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Changing pathways in young people's school-to-work transition: evidence from the 2003–2021 Chinese General Social Surveys

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ABSTRACT

China has undergone significant socioeconomic changes over the past half century, including the Cultural Revolution, economic reform, and educational expansion. These changes have altered opportunity structures for young people across cohorts. However, little is known about how these changes affect their school-to-work transition (SWT) over time. This study examines the changing pathways of SWT among young Chinese people in the past few decades and analyzes how educational attainment and family socioeconomic status (SES) shape the SWT. Using a pooled sample from Chinese General Social Surveys from 2003 to 2021, the results reveal that younger cohorts who have experienced higher education expansion tend to follow a delayed SWT. Moreover, educational attainment and family SES consistently play a significant role in preventing young people from experiencing an unsmooth SWT across birth cohorts by facilitating early SWT for older cohorts and delayed SWT for younger cohorts.

Introduction

The transition to adulthood is characterized by life-course transition events (Buchmann and Kriesi 2011). Among these transitions, the school-to-work transition (SWT) is particularly critical because it influences other life-course transitions, such as family formation (Gebel and Heyne

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2016) and entry to parenthood (Mortimer, Oesterle, and Krüger 2005). Research shows that a difficult SWT, such as early unemployment, can have a lasting and detrimental effect on individuals' future economic achievements (e.g., Schmillen and Umkehrer 2017; Xu et al. 2024) and can lead to mental health problems, such as a loss of self-efficacy (Pinquart, Juang, and Silbereisen 2003) and the development of unhealthy behaviors (Jin, Shah, and Svoboda 1997). Moreover, the quality of SWT can have broader implications for organizational productivity (Cefalo, Scandurra, and Kazepov 2020) and social inequality (Furlong 2006; Ryan 2001).

Recent studies suggest that socioeconomic changes affect young people's experiences of SWT. The flexibilization of the labor market in the postindustrial era has trapped many young people in atypical employment arrangements, such as part-time jobs and fixed-term contracts (Breen 2005). While educational expansion was previously seen as a solution to facilitate young people's participation in the labor market according to human capital theory, it is now considered part of the problem (Roberts 2004). For example, in East Asian societies, educational expansion has been associated with unemployment or low earnings premiums (e.g., Mok and Jiang 2018; Wu and Guo 2022). Additionally, economic downturns in some European countries, especially the Great Recession in 2008, have resulted in career turbulence or precarious trajectories for young people (e.g., Scandurra, Cefalo, and Kazepov 2021; Sofritti et al. 2020).

In recent decades, China has undergone significant socioeconomic changes, such as the market-oriented economic reform, demographic transitions, and the extensive expansion of education (Xie 2011). However, a comprehensive understanding regarding the evolution of young people's SWT experiences during these transformative periods is lacking. Furthermore, it is crucial to examine how factors such as education (e.g., Vancea and Utzet 2018) and parental socioeconomic status (SES) (e.g., Schoon and Lyons-Amos 2016) influence the changes in SWT. SWT is no longer a linear transition occurring at a single time point. Instead, it has become a delayed and dynamic process involving multiple statuses and experiences (Brzinsky-Fay 2007).

Therefore, the research objectives of this study are to analyze the changing pathways of SWT among Chinese young adults over the past decades and examine how educational attainment and family background shape their SWT. To achieve these objectives, this study utilizes data from the Chinese General Social Survey (CGSS) from 2003 to 2021. The CGSS is a nationally representative survey project that provides rich information on sociodemographic characteristics and employment history. These data sets enable us to investigate SWT trajectories over several decades.

Literature review and hypotheses

The life-course perspective offers a valuable theoretical lens for understanding the persistence and changes in individuals' life trajectories and how they are shaped by long-term structural changes and short-term transitions (Elder, Johnson, and Crosnoe 2003). This perspective comprises two fundamental elements: age-graded trajectory, which involves a series of linked states across successive years, and transition, which refers to critical events that alter an individual's life trajectory. The perspective emphasizes that cohort effects influence people's life trajectories, the timing of critical events, and individual responses to changing circumstances (Alwin and McCammon 2003). By examining the diversity of personal life trajectories across different cohorts and generations, the life-course perspective helps us understand the impacts of social changes.

In the context of SWT, life-course theory provides an insightful framework. It highlights that structural context and individual agency influence individuals' education and career trajectories (Elder 1994; Elder and Shanahan 2006). Socioeconomic changes in recent decades, such as educational expansion, diverse lifestyles, increased female employment, labor market flexibility, and the trend toward individualization, have transformed the transition to adulthood of young people. This transition has become de-standardized, individualized, and fragmented. Moreover, in some European countries, a shift toward delayed, diversified, and reversed transitions has been observed, with individuals sometimes withdrawing from certain steps because of constraints or personal choices (Walther 2006).

In China, interest in life-course studies is growing because the country's significant socioeconomic changes over the past decades contribute to distinct or unique life experiences for each cohort. However, previous studies have primarily focused on investigating the effect of a single historical event (e.g., the Cultural Revolution, the one-child policy, and the implementation of the compulsory education system) on later life outcomes or have described life histories of specific social groups (e.g., laid-off workers and rural migrants). These studies have not fully explored the trajectories across different life stages and their connections to institutional structures (see Cheng and Hu 2018 for a review). In the following section, we review the profound structural changes in China that have shaped the trend of SWT and the roles of education and family background in explaining an individual's variations in SWT.

Changes in SWT

Over the past decades, China has experienced profound transformations in its employment opportunity structures as a result of industrialization,

marketization, and rapid economic growth. Simultaneously, educational opportunities, particularly in higher education, have expanded. These significant changes have had a considerable impact on the patterns of SWT among young people in China during this period.

Industrialization shifts labor from agriculture to industry, thus causing significant employment changes. In China, rapid industrialization has occurred over the past century. However, during the initial stages of industrialization under socialism, employment shifts were limited because of rural collectivization (1953–1957) and the *hukou* system (1955–1984), which tied peasants to the land (Liu 2017). Moreover, approximately 17 million urban high-school graduates were sent to rural areas for "reeducation" during the Cultural Revolution (1966–1976) (Lin 2013).

Since the introduction of China's reform and opening-up policy in 1978, nonfarm employment has expanded because of the ongoing industrialization and migrant policies. The implementation of the Household Responsibility System significantly increased agricultural productivity, thus resulting in a surplus labor force in rural areas (Mukherjee and Zhang 2007). Rural industrialization through town-and-village enterprises absorbed rural labor into off-farm work without requiring individuals to leave their hometowns. Furthermore, the development of urban nonstate economies and the relaxing of government control over migration in 1984 encouraged rural-to-urban migration (Seeborg, Jin, and Zhu 2000).

As a result, the combination of industrialization, economic reform, and changes in migrant policies has significantly contributed to rural young people experiencing rural-to-urban migration and engaging in early SWT. Based on these observations, we propose the following hypothesis regarding rural young people:

> **Hypothesis 1a:**Rural young people have increasingly experienced an early SWT by transitioning from farm work.

During the post-1978 reform period, in addition to early SWT, the phenomenon of reversed SWT became pronounced among young individuals. On the one hand, following the resumption of the national college entrance exam in 1977, individuals who had experienced interruptions in their education for work during the Cultural Revolution were able to return to college by successfully passing the college entrance exam. On the other hand, the government-sponsored administrative elites within party/government agencies and state-owned enterprises pursued college education through adult higher education (Lai 2014; Li and Walder 2001).

The expansion of higher education since the late 1990s significantly impacts young people's SWT. In 1999, the Chinese government significantly expanded the higher education system (Bai 2006), thus substantially increasing higher education opportunities for young people. The

gross enrollment rate of higher education, which is measured by the number of college students relative to the size of the corresponding age cohort, significantly increased from 9.8% in 1998 to 59.6% in 2022 (Ministry of Education of China 2023).

The educational expansion in China has significantly affected young people's employment trajectories. It offers young individuals improved educational opportunities (Yeung 2013) and an extended period of education (Yeung and Hu 2013), thus resulting in a delay in their initial job entry (Hao and Zhang 2020). Tian (2016) found notable delays in education completion and employment timing among 18–30-year-olds, thus reflecting the emerging adulthood of young people in China. Given that higher education expansion offers young people access to college, their entry into the labor market is likely further postponed. Educational expansion has often primarily benefited urban young people rather than their rural counterparts (Tam and Jiang 2015; Yeung 2013). Hence, we suggest the following hypothesis regarding urban young people in the post-2000s:

Hypothesis 1b: Urban young people have increasingly experienced a delayed SWT because of an extended education period.

Important role of education

In recent decades, the role of education in SWT in China has been influenced by rapid institutional changes. Prior to this shift, opportunities for tertiary education were limited. In the socialist era, primary and secondary education was prioritized to reduce illiteracy rates and improve the overall quality of the population (Zhou, Moen, and Tuma 1998). Until 1972, college access was restricted to a privileged few who received political recommendations based on their family background and loyalty (Zhou and Hou 1999).

Under the planned economy from the mid-1950s to the late 1980s, the state implemented a job assignment policy that ensured that educated youth were allocated jobs without entering the labor market (Nee 1996). This job assignment system (*Baofenpei*) regulated the labor under state control. College graduates were often assigned jobs across a wide geographical range in state-owned enterprises, government departments, and other state-controlled organizations. Most urban young people who complete secondary education were assigned to local jobs (Hermalin et al. 2003). Therefore, we propose the following hypothesis:

Hypothesis 2a: Education serves as a protective factor against unsmooth SWT primarily by promoting *early SWT* among *older cohorts*.

Since the job assignment system was phased out and the labor market emerged in the 1990s, marketization and individualization have introduced diversification and uncertainty in the SWT of young people of recent cohorts. The restructuring of the state sector (Meng 2012) and the informalization of the labor market (Park and Cai 2011) during the reform era have increased uncertainty and unpredictability in the transition to work.

Meanwhile, higher education expansion in the late 1990s provided more educational opportunities for young people. According to Becker's (1994) human capital theory, education and training are essential investments in human capital. Empirical research has consistently shown that educational attainment plays a significant role in the labor market (Wu and Guo 2022; Ye 2021). Individuals with higher levels of education tend to transition to employment faster and have a higher likelihood of finding work compared with early school leavers (Brzinsky-Fay 2007; MacDonald 2011; Ryan 2001).

Given the structural changes in the opportunities of the labor market and education system, young people face increased competition for employment and educational attainment. Notably, higher education has become a crucial determinant of employment and earnings. Zhang et al. (2005) found a growth in the economic returns to education, from 4 percent for each additional year of schooling in 1988 to 10 percent in 2001, with most of the increase occurring after 1992 and coming from the earnings premium of higher education. More recent studies have also shown that the average rate of return to higher education increased over time (Hu and Hibel 2014, 2015; Jansen and Wu 2012) despite a decrease in the college earnings premium for younger cohorts (Guo and Wu 2024). Moreover, education has been found to protect against unemployment (Yang 2020).

