Persistence Despite Revolutions

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Abstract

Can efforts to eradicate inequality in wealth and education eliminate intergenerational persistence of socioeconomic status? The Chinese Communist Revolution and Cultural Revolution aimed to do exactly that. Using newly digitized archival records and contemporary census and household survey data, we show that the revolutions were effective in homogenizing the population economically in the short run. However, the pattern of inequality that characterized the pre-revolution generation re-emerges almost half a century after the revolutions. Individuals whose grandparents belonged to the pre-revolution elite earn 12 percent more income and have completed more than 11 percent additional years of schooling than those from the rest of the population. We find evidence that human capital (such as knowledge, skills, and values) has been transmitted within the elite families. Moreover, the pre-revolution elite either move to opportunities or stay to benefit from the social capital embodied in kinship networks that have survived the revolutions. These channels allow the pre-revolution elite to rebound after the revolutions, and their socioeconomic status persists despite one of the most aggressive attempts to eliminate differences in the population.

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One cannot remain rich for more than three generations.
A Chinese Proverb

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1 Introduction

Many factors could contribute to the lack of mobility of a society. For example, children of the elite may have a substantially higher chance to remain in the elite if they reside in polities with lenient taxation schemes on wealth inheritance (e.g., Piketty, 2000). Children of the elite may be more likely to possess important drivers for success, if the education system and neighborhood investments favor the elite to acquire additional, higher-quality human capital (e.g., Borjas, 1992; Black et al., 2005; Chetty and Hendren, 2018a).

Can efforts to eradicate inequality in wealth and access to formal education eliminate intergenerational persistence of socioeconomic status and foster mobility? Or would the former socioeconomic elite be able to recreate their advantage in an environment where wealth and access to education have been thoroughly reshuffled? In this paper, we investigate these questions in the context of two major revolutions that occurred consecutively in China — the Communist Revolution in the 1950s and the Cultural Revolution from 1966 to 1976. These revolutions represent some of the most radical attempts in human history to eliminate the advantages of the elite. The Communist and Cultural Revolutions aimed to shut down two critical channels of intergenerational persistence: transmission of physical capital (land and factory assets were expropriated from the rich and redistributed to the poor) and transmission of human capital through formal education (secondary schools and universities were closed for an extended period of time; the elite were excluded from the admission when they re-opened).

What happened to the families who lived through the revolutions? Take the family history of Guangyu Huang as an example. Guangyu was born in 1969. His grandfather, a rich landlord in Guangdong, lost his land and assets during the Communist Revolution. Guangyu's father, Changyi, grew up in the midst of the Communist and Cultural Revolutions, and as a result received neither inheritance of wealth nor formal education, and eked out a living by extracting persimmon oil. Guangyu grew up after the revolutions, but lived by collecting trash with his siblings during his early childhood. Eventually, Guangyu was admitted to Renmin University, one of China's most prestigious colleges. His fate changed in 1987 when he seized the opportunity of the first wave of private enterprise boom during the reform era of China and founded GOME Electronics. GOME became a huge success, making Guangyu one the richest men in mainland China between 2004 and 2018, with a net worth of RMB 36 billion (approximately US$ 5 billion).

While Huang's family is an extreme example, we find that this represents a more general pattern across China: despite extraordinary repression, the descendants of the pre-revolution elite are

significantly and substantially better off today than those from the non-elite households. In fact, pre-revolution elite perform well even in comparison with members of the Communist Party and their families — the elite that emerged after the revolution from which the vast majority of the pre-revolution elite are excluded.

We trace the socioeconomic conditions of the pre-revolution elite and their descendants, following three generations in rural China: *(i)* the "grandparents" (roughly individuals born before 1940) — the generation who grew up before the revolutions; *(ii)* the "parents" (born between, roughly, 1940 and 1965) — the generation who experienced shocks such as the expropriation (or redistribution) of land and factory assets, and school closure; and *(iii)* the "children" (born roughly after 1965) — the generation who grew up after the revolution ended: by the time they were teenagers, secondary schools and universities had reopened, and China had started the reforms that resumed private asset accumulation and private enterprises.

To systematically examine various socioeconomic outcomes among these three generations, we rely on two main data sources. First, we measure asset ownership in land (rural areas) and in business (urban areas) across Chinese counties before and after the Communist Revolution. We digitize *County Gazetteers*, a set of archival records that each county keeps to chronicle important events and historical data, for the land ownership by class label (typically landlords, rich peasant, middle peasants, and poor peasants). For the urban area, we collect private business ownership data from the reports on the *Socialist Transformation of Capitalist Industry and Commerce in China* and *City Gazetteers*. This allows us to examine not just the levels, but, crucially, the distribution of asset ownership by residents in a particular county just before and after the Communist Revolution. Second, to measure contemporary socioeconomic outcomes of the pre-revolution elite and non-elite, as well as an array of factors that could shape these outcomes, we use the China Family Panel Studies, a representative survey of Chinese households. We link survey respondents to the pre-revolution asset ownership levels of their households using the "class labels" assigned to their grandparents at the beginning of the Communist Revolution. We define those who were labeled as landlords and rich peasants in the rural area or capitalists and enterprise owners in the urban area as the pre-revolution elite; together they represent approximately the top decile of the population in terms of socioeconomic status (National Bureau of Statistics, 1980).

We first document that after the Communist and Cultural Revolutions, the parents generation of the pre-revolution elite enjoyed no more tangible advantages in wealth and formal educational attainment than their peers in the rest of the population. In the immediate aftermath of the Communist Revolution, the rural pre-revolution elite, who used to own six times more land per household than the rest of the population, no longer owned more land than the poor peasants. The county-level Gini coefficient in land ownership decreased from 0.5 before the revolution to under 0.1 right afterwards. Privately owned business in the urban area, which used to make up 55.9% of total industrial output, decreased to essentially zero as assets were confiscated and ownership transferred to the state or collectives by the end of the Communist Revolution. The Cultural

Revolution also effectively leveled the educational advantage of the former elite households. If anything, the parents generation of the pre-revolution elite received less formal education than their peers in the rest of the population, as individuals with elite background were discriminated against in their access to formal education throughout the Cultural Revolution.

However, the immediate and immense impact of the revolutions felt by the parents generation is no longer present among the third, children generation. While the revolutions explicitly aimed to reverse the rankings of socioeconomic status between the elite and non-elite households, they did not manage to do so beyond one generation. By 2010, individuals whose grandparents were part of the pre-revolution elite earned a 12 percent higher income each year, held more prestigious and demanding jobs, and had completed more than 11 percent additional years of schooling than the rest of the population. Such a rebound is robust to using a range of alternative empirical specifications and accounting for a variety of potential confounding factors. Notably, the pre-revolution elite manage to reach an earning premium similar to that enjoyed by the new, post-revolution Communist elite. Translating the cross-sectional income gap into intergenerational mobility statistics, we find that individuals whose grandparents belonged to the pre-revolution elite have a 14.4% chance of staying in the top decile of the income distribution. This is higher than the persistence rate of the top decile (extrapolated from two-generation transition matrices) in Taiwan (10.1%), Canada (11.1%), Russia (13.0%), and the U.S. (14.1%) — suggesting that the Chinese revolutions did not raise China's social mobility above the levels reached by several exemplars of capitalist economy or an economy that transitioned away from the socialist system.

What explains the resurgence of the pre-revolution elite among the children generation? Could the resurgence be accounted for by the greater physical capital, human capital, or social capital that may have been transmitted among the pre-revolution elite? We begin by ruling out a number of potential explanations for the rebound. First, physical capital and human capital acquired through schooling cannot play a key role in driving the rebound. This can be seen in the revolutions' effective and thorough effort to shut down land and enterprise inheritance — the most important assets in rural and urban areas, respectively, — as well as access to secondary and higher education as observed among the parents generation. Second, incomplete confiscation of the pre-revolution elite's assets was unlikely, and the collectivization movement that started in 1954 further prevented accumulation of hidden wealth. In fact, the pre-revolution landed elite was more likely to suffer from hunger during the Great Chinese Famine (1959-1961), a marker for their lost political and socioeconomic status during the revolutions. Third, we show that selective unnatural deaths among the pre-revolution elite, due to reasons such as targeted violence during the revolutions and mortality during the famine, cannot account for the observed rebound. On the contrary, we find that elite victims of the famine and the revolutionary violence are likely to be positively selected, suggesting that the baseline estimates of the pre-revolution elite's rebound may be a lower bound.

We then document two distinct mechanisms that could explain at least part of the resurgence

and persistence of the pre-revolution elite. First, human capital transmission through informal, non-school channels has survived despite the revolutions. Such informally transmitted human capital could encompass a range of elements from knowledge, to skills, to values. We find that the pre-revolution elite perform better in standardized reading tests than the rest of the population, regardless of attainment in formal schooling. Moreover, the pre-revolution elite exhibit systematically different values and attitudes today (from both the non-elite and the post-revolution Communist elite): in particular, they are more likely to consider effort as important to success, and such differences in expressed work ethics are evident even among adolescents who have not completed formal schooling or participated in the labor market. Their behavior reflects these values and attitudes: the pre-revolution elite work longer hours during workdays and spend less time on leisure during weekends. These patterns are much stronger for those among the children generation who co-live with their parents, and absent for those whose parents have passed away prematurely, consistent with the idea that vertical transmission of values (and human capital in general) requires time spent together across generations.

Second, the pre-revolution elite either move to economic opportunities or remain in ancestral regions benefiting from the traditional social fabric that survived the revolutions. The children generation of the pre-revolution elite enjoy a substantially larger migration premium than their peers from the rest of the population: they are more responsive to push factors (e.g., agricultural revenue shocks) and more likely to migrate to localities on upward trajectories of economic development. Among the pre-revolution elite who do not migrate, they benefited from social capital embedded in the traditional kinship networks, a vital fabric of traditional society in China. These local social networks facilitated a stronger rebound.[1] The revolutions strongly suppressed local kinship networks, of which the pre-revolution elite were often at the center, but they failed to uproot them completely.[2] Conversely, the post-revolution Communist elite are hurt by strong kinship networks as they exhibit a smaller income premium in those counties.

Taken together, these results suggest that despite the revolutions shutting down the transmission of physical capital and the human capital that can be acquired through schools, one observes a strong intergenerational persistence of socioeconomic status. Human capital transmitted through non-school channels, abilities to venture and migrate to economic opportunities, and social capital rooted in local kinship clans are prominent ingredients for outstanding economic performance. Interestingly, all these ingredients are transmitted within families, and even such aggressive and successful revolutions as China's Communist and Cultural Revolutions failed to prevent their

[1] We also find that families of the pre-revolution elite are more tightly knit: members of the pre-revolution elite households are more likely to engage in assortative matching in marriage, forming households with both spouses belonging to pre-revolution elite families; individuals in the children generation are more likely to co-reside with parents and even grandparents; and they are more likely to interact with other family members.

[2] Works across the social sciences have documented the important role kinship networks play in China, throughout history and up until today: see, among others, Bian (1997), Tsai (2002), Tabellini and Greif (2012), and Martinez-Bravo et al. (2017). Clan leadership today typically coincides with local official positions (Guo and Herrmann-Pillath, 2019), which the children generation of the pre-revolution elite are slightly less likely to assume.

transmission in elite households. As a result, intergenerational persistence remains despite the revolutions.

Our paper connects three strands of literature: on social inequality and mobility, on cultural and value persistence within families, and on the role of social capital. Each of these strands of literature is enormous, and we simply cannot do justice to all previous works. Studies of intergenerational mobility of socioeconomic status often explain persistence by formal channels, in particular emphasizing the roles played by physical capital (e.g., inheritance) and human capital acquired through education (e.g., accumulation of productive skills and knowledge through elite schools). We show that human capital transmitted through families (including, but not limited to, values; see a review of the literature by Alesina and Giuliano, 2015) and family networks in general (see Alesina and Giuliano, 2014 for a survey of the literature) have important consequences on intergenerational mobility.[3] Reminiscent of an older, theoretical literature (Becker and Tomes, 1979), we demonstrate that even if many of the formal transmission factors are deliberately muted, intergenerational persistence could still occur through human capital transmissions within the family, as well as family-based social networks.

By documenting the intergenerational mobility and inequality patterns in contemporary China, we also contribute to a growing literature analyzing this pattern around the world.[4] Much of the literature on mobility focuses on two generations, with a few exceptions:[5] Boserup et al. (2014) estimate intergenerational wealth mobility across three generations in Denmark, and find that persistence across three generations can be higher than across two; Adermon et al. (2018) examine mobility in Sweden over four generations, and Barone and Mocetti (2020) document persistence among households in Florence over six centuries, both highlighting the critical role played by inheritance in fostering persistence over the long run. We join this literature by adding an important data point on China, providing one of the first estimates of intergenerational mobility in terms of asset ownership and income beyond two generations in developing countries, and emphasizing long-run persistence channels beyond wealth inheritance.

The three generations we examine are particularly important because they experienced one of the most radical attempts to suppress the elite and to foster mobility. The ability of the elite

[3]Our paper relates in particular to studies of the transmission of values promoting effort, education, and delayed gratification (see, among others, Galor and Özak, 2016; Dohmen et al., 2018; Figlio et al., 2019). Closer to our empirical context, a culture of valuing education is found to persist in localities in China that are historically more densely packed with individuals who excelled at the imperial civil service examinations (Chen et al., 2020), and such a culture could affect mobility patterns across China (Geng, 2020).

[4]Recent works include: Chetty et al. (2014) and Saez and Zucman (2016), which explore inequality and mobility patterns in the U.S.; Alesina et al. (2018b), which compares the mobility in the U.S. with several countries in Europe; Alesina et al. (2019), which describes mobility and inequality in Africa; Asher et al. (2019), which investigates educational mobility across India; and Piketty et al. (2019) and Fan et al. (2021), which document the rising wealth inequality and decreasing mobility in reform-era China.

[5]A few papers study the persistence of family status across more generations, but look at occupation or other proxies of status instead of income and wealth, e.g., Long and Ferrie (2018) on the U.S. and Britain between 1850 and 1910, Shiue (2018) on Tongcheng County in China between 1300 and 1900, and Campbell and Lee (2011a) on Liaoning Province in China between 1749 and 2005.

to weather large negative shocks to their socioeconomic status provides micro-foundations to the growing literature on long-run persistence (see Nunn, 2009; Michalopoulos and Papaioannou, 2020; Voth, 2020, for reviews of the literature). In particular, our results complement several recent works that analyze similar resurgence after shocks in distinct historical contexts. The scale of negative shocks that the elite faced ranges from losing substantial slave assets during the U.S. Civil War (Ager et al., 2019) to forced migration in Poland after the Second World War (Becker et al., 2020).[6] Hanley and Treiman (2004) and Guirkinger et al. (2020) document a similar resurgence in post-Communist countries in Europe and Central Asia, respectively, as we do in China; transmission through educational attainment and high occupational status during the Communist period played important roles in explaining the resurgence, yet these channels of intergenerational persistence were all shut down during the Chinese revolutions.

In fact, the Chinese revolutions that we study are unparalleled in their effort to eradicate the advantage held by the elite, making the resurgence that we document remarkable: even such an aggressive and traumatic attempt is insufficient to uproot the differences between pre-revolution elite and non-elite households beyond two generations. In so doing, our paper contributes to the literature across the social sciences that studies the consequences of the Chinese revolutions on inequality and mobility. Several papers are closely related to our work: De la Rupelle and Li (2012) and Treiman and Walder (2019) explore the long-term effect of the Communist Revolution on household-level characteristics and the life chances of individuals with different class labels, respectively; Chen et al. (2015b) (focusing on urban dwellers) and Xie and Zhang (2019) (looking at the broad population) document resurgence in educational attainment among individuals whose grandparents are the pre-revolution elite; and Sato and Li (2007) find that family background is associated with contemporary wealth. Building on these results, we examine a comprehensive set of outcomes of the pre-revolution elite, especially their income and economic conditions, and we systematically compare the pre-revolution elite with the new, Communist elite formed after the revolutions. Moreover, we identify, to the best of our knowledge, the first set of empirical evidence pointing to the channels through which such a persistence occurs despite the revolutions.

