that the percentage of college education in Table 1 is higher than national average. This is partly because a larger proportion of our sample is drawn from large cities, where average educational levels are high. Another factor is that we included *dazhuan* (community college) into the college category.

between 1980 and 1994.² We included only those job shift events that took place across different types of work organizations. For instance, in the analysis of job shifts to government agencies, only those events that originate from nongovernmental organizations (e.g., public organizations, state firms, collective firms, and nonstate firms) are included. We also take into consideration their previous organizational location, which is captured by the set of work organization variables in the model. By doing so, we can assess directions of career patterns among different types of work organizations. Table 2 reports the parameter estimates in this set of analyses.

We have hypothesized (H1) that the moderating effects of life course factors should be reflected in differential rates of job shifts across cohorts and that there should be a decreasing rate of job shifts across cohorts. We test this hypothesis by examining the magnitudes of intercept coefficients associated with the three cohorts. To allow a more meaningful interpretation of these intercepts, we centered the age variable at the mean age of each cohort. Thus, the intercept for the first cohort refers to the overall log-rate of job shift for a male respondent with the average age of that cohort, a junior high or lower education, working as an ordinary worker in a collective firm and who entered the labor force before 1966. Similarly, the intercept for the second cohort refers to the log-rate of a worker with the same attributes except that he or she had the mean age of his or her cohort and entered the labor force between 1966 and 1979. The intercept for the third cohort refers to the log-rate of a respondent of the same attributes but with the mean age of that cohort and who entered the workforce after 1980.

In Table 2, the negative signs for all these intercepts reflect the fact that job shifts are rare events among those already in the workforce. Looking at job shifts toward all organizational destinations, there is a decreasing rate of job shift across the cohorts' net of the effects of other covariates in the model, with the third cohort having the highest and the first cohort the lowest rates. For instance, the overall rate of shifts to government destination is 0.005 ($\exp[-5.224] = .005$) for the third cohort, but it is .0001 and .0006 for the first and second cohorts, respectively. This is not surprising, given the cost of such shifts, the absence of better opportunities, and the general process of duration dependence in career paths. These cohort differences in rates of job shifts may reflect

² For this set of analyses, we included in our sample both spouses who were in the labor force during this period. This was because job shift events took place infrequently and it was not feasible to estimate patterns of job shift to some types of work organizations when only respondents were included. The use of both spouses in the analysis raises the issue of statistical independence of the cases in the sample. One might argue that spouses are interrelated in their job shift patterns. In a separate study, we compared spouses' job shift patterns and found that the effects of individual attributes are not affected significantly by the characteristics of the other spouse. We suspect that this is because both couples in urban China participate in the labor force throughout their life course, and their life events evolve in a parallel, rather than in a dependent, manner. The findings reported in the text are similar to those based on the analysis of respondents only. However, several job destinations were not estimateable due to a small number of cases when only respondents were included.

TABLE 2
Determinants of Job Shifts across Type of Organizations, 1980–94, by Cohorts^a

	Government			Public organization			State firm		
	The 1949–65 cohort	The 1966–79 cohort	The 1980–94 cohort	The 1949–65 cohort	The 1966–79 cohort	The 1980–94 cohort	The 1949–65 cohort	The 1966–79 cohort	The 1980–94 cohort
Intercept	-9.184***	-7.471***	-5.224***	-9.197**	-6.830***	-6.700***	-7.335***	-5.504***	-5.092***
Female	-0.531	-0.319*	-0.447*	-0.276	-0.303	-0.127	-0.561**	-0.424***	0.359**
Age	-0.052***	-0.081**	-0.049**	-0.042†	-0.023***	-0.076**	-0.057***	-0.042***	-0.010***
Education									
Senior high	0.618	0.568**	0.611**	2.203***	1.037**	1.773***	0.315	0.318**	0.704***
College	1.125***	2.557***	2.170***	2.978***	2.325***	3.784***	-0.097	0.468**	1.733***
Occupation									
Cadre	1.50***	-0.209	-0.498	0.201	-0.517	-1.550**	0.076	-0.424*	-1.276**
Professional	0.606	0.419	-0.775	-0.306	-0.323	-1.474***	0.499	-0.641***	-2.254***
Work organization									
Government	—	—	—	0.596	0.310	-0.017	2.040***	0.756***	-0.731
Public	0.469	0.002	-0.462	—	—	—	0.456	0.883***	-1.162**
State firm	0.608*	0.094	-0.873***	0.275	0.053	-0.856***	—	—	—
Hybrid firm	0.208	0.490	-0.375	—	-0.633	—	-0.206	-0.970*	-0.856*
Farm	2.480***	1.323***	1.287***	2.496***	1.790**	1.655***	2.917***	2.447**	0.892**
% collective sector output	2.350**	0.292	-1.214	0.367	-0.112	-1.848	-0.630	-1.133*	-2.074***
% hybrid sector output	-1.225	1.124	-1.645	-3.334	-3.406**	-3.490**	1.404	-1.968**	-2.729***
Number of events	45	138	100	33	113	69	89	246	168
χ^2 /d.f.	54.3/12	156.6/12	85.1/12	58.2/11	111.0/12	119.1/11	126.3/12	256.2/12	175.3/12