Therefore, in a market economy, education has gained increasing importance in shaping occupational attainment (Müller and Gangl 2003; Shavit and Müller 1997). While education cannot guarantee stable employment, it can help individuals avoid unemployment and economic inactivity (Furlong 2006; López-Andreu and Verd 2016). We proposed the following hypothesis:

> **Hypothesis 2b:** Education serves as a protective factor against unsmooth SWT primarily by facilitating *delayed SWT* among *younger cohorts*.

Protective effect of family background

Extensive research consistently demonstrates that individuals' family backgrounds strongly predict their likelihood of accessing higher education,

thus consequently shaping their SWT pathways. The literature on educational inequality has long emphasized that families with high SES actively adapt to institutional changes and effectively maintain their advantages (e.g., Alon 2009; Lucas 2001).

In China, the importance of family background in determining children's SWT has undergone changes. The role of family SES was weakened significantly after 1949 because of political movements. Particularly during the Cultural Revolution, disadvantaged groups, such as the working class and peasants, gained better opportunities in education and employment (Xie and Zhang 2019), thus reducing inequality in these domains (Deng and Treiman 1997; Zhou 2004).

During the implementation of the job assignment policy from the mid-1950s to the late 1980s, *guanxi* (interpersonal relationship) played a role in job allocation. Young people who had social networks with cadres in the authority structure were more likely to secure desirable job opportunities (Bian 1994a). Moreover, some families facilitated their children's smooth transition to work through indirect state assignments, where recruiting work units targeted and screened candidates. This process included the practice of replacement (*dingti*), where young people could inherit jobs upon retirement but be assigned different positions within the same work unit (Bian 1994b). Replacement was often used by families to help their children, particularly daughters, escape the rural exiles of the Cultural Revolution era (Hermalin et al. 2003) or when urban youth returned to their home cities after staying in rural areas during that period (Bian 1994b).

Another form of indirect statement assignment was internal recruitment (*neizhao*), which targeted adult children of employees of the work units for recruitment without affecting employees' jobs (Bian 1994b). Replacement and internal recruitment mechanisms served as solutions for families to secure a job position for unskilled or less capable young people, while capable individuals obtained jobs through direct state assignment mechanism (Bian 1994b). Based on these insights, we suggest the following hypothesis regarding the effect of family background:

> **Hypothesis 3a:**The protective effect of family SES in preventing unsmooth SWT is evident in *older cohorts* by promoting *early SWT*.

Since the early 2000s, the expansion of higher education and the shift toward a market-oriented economy have made family SES a crucial factor in the SWT mainly through educational attainment. Despite increased access to higher education during the expansion, research shows a rise in class inequality in college attendance (e.g., Liu, Green, and Pensiero 2016; Wu and Zhang 2010; Yeung 2013). Family backgrounds, including parents' education and occupation, strongly influence students' chances of

accessing higher education, particularly in elite universities (Wu 2017; Hu and Wu 2021).

As discussed earlier, educational attainment, particularly higher education, facilitates a smooth transition to an individual's first employment (Brzinsky-Fay 2007; MacDonald 2011; Ryan 2001) and enhances the likelihood of securing high-quality jobs (Furlong 2006). As the labor market becomes increasingly competitive during the educational expansion, research suggests that young people who are better educated and have higher occupational backgrounds tend to spend longer periods in education, obtain better education, and delay entry into the job market to avoid unemployment and underemployment (Serracant 2015).

Furthermore, the ability of individuals to translate their educational achievements into better occupational outcomes increasingly depends on their SES in the current labor market (Assaad, Krafft, and Salemi 2023; Nilsson 2019). The influence of social class is particularly pronounced during the SWT because parents with higher SES typically have more resources to provide financial support and instrumental assistance in accessing job opportunities (Blustein, Juntunen, and Worthington 2000). Similarly, in China, families with college graduates who have experienced higher education proactively utilize social networks to facilitate their children in securing their first job, and families with high SES are expected to have more advantages in mobilizing these social networks (Mok and Jiang 2017). Based on these findings, we proposed the following hypothesis:

Hypothesis 3b: The protective effect of family SES in preventing unsmooth SWT is evident in *younger cohorts* by facilitating *delayed SWT*.

Data and method

Data

The data used in this study were drawn from the CGSS, which is the earliest national representative survey project with repeated cross-sectional design in mainland China. The project was launched in 2003, and its first cycle (Cycle I) included five annual surveys conducted between 2003 and 2008 by the Department of Sociology of the Renmin University of China and the Survey Research Center of the Hong Kong University of Science and Technology. Since 2010, or in the Phase II Cycle, the CGSS has been managed by the National Survey Research Center at Renmin University of China. The CGSS conducted six annual surveys between 2010 and 2021.[1]

The CGSS uses a multistage stratified sampling design to select household samples from 31 provinces in mainland China. One eligible person ages 18 and above (18–69 for 2003) is randomly selected from each sampled household to participate in a face-to-face interview. The CGSS aims to collect data

on the changing relationship between social structure and quality of life in urban and rural China. Its questionnaires cover a wide range of topics, and its core module has 11 dimensions, including social demographic background, labor market participation, health, lifestyle, migration, social attitudes, class identity, political attitudes and behavior, cognitive ability, social welfare, and family. The content and measurement are almost comparable across all waves. Given its long span of years and rich information, the CGSS provides a rare opportunity to investigate SWT trajectories over several decades.

We analyzed data from the CGSS from 2003 to 2021, except in 2011, because of the lack of information on participants' first jobs. Our preliminary sample for screening consisted of 95,086 individuals born between 1946 and 1995. This sample represents a wide range of birth cohorts that experienced significant social changes throughout China during the past fifty years. The process of screening the sample is illustrated in Figure A1.

In the present study sample, approximately one-third ($N = 31,301$) of individuals were engaged in farm work. This group was treated separately because of the unique nature of their occupation. Farm workers, including farmers and agricultural laborers, often start working in agriculture from a young age, thus causing difficulty in determining a precise and formal timing for the transition to self-employment farming. While some individuals within this group might have previously worked in nonfarm jobs, the CGSS does not provide information on their job history, thus preventing us from observing their SWT. However, the farm-work group was retained in the full sample to facilitate a comparison with individuals in nonfarm sectors. The analysis of the full sample enables an examination of the changes in young people's life experiences transitioning from farm work to nonfarm work over the past decades.

The remaining two-thirds of our sample ($N = 60,660$) comprised individuals in nonfarm sectors. Among them, over 90.5% ($N = 54,873$) completed at least primary education, thus placing them at risk of transitioning from school to work. The analysis focused on their SWT sequences. Additionally, 2,881 respondents in the sample were enrolled as students at the time of the interview. Given that their SWTs had not yet occurred, we excluded these cases. After excluding cases with missing values and reporting errors in key variables, an analytical sample of 51,432 individuals was obtained for the analyses of SWT among young people who did not engage in farm work. Additionally, we had a full sample consisting of 82,733 individuals, which included individuals in farm work ($N = 31,301$) and nonfarm work ($N = 51,432$).

Analytic strategy and measures

This study investigates the process of SWT. From a life-course perspective, SWT can be observed as an age-graded trajectory that consists of a

series of linked states across successive years. The transition occurs, but how and when it occurs are important aspects to be studied. The order and timing of school-to-work trajectories are described using the term *sequence*, which is defined by successions of standard categorical states or events. As the term implies, SWT consists of two critical events: leaving school and landing one's first job. A smooth SWT is when young people enter employment as soon as they leave school, without a gap between school and work, which is common in China, particularly for college graduates under a planned economy. However, not all students can make a smooth transition, and some students experience interruptions in SWT or disengagement in the labor market. Therefore, the sequence of SWT should include three states: education, employment, and neither.

During the interview, most CGSS respondents had already finished their school education. Thus, their SWT sequences were mainly constructed from retrospective information. This study used the information from the CGSS's core modules on educational attainment, enrollment status, and the year that a respondent received his/her highest educational level to construct the state of schooling. Regarding the year of transition to work, the CGSS 2003, 2005, 2006, 2008, and 2021 contain a job history module, which allowed us to identify when the first work started directly. For the remaining surveys, this study used information on how many years a respondent had worked since his/her first nonfarm job and how long a respondent stayed out of employment to infer the timing of the transition to work. The CGSS 2021 provided information on the year that the first job started and the number of years since the first job. This information allowed us to verify that the year of transition to work directly measured is mainly identical to that indirectly measured. Each individual's SWT sequence was constructed from ages 10 to 29, an age period when SWT usually occurs.[2] For those who had not reached age 29 by the time of the interview, their sequences were censored. A total of 1,176 unique sequences were built for individuals in 20 yearly observations in a three-element state space on the transition from school to work.

Hypotheses 1a and 1b were examined using sequence analysis, which allowed us to summarize SWT sequences and extract typical SWT pathways. Sequence analysis has been widely used in the social sciences in recent decades (see Blanchard, Bühlmann, and Gauthier 2014 for a review). To determine an appropriate number of clusters in a sequence analysis, Cornwell (2015) suggested that the ideal cluster solution should yield easily recognizable clusters with social significance. Based on the experienced events and their order, we manually assembled similar sequence patterns into four major categories: delayed SWT, early SWT, unsmooth SWT, and reversed SWT. The distributions of typical SWT pathways were compared by birth cohorts to provide a comprehensible

understanding of the SWT trends over time. A detailed description of these pathways will be presented and discussed in the result section.

To provide a comprehensive picture of the changing opportunity structures within the domains of education and the labor market for individuals from different birth cohorts, the present study adopts Xie et al. (2022) classification of birth cohorts, which categorizes cohorts at 10-year intervals starting from 1946. This classification groups birth cohorts into five categories, namely, 1946–1955, 1956–1965, 1966–1975, 1976–1985, and 1986–1995. Young individuals born after 1995 were excluded from the analysis because many in this cohort have not completed their higher education because of the higher education expansion. Additionally, household survey respondents are typically residents at home, potentially limiting the representativeness of students residing on campus. Consequently, the sample size for the younger cohorts is limited, leading to potentially unstable conclusions.

The first two cohorts (1946–1955 and 1956–1965) grew up in the planned economy era, which was characterized by a disruption in the education system and limited career prospects because of the Cultural Revolution, the "send-down" movement, and other significant political events. However, during this period, the state's job assignment system offered employment opportunities for educated individuals (Nee 1996). Furthermore, the birth cohort of 1956–1965 benefited from the restoration of college entrance examinations in the late 1970s, which expanded their pathways to higher education.