This paper is organized as follows. Section 2 provides institutional and historical background on the Communist Revolution and the Cultural Revolution in China. Section 3 describes our data collection effort. Section 4 shows that the revolution was successful in eliminating inequality and homogenizing culture for one generation, but individuals whose grandparents are the pre-revolution elite are substantially richer today. Section 5 explores mechanisms through which such resurgence occurs. The last section concludes.

[6]Interestingly, resurgence does not necessarily occur in all contexts. For example, Acemoglu et al. (2011d) suggest a lasting negative effect of mass murder (the Holocaust) on the local socioeconomic conditions in Soviet Russia. Neither would positive shocks in educational attainment necessarily persist across multiple generations, as shown by Wantchekon (2016) in the context of colonial schools in Benin.

2 The Communist and Cultural Revolutions

As we cannot comprehensively depict the Communist Revolution and the Cultural Revolution with all of its rich historical details and complexities, we focus in this section on the particular aspects of the revolutions that intended to eradicate the advantages of the pre-revolution elite: confiscating their assets, removing their access to secondary and higher education, and even stigmatizing attitudes and values that they might have held prior to the revolutions. We describe these aspects in more detail and place them in their historical and institutional context in Appendix B.

The Communist Revolution and wealth redistribution

The Communist Revolution was a series of movements that allowed the Chinese Communist Party to consolidate political power throughout China toward the end of the Chinese Civil War (1945-1949). The revolution aimed to transform asset ownership structure and thoroughly redistribute wealth in both rural and urban China.

A central component of the Communist Revolution was the Land Reform (1947-1953). Often described as one of the most extreme examples of wealth equalization in a short period of time in human history (Wong, 1973a), the Land Reform aimed to gain the support of the rural masses for the new Communist regime (Kung et al., 2012). The *Agrarian Reform Law*, formally introduced in 1950, guided the Land Reform around the country. The law emphasized the Communist Party's commitment to expropriate the class of landlords and rich peasants, and to advocate the proprietorship of the general peasantry. Article 1 of the law states the overarching principles of the Land Reform:

> *"The land ownership system of feudal exploitation by the landlord class shall be abolished and the system of peasant land ownership shall be introduced in order to set free the rural productive forces, develop agricultural production, and pave the way for China's industrialization."*

The expropriation and redistribution process consisted of two stages. First, local *ad hoc* committees assigned *class labels* to households, primarily based on their land holdings at the time (Hinton, 1966). Rural class labels broadly consisted of five categories: landlords, rich peasants, middle peasants, poor peasants, and hired labor. Until the *Agrarian Reform Law* was repealed in 1987, the class labels were stable over time and through generations: the labels were passed along patriarchal lines regardless of the actual political inclination and behavior of individuals.[7]

Second, based on the assigned class labels, land and other production tools (e.g., cattle) were confiscated from the landlords and rich peasants, and redistributed to the middle, poor peasants,

[7] Forging class labels was nearly impossible (Wemheuer, 2019). Class labels were common knowledge in villages. Moreover, a double record of class labels was kept: one in individual dossiers held by the village collective, and a separate record held by central security organs for Communist Party cadres (Cheng and Selden, 1994). Finally, class background was subject to potential rechecks by external teams during political campaigns, and providing false or misleading information could be severely punished (Brown, 2015).

and the landless hired labor. We accordingly define the pre-revolution elite as the landlords and rich peasants (approximately 9% of the population in rural China, see National Bureau of Statistics, 1980) and the rest as non-elite. The Land Reform can be considered as a zero-sum game, since in the vast majority of cases, what was expropriated has been entirely redistributed (Wong, 1973b). By the time the Land Reform was concluded, the landless, poor, and middle peasants had received farmland for cultivation amounting to 43% of total land acreage in China, according to some estimates (e.g., Wong, 1973b).

Property rights over land were complicated during this period of Chinese history. Throughout the Land Reform, effective private ownership over land was still allowed. From 1954, however, private land ownership (along with many other assets) was abolished by the first Constitution of the People's Republic of China.[8] Potential incomplete confiscation during the Land Reform was effectively eliminated, since the landlords and rich peasants could no longer claim legal ownership of property and assets, had they retained any. Moreover, the absence of land ownership rights suggests that the land assets were redistributed primarily in relative rather than absolute terms: namely, the ranking between the rich and the poor was reshuffled, but the poor did not necessarily receive private ownership in more assets.

At the time of the Communist Revolution, the overwhelming majority of the Chinese population lived in rural areas. Urban areas, however, experienced a similar revolution — the Socialist Transformation of Capitalist Enterprise, — which fundamentally reshaped the enterprise ownership landscape. First, as in rural areas, the urban population was assigned class labels, and the socioeconomic elite were grouped under the "capitalist" and "enterprise owners" labels (Kraus, 1977). Second, the urban elite's assets — real estate and, more importantly, their businesses — were expropriated (see, e.g., Perkins, 1966; Richman, 1969; Cliver, 2015). In 1953, the United Front Work Department of the Peoples' Congress Central Committee issued a report titled "Advice on Utilizing, Restricting, and Remolding the Capitalist Enterprises," which marked the beginning of a three year long movement of socialist reform in the urban sector. The report provided principle guidelines to the movement. Mao Zedong, in his comments to this report, asserted that the capitalist class "needs to be eliminated and transformed." He further emphasized the two-step procedure to follow: first, turn the unrestricted private enterprises into state capitalism, characterized by a highly restricted ownership structure; second, transition from state capitalism to full socialism.[9] The government thus first exerted intense pressure on capitalists to form 'joint state-private' firms, where their power would quickly be taken over by joint labor-management committees. The Communist Revolution completed its transformation of the urban sector in 1955-1956

[8]The collectivization effort centralized land ownership and rights for agricultural production at the commune level. Individual farmers could lease land from the state and grow crops, although no rents were effectively paid to the state. The endowed land that individual farmers could grow food on was essentially land (re)allocated to them during the Land Reform (Lardy, 2008). Land remains publicly (or collectively) owned to this day, although private land use rights and limited transfer rights have been legalized since 1982.

[9]These policies were then formalized in the 1st Constitution of China (1954), affirming the goal that "ownership by the public should gradually replace ownership by the capitalists" (Article 10).

by nationalizing or collectivizing all remaining businesses.

The Cultural Revolution and education disruptions

The Cultural Revolution was a massive, decade-long sociopolitical movement launched by Mao Zedong in 1966, initially intended to preserve the fruits of the Communist Revolution. Two aspects of the Cultural Revolution stood out: its stance toward the former elite and its disruptive education policy. Since its inception, the Cultural Revolution was concerned with status inheritance. One of its primary goals was to completely eliminate any remaining advantage of the pre-revolution elite over the masses and to prevent the pre-revolution elite from passing down their privileges to their offspring (e.g., Whyte, 1973). Throughout the Cultural Revolution, the former elite and their descendants were placed at a severe disadvantage — often explicitly in the selection criteria and procedures — in their access to public goods, job assignments, career promotions, and membership of the Communist Party (e.g., Unger, 1982b).

Among the many things to which the pre-revolution elite were denied access, education is a particularly important one. Motivated by the fear that the pre-revolution elite might be able to maintain their influence through formal education, the Cultural Revolution radically and severely disrupted secondary and higher education (MacFarquhar and Schoenhals, 2006). Almost all senior high schools and colleges were shut down between 1966 and 1968, and most universities remained closed until 1972 (Unger, 1982b). Moreover, merit-based admission into the few education programs still operating during the Cultural Revolution was suspended throughout the revolution. Admission was primarily based on class labels (at the expense of the elite) and political achievements rather than academic credentials (Shirk, 1982). As a result, the vast majority of the eligible applicants were workers, peasants, and soldiers (Deng and Treiman, 1997a).

Besides disrupting educational institutions themselves, the Cultural Revolution induced a wide range of disturbances across Chinese society concerning traditional values. The inheritance of cultural values from the pre-Communist era was regarded with suspicion. Teachers and intellectuals — and the value for education and "bourgeoisie knowledge" represented by them — became the targets of denunciations (Wang, 2001). Children were also often encouraged to expose their parents' counter-revolutionary behaviors, representing a broad effort to weaken the nuclear family structure.

With the end of the Cultural Revolution and start of the Reform-and-Opening era in 1978, private asset accumulation and private enterprise became legal again. The stigma attached to the pre-revolution elite class and the overt institutional disadvantage they faced were officially abolished in the 1980s (Walder and Hu, 2009a). The merit-based college entrance exam was resumed at the end of 1977, and more broadly, access to education and high-status occupations were no longer based on explicit political criteria (Lu and Treiman, 2008).

3 Data

In this section, we briefly describe our main data sources and present summary statistics. Auxiliary data are presented in Appendix C.3.

3.1 Distribution of wealth around the time of the revolutions

In order to document the immediate effect of the Communist Revolution on wealth distribution, we focus on land assets, the most important form of wealth in rural China, and on enterprise ownership, to cover the effect of the revolution on urban areas. We measure the land distribution and enterprise ownership by digitizing the *County/City Gazetteers* and the report on the *Socialist Transformation of Capitalist Industry and Commerce in China*. The *Gazetteers*, published in the 1990s, are the county- or city-level archives that cover the historical period from 1949 to 1986. The report on the *Socialist Transformation of Capitalist Industry and Commerce in China* documents the transition from capitalism to socialism for each province.

We manually collect land distribution information around 1950 throughout rural China. Specifically, we collect information on land ownership and population by the five subgroups of the rural population corresponding to the class labels assigned during the Communist Revolution: landlords, rich peasants, middle peasants, poor peasants, and landless peasants. The distribution of land ownership is available both immediately before and after the Land Reform.[10] Due to the decentralized nature of the gazetteer compilation, such land ownership information is not always recorded in the same format. For example, some counties record land ownership information in table format (see Appendix Figure A.1 for such a case), while others embed such information in unstructured narratives (see Appendix Figure A.2). We standardize the records to the same units across counties.

Overall, we identify 639 counties in the gazetteers with the pre-Land Reform land distribution data necessary to calculate within-county inequality.[11] We construct various inequality measures to describe the landscape of wealth inequality across Chinese counties just before and after the Land Reform, such as the Gini coefficient based on county-level land ownership (see Appendix C.1 for details).

Figure 1, Panel A, maps the Gini coefficients on land ownership across China prior to the Communist Revolution, with darker shades indicating counties that were more unequal prior to the revolutions.[12] One observes substantial spatial heterogeneity in inequality — inequality was

[10] Before the Land Reform, landlords sometimes lived in cities. Such absentee landlordism should have little effect on our estimates of pre-Land Reform inequality, as they accounted for only a very small share of the landlord population (Huang, 1985; Kung et al., 2012).

[11] Out of the 1,434 rural counties in China in the 1950s, 465 have no pre-Land Reform records, 330 do not provide sufficient information to construct reliable county-level inequality measures.

[12] For the purpose of clearer visual illustration, we impute the Gini coefficients of the counties with missing data with prefecture averages. When a prefecture-level average cannot be computed, we take the provincial average. Provinces with no data are shown in gray. We do not use imputed data for any of the subsequent analyses.

particularly high in the northeast and the south, likely resulting from a combination of geography and historical incidents.[13] Land inequality on the eve of the Communist Revolution is strongly associated the medium-run distribution of land in rural China, as captured by an independent data source that measure the land ownership distribution in the 1930s (see Appendix Table A.1).[14]

Although the data collected from the *County Gazetteers* does not cover the entire country, we do not think the sample selection generates severe biases. Appendix Table A.2, Panel A, presents summary statistics for counties in the sample along various historical and contemporary characteristics such as geographical traits, economic development, and land inequality. Counties with complete and incomplete or no land distribution data are balanced along most of these dimensions (see Panel B). Moreover, the land distribution based on the *County Gazetteers* lines up closely with the data drawn from an independent source that reports land redistribution at the province level (see Appendix Figure A.3; we cannot reject their correlation coefficient to be different from 1). We discuss various checks for sample selection in greater detail in Appendix C.2.

Due to the small size of the industrial sector in 1950s China, most *County Gazetteers* do not systematically report information on enterprise ownership in cities. We manually collected data on the share of private enterprises in four major cities between 1949 and 1961 (Beijing, Shanghai, Tianjin, and Guangzhou), for which the information is available. We supplement this information with provincial-level industrial output shares by ownership type from 1950 to 1997.

3.2 Individual outcomes across generations

We use the China Family Panel Studies (CFPS) to measure a variety of individual level outcomes across generations. CFPS is a large-scale, nationally representative panel survey; it is further representative at the provincial level, allowing for comparisons between sub-provincial administrative units, in five over-sampled provinces.[15] The CFPS completes interviews with a total of 14,798 sampled households and all individuals living in these households, amounting to 36,000 completed adult observations in the 2010 baseline wave of the survey (and 26,393 who have completed both 2010 and 2012 waves). Unless otherwise noted, the measures we focus on in the analyses are

[13] Northeastern provinces were closed to Han Chinese settlers until 1860; early movers enjoyed easy access to land, while late movers worked as tenants, creating high inequality in land ownership (Gottschang, 1987; Kung and Li, 2011). Higher inequality in the South than in the North is the result of both historical and geographical differences. Historically, more remote southern provinces were less subject to the Ming and Qing imperial governments' attempts to reduce land concentration, and civil servants had to cooperate with powerful landed gentry to collect taxes (Bernhardt, 1992). Geographically, the South is much more fertile than the North, and production surpluses were high enough to make land rental agreements economically attractive to both landlords and tenants (Kung et al., 2012).

[14] The source is *Land Utilization in China: A Study of 16,786 Farmers in 168 Localities, and 38,256 Farm Families in Twenty Two Provinces in China, 1929–1933*, compiled by John L. Buck in 1937. We aggregate these reports from villages to the county level, which covers 142 counties. The counties are not representative of China, but these reports are the most comprehensive data available on China's agricultural sector prior to 1949. See Appendix D for details.

[15] The CFPS is conducted by the Institute of Social Science Survey at Peking University; detailed information about the CFPS project can be found at `www.isss.edu.cn/cfps`. The 25 provinces of China covered by the CFPS represent about 95% of the population in mainland China. The 5 over-sampled provinces are Liaoning, Shanghai, Henan, Guangdong, and Gansu.

elicited in 2010 baseline survey.

Importantly, each respondent is asked about the class label assigned to her family at the time of the Communist Revolution. As the class labels have been passed down through generations since the Communist Revolution, this allows us to identify the descendants of the pre-revolution elite. If a member of the younger generation does not know her ancestor's class label, we use her father's as class labels were passed down along patriarchal lines. Overall, 7.74% of the households contain members identified as the pre-revolution elite, in line with the figure (6-10%) suggested by the *County Gazetteers* and historical accounts (National Bureau of Statistics, 1980). Among the pre-revolution elite individuals, 75.9% directly report that they hold elite class labels and the remaining are inferred from reports of older generation in the households.[16]

Associating each individual with her family class label allows us to compare members of the pre-revolution elite versus non-elite households across three generations. The first (grandparents) generation is those who were born before 1940 (N = 1,602) — these individuals grew up *prior to* the Communist and Cultural Revolutions. The second (parents) generation is those who were born between 1940 and 1965 (N = 12,130) — they grew up in the midst or immediate aftermath of the Communist and Cultural Revolutions, and they graduated from high school (if at all) before the merit-based university admission was resumed. The third (children) generation is those who were born between 1966 and 1990 (N = 11,321) — they grew up largely during the post-1978 Reform-and-Opening era, during which ownership of private assets was reintroduced, universities reopened, and a market economy was partially established. Our results are robust to alternative choices of generation cutoffs around these historical landmark events.