advantages of cumulative advantages in social positions for earlier cohorts. However, in an era of dramatic institutional change and emerging opportunities, the lower rate of job changes among the earlier cohorts may reflect their effective exclusion from them, leading to cohort-based reallocation of opportunities.

We also hypothesized (H2) that, because of the variations in the extent to which different cohorts are entrenched into existing institutional arrangements, there should be significant variations across cohorts with respect to the effects of positional power and market values on their job shift patterns. This can be tested by examining the effects of the covariates in Table 2. We limit our attention to those variables that directly measure social position.³

The role of education. Overall, educational credentials, especially a college education, increase the rate of job shifts to work organizations in the state sector (government agencies, public organizations, and state firms). But educational level is less salient for a shift toward the nonstate sector, except for the significant, positive effect of college education on the rate to hybrid firms for the second and third cohorts. Our theoretical interests are in the patterns of cohort

³ Note that the insignificant effects of the covariates associated with the first cohort in some of these destinations (e.g., private entrepreneurs and hybrid firms) may be partly due to the smaller number of events and sample size for that cohort. Thus we should be cautious in interpreting these findings.

TABLE 2—Continued

Collective firm			Private entrepreneur			Hybrid firm		
The 1949–65 cohort	The 1966–79 cohort	The 1980–94 cohort	The 1949–65 cohort	The 1966–79 cohort	The 1980–94 cohort	The 1949–65 cohort	The 1966–79 cohort	The 1980–94 cohort
-7.652***	-6.904***	-5.047***	-7.186***	-5.697***	-4.857***	-9.192***	-7.016***	-6.145***
-0.065	0.168	-0.013	-1.518***	-0.701***	-0.699***	-0.636	-0.213	-0.273
-0.011	-0.052***	-0.003	-0.030**	-0.050***	-0.044**	-0.046**	-0.011	-0.039
0.902**	0.046	-0.092	-0.298	-0.087	-0.483**	0.223	0.483†	0.234
0.568	0.176	0.182	0.473	-1.933*	0.209	0.729	1.365***	0.997**
-0.274	-0.192	-0.872	-0.854	-0.642	0.171	0.332	-0.738	-0.467
-1.452**	-0.190	-0.292	-1.154	-1.392***	-1.033**	-1.765	-0.250	-0.063
-0.556	0.259	-0.202	-0.998	-1.370**	-1.208**	1.064	-0.609	-0.962*
0.299	-0.118	0.040	—	-1.161*	-0.824*	—	-1.842*	-0.918*
-0.162	0.461	-1.742*	-0.554	-0.978***	-0.676***	0.973*	-0.510**	-0.627**
3.269***	2.809***	2.066***	—	—	—	—	—	—
2.143**	0.666	0.500	2.513***	1.383***	1.534***	3.062***	0.571	1.384***
			0.596	-0.008	-0.326	1.622	1.026	0.906
-3.521†*	-0.903	-5.038***	4.333***	3.826***	2.750***	3.646*	2.340**	1.584
61	150	103	39	154	99	27	74	67
113.0/12	223.0/12	58.0/12	60.1/11	178.0/12	70.6/12	33.8/11	31.0/12	92.5/18

Note. “Junior high education or below” is the reference category for education, “workers” for occupation, “collective firms” for work organizations. All models also included a set of dummy variables to indicate the respondents’ locations by province and city size.