The birth cohort of 1966–1975 witnessed an expansion of work opportunities resulting from the significant economic reform initiated by the reform and open-door policy in the late 1970s. The economic reform created new opportunities for career advancement for this cohort. By contrast, the two younger cohorts (1976–1985 and 1986–1995) grew up in the era of market economy and education reforms. The birth cohort of 1976–1985 experienced an expansion of educational opportunities following the implementation of the 1986 Compulsory Education Law. The birth cohort of 1986–1995 faced more competitive and uncertain labor market circumstances despite enjoying greater access to higher education through educational expansion.

For the sets of hypotheses 2 and 3, this study applied binary regression analysis to examine the effects of education and family background on SWT. The dependent variables were represented by dummy variables, which indicate three typical SWTs: delayed SWT, early SWT, and unsmooth SWT (serving as the reference category). The category of reversed SWT had a small group size and was thus not included as a separate category in the dependent variable for regression analysis. Regarding the unsmooth SWT, the cultural and educational norms in

China often emphasize a continuous educational and career trajectory without extended breaks or gaps. These norms differ from the increasing trend in the West, where young people may opt to have a period out of formal education, training, or work (Jones 2004). In China, young people commonly enter the labor market after graduating from university. The government and universities organize campus recruiting events aimed at assisting graduating students in their job search (The State Council of China 2024). As a result, Chinese young people are more likely to experience a forced gap period before employment rather than opting to do so. In this study, we defined young people who experienced a gap or interruption of two or more years[3] before their first job as undergoing an unsmooth SWT. This definition captures situations where individuals face challenges in transitioning directly from education to the workforce.

For key independent variables, we measured educational attainment using one's years of schooling. Furthermore, we examined the effects of two competitive educational transitions on SWT. One is the transition from lower secondary education to upper secondary education, and the other is the transition from upper secondary education to tertiary education.

Family background was measured by *hukou* origin, the father's educational attainment, the father's occupational status, and the parental party membership. Established in the 1950s, the *hukou* system assigned agricultural or nonagricultural status to each individual as the most important determinant of rights and privileges affecting socioeconomic well-being (Treiman 2012; Whyte 2010; Wu and Treiman 2004). Given that a child's *hukou* status was determined at birth by his/her parents' status (especially by his/her mother's status), *hukou* origin is composed of one's family background. This study adopted a dichotomous measure of *hukou* origin, with the value of 1 for nonagricultural *hukou* holders (or "urban origin") and 0 for agricultural *hukou* holders or converters from agricultural *hukou* to nonagricultural *hukou* (or "rural origin").

The father's educational attainment was measured by his educational percentile ranks (0–100) relative to the educational level of the male population born in the same year cohort. As a relative measure of educational level, the percentile ranks make the educational level of fathers born in various cohorts comparable. The information for computing educational percentile ranks was based on sex-age-education distributions from Census 1982, 1990, 2000, 2010, and mini-Census 2015. The father's occupational status was measured using the International Socio-Economic Index (ISEI) of the father's primary occupation when the respondents were at age 14 (CGSS 2005, 2008–2021) or 18 (CGSS 2003, 2006).

Parental Communist Party membership is a typical measure of family political background. Earlier studies have documented that parents' party

membership is associated with a child's educational attainment and occupations (e.g., Li and Walder 2001; Zhou, Moen, and Tuma 1998). A recent study showed that fathers' party membership is predictive of housing ownership even if it is conditional on fathers' education (Zhu, Xin, and Chen 2024). In the present study, parental party membership was coded as 1 if at least one parent was a party member and coded as 0 if neither parent was a party member.

Covariates included gender and birth year. The year of the survey was used as a covariate to eliminate the possible error caused by measurement differences across various survey waves. The distribution of independent variables is summarized in Table 1.

Table 1. Summary of variable distributions ($N = 82{,}733$).

	Mean (*SD*)/%
Key independent variables	
Father's educational percentile ranks	47.56 (28.28)
Father's occupational status (ISEI)	29.14 (16.41)
Parental party membership (%)	15.66
Urban origin (%)	30.80
Years of schooling	9.41 (4.17)
Education level (%)	
Primary/-	27.30
Junior high	34.69
Senior high	23.71
Tertiary/+	14.30
Covariates	
Male (%)	47.94
Birth year (year)	1967.08 (12.29)
Birth cohort (%)	
1946–1955	21.87
1956–1965	25.39
1966–1975	26.21
1976–1985	17.79
1986–1995	8.75
Survey year (%)	
2003	4.91
2005	9.61
2006	9.84
2008	5.96
2010	10.15
2012	10.46
2013	10.26
2015	9.30
2017	11.24
2018	11.24
2021	7.03

Notes: Standard deviation in parentheses for continuous variables.

[a]The sample consists of individuals who engaged in farm work and individuals who experienced SWT.

[b]Father's educational percentile ranks are calculated by the father's education rank in his birth year and gender group, which are based on the national education data from the census in 1990, 2000, 2010, and 2015.

[c]Parental party membership is defined as whether at least one of the respondent's parents has a membership of the Communist Party of China.

To compare the effects of education and family background on SWT across various birth cohorts, we estimate the average marginal effects of these factors based on the logistic regression models. The average marginal effect is a statistical measure used to quantify the average change in the probability of an outcome for a one-unit change in a covariate, holding other variables constant (Bartus 2005). It is particularly useful in nonlinear models, such as logistic regression, where the relationship between the outcome variable and covariates is not linear (Williams 2012). The average marginal effects provide a standardized way to interpret the effects of covariates on the probability of the outcome and are robust to differences in sample size, thus making the comparison of the effects across different samples reliable (Mood 2010).

Results

Description of SWT pathways

Using sequence analysis, four distinct pathways of the transition from school to nonfarm work were identified: unsmooth SWT, early SWT, delayed SWT, and reversed SWT, as depicted in Figure 1. The first pathway, unsmooth SWT, is identified when individuals experience a transition interruption lasting at least two years. Within this group, approximately

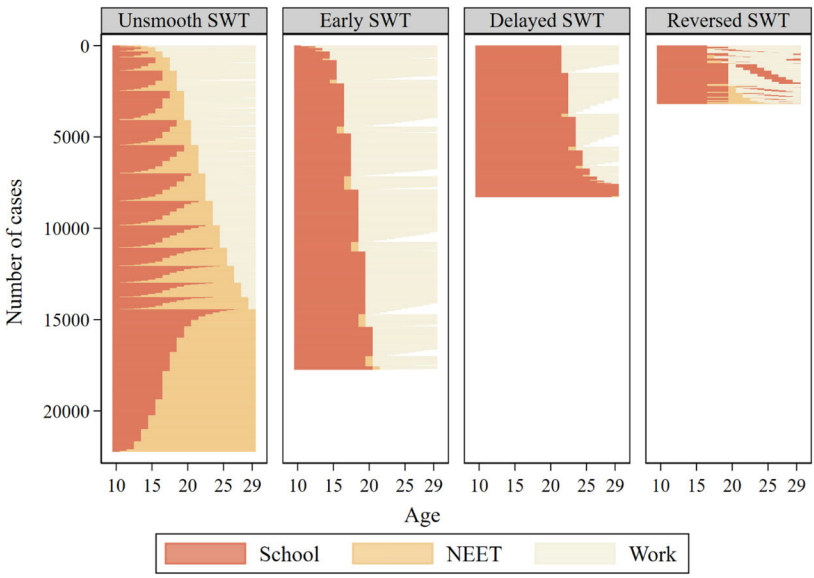

Figure 1. Index plots of SWT pathway clusters.
Note. Farm laborers were excluded because no information on when they started farm work is available.

one-third of individuals do not engage in employment, education, or training (NEET) until age 29 after leaving school. Further analysis reveals that the NEET group within the unsmooth SWT pathway predominantly comprised women, thus accounting for about 60% of the group. Moreover, the majority of individuals in this NEET group (over 80%) belonged to the three earlier cohorts. This proportion can be attributed to factors such as early marriage and childbearing, which often result in reduced labor market participation for women after the completion of schooling.

The second pathway is early SWT, where young people typically leave school after primary or high-school education (age 12 for primary school graduates, age 15 for junior high school graduates, and ages 18 or 19 for senior high school graduates) and immediately find employment without significant interruptions. Similar to early SWT, delayed SWT represents a smooth transition but involves extended schooling and delayed entry into the workforce. On average, individuals in this group stay in education until age 22. Reversed SWT refers to a transition pathway where young people obtain the highest level of education after starting their first job. Their SWT is not a one-time, unidirectional transition but a reversed transition.

Table 2 presents a descriptive analysis of how different SWT pathways vary based on individual sociodemographic characteristics. Additionally, this study employs the entropy index (Fussell 2005) to measure the heterogeneity within each SWT pathway. A higher score indicates greater heterogeneity within the pathway.

Table 2. Sociodemographic characteristics by SWT pathways.

		Early		
	Unsmooth SWT	SWT	Delayed SWT	Reversed SWT
Entropy	1.21	0.99	0.75	1.10
Male (%)	47.34	52.12	53.31	52.17
Cohort (%)				
1946–1955	17.62	16.91	6.69	13.71
1956–1965	25.31	25.78	9.36	23.43
1966–1975	29.38	24.01	22.58	30.79
1976–1985	19.88	19.87	36.13	25.31
1986–1995	7.81	13.44	25.24	6.76
Education (%)				
Primary/–	15.77	3.62	0.46	0.00
Junior high	50.85	40.85	2.75	0.00
Senior high	27.60	50.53	13.31	24.43
Tertiary/+	5.78	5.00	83.48	75.57
Years in NEET	7.95	0.18	0.06	1.19
Urban origin (%)	36.04	53.03	56.32	60.75
Parental party membership (%)	14.80	19.39	26.81	36.86
Father's education	47.87	53.81	62.62	65.02
Father's occupational status	29.04	33.79	37.48	39.88
N	22,232	17,733	8,287	3,180

Notes. Farm laborers were excluded because no information on when they started farm work is available.See the notes to Table 1 for information on variables.

The results reveal that the entropy of the unsmooth SWT pathway is the highest among all pathways, thus suggesting that young people's experience in unsmooth SWT is more complex and individualized. On average, individuals in this pathway spend the longest duration as NEETs compared with other pathways. Within the unsmooth pathway, a significant proportion of individuals (43 percent) were born between 1946 and 1965. Additionally, the majority of individuals on this pathway were female (53 percent) and originated from rural areas (64 percent). These findings suggest that women in the unsmooth SWT pathway may have faced obstacles in engaging in the labor market because of factors such as early marriage and childbearing. By contrast, early cohorts of rural men may have migrated to urban areas in search of employment opportunities, but some of these male migrant workers may have faced difficulties in securing jobs.

Furthermore, education is closely associated with the types of SWT pathways. In the unsmooth SWT group, individuals with lower education levels (junior high school or below) are overrepresented, thereby accounting for more than 66 percent of the group. A significant proportion of individuals experiencing delayed SWT are college educated. Meanwhile, young people experiencing reversed SWT often pursue tertiary education.