To benchmark the socioeconomic status of the pre-revolution elite, we compare them with the new, Communist elite that emerged after the revolutions. Specifically, we define the post-revolution elite as those who belong to a household with at least one Chinese Communist Party member; 6.85% of the CFPS respondents in the children generation can be categorized as the post-revolution Communist elite. The Communist Party membership is extremely selective: at the time of our baseline survey in 2010, around 6% of the population are Party members, coincidentally similar to the size of the pre-revolution elite. The correlation coefficient between pre- and post-revolution elite status is -0.905, indicating that these two elite groups are largely mutually exclusive.

In Table 1, we present the summary statistics (mean and standard deviation, in columns 1 and 2, respectively) of individual-level outcomes based on the CFPS, pooling all respondents from elite and non-elite backgrounds together, across three primary categories: income; educational performance; and labor market related outcomes.

[16]Intentional misreporting of class labels is unlikely as class background is an important component of family identity. In fact, we observe very little inconsistency of the reported class labels between multiple household members interviewed independently: 94.3% of the households have every household member reporting identical class labels. Our baseline results are robust to alternative measures of pre-revolution elites, which we discuss in detail in Section 4.

4 Repression and rebound of the elite

4.1 Successful revolutions in one generation

We first investigate whether the Communist Revolution and the subsequent Cultural Revolution achieved their redistributive and egalitarian goals among the parents generation who were directly affected.

4.1.1 Eradication of land inequality

We begin by comparing the size of land owned by pre-revolution elite and non-elite households, immediately before and after the Land Reform. Figure 2, Panel A, plots the cross-county distribution of average land holding among landlord households (in acres per capita) right before (in dotted line) and right after (in solid line) the Land Reform; and Panel B plots the corresponding distribution of the ratio in land holding between poor peasants and landlord households, before and after the Land Reform.

On the eve of the Land Reform, landlord households owned on average 6 acres of land per capita (with a long right tail — in some counties the average landlord households owned as much as 25 acres of land per capita). In relative terms, landlord households owned approximately 6 times more land than poor peasants before the Land Reform. This reflects the fact that while land assets were unequally distributed prior to the Land Reform, landlords in China owned a relatively small amount of land, often working on the land themselves, and sometimes hiring labor (Fei et al., 1992); see Appendix B for more historical details. In other words, Chinese landlords were closer to well-off farmers in small-scale farming economies than rentiers who own huge plots of land in plantation economies.

The dramatic reduction in land owned by the landlord households after the Land Reform is apparent. The distribution of the ratio of land holdings between the poor peasants and landlords shifted substantially to the right after the Land Reform, centered just above 1 which indicates equal land holdings.[17] Translating these patterns to Gini-coefficients, we plot the distribution of Gini-coefficients in land ownership across counties in Figure 2, Panel C, before (in dotted line) and after (in solid line) the Land Reform; we plot the corresponding spatial distributions in Figure 1, Panels A and B. One observes that within half a decade, the Land Reform sharply reduced the Gini coefficient from on average 0.5 to an unprecedentedly low level of 0.1. Moreover, the entire cross-county distribution is compressed: very little cross-county variation in landlord land ownership

[17] Appendix Figure A.4 plots the distribution of land gained by the households in hired, poor, and middle peasant categories after the Land Reform. One can see that the entire distribution lies above 0 — namely, non-elite households across all counties in China experienced net land gains, on average, after the Land Reform. Appendix Figure A.5 shows that the land gains of the poor households after the Land Reform were larger in more unequal counties prior to the reform.

remained after the Land Reform.[18] The residual inequality after the Land Reform is *not* due to the limited implementation of land asset equalization; but rather, it is primarily driven by the fact that in about 67% of the counties, landlords were aggressively deprived of their land, and the poor peasants ended up with slightly *more* land per capita than landlords.

Thus, the Land Reform during the Communist Revolution was extremely successful at eradicating inequality in land asset ownership across China: it homogenized land ownership not only *within* but also *across* counties. The pre-revolution elite's land assets were largely wiped out and redistributed to the poor, and the distribution of land ownership inequality is compressed throughout the country. Such success should not be taken for granted. Many countries attempted land reforms in recent history, but often failed to achieve equality in land holdings even in the short run: e.g., Philippines (1930s), Columbia (1930s), Brazil (1930s), Mexico (1940s), Indonesia (1960s), Chile (1960s-1970s), and more recently, Zimbabwe (2000s) and South Africa (2010s). In fact, land asset confiscation and redistribution are extremely challenging, especially when state capacity is relatively weak, and the wealthy are politically entrenched and are able to evade or even revolt.

4.1.2 Eradication of private enterprise

We then compare the extent of privately-owned enterprises in the urban sector — the most important assets of the pre-revolution elites — before and after the Socialist Transformation of Capitalist Enterprise during the Communist Revolution. Figure 3, Panel A, traces the share of industrial output across (urban) China by different ownership types between 1950 and 1993. One can see that at the eve of the Communist Revolution, privately-owned enterprises made up 55.94% of the national industrial output, while state-owned counterparts counted for 34.15%. Over the next decade as the Communist Revolution progressed in urban China, the share of industrial output contributed by the privately-owned enterprises dropped to zero, and that of the state-owned enterprises surged to 90%. These patterns remained throughout 1960s and much of the 1970s.

Panel B provides a closer look at the private-owned enterprises in four of China's biggest industrial hubs. While the share of privately-owned enterprises in Beijing and Tianjin was similar to the national average prior to the revolution, the industrial landscape in Shanghai and Guangzhou was much more skewed toward the private sector (99.30% and 89.54% in 1951, respectively). The restructure of privately-owned enterprises in Shanghai and Guangzhou was similarly thorough and speedy: by 1957, the privately-owned enterprises were eradicated in both cities.

[18] Correspondingly, Appendix Figure A.6 plots the pre-Land Reform Gini coefficients (x-axis) against the changes in Gini coefficients post the Land Reform. Each dot represents a county, and these dots largely fall along the 45-degree line: counties that were more unequal in terms of land ownership experienced a larger reduction in Gini coefficients after the Land Reform.

4.1.3 Elimination of the elite premium on education

Next, we examine whether the Cultural Revolution affected inequality in educational attainment among the parents generation, particularly the cohorts that would have attended secondary or tertiary education at that time.[19]

We first document the gap in educational attainment between the grandparents generation of the pre-revolution elite and non-elite. Figure 4 presents, for each birth cohort, the difference between the share of individuals from the pre-revolution elite households who completed at least secondary education and that for peers from the non-elite households (see Appendix Table A.3 for the results in regression form). Most of the cohorts born between 1930 and 1947 were not directly affected by the Cultural Revolution as they would have graduated from senior middle school before the disruption of higher education began. We observe that the pre-revolution elite among these cohorts are about 7.0 percentage points more likely to have completed at least secondary school education. This is an extremely large difference given that on average, only less than 9.1 percent of individuals from China completed junior secondary school for most of these early cohorts.

The advantage in educational attainment among members of the pre-revolution elite households sharply decreased starting from the 1947 cohort (the first cohort who reached the age to enter university when the Cultural Revolution began), as marked by the left edge of the shaded rectangle in Figure 4. The positive gap between the share of pre-revolution elite who completed secondary or above education and that of the non-elite rapidly shrank and eventually disappeared among the cohorts directly affected by the decade of the Cultural Revolution. In fact, the pre-revolution elite were worse off in terms of educational attainment than their counterparts in non-elite households. This is due to the combination of the expansion of basic education during this period disproportionately benefiting individuals from non-elite households, and the pre-revolution elite often being barred from accessing formal education.

4.1.4 The life of the parents generation

Finally, we examine the socioeconomic outcomes of the parents generation beyond asset inheritance (which was nonexistent) and educational attainment. Table 1, columns 3 and 4, compare the parents generation of the pre-revolution elite with their peers from the non-elite households. We control for cohort and county of residence fixed effects, hence exploring only within cohort within county differences between the elite and non-elite descendants. Column 5 presents the overall mean of the corresponding variables among the parents generation as a whole.

The individuals of the parents generation from the pre-revolution elite households earn a *lower* (about 5.2% less) labor income in 2010 than their peers without an elite background (see Panel A).

[19] The education system in China before the Cultural Revolution consisted of six years of primary education (starting at age 6 or 7) and six years of secondary education (or "middle school," split into "junior" and "senior"). During the Cultural Revolution, primary and secondary schools were both reduced to five years (Pepper, 1978).

The negative income gap is particularly striking considering that the parents generation of the pre-revolution elite are actually less likely to be retired from the labor force as of 2010, plausibly due to the fact that they are more likely to work for the non-state sector where mandatory retirement age is less strictly enforced (see Appendix Table A.4, Panel A). In fact, we observe a similar pattern if we restrict attention to individuals from the parents generation who are younger than the typical retirement age, if we focus on the non-retirees in the sample, or if we incorporate pension and other retiree-related income sources (see Appendix Table A.5).

Panel B further examines labor market choices. Consistent with the fact that the parents generation of the pre-revolution elite were less likely to hold public sector jobs, we find that they are slightly more likely to be self-employed and more likely to hold a low-prestige occupation (although these differences are not statistically significant).

Panel C replicates results on educational attainment as shown previously. The parents generation of the pre-revolution elite no longer enjoy an advantage in attaining formal education, and if anything, they become less likely to complete secondary or tertiary education than their peers from non-elite households. Interestingly, despite the lack of formal schooling, the parents generation of the pre-revolution elite do *not* exhibit worse math skills, and if anything significantly better reading skills, both measured in a standardized test administered by the CFPS in 2010. This suggests that the pre-revolution elite may have maintained some degree of human capital by supplementing informal means of training and transmission such as home schools. We will return to the transmission of human capital through informal channels in Section 5.2.

Although it is challenging to comprehensively depict how the parents generation of the pre-revolution elite fared during and in the immediate aftermath of the revolutions, one may get a glimpse through their membership to the Communist Party of China. The parent generation of the pre-revolution elite are significantly less likely to be members of the Communist Party (see Appendix Table A.4, Panel B), an indicator of broad political and social status after the revolutions, and the ability to obtain preferential access to scarce resources. Moreover, the decline of the pre-revolution elite in the parents generation is particularly evident during the Great Chinese Famine (1959-1961), one of the worst peacetime disasters in modern history caused by misallocation of food (Meng et al., 2015). We find that individuals among the parents generation of the pre-revolution landed elite were *more* likely to experience hunger during the Famine (see Appendix Table A.4, Panel C), despite the fact that their parents were landlords or rich peasants with ample access to agricultural products merely a decade before the Famine.

Taken together, these results show that the Communist and the Cultural Revolutions were remarkably successful in the short run — essentially eradicating inequality in land ownership in the rural area, privately-owned enterprises in the urban area, as well as the educational attainment. The revolutions directly afflicted the lives of the parents generation: members of the pre-revolution elite households no longer exhibited an elite premium in the dimensions that we can

measure. The parents generation thus are unable to pass down to the subsequent generation the two factors highlighted by economists as central to successful economic performance — physical capital and human capital acquired through formal education.

4.2 Rebound after the revolutions

We now investigate the socioeconomic conditions among the third, children generation who grow up after the revolutions, comparing the outcomes of individuals belonging to the pre-revolution elite households with those who do not.

4.2.1 Income

We first compare contemporary income in the children generation for individuals with and without pre-revolution elite background. Table 1, Panel A, columns 6-7 present the results from the regression of total annual income on an indicator of whether one's grandparents were the pre-revolution elite. The specification controls for cohort fixed effects and county of residence fixed effects, absorbing cross-sectional differences in wage and labor market conditions between counties. Income is measured in 2010, thus it keeps the macroeconomic conditions at the time of measurement fixed for all subjects.

The patterns of inequality that characterized the grandparents generation re-emerge. The children generation from the pre-revolution elite households earn on average RMB 1,841 more per year in income in 2010 than their counterparts from the non-elite households. Relative to the average wage, this amounts to an annual income gap of approximately 11.8%. In other words, *within* county inequality in contemporary China is at least partly still due to the divergent socioeconomic outcomes between the *pre-revolution* elite and non-elite households in the children generation.

To the extent that the pre-revolution elite may be disadvantaged in entering the public sector due to the legacy of the revolutions, and the post-revolution era was characterized by a private sector boom, one may suspect that the income gap we document merely reflects differences in children generation's employment sectors. We decompose the identified income gap into between and within public vs. private sector differences in Table 2, Panel A. Column 1 replicates the baseline specification. Column 2 additionally controls for public and private sector fixed effects, taking out the cross-sector income differences across China. In column 3, we control for province-specific public-private sectoral income gaps to account for the provincial heterogeneity in such differences. Finally, in column 4, we control for a migrants fixed effect to account for the fact that migrants may differentially benefit from the private sector boom. The elite versus non-elite income gap remains largely unchanged throughout columns 2 to 4, at 11-13%. This implies that the primary sources of the income gap are *within* employment sector rather than between. We observe similar patterns when we examine rural and urban households separately (see Appendix Table A.6).

The income gap between the pre-revolution elite and non-elite steadily increases as the cohorts

become younger, in particular among those born after the 1960s who entered the labor market when market forces began to function again in 1978 (see Appendix Figure A.7 and Appendix Table A.3, which trace the income gap between the pre-revolution elite and non-elite for birth cohorts starting in 1930). As the proportion of one's professional career that overlaps with the Reform-and-Opening era increases, the pre-revolution family background plays a bigger role in predicting contemporary income and labor market performance.[20]

Robustness of income rebound

The positive elite vs. non-elite income gap that we identify is robust to a range of alternative empirical specifications. First, it is unaffected by the specific cohort cutoffs that define the children generation (see Appendix Table A.7, Panels A.1 and A.2). Second, the income gap remains largely unchanged when we use alternative definitions of the pre-revolution elite: *(i)* relying only on individuals' own reported class labels and not on inference from parents' answers (Panel B.1); *(ii)* restricting the sample of pre-revolution elite to those rich peasants (more likely to be a working elite; Panel B.2). Third, the magnitude of income gap we document remains similar when the outcome is instead the log of income (Panel C.1). Fourth, the income gap is robust to accounting for various correlation structures of the data: *(i)* allowing for spatial correlation across the CFPS sample (Panels D.1 and D.2); and *(ii)* clustering the standard error at the province county level (Panels D.3). Finally, the estimated income gap is unaffected by the specific sample composition of the CFPS: *(i)* controlling for the household size or household generational composition, which could affect the sampling probability given the CFPS sampling frame (Panels E.1 and E.2).

The income gap we estimate is also unaffected when we take into account of a number of potential confounding factors. First, our baseline comparison does not capture life cycle variation in an individual's income trajectory, and one may worry that the differential age effects between the elite and non-elite may drive the observed cross-sectional income differences. We combine the panel structure of the CFPS, using income observed in subsequent waves of the survey between 2012 and 2018 to separately control for both the cohort fixed effects and the age fixed effects; the baseline elite income premium remains largely unchanged (Panel F.1). Second, one may also be concerned that the places where the pre-revolution elite tend to live experience differential development paths, which could account for the observed elite income premium. However, the elite income premium is unchanged if we control for province-specific cohort fixed effects (Panel G.1). Finally, one may be concerned that the income gap is primarily driven by the individuals whose parents are entrepreneurs or self-employed. We find that the elite income premium is unaffected when we control for parental career status (Panels H.1 and H.2).