^a Cohorts based on year of entry into the labor force.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

variations. The overall patterns suggest that a college education is especially beneficial for the second and third cohorts, as indicated by its positive, significant effects for these two cohorts, especially in job shifts to the state sector and to hybrid firms. These findings are consistent with our expectation that there are significant variations across cohorts in the effects of education on workers’ response to emerging opportunities.

The role of occupational positions. Effects of occupational status show a more complex pattern. Overall, there is strong inertia associated with cadre and professional positions. That is, cadres and professionals tend to remain in their work organizations (as indicated by the negative signs associated with these covariates in most of the job shift analysis). Although there are cohort variations, the patterns are opposite to our expectations. It appears that the younger cohorts (the second and third cohorts), rather than the oldest, tend to experience the most inertia, especially in job shifts to public organizations and state firms. One

speculation is that the young generation of cadres and professionals may be well placed in their work organizations, because of the new cadre policies since the 1980s that promoted younger, educated cadres and professionals. As a result, cadres and professionals in the third cohort may have especially desirable jobs, discouraging their propensity for job shifts.

The role of organizational locations. The set of covariates for work organization indicates the origins of job shifts. The effects of organizational origins allow us to identify the specific directions and paths of job shifts in the reform era. Patterns of effects by organizational location indicate some evidence of segmented labor markets in urban China. Job shifts among types of organizations within the state sector (government agencies, public organizations, and state firms) are more fluid than across the boundaries of state and nonstate sectors. This pattern is revealed in the relatively permeable barriers in shifts across government, public organizations, and state firms. In contrast, those working in the state sector tend to be less likely to shift to the nonstate sector (collective and hybrid firms and private entrepreneurs). There are also noticeable cohort variations among different types of organizations. For example, there is a higher rate of shift from government agencies to state firms for the first two cohorts. In the early stages of the reform era, state firms tend to offer higher income than do government agencies and public organizations. These patterns suggest that workers in earlier cohorts may be in a better position to exploit these opportunities within the state sector than their younger colleagues. The high rates of job shifts from farm origins to all organizational destinations reflected the returns of the sent-down youth to urban areas after 1979. Because of this unique historical context, we included the farm origin mainly as a statistical control and therefore do not interpret the effects of farm origin.

Overall, we find evidence to support our hypothesis (H2) that there are significant cohort variations in the effects of social positions on job shift patterns. First, it is evident that those with positional power and those in high-status organizations (government) tend to shift within the state sector, where the benefits attached to their positions are presumably protected or enhanced. Second, a college degree has differential effects for individuals in different cohorts: it has the largest effect on the third cohort, especially in facilitating their shifts to the state sector (government, public, and state firm destinations). Note also that college education increases the rate of shifting to the hybrid firms for the second and the third cohorts, indicating the emergence of market mechanisms in allocating human resources.

Obviously, the complexities in the job shift patterns cannot be explained by life course considerations alone. Some aspects of the job shift patterns reflect other factors that induce labor market behaviors. We return to these issues in the Discussion.

Cohort Variations in Economic Rewards

We next consider cohort variations in economic benefits during the economic growth period in China in the 1980s and early 1990s. Table 3 reports the OLS

TABLE 3
Determinants of 1993 Income for Three Cohorts^a of Workers in Urban China

	Cohort 1 (The 1949–1965 cohort)	Cohort 2 (The 1966–1979 cohort)	Cohort 3 (The 1980–1994 cohort)
Intercept	4.282***	4.281***	4.170***
Female	-0.256***	-0.171***	-0.120***
Age	-0.017***	0.003	0.009**
Age ²	-0.063**	-0.095***	-0.111***
Education			
Senior high	0.059	0.070***	0.176***
College	0.069	0.093**	0.169***
Occupation			
High-rank cadre	0.344***	0.311***	—
Low-rank cadre	0.247***	0.249***	0.165**
High-rank professional	0.231***	0.247***	0.261***
Low-rank professional	0.331***	0.161***	0.144**
Office worker	0.088	0.137**	0.133†*
Service worker	-0.022	0.096**	0.183***
Skilled worker	0.119*	0.042	0.064
Private	0.304**	0.153**	0.384***
Type of work organization			
Government	0.314***	0.128***	0.104*
Public	0.159***	0.189***	0.088
Central gov't-owned firm	0.179***	0.194***	0.113**
Local gov't-owned firm	0.140**	0.103***	0.090*
Hybrid firm	0.262***	0.477***	0.501***
Total <i>N</i>	853	1712	1056
<i>R</i> ²	0.472	0.443	0.485

Note. “Junior high education or below” is the reference category for education, “workers” for occupation, and “collective firms” for work organizations. All models also included a set of dummy variables to indicate the respondents’ locations by province and city size.