When considering family background, individuals in the delayed and reversed SWT groups tend to have better family backgrounds than other groups. A larger percentage of these individuals has an urban origin, at least one parent who is a party member, and a better-educated father. Moreover, a greater percentage of individuals in the early SWT group has an urban origin and a better-educated father than those in the unsmooth SWT group.

4.2. Changing pathways in SWT

The distribution of SWT pathways among young people varies across birth cohorts. Figure 2 illustrates the unequal distribution of four SWT pathways, considering farm and nonfarm employment, among different birth cohorts and *hukou* origin. Among young people of rural origin (Figure 2a), we observed a declining proportion of individuals with farmwork experience, which dropped from 76.3 percent for the birth cohort of 1946–1955 to only 15.2 percent for the birth cohort of 1986–1995. Meanwhile, a rising proportion of rural young people experienced early SWTs.

Excluding farm employment, more than half of rural young people in the first three cohorts experienced an unsmooth SWT, whereas the percentage decreased in later cohorts, thus reaching around one-third for the youngest cohort (1986–1995) (Figure 2b). The downward trend in

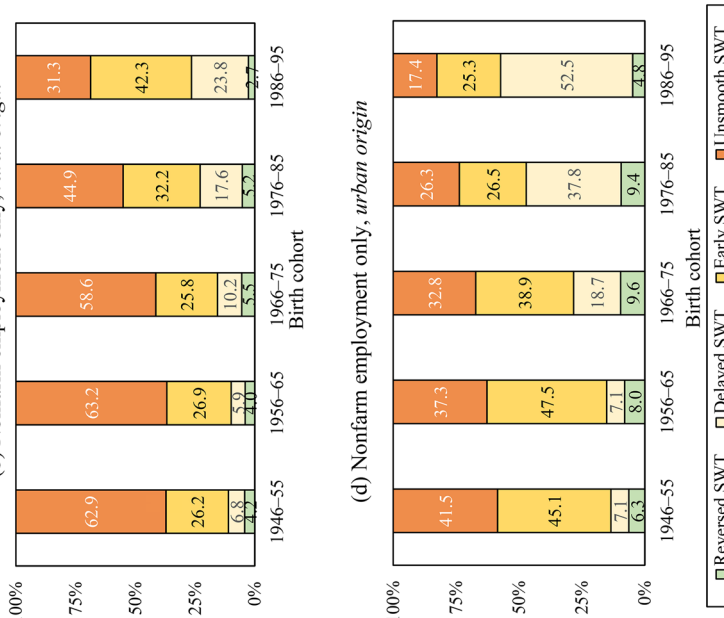

Figure 2. Distribution of SWT pathway by birth cohort and *hukou* origin.

unsmooth SWT among younger cohorts aligns with the expansion of work opportunities resulting from rapid economic growth and thriving service industry development in post-reform years. These results reflect how the life experiences of rural young people have been shaped by large-scale industrialization, economic development, and rural-to-urban migration. The findings support hypothesis 1a, thus indicating that rural young people have increasingly experienced early SWT transitioning from farm work.

Among young people of urban origin, around 10 percent of the birth cohort 1946–1955 and 7 percent of the birth cohort 1956–1965 engaged in farm work (Figure 2c). This result may be attributed to the state--initiated send-down movement during the Cultural Revolution, where millions of urban young graduates from junior high and senior high schools were sent to the countryside (Bernstein 1977; Xie, Jiang, and Greenman 2008; Zhou and Hou 1999). The state's intervention significantly affected the SWT of urban-educated young people.

In nonfarm employment, Figure 2d shows a decreasing trend of unsmooth SWT, thus coinciding with the rising trend of delayed transition. The proportion of young people who experienced delayed SWT increased from 7.1 percent for the birth cohort of 1946–1955 to over 50 percent in the youngest cohort. The rising trend of delayed SWT coincided with the massive expansion of tertiary education. Therefore, one possible reason of the increasing prevalence of delayed SWT is that a growing number of young individuals are opting to pursue higher education, thereby leading to a delayed transition from school to work. The findings support hypothesis 1b, which indicates that urban young people have increasingly experienced delayed SWT because of extended education periods.

Furthermore, reversed SWT remains a small group across birth cohorts. This result indicates that returning to school from work to obtain tertiary education or postgraduate education is not a typical SWT pathway for young people across cohorts. Such direction could potentially be attributed to the institutional constraints of China's educational system, which traditionally placed age limits on admissions to regular undergraduate programs until it was abolished in 2001 (Lai 2014). However, the proportion of reversed SWT slightly increased in 1956–1985 birth cohorts, which potentially resulted from the restoration of college entrance examinations and the expansion of educational opportunities in adult higher education. Notably, elites within government and state-owned enterprises had the opportunity to pursue further education in college through adult higher education programs (Li and Walder 2001; Lai 2014), leading to a reversed SWT experience. Considering the small size of the reversed SWT category, we have not included it as a separate category for further analysis.

Effect of education on SWT pathways

This study conducted further analysis using logistic regression models on each birth cohort to examine the influence of educational attainment on SWT under different historical circumstances. The key results are visualized in Figures 3 and 4.[4]

Figure 3 illustrates the effects of educational attainment on the likelihood of experiencing early SWT relative to unsmooth SWT, with education measured by years of schooling (Figure 3a) and upper secondary education (Figure 3b). The results of Figure 3a indicate that in the first three older birth cohorts from 1946 to 1975, individuals with more education were more likely to experience early SWT compared with unsmooth SWT. This finding may be related to the state's job assignment policy during the planned economy, where educated youth were typically assigned jobs from the mid-1950s to the late 1980s (Nee 1996). Among the younger cohorts from 1976–1985 and 1986–1995, the impact of education on avoiding unsmooth SWT through an early SWT pathway became less pronounced. Therefore, the findings support hypothesis 2a, which suggests that education functions as a protective factor against unsmooth SWT primarily by promoting early SWT among older cohorts.

Figure 3b further highlights the significant impact of education in facilitating individuals with upper secondary education to engage in early SWT, serving as a protective measure against unsmooth SWT compared with those with lower levels of education. It is noteworthy that the impact of upper secondary education appears to be less pronounced for the 1946–1955 birth cohort when compared to younger cohorts. One potential explanation for this observation is that a considerable number of individuals with upper secondary education from this earlier cohort were relocated to rural areas for "reeducation" during the Cultural Revolution (1966–1976) (Lin 2013). This protective effect of upper secondary education has become more prominent in more recent cohorts after accounting for the influence of family background. These findings suggest an increasing importance of upper secondary education compared with the absence of such education during China's economic development.

Figure 4 further presents how education shapes the SWT pathways by comparing delayed SWT to unsmooth SWT, measuring education by years of schooling (Figure 4a) and tertiary education (Figure 4b). The results in Figure 4(a) reveal a general increasing protective effect of education in facilitating delayed SWT against unsmooth SWT. Notably, better-educated individuals from the two most recent birth cohorts (1976–1985 and 1986–1995) show a significantly greater tendency toward a delayed SWT rather than an unsmooth SWT. These findings suggest that while institutional changes, such as the restructuring of the state

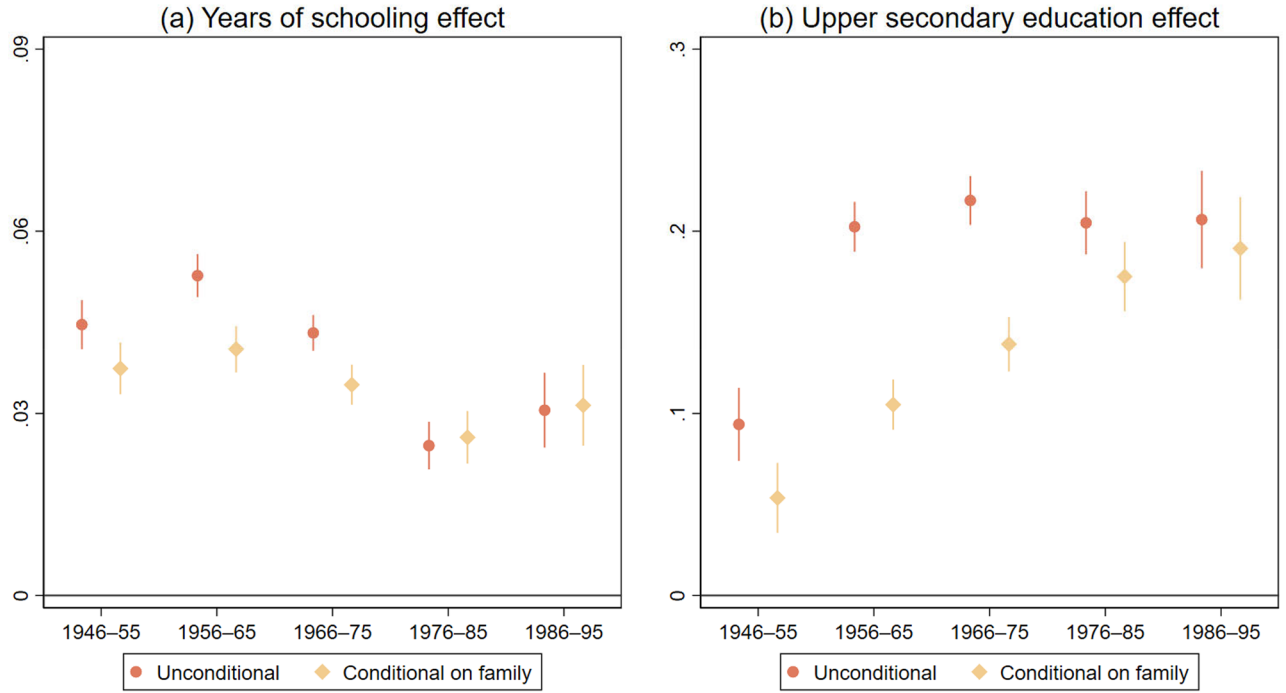

Figure 3. Average marginal effects of education on *early* SWT (with *unsmooth* SWT as the baseline category).
Notes. Unconditional models (Unconditional) include birth cohorts, gender, birth year, and year of the survey as covariates. Models conditional on family characteristics (Conditional on family) include the father's education, father's occupational status, parental party membership, and *hukou* origin as additional covariates. (b) only compares those who completed upper secondary education with those who only completed lower secondary education. Point estimates for average marginal effects and their 95% confidence intervals are presented.