[20]This pattern also suggests that the rebound of the children generation of the pre-revolution elite is unlikely to be driven by the Township and Village Enterprises (TVEs), since their rebound occurred largely after the demise of the TVEs in mid to late 1990s (Park and Shen, 2003). Moreover, the TVEs were often headed by local cadres and Communist Party members, groups from which the pre-revolution elite were largely excluded.

Magnitude of the rebound in perspective

To put the income gap between the children generation of the pre-revolution elite and non-elite in perspective, we compare it with a number of cross-sectional and intergenerational benchmarks.

We begin by comparing the income premium enjoyed by the descendants of the pre-revolution elite with that enjoyed by the emerging, post-revolution, Communist elite (see Table 3, Panel A). The pre-revolution elite are largely excluded from the post-revolution, Communist elite — in fact, the correlation coefficient between these two elite membership remains at around -0.905 (s.e. = 0.008) across the parents and children generations. We find that the pre-revolution elite's income premium is 128.0% of that exhibited among the post-revolution, Communist elite (see Table 2, Panel B). This indicates that the descendants of the pre-revolution elite have regained their elite status, at least in the economic domain, to a level that is comparable to the new elite of the current Communist incumbent who directly benefit from many structural factors such as preferential access to jobs in the public sector and state-owned enterprises.[21]

We consider two more sources of cross-sectional income differences (Panel B). First, based on the same national survey data, Heshmati and Su (2017) find a gender income gap in China of 21% (as of 2010). The elite grandparents premium is thus more than four-fifths of the gender gap. A second benchmark is the rural-urban income gap within China. In 2010, an average urban *hukou* holder earned a 38.3% higher income than their peers with rural *hukou* status. Thus, the magnitude of the elite premium that we identify is about a third of the overall rural-urban gap one observes in China.

Another way to benchmark the income gap and the resurgence of the pre-revolution elite is through intergenerational transition probabilities — in particular, the chance that one stays in the top decile in terms of income if one's grandparents were in the top decile. We compare the implied transition probability based on the income gap we estimate in China's context, with other contexts where comparable data is attainable (Panel C; Appendix E describes in detail the procedure of recovering the transition matrix from regression coefficients).[22] Our estimated income gap implies that individuals whose grandparents were in the top decile of the distribution have a 14.4% chance of staying in the top decile. This is much higher than the persistence rate of top decile in Taiwan (10.1%; Yu, 2019), Canada (11.1%; Corak and Heisz, 1998), Russia (13.0%; Popkin, 2016), and the U.S. (14.1%; Chetty et al., 2014). Thus, China's two major revolutions, despite their explicit goals of eliminating class privileges and removing inequality, did not manage to increase social mobility substantially above what is observed in other economies that have transitioned away from the

[21] Ample evidence highlights the premium of the Communist Party patronage, either via a persistent effect on economic outcomes of belonging to a household with a revolutionary cadre or martyr, or through the economic benefits and rents received by those who join the Communist Party during their lifetime (e.g., Li and Walder, 2000).

[22] A three-generation transition matrix is rarely estimated in other contexts due to data limitations. We thus extrapolate from the two-generation transition matrix, assuming the same transition probability between grandparents and parents as between parents and children.

socialist system, or several exemplifying capitalist economies with no such revolutions.[23]

4.2.2 Employment status and additional labor market outcomes

The large income premium that characterizes the children generation of the pre-revolution elite combines two different margins (the extensive and intensive margins) and two sources of income (wages and agricultural income). The descendants of the pre-revolution elite indeed differ from the rest of the population in their degree of participation in the labor market. Table 1, Panel B, presents the results of a regression of various employment statuses on the pre-revolution elite indicator. We see that the children of the pre-revolution are significantly more likely to be employed. They are also more likely to work outside of agriculture, especially if their parents worked in the fields. Appendix Table A.8 decomposes the pre-revolution elite premium into the intensive and extensive margins and distinguishes between wage and total (i.e., wage *plus* agricultural) incomes. The pre-revolution elite children's significant income premium is robust to focusing on wages only (Panel A) and to looking at different sample definitions based on labor market participation (Panel B): the total income premium ranges from 14% of the mean for employed respondents to 18% for a broader sample that also includes job hunters and full-time homemakers.

Among those employed, the children generation of the pre-revolution elite are more pro-market and entrepreneurial as reflected by their employment sectors. Table 1, Panel B, shows the following results. First, we find substantial intergenerational occupation upgrading from agriculture to non-agricultural sectors among those from the elite households: the children generation from pre-revolution elite households are about 33% *more* likely to hold non-agricultural occupation than their peers in the rest of the population, if their parents worked in the agricultural sector (the baseline rate is 30% with elites commanding a 10% premium, *p-value* = 0.003). This may indicate both a willingness to venture outside of one's parents' trade and a higher ability to seize opportunities outside of (low-productivity) agriculture. Second, the pre-revolution elite, in the children generation, are about 5% more likely to be self-employed, a differential that comes both from entrepreneurs and owners of firms.[24] Third, we find that the children generation of the pre-revolution elite have significantly higher occupational status as measured by the ISEI score, which ranks occupation categories so as to maximize the role of occupation as an intervening variable between education and income (Ganzeboom et al., 1992a). This may reflect the higher share of entrepreneurs, as well as a higher education attainment, which we investigate below.

[23] One may argue that without the revolutions, social mobility in China might have been much lower than what it is today. Such a counterfactual is inherently difficult to assess. Existing genealogical evidence shows that intergenerational mobility was quite low in China between 1300 and 1900 (Shiue, 2018).

[24] This relates to recent evidence that parental background is key in explaining business ownership in China; specifically, children of entrepreneurs are more likely to become entrepreneurs themselves (Jia et al., 2020). To the extent that self-employed small business in rural China often requires access to capital via social network and informal lending (e.g. Zhang and Loubere, 2013), this also suggests that the pre-revolution elite have stronger social ties and are able to excel at network-intensive career paths. We investigate the importance of social networks in Section 5.3.

4.2.3 Educational attainment

The pre-revolution elite's resurgence in the labor market is accompanied by their rebound in educational attainment. Among the cohorts that began secondary and tertiary education after the normalization of education (i.e., those born after 1961), the proportion of individuals from the pre-revolution elite households who completed at least secondary school immediately bounces back and remains much higher than that of their counterparts in the non-elite households (see the right section of Figure 4). We then analyze this pattern more rigorously in regressions, where we exploit across households, within county, and within cohort variation. As shown in Table 1, Panel C, individuals from pre-revolution elite households complete on average 0.78 years (or 10.5%) more schooling in the children generation. They are much more likely to complete secondary school and higher education than their counterparts from non-elite households.

The increased schooling also reflects differences in tangible human capital accumulation, as measured by math and reading skills in a standardized test administered in the 2010 CFPS module. Children generation of the pre-revolution elite households performed significantly and substantially better in both math and reading than their peers from the non-elite households.

Given that just one generation ago, the pre-revolution elite did not enjoy any advantage in — if anything, were discriminated against in their access to — formal schooling, the rapid and systematic rebound of the children generation is particularly striking.

5 What explains the elite's rebound?

The pre-revolution elite has systematically rebounded in the children's generation. What explains their resurgence? Generally speaking, an individual's success hinges on her access to and accumulation of physical capital, human capital, social capital, as well as the macro-socioeconomic conditions that are compatible with these capitals. The success of the revolutions in shaping and suppressing the lives of the parents generation of the elite as portrayed in Section 4.1 indicates that key factors such as physical capital (accumulated through asset inheritance) and human capital that could be acquired through formal education cannot explain the rebound of the children generation of the pre-revolution elite.

In this section, we begin by discussing a number of factors that may have accounted for the elite rebound, and present evidence that they are unlikely to be important explanations. We then focus on factors that may play a prominent role and that the revolutions did not manage to annihilate among the elite: human capital transmitted in the family and social capital, as well as an ability to migrate to economic opportunities.

5.1 Potential explanations unsupported by evidence

Incomplete confiscation of wealth

The pre-revolution elite's comeback could simply reflect the failure of the Communist and Cultural Revolutions to thoroughly deprive elite households of their wealth and access to higher education. Wealth may be hidden if the Land Reform did not take away all the land from the landlord and rich peasant households beyond the subsistence level, and these families may leave behind other agricultural productive assets. This is unlikely because the pre-revolution landed elite were in fact more likely to suffer from starvation during the Great Chinese Famine, which constitutes *prima facie* evidence that they did not retain meaningful wealth after the Land Reform. Moreover, hidden assets became largely irrelevant due to the collectivization movement in 1952-1957 that completely eliminated private property rights (both usage and transfer rights) to any land and production assets soon after the Land Reform. To the extent that one could try to hide wealth and assets from being confiscated, it is primarily in the form of slaughtering cattle for one-off private consumption, and the estimated scale of such a behavior is rather low (Chen and Lan, 2017).

Finally, restitution is unlikely to drive the persistence among the rural elite that we document as confiscated assets were not returned in rural areas. A systematic examination of the records in the *County Gazetteers* suggests that the ownership of a portion of the previously confiscated agricultural production assets such as semi-mechanized farming tools have been re-allocated from the collectives to households since 1981. However, these assets were typically allocated through lotteries or auctioned off, rather than returned to the their original owners (Unger, 1985). A small fraction of the urban elite received a portion of their pre-revolution real estate properties back in the early 1990s, especially in large cities such as Shanghai. Excluding residents from these cities do not change our baseline results (see Appendix Table A.7, Panel E.3).

Selection through famine mortality and violence targeting the pre-revolution elite

One may speculate that the pattern of persistence among the pre-revolution elite is driven by their selective survival during the revolutions. In particular, three major episodes generated large mortality across the population and may have differentially affected the pre-revolution elite: the Great Chinese Famine and selective violence against the elite during the Communist and Cultural Revolutions. We discuss the impact of those episodes in two steps: first, we study the relationship between historical inequality and the severity of those episodes; and second, we decompose the pre-revolution elite income premium in terms of the intensity of the famine.

If famine mortality and revolutionary violence differentially affected different groups in the population, especially those with fewer resources or a lower capacity to resist and protect their descendants, then such a selection could generate a pattern of persistence and upwardly bias the estimates on intergenerational persistence. We first investigate such a selection in Appendix Table A.9 by studying the relationship between the severity of three high-mortality episodes that

occurred in the lifetime of the grandparents and parents generations and inequality in land ownership before the revolutions. Our right-hand side variables are the landlord share of the population or the land ownership Gini coefficient, both derived from the *County Gazetteers*. We consider three sets of dependent variables. In column 1, we examine the relationship between historical inequality and famine severity — measured by abnormal cohort size reduction in each county, following Meng et al. (2015). In columns 2–6, we study various measures of the intensity of violence during the Communist Revolution, using newly extracted information from the *County Gazetteers*.[25] The violence data allow us to distinguish between the number of deaths, the population that experienced struggles (*douzheng*), and the number of people labeled as anti-revolutionary (*fangeming*), who were at high risk of experiencing violence during the Land Reform. In columns 7–10, we use statistics on mass killings during the Cultural Revolution from Walder and Su (2003). For all three high-mortality episodes, we observe that the severity of the episode in a given county is *not* statistically significantly associated with local inequality prior to the revolutions. More importantly, the systematic killing of landlords and rich peasants was limited in scale as most of the pre-revolution elite survived the revolutions. The observed overall level of violence, albeit not zero, was too low to drive the persistence pattern that we document. Conversely, the size of the average famine-induced cohort loss at the county level is large and may have generated selection *within* the elite: such a selection would jeopardize our interpretation of the elite income premium as a rebound if elite members with a *lower* earnings potential were more likely to perish.

We next investigate whether selective survival can explain the observed premium among surviving elite. We start with survival during the famine, as measured by the famine severity in one's county of birth. In Appendix Table A.10, we show that the average pre-revolution elite income premium remains when we account for heterogeneity by famine severity. In fact, such a premium is *smaller* among individuals originating from counties that experienced a more severe famine (the coefficient on the interaction is not statistically significant at conventional levels). In other words, famine survival is likely to have led to negative selection among the pre-revolution elite (e.g., calorie reduction due to food shortage may be relatively low compared to pre-famine consumption level), and thus the baseline estimates of the pre-revolution elite's rebound are likely a lower bound. Finally, we examine survival during the revolutionary violence. Appendix Table A.11 implements a similar exercise for the Cultural Revolution, examining heterogeneity in the elite income premium by the number of deaths due to the revolution divided by total population. We find a small and insignificant coefficient on the interaction between the death ratio and the elite status variable, suggesting that survival selection was mild among the pre-revolution elite.

Taken together, the evidence suggests that these events are unlikely to be driving the income premium we observe in the children generation of the pre-revolution elite.

[25] We extract data on persecution cases during the Land Reform from the text description of the Land Reform. We find 67 counties that document the violence quantitatively.

Selective migration and remittances

The stark rebound of the pre-revolution elite in the children generation could reflect their different migration patterns. We consider three primary ways in which migration may explain our results: *(i)* selection out of the sample due to emigration out of the country, *(ii)* remittances, and *(iii)* spatial sorting of those included in the sample. While *(iii)* would be consistent with the entrepreneurial spirit that characterizes the pre-revolution elite and thus constitutes a potential mechanism behind the rebound (see Section 5.3), *(i)* and *(ii)* may bias our findings; we shall discuss their role here.

First, the pre-revolution elite may have a higher probability of migrating out of the country and thus being excluded from the CFPS sample. Since our baseline results pool the urban and rural populations, internal migration cannot affect our results. Overseas migration, however, may have affected the pre-revolution elite households differentially, and the substantial elite premium that we observe in the children generation could be driven by *negative* selection of émigrés. International emigration presents in particular a threat to our inference through the grandparents generation: Whereas international emigration today is likely to be strongly positively selected based on current income and education, — and thus should lead us to underestimate the elite income premium, — the direction of selection is unclear for emigration in the early days of the People's Republic of China. We tackle this concern by examining the heterogeneity in the elite income premium in terms of the share of the population (from the 1953 Population Census) that emigrated to Taiwan — émigrés' main destination in the 1940s and 1950s, — using Lin's (2018) breakdown by province of origin of the immigrants from the mainland in the Taiwanese 1956 Population Census.[26] Appendix Table A.12 presents the results. We find that while the elite premium remains substantial across counties, it is *lower* in regions that saw a larger share of their populations emigrate to Taiwan, suggesting *positive* selection of émigrés and thus allowing for a lower-bound interpretation of our baseline results.

Second, previous waves of both internal and international migration may confound our results if the children generation of the pre-revolution elite were more likely to receive remittances from rich urban or émigré relatives, allowing them to invest in human or physical capital and thus improve their socioeconomic position. We do not find evidence that the magnitude of such remittances is substantial among the households we study, and we find no differential access to remittances in the pre-revolution elite households (see Appendix Table A.4, Panel D). Based on our calculation using the CFPS data, about 21.5% of residents among the children generation received transfers in 2010 from relatives not co-residing with them. Not all of these transfers are remittances. Compared to those from the non-elite households, individuals from pre-revolution elite households are in fact slightly less likely to receive such transfers, and conditional on receiving the transfer, the amount is also slightly lower. This suggests that the pre-revolution elite did

[26]The main destinations in the aftermath of the Civil War were Taiwan, with 1.2 million immigrants from mainland China by 1956 (Lin, 2018; Yap, 2018), and Hong Kong, with 285,000 by 1954 (Peterson, 2012). Another 100,000 Chinese nationals were already in Hong Kong prior to 1949 (Peterson, 2012).

not sustain stronger links with urban or émigré households than the rest of the population, or that the children generation did not leverage such links to realize the striking rebound that we observe.

5.2 Human capital transmitted through families

We now examine whether human capital has been transmitted among the pre-revolution elite through channels other than formal education (in particular, through families), and whether this could account for the elite's rebound.