^a Cohorts based on year of entry into the labor force.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

estimates of the covariates for the 1993 income. To control for location-based variations in income, we include a set of dummy variables indicating the specific city in which the sample was drawn (with Beijing as the reference category). The parameter estimates and the associated significance levels indicate within-cohort variations. We discuss both within-cohort and cross-cohort variations along theoretically related dimensions.

Intercept and age. The intercept for each cohort indicates the overall log-income for a male worker in a collective firm in Beijing with junior high or lower education and with the mean age of that cohort. The magnitudes of the three

cohorts are comparable, other things being equal. While women have lower incomes in all three cohorts, age effects vary significantly across cohorts.⁴

Returns to education. Education has no significant effect on the 1993 income of members of the first cohort. By contrast, income increases with educational level for both the second and the third cohort. Returns to education are especially pronounced for those in the third cohort (although having a college education does not appear to be more advantageous than a senior high education). Those with a college education in the third cohort also have a significantly higher income than their counterparts in the other two cohorts. These variations indicate that members of the third cohort have benefited more economically from their human capital, compared with the earlier cohorts. There are several plausible explanations for the observed patterns. First, it is likely that those in the third cohort, because of their more recent formal education, have the most updated knowledge, an especially attractive attribute in the labor market. Second, it is also likely that economic returns to education for the earlier cohorts were largely transmitted through their present social positions (cadre and professional ranks).⁵

Returns to occupational status. We used more detailed occupational status categories for the analysis of income determinants, given the feasibility allowed by the sample size. Because of the few cases of high-rank cadres in the third cohort, we combined this category with low-rank cadres for this cohort. As we hypothesized, income returns to positional power (high-rank cadre) are highest for the first cohort. Recall that the first cohort has the highest proportion of high-rank cadres (8%). This finding means that association with political authority has been especially beneficial to the first cohort. Returns to low-rank cadre and high-rank professional status are similar within the first and the second cohorts. However, low-rank professionals in the first cohort enjoy considerably higher income compared to unskilled workers. Also note that private entrepreneurs in the first and the third cohort have significantly higher incomes.

Returns to organizational locations. For the first cohort, government workers report the highest incomes (other things being equal) and workers in the state sector also have significantly higher incomes than those in collective firms. This is also the case for the second cohort, with those in the state sector having significantly higher incomes than those in collective firms. But the income advantages of being in the state sector are less obvious for the third cohort. Employees in hybrid firms have higher incomes than those in collective firms (the reference group), and this is especially the case for those in the youngest cohort.

⁴ Recall that the age variable is constructed by subtracting mean age from the age of each respondent. These within-cohort age effects indicate returns to work experience at different stages of one's occupational life course. Thus they are not directly comparable across cohorts.

⁵ In preliminary analyses we estimated models with only educational variables included. Education contributed significantly and in large magnitude for the first cohort as well. This is evidence that, for the first cohort, the effects of education are mediated through their occupational positions.

Consistent with our hypothesis, we find distinctive cohort differences in the effects of organizational location on income, with members of the first cohort working in government agencies having the highest income across cohorts. Conversely, those in the last two cohorts working in private–hybrid firms have significantly higher incomes than do those working in such firms in the first cohort. These two polarized cases show the strongest evidence that market and state socialist institutions have distinctive incentives for different cohorts. There are no significant differences among the three cohorts in other types of organizational location.

Overall, the strongest evidence of cohort differences is found in returns to both education and organizational location. These patterns are consistent with our findings related to job shift patterns. Specifically, the first (oldest) cohort tends to benefit from working in organizations closer to redistributive authorities, whereas younger cohorts benefit more from working in organizations closer to market activities.