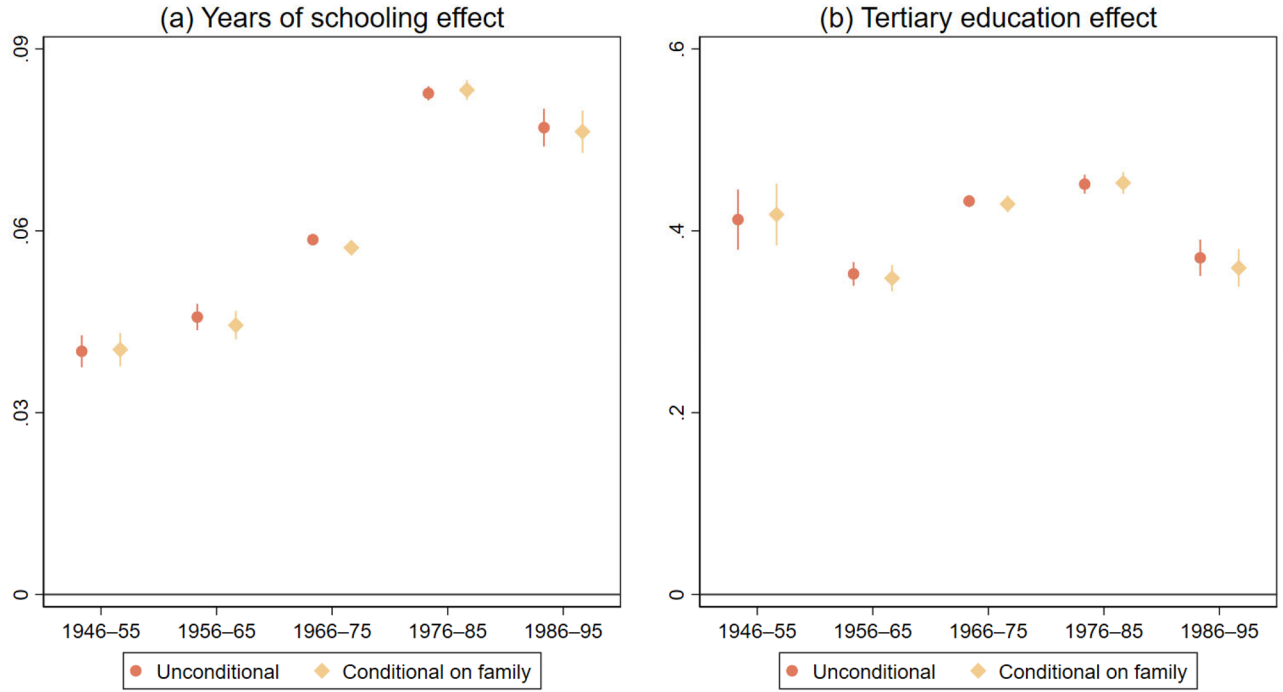

Figure 4. Average marginal effects of education on *delayed* SWT (with *unsmooth* SWT as the baseline category).
Notes. Unconditional models (Unconditional) include birth cohorts, gender, birth year, and year of the survey as covariates. Models conditional on family characteristics (Conditional on family) include the father's education, father's occupational status, parental party membership, and hukou origin as additional covariates. (b) only compares those who at least completed tertiary education with those who only completed upper secondary education. Point estimates for average marginal effects and their 95% confidence intervals are presented.

sector (Meng 2012), the informalization of the labor market (Park and Cai 2011), and educational expansion, have increased uncertainty and competition in the labor market, young people may opt to pursue further education to postpone their entry into the workforce and reduce the risk of unemployment. Therefore, the findings support hypothesis 2b emphasizing education as a protective factor against unsmooth SWT primarily by facilitating delayed SWT among younger cohorts.

Figure 4b indicates a generally consistent rising trend of the protective effect of tertiary education against unsmooth SWT across most birth cohorts (1956–55, 1966–1975 and 1976–1985), mirroring the trend observed in the impact of years of schooling (Figure 4a). Notably, two birth cohorts (1946–1955 and 1986–1995) stand out as exceptions to this trend, indicating potential structural factors that may have influenced the educational protective effects during these periods.

In comparison with the 1956–1965 cohort, the 1946–1955 birth cohort exhibits a stronger effect of tertiary education in predicting delayed SWT. Individuals in this birth cohort pursued higher education after the reestablishment of the college entrance examination in 1977. They graduated from college at a relatively older age than the subsequent birth cohort, increasing the likelihood of engaging in a delayed SWT.

The slight decline in the protective effect of tertiary education against unsmooth SWT for the youngest cohort (1986–1995) can be linked to the post-expansion era of higher education, which has resulted in a consistently high supply of college graduates in the labor market (Knight, Deng, and Li 2017). University graduates from this cohort encountered increasing challenges in securing employment. Nevertheless, the effect of tertiary education in alleviating unsmooth SWT remains consistently significant for this youngest birth cohort.

Protective role of family background in SWT pathways

The analysis of family background effects on SWT pathways is presented in Figures 5 and 6. Figure 5 demonstrates the effects of family background on early SWT using unsmooth SWT as the baseline category.

The patterns of family background effects are consistent across different measurements, namely, the father's education (Figure 5a), father's occupational status (Figure 5b), parental party membership (Figure 5c), and urban origin (Figure 5d). In earlier birth cohorts, young people with better family backgrounds in terms of the father's education, father's occupational status, parental party membership, and urban origin were more likely to experience early SWT compared with unsmooth SWT. These significant family background effects remain significant in the first three cohorts after controlling for young people's education. However, in

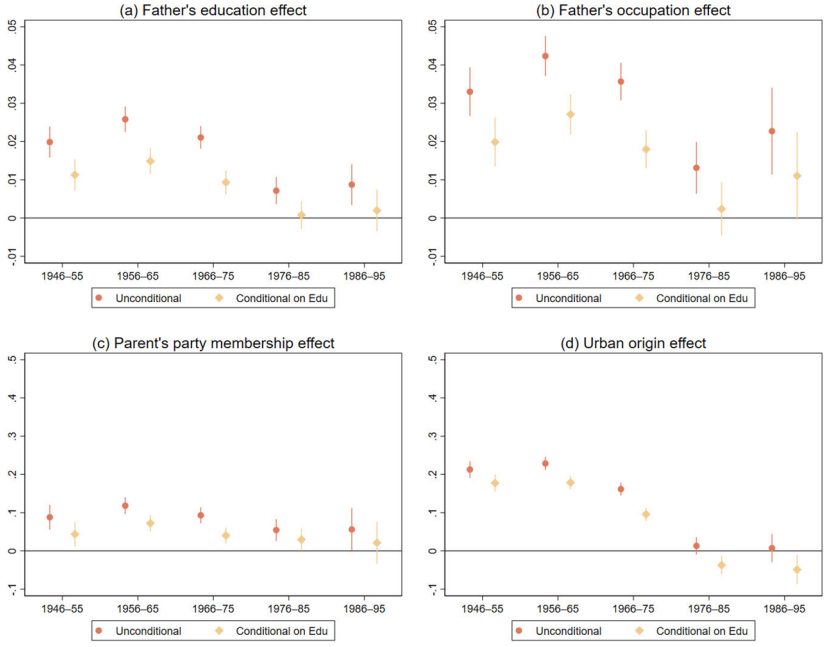

Figure 5. Average marginal effects of education and family background on *early* SWT (with *unsmooth* SWT as the baseline category).
Notes. Unconditional models (Unconditional) include gender, birth year, and year of the survey as covariates. Models conditional on education (Conditional on Edu) include young people's years of schooling as an additional covariate. Point estimates for average marginal effects and their 95% confidence intervals are presented.

the two most recent birth cohorts, the impact of family background is smaller or even statistically insignificant in predicting an early SWT. Therefore, the finding supports hypothesis 3a, which suggests that the protective effect of family SES in preventing unsmooth SWT is evident in older cohorts by promoting early SWT.

Figure 6 further presents the protective role of family background in shaping delayed SWT compared with unsmooth SWT. Individuals from more privileged family backgrounds, which are measured by the father's education, father's occupational status, parental party membership, and urban origin, were more likely to experience a delayed SWT compared with unsmooth SWT. This protective effect of family background against unsmooth SWT was relatively small for older cohorts but significantly more pronounced in younger cohorts, especially among individuals born in 1976–1985 and 1986–1995. The results support hypothesis 3b, indicating that the protective effect of family SES in preventing unsmooth SWT is evident in younger cohorts by facilitating delayed SWT.

Furthermore, Figure 6 shows that when controlling for the respondent's educational attainment, the effects of family background become

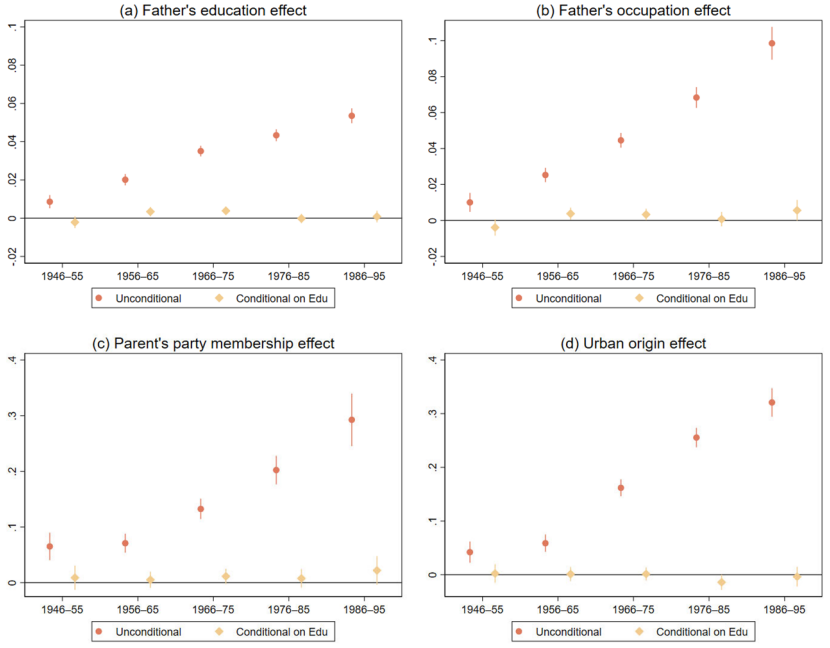

Figure 6. Average marginal effects of education and family background on *delayed* SWT (with *unsmooth* SWT as the baseline category).
Notes. Unconditional models (Unconditional) include gender, birth year, and year of the survey as covariates. Models conditional on education (Conditional on Edu) include young people's years of schooling as an additional covariate. Point estimates for average marginal effects and their 95% confidence intervals are presented.

statistically insignificant. These findings suggest that the protective effects of family background are likely mostly channeled through the respondent's education. Using the KHB decomposition method (Karlson, Holm, and Breen 2012), we further estimate the extent to which the respondent's educational attainment mediates the impact of family background on the delayed versus unsmooth SWT. The results reveal that educational attainment serves as the primary mechanism through which family advantages facilitate smooth SWT for younger cohorts. For the older three cohorts (born between 1946 and 1975), the respondent's own educational attainment mediated 86, 91.5 and 89.6 percent of the total effects of father's education, father's occupation, and parental party membership, respectively, on the delayed versus unsmooth SWT. For the cohorts 1976–1985 and 1986–1995, the mediating role of educational attainment became even more pronounced, accounting for 99.9, 97.1, and 93.4 percent of these family advantages, respectively. During higher education expansion, young people from high-SES families tend to postpone entering the job market by pursuing further education. This delay can facilitate their transition to

employment (Brzinsky-Fay 2007; MacDonald 2011; Ryan 2001) and reduce the risk of unemployment and underemployment (Serracant 2015).