We begin by revisiting the results on basic math and reading comprehension abilities that we presented previously. The parents generation of the pre-revolution elite performed equally well in math tests and substantially better in reading compared to their peers. The difference in the latter amounts to a level associated with about 2 years of formal education, despite the fact that they actually have completed fewer years of formal schooling due to the revolutions. This pattern suggests that certain skills and knowledge have been transmitted among the elite households through non-school channels. We observe high level of performance, in both math and reading, among the children generation of the pre-revolution elite as well, although this could reflect human capital acquired from a combination of school and non-school channels.

We next turn to values and attitudes, another important aspect of human capital. We focus primarily on work ethics, which is generally predictive of income and wealth across many contexts (Alesina and Giuliano, 2015). We find that the pre-revolution elite express much stronger value in hard work. When asked "do you agree that the most important factor that determines someone's success is how hard she works," the children generation of the pre-revolution elite are much more likely to agree with the statement relative to their peers in the rest of the population (see Table 4, Panel A.1, columns 1 and 2). They are also more likely to have greater career aspirations, considering being rich as an important aspect of life. Such differences in expressed work ethics are not merely reflecting the pre-revolution elite's higher income and educational attainment: similar differences are observed even among young adults who have not yet participated in the labor market and experienced actual income differences themselves (see Appendix Table A.13, Panels A and B); and the expressed work ethics are *not* elastic to income changes over the period between 2010 and 2018 when we observe respondents repeatedly (see Appendix Table A.14).

The differences in expressed work ethics are consistent with actual differences in behavior. Table 4, Panel A.2 reports the estimated differences on hours spent on work during weekdays and the hours spent on leisure on weekends between the pre-revolution elite and the rest of the population. One can see that the children generation of the pre-revolution elite spend significantly and substantially more hours working on weekdays and fewer hours on leisure on weekends — amounting to 220 more hours at work (and hence less leisure) each year. We observe similarly high working hours among the parents generation of the pre-revolution elite, though intriguingly

not in their expressed attitudes on work ethics.[27] The stigma attached to these values during the revolutions may have made the parents generation reluctant to express them publicly even to this day.

Interestingly, while the pre-revolution and post-revolution elites enjoy a comparable income premium, the latter do *not* express stronger work ethics (see Table 4, Panels A.1, column 7), indicating that the high work ethics that we observe among the pre-revolution elite is not to be taken for granted among any socioeconomic elite group in China.[28] This may come as a surprise given that the stereotypical narrative (often used by the Communist Party itself after the revolution) portrays the pre-revolution landed elite — especially the landlords — as a lazy, purely rent-seeking and exploitative class, and the Communist elite as the diligent working class. While some individuals may confirm such a stereotype, the average member of either elite class does not, which may reflect the fact that the average landlord and rich peasant did not own large latifundia in pre-revolution China (see Figure 2), and often engaged in farm labor themselves. Nonetheless, it is important to note that this does not necessarily suggest that high work ethics is uniquely held by the pre-revolution elite. In fact, the children from the non-elite households whose parents exhibit similarly high level of work ethics also out-perform their peers on the labor market (see Appendix Table A.15). In other words, the pre-revolution elite possess an important set of traits that has a high return in a modern, market economy.

In addition to the stronger work ethics, the pre-revolution elite exhibit differences in a number of other important values. The pre-revolution elite, compared to the rest of the population, are more likely (and significantly so, for the parents generation) to be willing to sacrifice other dimensions of living when financially constrained in order to promote their offspring's education, consistent with the realized educational attainment among members of the elite households (see Appendix Table A.4, Panel E). In contrast to the greater investment in education, the pre-revolution elite spend *less* on real estate and housing compared to their non-elite counterparts, suggesting a shift toward investments in intangible assets (see Appendix Table A.4, Panel F). [29]

Co-residence with the parents generation is an important factor to account for the attitudinal differences between the pre-revolution elite and non-elite.[30] We find that the sub-group of individuals in the children generation who co-live with their parents exhibits the largest elite vs. non-elite attitudinal differences, and the gap essentially vanishes among those whose parents have already passed away (see Appendix Table A.16). While co-residence with parents could be driven by the

[27]We observe higher levels of stated work ethics among the grandparents generation of the pre-revolution elite, although the difference is noisily estimated due to the sample size of the older cohorts (see Appendix Table A.13, Panel C).

[28]They do spend more time working on weekdays (at a level similar to the pre-revolution elite), but they do not reduce their leisure time on weekends compared to the rest of the population (see Table 4, Panels A.2, column 7).

[29]Such a shift is similar to the patterns documented among the previously landed elite in Bolivia after the revolution (Kelley and Klein, 1977) and Polish forced migrants after WWII (Becker et al., 2020).

[30]The vast majority of the cases of co-residence with parents that we observe are with biological parents, as the divorce rate in China is extremely low — less than 2 per 1,000 inhabitants as of 2010. One may also co-reside with extended family members, especially when not residing with parents; however, we do not directly observe such behavior.

alignment of fundamental attitudes between the two generations, the inability to co-reside due to the parents' premature death makes such sorting less of a concern. The pattern observed here is consistent with the interpretation that vertical transmission, of which co-residence and spending a significant amount of time together are a pre-requisite, plays an important role in explaining the attitudinal differences among the children generation. Close interactions between the generations may play an even bigger role in the transmission of stigmatized values and attitudes.[31] Furthermore, the fact that parental deaths do not correspond to higher work ethics among the elite also suggests that it is unlikely that their stronger work ethics are simply a result of willingness to revenge and rectify the persecutions experienced by the previous generations.[32]

Taken together, these results indicate that despite the revolutions, families have been an important vehicle for transmitting human capital across generations, including knowledge, skills, and important values. We end this section with an assessment on the extent to which differences in human capital such as work ethics could account for the large income gaps that we document between the children generation of the pre-revolution elite and non-elite. In Appendix Table A.17, we re-estimate the elite income gap among the children generation, and control for the values and attitudes that we examine in this section. The elite vs. non-elite income gap is dramatically reduced (drops by 87%).[33] One ought to be cautious in interpreting results from this exercise; this pattern nonetheless is suggestive that values and attitudes such as work ethics, and human capital transmitted through families more generally, could be an important channel through which the income advantage of the pre-revolution elite emerges again in the children generation.

5.3 Moving to opportunities or staying with clan-based networks

We have seen that the children of the pre-revolution elite exhibit a sizeable income premium, which seems to be largely explained by the more pro-market, entrepreneurial values that they hold. Consistent with those values, pre-revolution elite children are more likely to be self-employed and leave agriculture, if their parents were employed in that sector. In this section, we investigate: *(i)* the pre-revolution elite's entrepreneurship in a broader sense — their willingness to take risks and ability to identify and make the most of opportunities — by investigating their migration be-

[31] One could attribute part of the persistence and rebound to innate traits and characteristics, such as genetics, personalities broadly defined, intelligence, and emotional intelligence. The pattern that the pre-revolution elite's rebound may be affected by the co-residence with their parents suggests that such innate characteristics are unlikely to be the primary driver.

[32] A similar hypothesis is that the persecution of the grandparents and parents generations established or made salient an elite group identity (Akerlof and Kranton, 2000) and narrative (Benabou et al., 2018), which would be critical in fostering a set of key values and attitudes. The direct test of this hypothesis would require us to observe attitudes and values among the grandparents generation, *prior* to the revolutions; however, such data do not exist. An indirect piece of evidence inconsistent with the persecution-induced revenge and resentment is that we do *not* observe weaker differences among those in the children generation who do not know their class labels and thus may belong to families where the history of persecution is less salient.

[33] In Appendix Table A.18, we re-estimate the elite vs. non-elite differences in values and attitudes, and control for formal educational attainment. We find that the gap is still present even accounting for differences in educational attainment.

havior (see Kerr and Kerr, 2020, for a review of the link between entrepreneurship and migration); and *(ii)* the role of clan-based social networks in fostering elite's rebound among those who stay behind.

5.3.1 Moving to opportunities

We shed light on the entrepreneurial spirit of the children generation of the elite by first decomposing their income premium by migrant status and then by investigating their responsiveness to economic incentives.

Our baseline study of the pre-revolution income premium in the children generation incorporates both movers and stayers.[34] Moving to opportunities is however an important channel to improve one's livelihood, and we would expect individuals who express highly entrepreneurial values to be more likely to use it. Table 5, Panel A decomposes the elite income premium among stayers and cross-province migrants. Comparing individuals from the same birth province, we see that the migrants among the pre-revolution elite children command a much higher income premium than stayers. Migration explains about 20% of the baseline pre-revolution elite income premium, and migrating is associated with a staggering 5-fold increase in the income gap between pre-revolution elite and the rest of the population. Note that the income premium remains sizeable and statistically significant at the 10% level among stayers — we investigate the stayer premium below.

Migration implies taking risks and an ability to identify economic opportunities. We examine whether the descendants of the pre-revolution elite are more likely to display such traits. In Appendix Table A.20, we investigate whether the children of pre-revolution elite households differ in their probability to migrate and their responsiveness to push and pull factors, by regressing an indicator variable equal to 1 for emigrants and 0 for stayers on the elite variable and comparing respondents from the same birth province. The first striking finding (columns 1–2) is that the pre-revolution elite in the children generation do not statistically significant differ from the rest of the population in their migration probability — if anything, they are *less* likely to emigrate. This lower migration probability may reflect access to stronger social safety nets in their places of origin (Munshi and Rosenzweig, 2016), consistently with the evidence on clan networks presented in columns 5–6 and described below.

Second, heterogeneity in the pre-revolution elite's migration probability shows that they are more likely to leave low-productivity origin regions and sort into high-productivity places, reflecting their ability to seize opportunities. We show this in Appendix Table A.20, columns 3–4 by interacting the elite status indicator variable with measures of economic push and pull shocks,

[34] Using such a pooled sample ensures that our results are not driven by selective emigration from (e.g., rural) survey counties. International migrants are not observable in our data; they are however likely to be positively selected based on income, which should lead us to underestimate the elite premium. We discussed selection through international migration in more detail in Section 5.1.

which capture revenue shocks at origin and at destination. As migration decisions and (both origin and destination) wages may be simultaneously determined, we rely on the literature to obtain proxies of push and pull factors that alleviate endogeneity concerns. In column 3, we measure push shocks, following Imbert et al. (forthcoming), as innovations in agricultural commodity prices on international markets, interacted with the local suitability for growing different crops in individuals' birthplaces. We multiply this measure by -1, so that it captures a relative decrease in agricultural productivity and should therefore increase emigration. We find that push factors have a stronger effect on elite individuals. In column 4, we study the effect of pull factors. We measure, for each birthplace, the attractiveness of typical migrant destinations by combining a standard shift-share of nominal hourly wages based on industrial composition for each destination with weights corresponding to emigrant shares across destinations.[35] We find that pre-revolution elite individuals in the children generation react more strongly to pull factors than the rest of the population. We interpret the results of Appendix Table A.20, columns 3 and 4 as evidence of the pre-revolution elite's higher responsiveness to economic incentives or higher ability to identify opportunities.

The ability to move to opportunity that we document for the pre-revolution elite is not a characteristic that all elite groups necessarily share. Appendix Table A.21, Panel A shows that the children generation of the post-revolution elite do *not* earn a higher premium when they migrate. While the interaction of the post-revolution elite and migration indicator variables is noisily estimated, its point estimate is large and negative. This may indicate heterogeneity in the post-revolution elite's ability to move to opportunities, and possibly that the income premium of the new elite's children is linked to a specific location.

5.3.2 Staying to benefit from social networks and social capital

Traditional clan-based networks While the pre-revolution elite migrate to opportunities, we observe that those who stay in their birthplaces exhibit a considerable income premium relative to their non-elite peers as well. One may suspect that the pre-revolution elite's children generation rebound simply because they ride the tide of the general resurgence in inequality across China and local conditions that favor inequality. Combining pre-revolution data on land ownership distribution from the *County Gazetteers* with contemporary data on inequality in real estate housing — the most relevant asset today — from the 2000 Population Census, we however show that the counties that were more unequal in the past tend to be *more* equal today. We provide a detailed presentation and discussion of these results in Appendix F.

We now examine the local characteristics that may systematically benefit the elite and foster the rebound among non-migrants. Specifically, we investigate whether the presence of strong

[35] Formally, we measure pull shocks as $\Sigma_d \Sigma_i \mu_{od} \alpha_{id} w_i$, where w_i is the logarithm of hourly wage in industry i, α_{id} is the share of employment in industry i in destination d, and μ_{od} is the share of emigrants from origin o who go to d. All these variables and weights are computed from the 2005 1% Population Survey.

local networks based on traditional families and kinship clans are associated with the extent to which the pre-revolution elite manage to rebound when they physically remain in these networks. Kinship clans and family-based networks in general are vital fabrics of traditional society in China, where they still sustain cooperation, public goods provision, and resource allocation in rural areas. We capture kinship clan strength using a Hirschman-Herfindahl index of surname concentration among historical civil service examination top scorers (*Jinshi*) born in the county.

We first examine whether pre-revolution elite are more likely to remain in their birth places if local kinship clan networks are strong. Appendix Table A.20, columns 5-6 present the results. One observes that indeed pre-revolution elite are substantially more likely to stay when kinship clan networks are stronger.

We next estimate the heterogeneous pattern of the income gap between the children generation of the pre-revolution elite and non-elite who have not moved away from their birth places, with respect to kinship clan strength in the corresponding county of residence. The coefficient estimates are presented in Table 5, Panel B, columns 1-3. We find that the pre-revolution elite who reside in their birth places experience a significantly more substantial rebound in counties that have stronger kinship clan presence: on average, a one standard deviation increase in surname concentration in the local population is associated with a 58.9% increase in the observed income gap between the children generation of the pre-revolution elite and non-elite. In contrast with the pre-revolution elite, the post-revolution elite's income premium is *not* significantly associated with the local kinship clan strength (see Appendix Table A.21, Panel B, columns 1-3). While the new, post-revolution elite might have formed separate networks through which they thrive (e.g., the formal organization structure of the Communist Party and its extensive local branches), they do not generically benefit from the local kinship clan networks that the pre-revolution landed elite participate in. If anything, the presence of strong local clans slightly hurt the post-revolution elite.

Social capital: family-based social networks Pre-revolution elites' ability to benefit from the traditional social fabric reflects the greater social and family-based networks that they enjoy more broadly.

We first examine attitudes related to social and family networks. In Table 4, Panel B, columns 1-6 one observes that compared to the rest of the population, the pre-revolution elite are substantially more likely to consider social networks as important and social connections as critical to success. This is particularly striking for the children generation. Interestingly, the post-revolution, Communist elite do not exhibit similarly strong attitudes concerning social networks and connection (see columns 7-9).

The differences in these attitudes are consistent with behavior. We begin by examining the composition of households. Specifically, we ask whether members of the pre-revolution elite households are more likely to marry other descendants of the pre-revolution elite. Table 4, Panel B.2, columns 1-3 present the estimated likelihood of assortative matching based on the pre-revolution

elite status. One observes that controlling for birth cohort and county of residence fixed effects, which hold fixed many factors related to the marriage candidate pool, the pre-revolution elite are significantly more likely to marry others who share their class background.[36] This suggests that homogeneous households are (still) formed and the revolutions did not lead to a thorough reshuffling of the marriage market. Moreover, we find that individuals in the children generation of the pre-revolution elite are substantially more likely to co-reside with their parents and even grandparents. This allows the pre-revolution elite to form households that contain significantly more generations, and the tightly knit multi-generational households are often considered as a hallmark of the traditional, Confucian familial arrangements.

Moreover, we find that the pre-revolution elite are more likely to interact with their family members financially. The children's generation of the pre-revolution elite, compared with their peers in the rest of the population, are significantly more likely to ask for financial and career help from family members, and they provide greater amount of family gift each year (see Table 4, Panel B.2). Interestingly, we do not observe substantial differences in financial transfers exchanged with non-relatives, consistent with the fact that the social networks are largely coextensive with the extended family and strong ties are more usually leveraged than weak ties in China (Bian, 1997).