DISCUSSION: LIFE COURSE AND SOCIAL STRATIFICATION PROCESSES

A major task of sociological research is to explain how social processes produce variations in individual life chances. This task becomes especially critical in times of dramatic social upheavals, such as those currently underway in former state socialist societies. Social change incorporates two sets of processes influencing the life chances of individuals: (1) by changing the opportunity structure and/or (2) by changing the mechanisms affecting opportunity. A life course approach to the links between history and biography considers the significance of cohort membership in shaping both processes. Thus, a life course formulation offers a unique vantage point from which to examine how the timing of large-scale changes in individual biographies moderates their impacts on individuals' life chances through differential exposure to opportunities and risks, as well as their differential locations in the social structure at the time of the change.

The main contribution of this study is to explicitly recognize and develop theoretical arguments about the importance of life course factors in shaping individual life chances and to demonstrate these life course effects in a context of fundamental social changes. These ideas have been developed and studied in the life course literature, but with few exceptions (see Szelenyi, 1988; Zhou and Hou, 1999), they have not been given much attention in the studies of large-scale social changes in transitions from state socialism. We have drawn on this theoretical framework to examine career- and resource-related shifts in the context of China's economic transformation, with the belief that scholars cannot map the impacts of social change on life chances in the absence of locating individuals in a life course context. In our research design, we divided our sample into three cohorts (based on the historical period during which respondents

entered the work force) and investigated cohort variations in the determinants of patterns of job shifts and economic resources in this era of economic reform. To fit our research purpose, we estimated statistical models that allow the covariates of theoretical interest, such as occupational groups and locations in type of organizations, to vary across cohorts in the same historical context.

What have we gained by adopting a life course perspective and the corresponding research design? By uncovering distinctive cohort variations in access to the opportunity structure, we are able to identify the role of life course factors in moderating and mediating the links between institutional changes and life chances. For example, in Zhou et al. (1997), we found that individuals with a college education had a higher rate of moving to both government agencies and hybrid firms in the reform era (1980–1994). But our research design there implicitly assumed this to be uniform for all those in the workforce, controlling for the effects of other covariates in the model. In contrast, our examination of the cohort-specific effects reported in this study allows us to assess how different cohorts have, in fact, distinctive opportunities. We find that, while college graduates in all three cohorts experienced significant and higher rates of shifting to government agencies, there are noticeable cohort differences in their shifts to hybrid firms, with those in the older cohort (those who entered the labor force between 1949 and 1965) having no advantage at all. Moreover, our income analysis further reveals the rationale behind this finding: those in the older cohort who stayed in government agencies benefit more from the redistributive benefits than those who are in hybrid firms, whereas the opposite is true for the younger cohorts. Educational credentials especially facilitate the ability of younger workers (the second and the third cohort) to capitalize on the job opportunities in emerging markets and to reap greater returns to education in the distribution of income. Thus, a life course perspective addresses a unique set of sociological issues about the relationship between social changes and life chances. As we shift our attention from aggregate conventional categories (e.g., occupational groups) to take into consideration particular cohorts' stage of life course, we detect a more dynamic picture of variation and change, identifying differential impacts of social changes on members of a society, as moderated by life course factors.

The life course approach also facilitates assessment of the differential effects of allocative mechanisms across cohorts. We found significant differences across cohorts along several dimensions of theoretical interest. Most striking is the fact that cross-cohort variations mainly relate to the impacts of organizational location, as evidenced in the significant variations between the first cohort on the one hand and the second and third cohorts on the other, especially in terms of job shifts to government and state firms and in the determinants of income. There are several processes that lead to this pattern. First, the oldest cohort was more entrenched in the existing social structure and closer to the redistributive economy (with a larger proportion of high-rank cadres and of those in the state sector). As a result, they tended to benefit more from redistributive processes and were less sensitive to the market opportunities emerging in the 1980s and early

1990s. Second, the significant disruption of the life course for the second cohort (as a result of the Cultural Revolution) may have also made them more prone to embrace new opportunities in the market process, rendering characteristics of this cohort more similar to those of the youngest (third) cohort.

However, there are some anomalies inconsistent with our theoretical predications. For instance, in most cases, cadres and professionals from the second and third cohorts have a lower rate of moving into government agencies, public organizations, or state firms (as indicated by the negative sign of the coefficients), relative to ordinary workers. To interpret this pattern, note that the third cohort has had a relatively higher rate of job changes, as indicated by their intercepts and that they had a wider range of choices when they entered (or re-entered) the workforce. Their inertia may thus be partly attributed to the favorable positions they already occupy in their work organizations.