Conclusion and discussion

Drawing on multiple waves of CGSS data, this study investigated the evolving pathways in the SWT of individuals born between 1946 and 1995. We also examined how educational attainment and family background shape their SWT experiences. Our analyses of Chinese young people span fifty years, thus capturing the changing opportunity structures amid significant socioeconomic transformations in China, including the Cultural Revolution, economic reform, and educational expansion.

This study identified four distinct pathways in the transition from school to nonfarm employment: unsmooth SWT, early SWT, delayed SWT, and reversed SWT. These results highlight that rural young people have increasingly experienced an early SWT by transitioning from farm work during industrialization, economic development, and rural-to-urban migration in recent decades. Meanwhile, the significance of delayed SWT has increased over time, particularly among urban young people who experienced the expansion of higher education.

Moreover, educational attainment and family SES consistently play a significant role in preventing young people from experiencing an unsmooth SWT across different birth cohorts. Our findings suggest that education and family SES prevent unsmooth SWT among young people, and their protective effect occurs primarily by promoting early SWT among older cohorts and facilitating delayed SWT among younger cohorts. Additionally, the protective effect of family SES is largely mediated by education. These findings suggest that advanced education has become an increasingly important mechanism for maintaining intergenerational advantages during China's dramatic social changes over the past few decades.

This study does not assert that delayed SWT is inherently more favorable for young people. In certain circumstances, it may represent a postponement of unemployment during economic recessions. However, the extended period of schooling provides young individuals with a secure and enriched transitional period, thus offering them a respite from the hardships associated with unemployment or precarious employment. Consequently, our findings indirectly indicate that individuals without a university degree face a higher penalty because of their SWT experiences. The question of who has the privilege to delay SWT serves as a lens for understanding the transmission of inequality across generations. The intergenerational disadvantages faced by young people from low-SES families can be largely attributed to their educational disadvantages. This

attribution underscores the role of education as a mechanism for the reproduction of inequality in contemporary China.

This study contributes to existing literature in four significant ways. First, while research on social inequality in status attainment has a long-standing tradition of focusing on educational attainment (see Breen and Jonsson 2005 and Hannum et al. 2019 for reviews) and occupational attainment (see DiPrete 2020 and Kalleberg and Mouw 2018 for reviews), the SWT pathways have been relatively underexplored in prior literature. Notably, the experience of SWT can have significant impacts on later-life outcomes, such as transition to marriage (Gebel and Heyne 2016) and parenthood (Mortimer, Oesterle, and Krüger 2005), as well as occupational attainments (Brzinsky-Fay and Solga 2016) and earnings (Cebulla and Whetton 2018). While research on status attainment focuses on achieving a socioeconomic position in society, our study on SWT enhances the understanding of young people's early career trajectories from education to the workforce and the roles of education and family background in influencing this process.

Second, despite the significant socioeconomic changes in China over the past few decades, limited research exists on the long-term changes in SWT among young people during these changes. This study fills this gap by examining the long-term changes in SWT among young people in China, a transformative society and a socialist country. By analyzing the changing SWT pathways among young people over fifty years, this study provides a comprehensive understanding of the diverse SWT pathways under different socioeconomic circumstances, including industrialization, economic development, and educational expansion.

Third, this study sheds new light on the understanding of the changes in social inequalities in contemporary China through the lens of SWT trajectories. The findings reveal that young people's education and family background, including the father's education, father's occupational status, parental party membership, and *hukou* origin, play a protective role in mitigating unsmooth SWT. Notably, this study emphasizes the rising importance of education as the mediator between family background and successful SWT. These findings suggest a relatively weakened influence of alternative mechanisms of social stratification, such as *hukou* and political status, which were previously given great emphasis (see Wu 2019 for a review).

Fourth, by using China as a case study, this study extends the literature on social inequality by demonstrating the intergenerational reproduction and solidification of social classes in the process of transitioning to adulthood, especially in the trajectories of SWT. These findings expand upon the traditional focus on intergenerational inequality in educational attainment, occupational attainment, and income.

This study has limitations that can be addressed in future research. Given the data constraints, our analyses can only capture the changes in the transitions between years. As a result, detailed transitions that occur within a year may be underrepresented if young people experience multiple transitions within that period. Additionally, given that some information on early transitions relies on participants' memory, recall bias may occur, particularly among older cohorts. Furthermore, distinguishing between temporary first jobs and stable first jobs, which is an important measure of transition quality, posed challenges in our analysis. Individuals with farm work experience were omitted from the four types of SWT due to the lack of job histories in the data. Because these individuals may have migration and nonfarm job experiences, the exclusion of this group might have led to an underestimation of the prevalence of unsmooth or early SWT.

Nevertheless, the CGSS is the earliest nationally representative survey project in China conducting multiple waves of repeated cross-sectional surveys from 2003 to 2021. The CGSS project provides valuable data for examining the SWT of Chinese individuals across various cohorts. In future studies, employing large-scale longitudinal surveys with detailed information on SWT over an extended period will enable researchers to capture comprehensive and nuanced trajectories of SWT among multiple cohorts of young individuals.

Notes

1. For an introduction of the CGSS, see its project website: http://cgss.ruc.edu.cn/English/Home.htm.
2. We set the minimum age criterion at 10 to capture the experiences of schooling and the transition to work among individuals with primary education comprehensively.
3. From a measurement standpoint, the CGSS collected information on the year in which respondents completed their highest level of education and the number of years they worked from their first job to their current job. However, the CGSS does not provide precise information on the timing of SWT. Thus, whether a one-year gap represents the new employee onboarding process (if it happened at the end of a year) or an unsmooth SWT experience is difficult to determine. To avoid misclassification, we use a two-year cutoff as a conservative approach in defining unsmooth SWT.
4. The regression estimates of the models in Sections 4.3 and 4.4 can be provided upon request.

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References

Alon, Sigal. 2009. "The Evolution of Class Inequality in Higher Education: Competition, Exclusion, and Adaptation." *American Sociological Review* 74 (5):731–55. https://doi.org/10.1177/000312240907400503.

Alwin, Duane F., and Ryan J. McCammon. 2003. "Generations, Cohorts, and Social Change." In *Handbook of the Life Course*, edited by Jeylan T. Mortimer and Michael J. Shanahan, 23–49. Boston, MA: Springer.

Assaad, Ragui, Caroline Krafft, and Colette Salemi. 2023. "Socioeconomic Status and the Changing Nature of School-to-Work Transitions in Egypt, Jordan, and Tunisia." *ILR Review* 76 (4):697–723. https://doi.org/10.1177/00197939221141407.

Bai, Limin. 2006. "Graduate Unemployment: Dilemmas and Challenges in China's Move to Mass Higher Education." *The China Quarterly* 185:128–44. https://doi.org/10.1017/S0305741006000087.

Bartus, Tamás. 2005. "Estimation of Marginal Effects Using Margeff." *The Stata Journal: Promoting Communications on Statistics and Stata* 5 (3):309–29. https://doi.org/10.1177/1536867X0500500303.

Bernstein, Thomas P. 1977. *Up to the Mountains and Down to the Villages: The Transfer of Youth from Urban to Rural China*. New Heaven, CT: Yale University Press.

Becker, Gary S. 1994. "Human Capital Revisited." In *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*, edited by Gary S. Becker, 15–28, 3rd ed. Chicago, IL: The University of Chicago Press.

Bian, Yanjie. 1994a. "Guanxi and the Allocation of Urban Jobs in China." *The China Quarterly* 140:971–99. https://doi.org/10.1017/S0305741000052863.

Bian, Yanjie. 1994b. "Urban Employment: Policies and Practices." In *Work and Inequality in Urban China*, edited by Yanjie Bian, 51–72. Albany, NY: State University of New York Press.

Blanchard, Philippe, Felix Bühlmann, and Jacques-Antoine Gauthier, eds. 2014. *Advances in Sequence Analysis: Theory, Method, Applications*. Vol. 2. Singapore: Springer.

Blustein, David L., Cindy L. Juntunen, and Roger L. Worthington. 2000. "The School-to-Work Transition: Adjustment Challenges of the Forgotten Half." In *Handbook of Counseling Psychology*, edited by Steven D. Brown, Robert W. Lent, 435–70, 3rd ed. New York, NY: Wiley.

Breen, Richard. 2005. "Explaining Cross-National Variation in Youth Unemployment: Market and Institutional Factors." *European Sociological Review* 21 (2):125–34. https://doi.org/10.1093/esr/jci008.

Breen, Richard, and Jan O. Jonsson. 2005. "Inequality of Opportunity in Comparative Perspective: Recent Research on Educational Attainment and Social Mobility." *Annual Review of Sociology* 31 (1):223–43. https://doi.org/10.1146/annurev.soc.31.041304.122232.

Brzinsky-Fay, Christian. 2007. "Lost in Transition? Labour Market Entry Sequences of School Leavers in Europe." *European Sociological Review* 23 (4):409–22. https://doi.org/10.1093/esr/jcm011.

Brzinsky-Fay, Christian, and Heike Solga. 2016. "Compressed, Postponed, or Disadvantaged? School-to-Work-Transition Patterns and Early Occupational Attainment in West Germany." *Research in Social Stratification and Mobility* 46 (1):21–36. https://doi.org/10.1016/j.rssm.2016.01.004.

Buchmann, Marlis C., and Irene Kriesi. 2011. "Transition to Adulthood in Europe." *Annual Review of Sociology* 37 (1):481–503. https://doi.org/10.1146/annurev-soc-081309-150212.

Cebulla, Andreas, and Steve Whetton. 2018. "All Roads Leading to Rome? The Medium Term Outcomes of Australian Youth's Transition Pathways from Education." *Journal of Youth Studies* 21 (3):304–23. https://doi.org/10.1080/13676261.2017.1373754.

Cefalo, Ruggero, Rosario Scandurra, and Yuri Kazepov. 2020. "Youth Labor Market Integration in European Regions." *Sustainability* 12 (9):3813. https://doi.org/10.3390/su12093813.