Taken together, these patterns suggest that while the Communist and Cultural Revolutions eradicated the elite class's physical assets and opportunities to accumulate human capital through formal channels of schooling, the basic social fabrics within elite families and their kinship clans may have survived. The descendants of the elite families who stay in their birth places benefited from such kinship networks, and their rebound was facilitated by these networks. The assortative matching and tightly knit families may further the pre-revolution elite's ability to preserve and access social capital tied to their kinship networks, in turn contributing to the persistence of the pre-revolution elite.

6 Conclusion

This paper investigates the extent to which efforts to eradicate inequality in wealth and education can shut off intergenerational persistence of socioeconomic status. We find that the Communist and Cultural Revolutions in China — among the most radical social transformations in recent human history — prevented the elite from transmitting to their children physical capital and human capital acquired from formal schooling. Nonetheless, the individuals whose grandparents are the pre-revolution elite, growing up after the revolution ended, systematically bounce back and earn substantially higher income than their peers.

We show that several channels — the transmission of human capital through families, ability

[36]The probability to marry within the elite is even higher, and also statistically significant, for both the parents and grandparents generations. Similarly, the post-revolution, Communist elite are significantly more likely to marry within their class, and significantly less likely to intermarry with the descendants of the pre-revolution elite (see columns 1, 4 and 7).

to migrate to opportunities, and the survival of social capital manifested in kinship-based networks — contribute to the pre-revolution elite's persistence despite the revolutions. These channels, centered around families, have been extraordinarily resilient despite such broad and deep institutional and political changes as the Chinese revolutions brought about. Thus, these channels may be largely and generally immune to policy interventions that aim to level the playing field, making them powerful sources of persistence across generations.

One may only speculate that had the Chinese revolutions involved mass killing of the elites themselves, lasted for more than one generation, or directly targeted transmission within the family sphere, the younger generation would be prevented from co-residing or exchanging with those who grew up prior to the revolutions. As a result, human capital transmission within families as well as family-based social capital among the elite may become severely undermined. Since policies targeting intergenerational mobility as extreme as the Chinese revolutions — let alone those more extreme — are exceptionally rare, intergenerational persistence would likely endure.

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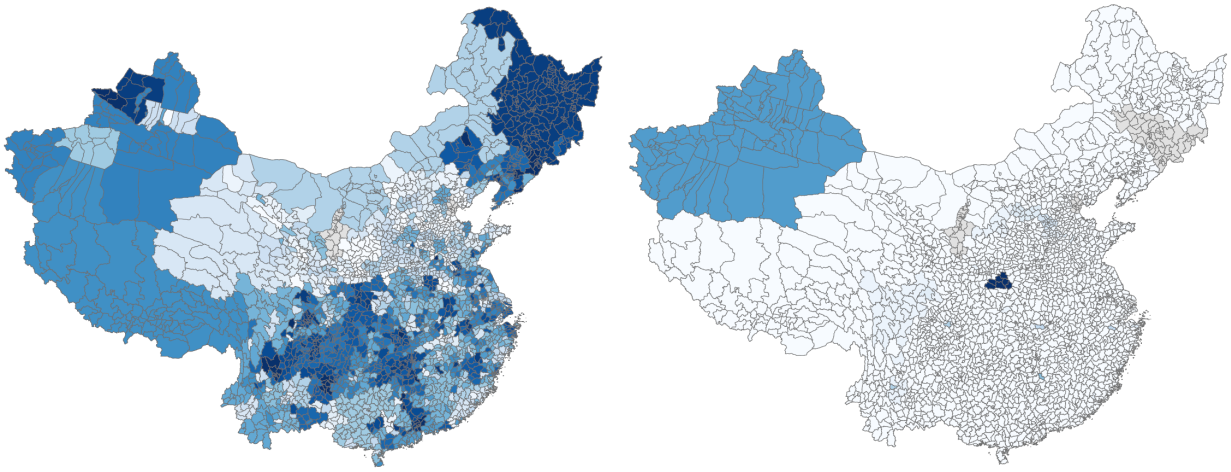
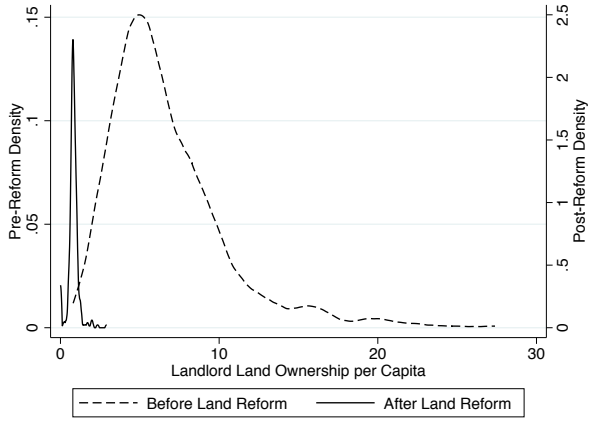
Figures and tables



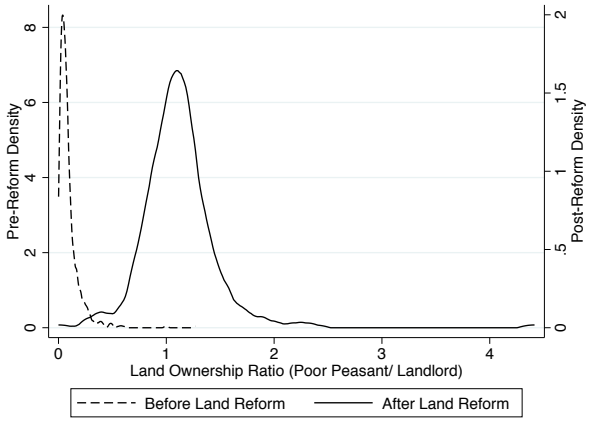
A. Pre-Land Reform

B. Post-Land Reform

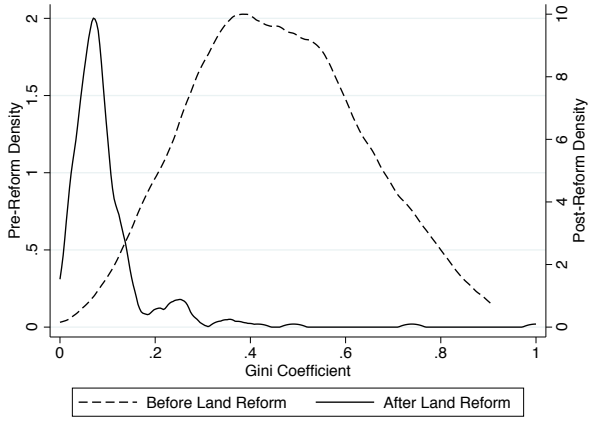
Figure 1: This figure displays Gini coefficients across Chinese counties. Darker color indicates higher within-county inequality. Panel A: Gini coefficients in land ownership prior to the Land Reform; counties with missing observations are imputed using prefecture averages (province averages if all counties in a prefecture have missing data); provinces with no data are shown in gray. Panel B: Gini coefficients in land ownership just after the Land Reform; same imputation strategy for counties with missing values.



A. Landlord land ownership per capita

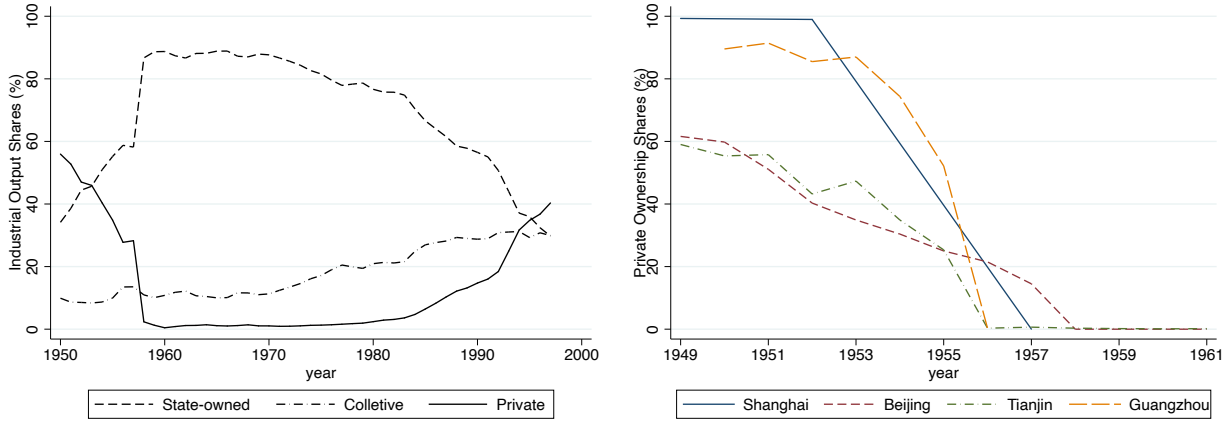


B. Land ownership ratio (poor peasant/landlord)



C. Gini coefficient

Figure 2: This figure displays various measures of the land distribution across Chinese counties. Panel A plots the number of acres of land owned per landlord household member before and after the Land Reform. Panel B plots the ratio of land ownership per poor peasant to the land ownership per landlord before and after the Land Reform. Panel C plots the Gini coefficient of land ownership before and after the Land Reform. The dashed (solid) line is the probability density function before (after) the Land Reform.



A. Industrial output shares by ownership

B. Private ownership in four major cities

Figure 3: This figure displays (urban) industrial output shares by ownership type. Panel A presents the average shares across all provinces between 1950 and 1993, based on the report on the *Socialist Transformation of Capitalist Industry and Commerce in China*. Panel B presents city-level shares across 4 major industrial cities: Beijing, Shanghai, Tianjin, and Guangzhou, based on data from the corresponding *City Gazetteers*.

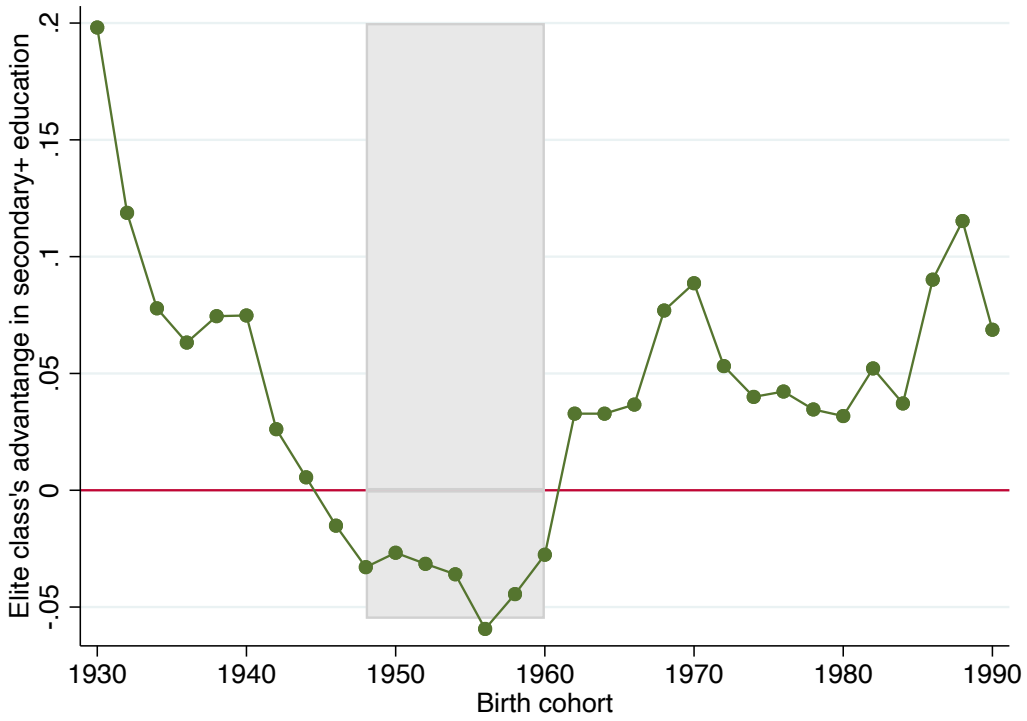


Figure 4: This figure plots pre-revolution elite's advantage in educational attainment — the average difference in the probability in completing at least secondary education between the pre-revolution elite and the rest of the population. The shaded area indicates the birth cohorts whose education could be potentially affected by the Cultural Revolution, i.e., those who would have completed or entered secondary school (age 12–18) between the start of the Cultural Revolution in 1966 and the normalization of education in 1972. County fixed effects are controlled.

Table 1: Parents and children generations of the pre-revolution elite

	Both generations		Parents generation			Children generation		
			Elite diff.		Overall	Elite diff.		Overall
	Mean	Std. dev.	Coef.	Std. err.	Mean	Coef.	Std. err.	Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Income								
Annual labor income	12917.073	28411.019	-536.008	513.742	10211.254	1,840.990**	902.470	15687.079
Panel B: Labor market sector choices								
Currently employed	0.543	0.498	0.076***	0.019	0.474	0.060***	0.019	0.617
Non-agricultural job	0.463	0.499	-0.003	0.020	0.333	0.040*	0.021	0.572
Change to non-agricultural job from parents	0.170	0.558	-0.027	0.028	0.082	0.054*	0.030	0.244
Self-employed	0.104	0.306	0.020	0.014	0.077	0.043**	0.021	0.127
Career prestige score (ISEI)	31.914	14.177	-0.459	0.594	29.201	1.709**	0.749	34.177
Panel C: Educational performance								
Completed at least junior high school	0.493	0.500	-0.0002	0.018	0.405	0.071***	0.019	0.587
Completed at least senior high school	0.198	0.399	-0.025**	0.011	0.152	0.057***	0.018	0.247
Top quartile in math test score (2010)	1.308	0.462	-0.019	0.014	1.213	0.076***	0.020	1.410
Top quartile in reading test score (2010)	1.482	0.500	0.052***	0.019	1.355	0.045**	0.018	1.618

Notes: Columns 1 and 2 present the mean and standard deviation, respectively, of the variable for the parents and children generation combined. Columns 3 and 6 (4 and 7) present regression coefficients (standard errors) of estimated differences between members of the pre-revolution elite and non-elite households for the parents and children generations, respectively, controlling for cohort fixed effects and residence county fixed effects. Standard errors are clustered at county level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: parents (1940–1965 birth cohorts; N = 12,130) and children generations (1966–1990 birth cohorts; N = 11,321). Note that in Panel B, we examine many outcomes conditional on being employed with a reduced sample (parents generation: N = 5,625; children generation: N = 6,750).

Table 2: Decomposing income differences among the children generation

	Total income				
	(1)	(2)	(3)	(4)	(5)
Panel A: Pre-revolution elite					
Elites	1,840.990**	1,925.860**	1,928.575**	1,846.672**	2,024.138**
	(902.470)	(898.908)	(905.861)	(903.075)	(926.616)
Panel B: Post-revolution elite					
Elites	1,437.658	1,365.409	1,282.384	1,437.268	1,458.525
	(1,273.853)	(1,294.624)	(1,303.959)	(1,272.002)	(1,239.565)
County FE	Yes	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	No	No
Province by sector FE	No	No	Yes	No	No
Migration FE	No	No	No	Yes	No
Birth province FE	No	No	No	No	Yes

Notes: This table shows elite income differences with a set of control variables. All specifications include cohort fixed effects and county fixed effects. Column 1 presents the baseline income difference on the basis of elite status. Column 2 additionally includes employment sector fixed effects; column 3 includes province $\times$ sector fixed effects; column 4 includes a migrant indicator variable, defining migrants as individuals whose current county of residence is different from their birth place; column 5 includes birth province fixed effects. Standard errors are clustered at county level. The mean of the dependent variable is RMB 15,687 (std. dev. 34,362). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321.