More important, the life course factors we emphasize in this study are only part—albeit we believe an important part—of the contextual constraints on the social stratification processes. There are many other push and pull factors that generate these observed patterns. Greater monetary rewards in the marketplace have induced younger workers to shift to the nonstate sector. On the other hand, shrinking opportunities in the state sector also have pushed workers to leave it. For instance, we find that the first and second cohort have a higher rate of shifts from government agencies to state firms. To explain this pattern, we note that, in the early stages of the reform, state firms had significant improvement in economic benefits (in the form of bonuses), relative to those in governments and public organizations (Zhou, 2000). Thus the pattern of shifts may indicate that those in governments try to move to more desirable organizations to exploit these benefits. Another contributing factor is the downsizing of government agencies in recent years, which may have forced some of their employees to move to state firms.

We believe that a life course perspective also helps highlight some important theoretical issues about social changes (Hogan, 1981). First, our focus on cohort differences provides clues to the unique paths of China's transition from state socialism. Unlike the shock therapy in the former Soviet Union and Eastern Europe, in China we observed the coexistence and dual structure of state and nonstate sectors. Our analyses suggest that many aspects of the institutional changes in China take place through generational replacement: the oldest cohort (in their 40s and 50s by the time of the economic transformation) experienced fewer job changes than did those in the second cohort (in their 30s during the reform period) and those in the third cohort (in their 20s) just entering the workforce when the market economy had begun to open up.⁶ There are also competing incentives among different institutions for different cohorts of em-

⁶ In our sample, 7.5% in the first cohort experienced job changes in the reform era, and 20.3% and 25.7% for the second and the third cohort respectively.

ployees. Whereas younger cohorts benefit greatly (in terms of income) from human capital, older cohorts gain significantly from working in the state sector.

Consideration of the life stage and social location of different cohorts has permitted a more refined assessment of the impacts of economic transformations on, and the reallocation of opportunities and risks among, social groups. The increasing benefits of education and new job opportunities, along with the fact that younger cohorts especially benefit from these opportunities, suggest a significant momentum in facilitating the expansion of private sector labor markets in the future. On the other hand, the redistributive benefits associated with employment in government agencies across cohorts also indicate the vested interests of those in these jobs as well as continuing incentives for cultivating interests with political authorities. Institutional transformation in China is an ongoing and evolving process and it is too early to predict the final shape of the social stratification order. But the life course bridging of the divide between the study of macrolevel events and microlevel biographies shed new light on the links between institutional changes and variations in life chances among social groups, suggesting as well the future trajectories of change in the social stratification processes.

REFERENCES

- Allison, P. D. (1995). *Survival Analysis Using the SAS System*, SAS Institute, North Carolina.
- Bian, Y. (1994). *Work and Inequality in Urban China*, SUNY Press, Albany, NY.
- Bian, Y., and Logan, J. W. (1996). "Market transition and the persistence of power: The changing stratification system in urban China," *American Sociological Review* **61**, 739–758.
- Davis, D. (1992). "Skidding: Downward mobility among children of the Maoist middle class," *Modern China* **18**, 410–437.
- Elder, G. H. Jr. (1974). *Children of the Great Depression*, University of Chicago Press, Chicago.
- Elder, G. H. Jr. (1995). "The life course paradigm: Social change and individual development," in *Examining Lives in Context* (P. Moen, G. Elder, and K. Lüscher, Eds.), pp. 101–139, American Psychological Association, Washington, D.C.
- George, L. K. (1993). "Sociological perspectives on life transitions," *Annual Review of Sociology* **19**, 353–373.
- Giele, J. Z., and Elder, G. H. Jr. (1998), *Methods of Life Course Research: Qualitative and Quantitative Approaches*, Sage, Thousand Oaks, CA.
- Hogan, D. P. (1981). *Transitions and Social Change*, Academic Press, New York.
- Kahneman, D., Slovic, P., and Tversky, A. (Eds.) (1982), *Judgment under Uncertainty: Heuristics and Biases*, Cambridge University Press, Cambridge, UK.
- Kohli, M. (1986). "Social organization and the subjective construction of the life course," in *Human Development and the Life Course: Multidisciplinary Perspectives* (A. B. Sorensen, F. E. Weinert, and L. R. Sherrod, Eds.), Erlbaum, Hillsdale, NJ.
- Mayer, K. U. and Müller, W. (1986). "The state and the structure of the life course," in *Human Development and the Life Course: Multidisciplinary Perspectives* (A. Sorensen, F. E. Weinert, and L. R. Sherrod, Eds.), pp. 217–245. Erlbaum, Hillsdale, NJ.
- Mayer, K. U., and Schoepflin, U. (1989). "The state and the life course," *Annual Review of Sociology* **15**, 187–209.
- Mayer, K. U., and Tuma, N. B. (1990). "Life course research and event history analysis: An overview," in *Event History Analysis in Life Course Research* (K. U. Mayer and N. B. Tuma, Eds.), pp. 3–20, The University of Wisconsin Press, Madison, WI.