Cheng, Tsuoyu, and Shan Hu. 2018. "Institutionalization of the Life Course: Paradigm and Methods of the Continental Life Course Research." *Sociological Studies* 33 (2):214–41. (in Chinese).

Cornwell, Benjamin. 2015. *Social Sequence Analysis: Methods and Applications*. Vol. 37. Cambridge: Cambridge University Press.

Deng, Zhong, and Donald J. Treiman. 1997. "The Impact of the Cultural Revolution on Trends in Educational Attainment in the People's Republic Of China." *American Journal of Sociology* 103 (2):391–428. https://doi.org/10.1086/231212.

DiPrete, Thomas A. 2020. "The Impact of Inequality on Intergenerational Mobility." *Annual Review of Sociology* 46 (1):379–98. https://doi.org/10.1146/annurev-soc-121919-054814.

Elder, Glen H.Jr. 1994. "Time, Human Agency, and Social Change: Perspectives on the Life Course." *Social Psychology Quarterly* 57 (1):4–15. https://doi.org/10.2307/2786971.

Elder, Glen H.Jr., Monica Kirkpatrick Johnson, and Robert Crosnoe. 2003. "The Emergence and Development of Life Course Theory." In *Handbook of the Life Course*, edited by Jeylan T. Mortimer and Michael J. Shanahan, 3–19. Boston, MA: Springer.

Elder, Glen H.Jr., and Michael J. Shanahan. 2006. "The Life Course and Human Development." In *The Handbook of Child Psychology*, edited by Richard M. Lerner, Marc H. Bornstein, and Tama Leventhal, 939–91, 6th ed. New York, NY: Wiley.

Furlong, Andy. 2006. "Not a Very NEET Solution: Representing Problematic Labour Market Transitions Among Early School-Leavers." *Work, Employment and Society* 20 (3):553–69. https://doi.org/10.1177/0950017006067001.

Fussell, Elizabeth. 2005. "Measuring the Early Adult Life Course in Mexico: An Application of the Entropy Index." *Advances in Life Course Research* 9:91–122. https://doi.org/10.1016/S1040-2608(04)09004-5.

Gebel, Michael, and Stefanie Heyne. 2016. "Delayed Transitions in Tmes of Increasing Uncertainty: School-to-Work Transition and the Delay of First Marriage in Jordan." *Research in Social Stratification and Mobility* 46:61–72. https://doi.org/10.1016/j.rssm.2016.01.005.

Guo, Maocan, and Xiaogang Wu. 2024. "Heterogeneity, Selection, and the Policy Effect of Educational Expansion on College Graduate Earnings in China, 1981–2015." *Research in Social Stratification and Mobility* 90 (1):100912. https://doi.org/10.1016/j.rssm.2024.100912.

Hannum, Emily, Hiroshi Ishida, Hyunjoon Park, and Tony Tam. 2019. "Education in East Asian Societies: Postwar Expansion and the Evolution of Inequality." *Annual Review of Sociology* 45 (1):625–47. https://doi.org/10.1146/annurev-soc-073018-022507.

Hao, Lingxin, and Dong Zhang. 2020. "China's College Expansion and the Timing of the College-To-Work Transition: A Natural Experiment." *The Annals of the American Academy of Political and Social Science* 688 (1):93–114. https://doi.org/10.1177/0002716220906791.

Hermalin, Albert I., S. P. Mery-Beth. Ofstedal, Whyte Shih, and K. Martin. 2003. "Support Received by the Elderly in Baoding: The View from Two Generations." In *China's Revolutions and Intergenerational Relations*, edited by Martin K. Whyte, 121–42. Ann Arbor, MI: University of Michigan Press.

Hu, Anning, and Jacob Hibel. 2014. "Changes in College Attainment and the Economic Returns to a College Degree in Urban China 2003–2010: Implications for Social Equality." *Social Science Research* 44 (C):173–86. https://doi.org/10.1016/j.ssresearch.2013.12.001.

Hu, Anning, and Jacob Hibel. 2015. "Increasing Heterogeneity in the Economic Returns to Higher Education in Urban China." *The Social Science Journal* 52 (3):322–30. https://doi.org/10.1016/j.soscij.2013.09.002.

Hu, Anning, and Xiaogang Wu. 2021. "Cultural Capital and Elite University Attendance in China." *British Journal of Sociology of Education* 42 (8):1265–93. https://doi.org/10.1080/01425692.2021.1993788.

Jansen, Wim, and Xiaogang Wu. 2012. "Income Inequality in Urban China, 1978-2005." *Chinese Sociological Review* 45 (1):3–27. https://doi.org/10.2753/CSA2162-0555450101.

Jin, Robert L., Chandrakant P. Shah, and Tomislav J. Svoboda. 1997. "The Impact of Unemployment on Health: A Review of the Evidence." *Journal of Public Health Policy* 18 (3):275–301. https://doi.org/10.2307/3343311.

Jones, Andrew. 2004. *Review of Gap Year Provision*. London: Department for Education.

Kalleberg, Arne L., and Ted Mouw. 2018. "Occupations, Organizations, and Intragenerational Career Mobility." *Annual Review of Sociology* 44 (1):283–303. https://doi.org/10.1146/annurev-soc-073117-041249.

Karlson, Kristian Bernt, Anders Holm, and Richard Breen. 2012. "Comparing Regression Coefficients between Same-Sample Nested Models Using Logit and Probit: A New Method." *Sociological Methodology* 42 (1):286–313. https://doi.org/10.1177/0081175012444861.

Knight, John, Quheng Deng, and Shi Li. 2017. "China's Expansion of Higher Education: The Labour Market Consequences of a Supply Shock." *China Economic Review* 43 (C):127–41. https://doi.org/10.1016/j.chieco.2017.01.008.

Lai, Qing. 2014. "Chinese Adulthood Higher Education: Life-Course Dynamics Under State Socialism." *Chinese Sociological Review* 46 (3):55–79. https://doi.org/10.2753/CSA2162-0555460303.

Li, Bobai, and Andrew G. Walder. 2001. "Career Advancement as Party Patronage: Sponsored Mobility into the Chinese Administrative Elite, 1949–1996." *American Journal of Sociology* 106 (5):1371–408. https://doi.org/10.1086/320816.

Lin, Qianhan. 2013. "Lost in Transformation? The Employment Trajectories of China's Cultural Revolution Cohort." *The ANNALS of the American Academy of Political and Social Science* 646 (1):172–93. https://doi.org/10.1177/0002716212468689.

Liu, Ye, Andy Green, and Nicola Pensiero. 2016. "Expansion of Higher Education and Inequality of Opportunities: A Cross-National Analysis." *Journal of Higher Education Policy and Management* 38 (3):242–63. https://doi.org/10.1080/1360080X.2016.1174407.

Liu, Yuanxiang. 2017. "Pushed Out or Pulled In? Participation in Non-Farm Activities in Rural China." *China Agricultural Economic Review* 9 (1):111–29. https://doi.org/10.1108/CAER-11-2015-0166.

López-Andreu, Martí, and Joan Miquel Verd. 2016. "Employment Instability and Economic Crisis in Spain: What Are the Elements That Make a Difference in the Trajectories of Younger Adults?" *European Societies* 18 (4):315–35. https://doi.org/10.1080/14616696.2016.1207791.

Lucas, Samuel R. 2001. "Effectively Maintained Inequality: Education Transitions, Track Mobility, and Social Background Effects." *American Journal of Sociology* 106 (6):1642–90. https://doi.org/10.1086/321300.

MacDonald, Robert. 2011. "Youth Transitions, Unemployment and Underemployment: Plus ça Change, Plus C'Est la Même Chose?" *Journal of Sociology* 47 (4):427–44. https://doi.org/10.1177/1440783311420794.

Meng, Xin. 2012. "Labour Market Outcomes and Reforms in China." *Journal of Economic Perspectives* 26 (4):75–102. https://doi.org/10.1257/jep.26.4.75.

Ministry of Education of China. 2023. "2022 National Statistical Bulletin on the Development of Education." http://www.moe.gov.cn/jyb_sjzl/sjzl_fztjgb/202307/t20230705_1067278.html.

Mok, Ka Ho, and Jin Jiang. 2017. "Massification of Higher Education: Challenges for Admissions and Graduate Employment in China." In *Managing International Connectivity, Diversity of Learning and Changing Labour Markets: East Asian Perspectives*, edited by Ka Ho Mok, 219–43. Singapore: Springer.

Mok, Ka Ho, and Jin Jiang. 2018. "Massification of Higher Education and Challenges for Graduate Employment and Social Mobility: East Asian Experiences and Sociological Reflections." *International Journal of Educational Development* 63:44–51. https://doi.org/10.1016/j.ijedudev.2017.02.003.

Mood, Carina. 2010. "Logistic Regression: Why We Cannot Do What We Think We Can Do, And What We Can Do About It." *European Sociological Review* 26 (1):67–82. https://doi.org/10.1093/esr/jcp006.

Mortimer, Jeylan T., Sabrina Oesterle, and Helga Krüger. 2005. "Age Norms, Institutional Structures, and the Timing of Markers of Transition to Adulthood." *Advances in Life Course Research* 9:175–203. https://doi.org/10.1016/S1040-2608(04)09007-0.

Mukherjee, Anit, and Xiaobo Zhang. 2007. "Rural Industrialization in China and India: Role of Policies and Institutions." *World Development* 35 (10):1621–34. https://doi.org/10.1016/j.worlddev.2006.11.008.

Müller, Walter, and Markus Gangl, eds. 2003. *Transitions from Education to Work in Europe: The Integration of Youth into EU Labour Markets*. Oxford: Oxford University Press.

Nee, Victor. 1996. "The Emergence of a Market Society: Changing Mechanisms of Stratification in China." *American Journal of Sociology* 101 (4):908–49. https://doi.org/10.1086/230784.

Nilsson, Björn. 2019. "The School-to-Work Transition in Developing Countries." *The Journal of Development Studies* 55 (5):745–64. https://doi.org/10.1080/00220388.2018.1475649.

Park, Albert, and Fang Cai. 2011. "The Informalisation of the Chinese Labour Market." *In from Iron Rice Bowl to Informalization: Markets, Workers, and the State in a Changing China*, edited by Sarosh Kuruvilla, Ching Kwan Lee, and Mary E. Gallagher, 17–35. Ithaca, NY: Cornell University Press.

Pinquart, Martin, Linda P. Juang, and Rainer K. Silbereisen. 2003. "Self-Efficacy and Successful School-to-Work Transition: A Longitudinal Study." *Journal of Vocational Behavior* 63 (3):329–46. https://doi.org/10.1016/S0001-8791(02)00031-3.

Roberts, Ken. 2004. "School-to-Work Transitions: Why the United Kingdom's Educational Ladders Always Fail to Connect." *International Studies in Sociology of Education* 14 (3):203–16. https://doi.org/10.1080/09620210400200126.