Table 3: Magnitude of income differences in perspective

Reference group	Magnitude	Source
(1)	(2)	(3)
Panel A: cross-sectional differences in income, elite		
Pre-revolution elite	11.8%	CFPS
Post-revolution elite	9.2%	CFPS
Panel B: cross-sectional differences in income, other dimensions		
Gender gap	21.2%	Heshmati and Su (2017)
Urban-rural gap	38.3%	CFPS
Panel C: intergenerational mobility (probability of staying in top decile)		
China	14.4 %	CFPS
Taiwan	10.1%	Yu (2019)
Canada	11.1%	Corak and Heisz (1998)
Russia	13.0%	Popkin (2016)
U.S.	14.1%	Chetty et al. (2014)

Notes: Panel A displays cross-sectional differences in income among the children generation, based on elite status. Panel B displays cross-sectional differences in income mong the children generation, based on demographic differences. Panel C displays the probability that the grandchild of a grandparent in the top income decile will remain in the top income decile — see Appendix E for the detailed procedure of recovering the transition matrix from regression coefficients.

Table 4: Values for the parents and children generations of the elites

	Pre-revolution elites						Post-revolution elites		
	Parents generation			Children generation			Children generation		
	Elite class diff.		Overall	Elite class diff.		Overall	Elite class diff.		Overall
	Coef.	Std. err.	Mean	Coef.	Std. err.	Mean	Coef.	Std. err.	Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A.1: Work ethics – attitudes									
Hardwork is critical for success	0.015	0.026	3.920	0.075***	0.028	3.902	-0.031	0.025	3.902
Important to become rich	-0.106**	0.051	3.654	0.098*	0.054	3.641	-0.027	0.046	3.641
Panel A.2: Work ethics – behaviors									
Average hours working on weekdays	0.307**	0.145	1.411	0.674***	0.197	3.131	0.614***	0.169	3.131
Average hours working on weekends	0.603***	0.156	2.804	0.432**	0.182	3.141	-0.091	0.140	3.141
Panel B.1: Social network – attitude									
Network is more important than ability	0.085**	0.042	3.584	0.147***	0.048	3.544	-0.007	0.043	3.544
Connection is critical for success	-0.031	0.040	3.569	0.081**	0.041	3.412	-0.049	0.048	3.412
Panel B.2: Social network – behaviors									
Spouse is pre-revolution elite	0.096***	0.021	0.049	0.040*	0.021	0.030	-0.015**	0.006	0.030
Spouse is post-revolution elite	-0.040***	0.012	0.108	-0.006	0.011	0.068	0.158***	0.021	0.068
Co-residence with parents	0.019**	0.008	0.013	0.202***	0.019	0.269	0.232***	0.017	0.269
Asked for financial help from others	0.021	0.018	0.204	0.075***	0.022	0.303	-0.007	0.015	0.303
Asked for career help from others	0.010	0.007	0.021	0.028**	0.012	0.069	-0.009	0.009	0.069
Annual gift value to friends and family	125.548	139.331	2,369.056	477.432**	195.159	2,570.906	439.698**	206.485	2,570.906

Notes: Columns 1 and 4 (2 and 5) present regression coefficients (standard errors) of estimated differences between members of the pre-revolution elite and non-elite households for the parents and children generations, respectively, controlling for cohort fixed effects and residence county fixed effects. Columns 7 (8) present regression coefficients (standard errors) of estimated differences between members of the post-revolution elite and non-elite households for the children generation, controlling for cohort fixed effects and residence county fixed effects. Standard errors are clustered at county level. Columns 3, 6, and 9 presents the mean of the corresponding outcome variables. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: parents (1940–1965 birth cohorts; N = 12,130) and children generations (1966–1990 birth cohorts; N = 11,321).

Table 5: Decomposing elite income along migration and local kinship network

	Total income		
	(1)	(2)	(3)
Panel A: Elite income differences due to migration			
Elite	1,620.587*	1,671.147*	1,712.122*
	(947.835)	(939.984)	(946.630)
Elite × migration	8,000.108*	9,159.094**	8,823.357*
	(4,511.837)	(4,565.334)	(4,660.168)
Migration	225.233	262.671	106.751
	(1,888.628)	(1,877.752)	(1,826.848)
Panel B: Clan network and income differences among non-migrants			
Elite	1,910.598	2,053.588	2,109.331
	(947.835)	(939.984)	(946.630)
Elite × clan	1,124.003**	1,034.491**	1,026.713*
	(516.499)	(500.788)	(513.565)
Birthplace FE	Yes	Yes	Yes
Residence FE	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes
Sector FE	No	Yes	Yes
Province × sector FE	No	No	Yes

Notes: Panel A decomposes pre-revolution elite's income premium among the children generation by migrants and stayers; migrants are defined as those who reside in provinces different than their birth provinces. Panel B decomposes pre-revolution elite's income premium among those who do not migrate, based on their residence county's local clan network strength. The clan network strength is measured by the normalized Hirschman-Herfindahl index of *jinshi* surnames at the county level, during the entire period of Ming and Qing dynasties. All columns control for birthplace province and cohort fixed effects, as well as residence county fixed effects. Column 2 additionally controls for employment sector fixed effects; and column 3 additionally controls for province × sector fixed effects. Standard errors are clustered at county level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: Panel A: children generation (1966–1990 birth cohorts); number of observations = 11,321); Panel B: non-migrants among the children generation; number of observations = 10,523.

ONLINE APPENDIX

A Appendix figures and tables

表 2-2-1　三河县 1946 年土地改革前后各阶级土地占有情况变化表

项目 / 阶级成分	户数	人口	人口占全县总%	土地改革前 占有土地（亩）	土地改革前 土地占全县总%	土地改革前 每人平均土地（亩）	土地改革后 占有土地（亩）	土地改革后 土地占全县总%	土地改革后 每人平均土地（亩）	
地　主	694	5504	2.5	81863.9	12.6	14.87	22023.7	3.4	4	Landlords
富　农	2849	18710	8.7	135640.53	20.8	7.25	94904.42	14.7	5.07	Rich peasants
中　农	13173	71364	33.2	236716.77	36.4	3.32	240549.84	37.3	3.37	Middle peasants
贫　农	24327	119565	55.6	196673.34	30.2	1.64	287418.43	44.6	2.4	Poor peasants
总　计	41043	215134		650894.56		3.03	644896.39		3	Total
	# house-holds	# individuals	%	Land area (*mu*)	Land area (%)	Land per person (*mu*)	Land area (*mu*)	Land area (%)	Land per person (*mu*)	Item / Class status
		Population		Pre-Land Reform			Post-Land Reform			

Figure A.1: Sample of County Gazetteer's record on land distribution before and after the Land Reform.

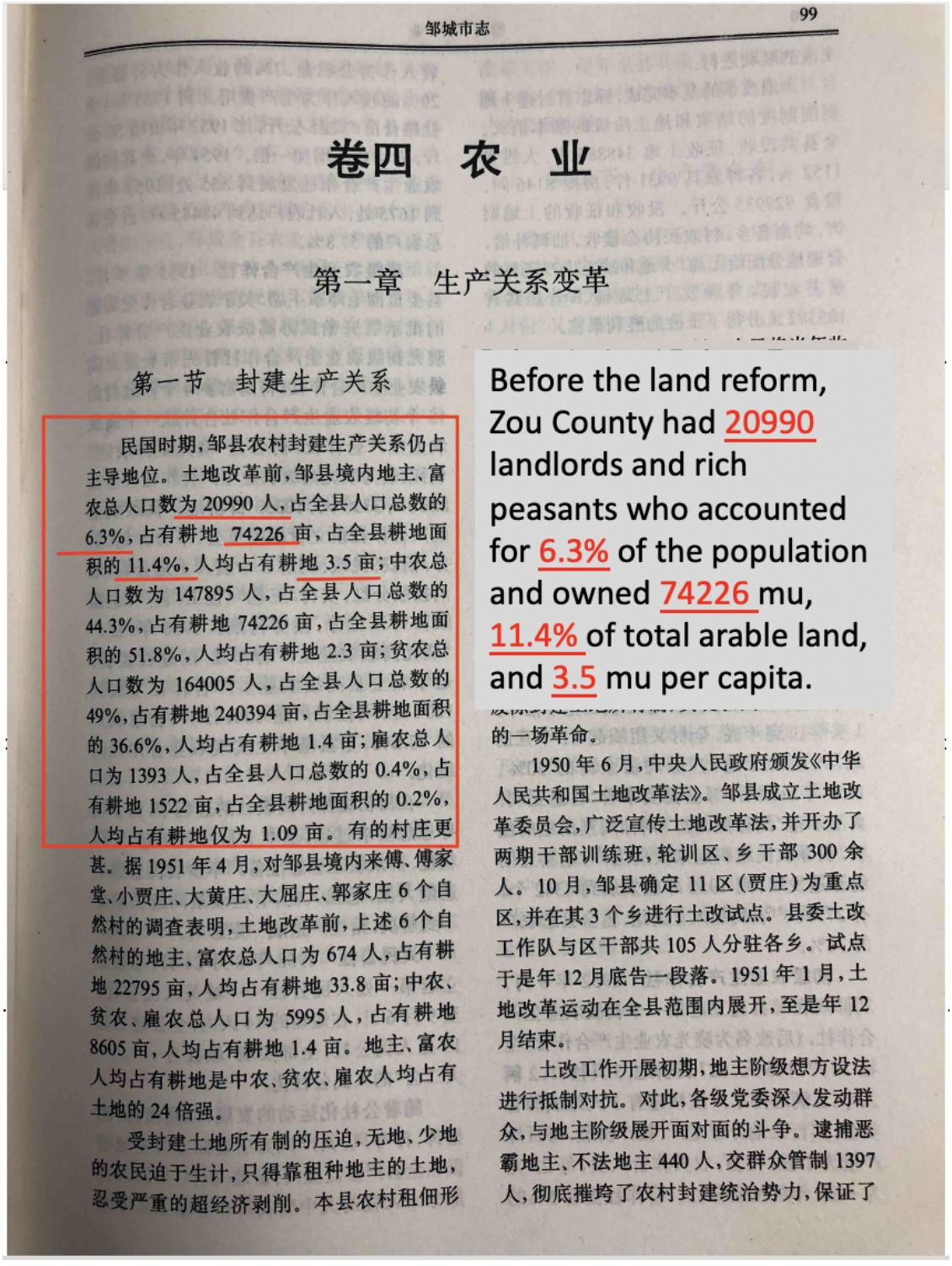
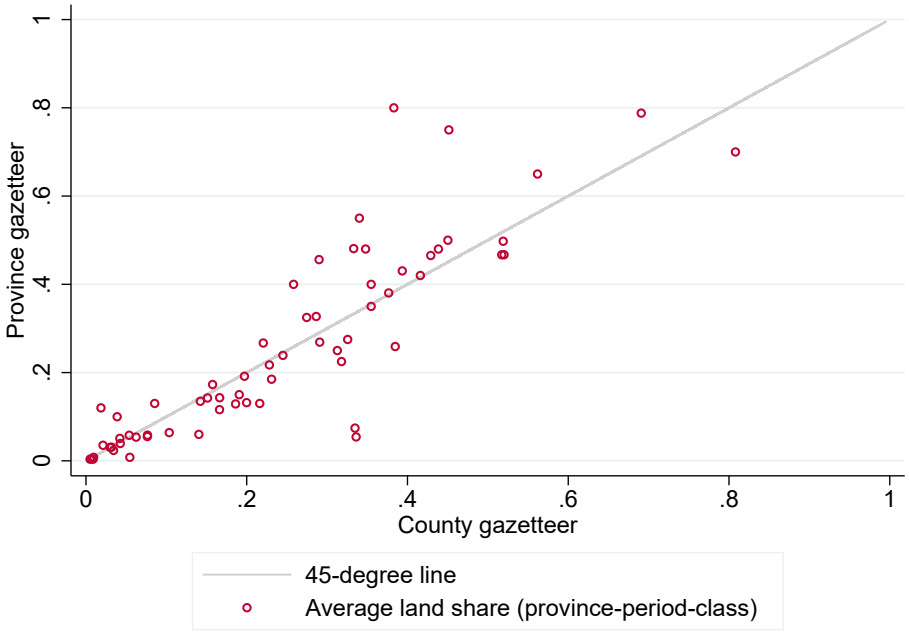
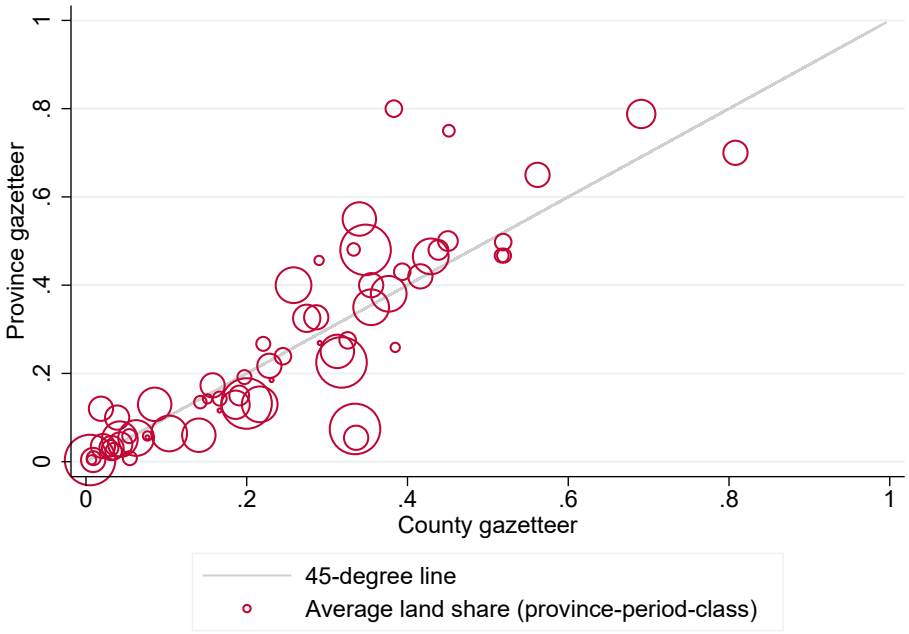


Figure A.2: Sample of *County Gazetteer*'s record on land distribution before and after the Land Reform.



A. Unweighted



B. Weighted

Figure A.3: Comparison of province and county gazetteer land ownership data. The data are from the *Province Gazetteers* and *County Gazetteers*, respectively. Each observation is a province-period-class — see Appendix C.2 for further details. Weights in Panel B are the number of counties based on which the province-level data in the *Province Gazetteers* are computed (when this information is missing, we assume it is the same as the number of counties available in the *County Gazetteers*).