- Merton, R. (1968). "The Matthew effect in science: The reward and communication systems on science," *Science* **199**, 55–63.
- Moen, P. (1985). "Continuous and discontinuities in women's labor force activity," in *Life Course Dynamics: Trajectories and Transitions, 1968–1980* (G. H. Elder, Jr., Ed.), pp. 113–155, Cornell University Press, Ithaca, N.Y.
- Nee, V. (1989). "A theory of market transition: From redistribution to markets in state socialism," *American Sociological Review* **56**, 663–681.
- Nee, V. (1991). "Social inequalities in reforming state socialism: Between redistribution and markets in state socialism," *American Sociological Review* **56**, 267–282.
- Nee, V. (1996). "The emergence of a market society: Changing mechanisms of stratification in China," *American Journal of Sociology* **101**, 908–949.
- Settersten, R. A., Jr., and Mayer, K. U. (1997). "The measurement of age, age structuring, and the life course," *Annual Review of Sociology* **23**, 233–261.
- State Statistics Bureau, PRC. (1990a). *Zhongguo chengshi tongji nian jian, 1990* [Statistics Yearbook of the Chinese Cities, 1990], China Statistics, Beijing.
- State Statistical Bureau, PRC. (1990b). *Historical Statistics of Provinces, Autonomous Regions, and Municipalities, 1949–1989*, China Statistical, Beijing.
- Szelenyi, I. (1988). *Socialist Entrepreneurs: Embourgeoisement in Rural Hungary*, University of Wisconsin Press, Madison.
- Tuma, N. B., and Hannan, M. (1984). *Social Dynamics*, Academic Press, New York.
- Walder, A. G. (1986). *Communist Neo-Traditionalism: Work and Authority in Chinese Industry*, University of California Press, Berkeley, CA.
- Walder, A. G. (1992). "Property rights and stratification in socialist redistributive economies," *American Sociological Review* **57**, 524–539.
- Walder, A. G. (1995). "Career mobility and the communist political order," *American Sociological Review* **60**, 309–328.
- Whyte, M. K., and Parish, W. (1984). *Urban Life in Contemporary China*, University of Chicago Press, Chicago.
- Xie, Y., and Hannum, E. (1996). "Regional variation in earnings inequality in reform-era urban China," *American Journal of Sociology* **101**, 950–992.
- Zhou, X. (2000). "Economic transformation and income inequality in urban China: Evidence from a panel data," *American Journal of Sociology* **105**, 1135–1174.
- Zhou, X., and Hou, L. (1999). "Children of the Cultural Revolution: the state and the life course in the People's Republic of China," *American Sociological Review* **64**, 12–36.
- Zhou, X., Moen, P., and Tuma, N. B. (1998). "Educational stratification in urban China: 1949–1994," *Sociology of Education* **71**, 199–222.
- Zhou, X., and Suhomlinova, O. (2000). "Redistribution under state socialism: A USSR and PRC Comparison," *Research in Social Stratification and Mobility* **18**, 163–204.
- Zhou, X., Tuma, N. B., and Moen, P. (1996). "Stratification dynamics under state socialism: the case of urban China, 1949–1993," *Social Forces* **74**, 759–796.
- Zhou, X., Tuma, N. B., and Moen, P. (1997). "Institutional change and job-shift patterns in urban China, 1949–1994," *American Sociological Review* **62**, 339–365.