Ryan, Paul. 2001. "The School-to-Work Transition: A Cross-National Perspective." *Journal of Economic Literature* 39 (1):34–92. https://doi.org/10.1257/jel.39.1.34.

Scandurra, Rosario, Ruggero Cefalo, and Yuri Kazepov. 2021. "School to Work Outcomes during the Great Recession, Is the Regional Scale Relevant for Young People's Life Chances?" *Journal of Youth Studies* 24 (4):441–65. https://doi.org/10.1080/13676261.2020.1742299.

Schmillen, Achim, and Matthias Umkehrer. 2017. "The Scars of Youth: Effects of Early-Career Unemployment on Future Unemployment Experience." *International Labour Review* 156 (3-4):465–94. https://doi.org/10.1111/ilr.12079.

Schoon, Ingrid, and Mark Lyons-Amos. 2016. "Diverse Pathways in Becoming an Adult: The Role of Structure, Agency and Context." *Research in Social Stratification and Mobility* 46:11–20. https://doi.org/10.1016/j.rssm.2016.02.008.

Seeborg, Michael C., Zhenhu Jin, and Yiping Zhu. 2000. "The New Rural-Urban Labor Mobility in China: Causes and Implications." *The Journal of Socio-Economics* 29 (1):39–56. https://doi.org/10.1016/S1053-5357(00)00052-4.

Serracant, Pau. 2015. "The Impact of the Economic Crisis on Youth Trajectories: A Case Study from Southern Europe." *Young* 23 (1):39–58. https://doi.org/10.1177/1103308814557398.

Shavit, Yossi, and Walter Müller. 1997. *From School to Work. A Comparative Study of Educational Qualifications and Occupational Destinations*. Oxford: Oxford University Press.

Sofritti, Federico, Angelo Benozzo, Neil Carey, and Maria Chiara Pizzorno. 2020. "Working Precarious Careers Trajectories: Tracing Neoliberal Discourses in Younger Workers' Narratives." *Journal of Youth Studies* 23 (8):1054–70. https://doi.org/10.1080/13676261.2019.1654602.

Tam, Tony, and Jin Jiang. 2015. "Divergent Urban-Rural Trends in College Attendance: State Policy Bias and Structural Exclusion in China." *Sociology of Education* 88 (2):160–80. https://doi.org/10.1177/0038040715574779.

The State Council of China. 2024. "China Launches University Graduate Employment Promotion Campaign." https://english.www.gov.cn/news/202405/21/content_WS664c90ccc6d0868f4e8e74f0.html.

Tian, Felicia F. 2016. "Transition to Adulthood in China in 1982–2005: A Structural View." *Demographic Research* 34:451–66. https://doi.org/10.4054/DemRes.2016.34.16.

Treiman, Donald J. 2012. "The 'Difference between Heaven and Earth': Urban–Rural Disparities in Well-Being in China." *Research in Social Stratification and Mobility* 30 (1):33–47. https://doi.org/10.1016/j.rssm.2011.10.001.

Vancea, Mihaela, and Mireia Utzet. 2018. "School-to-Work Transition: The Case of Spanish NEETs." *Journal of Youth Studies* 21 (7):869–87. https://doi.org/10.1080/13676261.2017.1421313.

Walther, Andreas. 2006. "Regimes of Youth Transitions: Choice, Flexibility and Security in Young People's Experiences across Different European Contexts." *Young* 14 (2):119–39. https://doi.org/10.1177/1103308806062737.

Whyte, Martin K. 2010. "The Paradoxes of Rural-Urban Inequality in Contemporary China." In *One Country, Two Societies: Rural-Urban Inequality in Contemporary China*, edited by Martin King Whyte, 1–28. Boston, MA: Harvard University Press.

Williams, Richard. 2012. "Using the Margins Command to Estimate and Interpret Adjusted Predictions and Marginal Effects." *The Stata Journal: Promoting Communications on Statistics and Stata* 12 (2):308–31. https://doi.org/10.1177/1536867X1201200209.

Wu, Xiaogang. 2017. "Higher Education, Elite Formation and Social Stratification in Contemporary China: Preliminary Findings from the Beijing College Students Panel Survey." *Chinese Journal of Sociology* 3 (1):3–31. https://doi.org/10.1177/2057150X16688144.

Wu, Xiaogang. 2019. "Inequality and Social Stratification in Postsocialist China." *Annual Review of Sociology* 45 (1):363–82. https://doi.org/10.1146/annurev-soc-073018-022516.

Wu, Xiaogang, and Maocan Guo. 2022. "Higher Education Expansion and the Changing College Wage Premium in Hong Kong, 1976–2016." *Chinese Journal of Sociology* 8 (1):3–28. https://doi.org/10.1177/2057150X211073453.

Wu, Xiaogang, and Donald J. Treiman. 2004. "The Household Registration System and Social Stratification in China: 1955–1996." *Demography* 41 (2):363–84. https://doi.org/10.1353/dem.2004.0010.

Wu, Xiaogang, and Zhuoni Zhang. 2010. "Changes in Educational Inequality in China, 1990–2005: Evidence from the Population Census Data." In *Globalization, Changing Demographics, and Educational Challenges in East Asia*, edited by Emily Hannum, Hyunjoon Park, and Yuko Goto Butler, 123–52. Vol17. Leeds: Emerald Group Publishing Limited.

Xie, Yu. 2011. "Evidence-Based Research on China: A Historical Imperative." *Chinese Sociological Review* 44 (1):14–25. https://doi.org/10.2753/CSA2162-0555440103.

Xie, Yu, Hao Dong, Xiang Zhou, and Xi Song. 2022. "Trends in Social Mobility in Post-Revolution China." *Proceedings of the National Academy of Sciences* 119 (7):e2117471119. https://doi.org/10.1073/pnas.2117471119.

Xie, Yu, Yang Jiang, and Emily Greenman. 2008. "Did Send-down Experience Benefit Youth? A Reevaluation of the Social Consequences of Forced Urban–Rural Migration during China's Cultural Revolution." *Social Science Research* 37 (2):686–700. https://doi.org/10.1016/j.ssresearch.2007.08.002.

Xie, Yu, and Chunni Zhang. 2019. "The Long-Term Impact of the Communist Revolution on Social Stratification in Contemporary China." *Proceedings of the National Academy of Sciences of the United States of America* 116 (39):19392–7. https://doi.org/10.1073/pnas.1904283116.

Xu, Duoduo, Shuheng Jin, Ngai Pun, Jiao Guo, and Xiaogang Wu. 2024. "The Scarring Effect of First Job Precarity: New Evidence from a Panel Study in

Hong Kong." *Work, Employment and Society* 38 (1):206–25. https://doi.org/10.1177/09500170221112221.
Yang, Yi. 2020. "China's Youth in Neet (Not in Education, Employment, or Training): Evidence from a National Survey." *The ANNALS of the American Academy of Political and Social Science* 688 (1):171–89. https://doi.org/10.1177/0002716220909807.
Ye, Hua. 2021. "Earnings Returns to Tertiary Education in Urban China, 1988–2008." *Chinese Sociological Review* 53 (4):359–81. https://doi.org/10.1080/21620555.2021.1891528.
Yeung, Wei-Jun Jean. 2013. "Higher Education Expansion and Social Stratification in China." *Chinese Sociological Review* 45 (4):54–80. https://doi.org/10.2753/CSA2162-0555450403.
Yeung, Wei-Jun Jean, and Shu Hu. 2013. "Coming of Age in Times of Change: The Transition to Adulthood in China." *The ANNALS of the American Academy of Political and Social Science* 646 (1):149–71. https://doi.org/10.1177/0002716212468667.
Zhang, Junsen, Yaohui Zhao, Albert Park, and Xiaoqing Song. 2005. "Economic Returns to Schooling in Urban China, 1988 to 2001." *Journal of Comparative Economics* 33 (4):730–52. https://doi.org/10.1016/j.jce.2005.05.008.
Zhou, Xueguang. 2004. *The State and Life Chances in Urban China: Redistribution and Stratification, 1949–1994*. Cambridge: Cambridge University Press.
Zhou, Xueguang, and Liren Hou. 1999. "Children of the Cultural Revolution: The State and the Life Course in the People's Republic Of China." *American Sociological Review* 64 (1):12–36. https://doi.org/10.1177/000312249906400103.
Zhou, Xueguang, Phyllis Moen, and Nancy Brandon Tuma. 1998. "Educational Stratification in Urban China: 1949-94." *Sociology of Education* 71 (3):199–222. https://doi.org/10.2307/2673202.
Zhu, Ling, Di Xin, and Silu Chen. 2024. "Power Persistence through an Intergenerational Perspective: Inequality in Private Housing Assets in Post-Reform China." *Housing Studies* 39 (5):1286–316. https://doi.org/10.1080/02673037.2022.2119210.

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Appendix

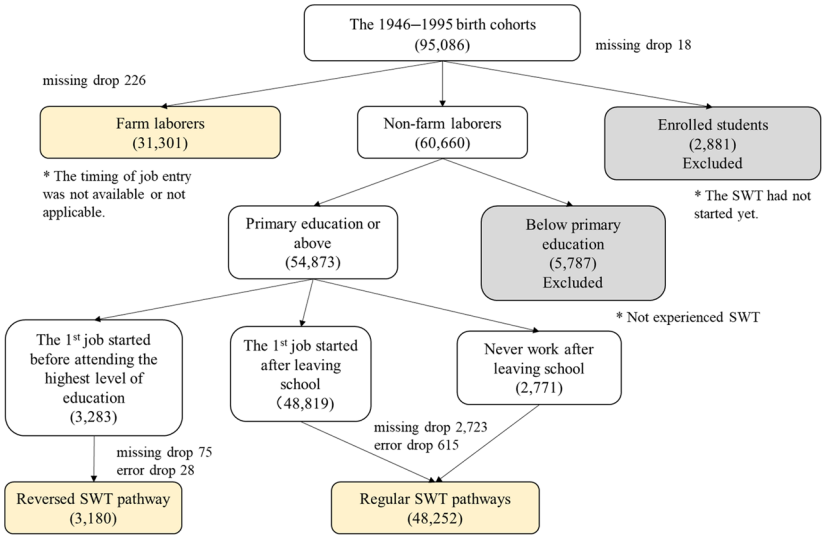

Figure A1. Diagram for sample screening.

Notes: Numbers in parentheses are the number of cases. We dropped cases when they contained missing or error values for analytical variables that could not be imputed or corrected by the given information. After screening, the analysis sample for SWT consisted of 51,432 individuals, which included individuals experiencing reversed SWT ($N = 3{,}180$) and regular SWT ($N = 48{,}252$). The full sample consisted of 82,733 individuals, which included farm laborers ($N = 31{,}301$) and individuals experiencing SWT ($N = 51{,}432$).