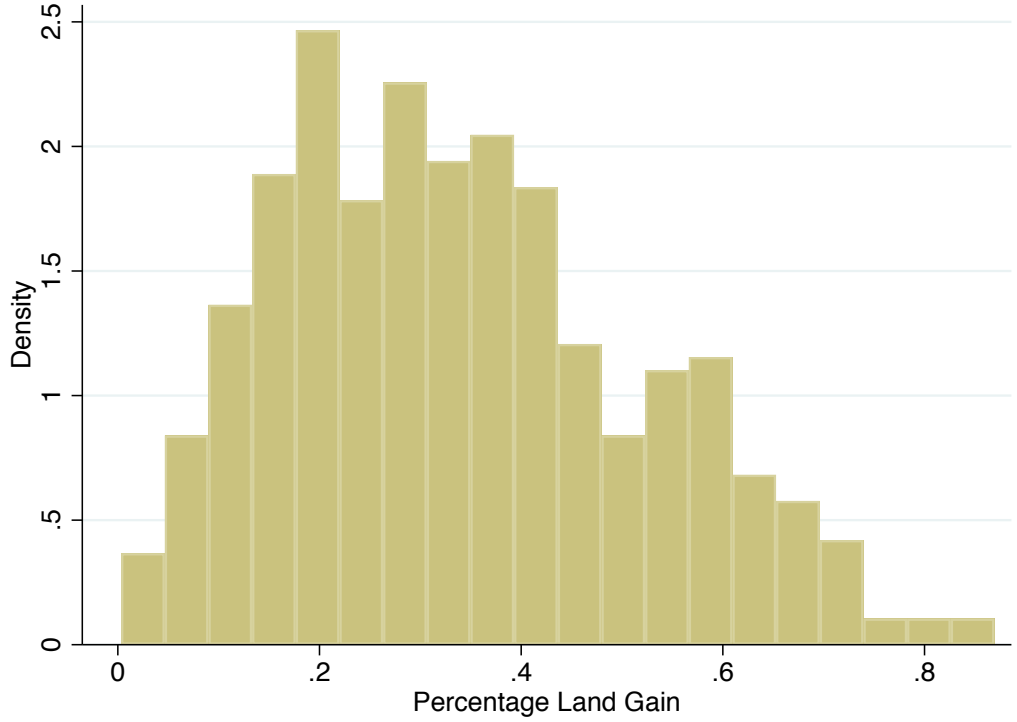


Figure A.4: This figure plots the probability density function of the average percentage land gain (% arable land in the county) for every 1 percent of the peasant population (in the hired, poor, and middle peasant categories) after the Land Reform across counties.

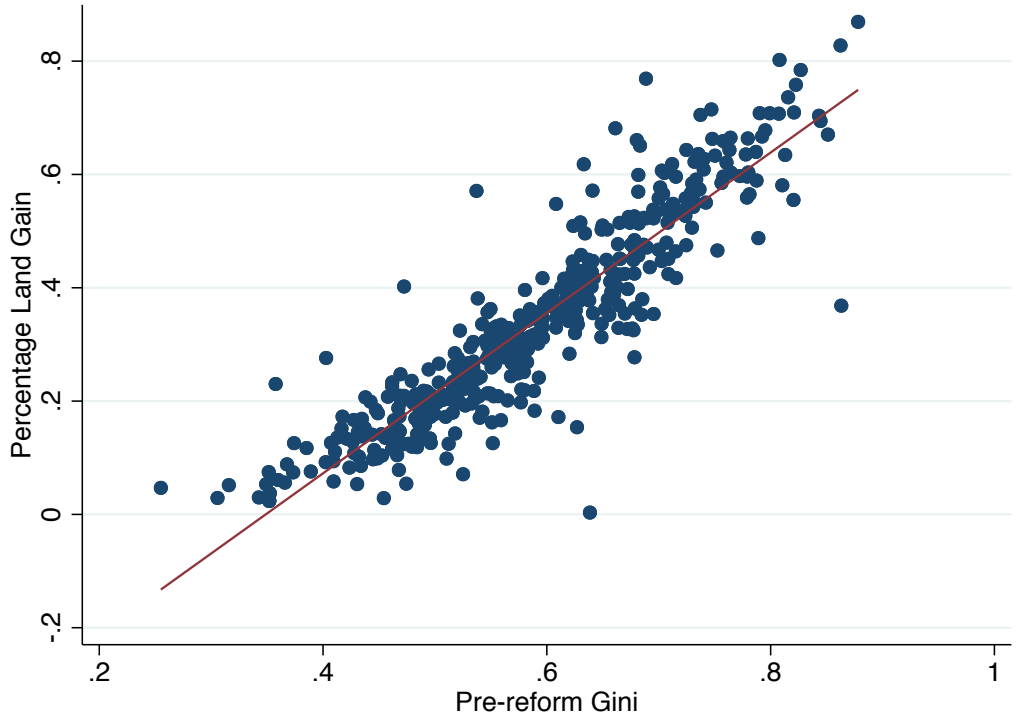


Figure A.5: This figure plots the pre-Reform Gini and the average percentage land gain (% arable land in the county) for every 1 percent of the peasant population (in the hired, poor, and middle peasant categories) after the Land Reform. The red line is the fitted line.

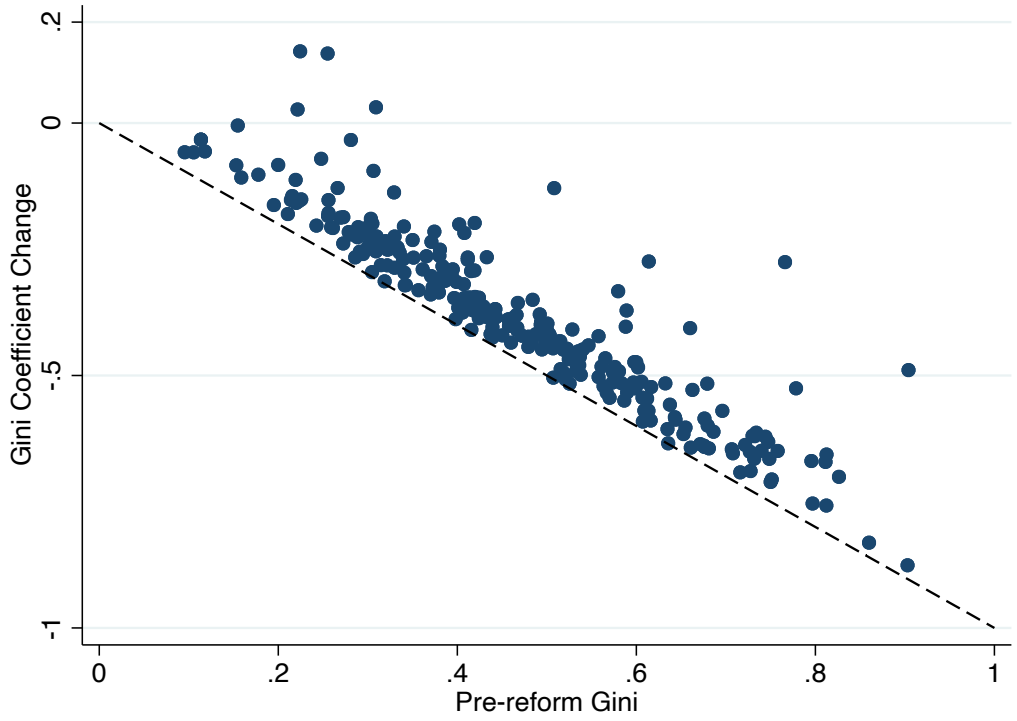


Figure A.6: This figure plots changes in Gini coefficient after the Land Reform (negative number means a decrease in Gini coefficient) relative to the pre-reform Gini coefficients. There are 252 counties that provide valid post-reform population and land data.

Figure A.7: This figure plots the elite class's advantage in contemporary income — the average difference in 2010 income between the elite class (defined as individuals from landlord or rich peasant households) and the non-elite class. The shaded area indicates the birth cohorts belonging to the "parents" generation.

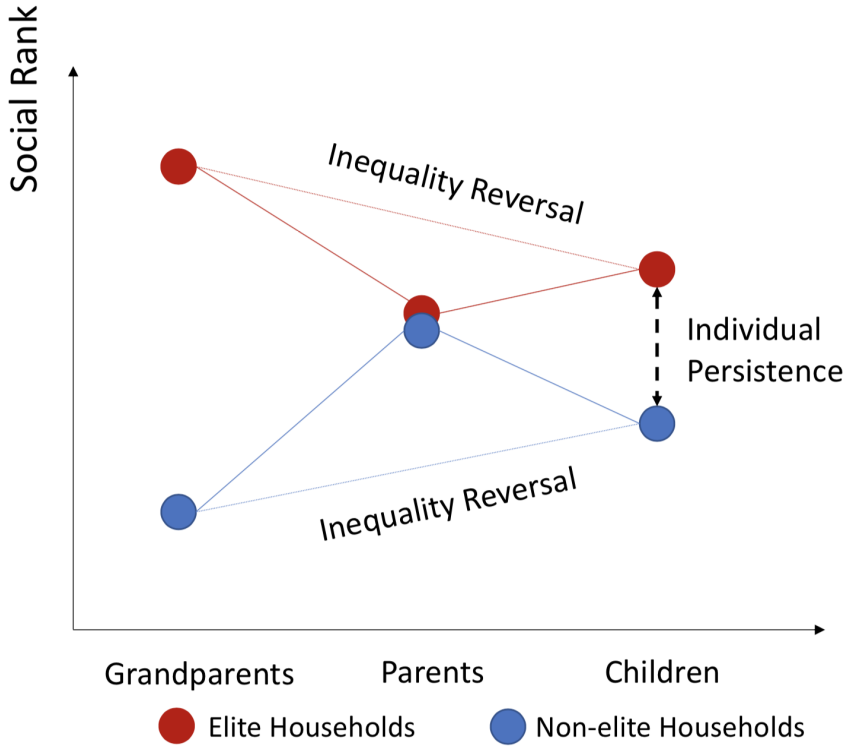


Figure A.8: This figure illustrates graphically how individual-level persistence and county-level reversal can be reconciled.

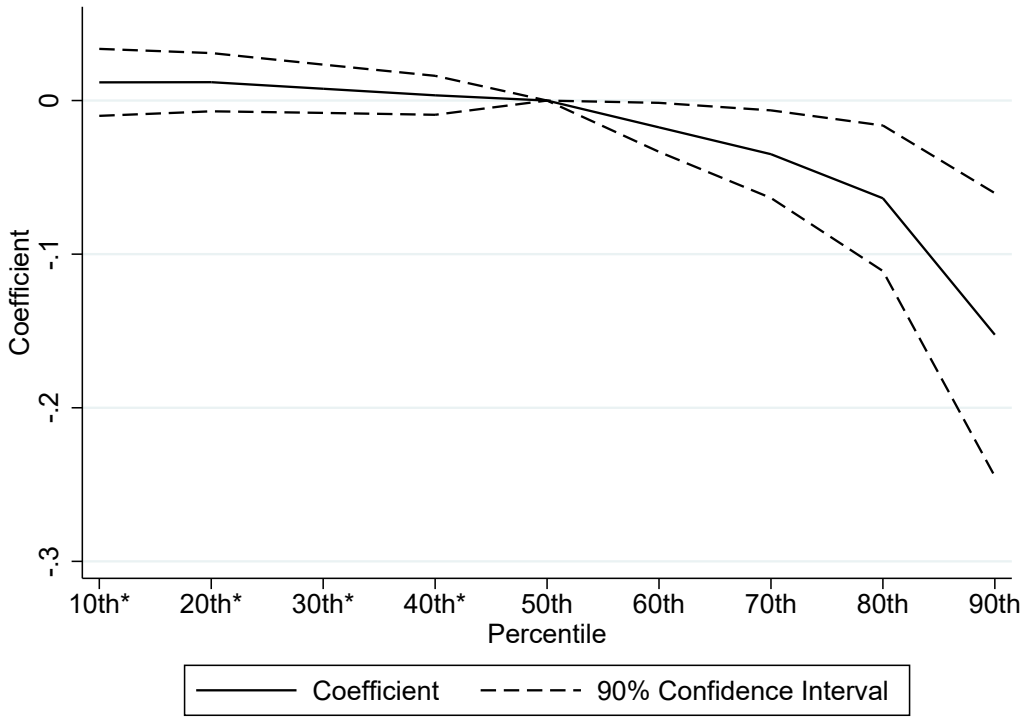
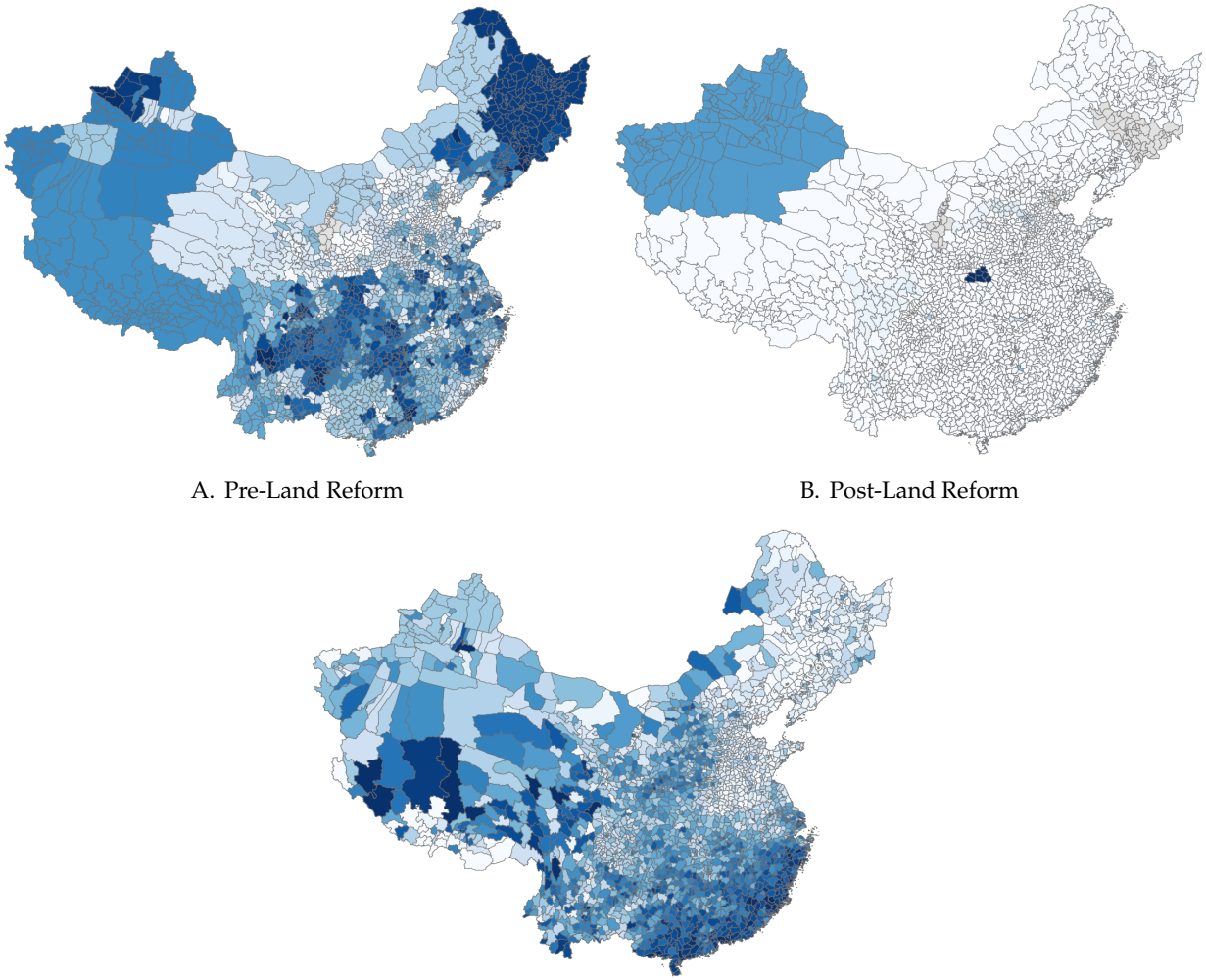


Figure A.9: This figure plots coefficients from regressing the ratio between the X^{th} and 50^{th} percentiles of amenity-adjusted housing area distribution on the pre-Reform land ownership Gini. Note that one needs to interpret positive coefficients as indicating a reversal between historical and contemporary inequality when $X < 50$ (the corresponding ratios are indicated by *). Sample: counties with more than 80 households in the random 1% extract of the 2000 Census. The corresponding coefficients are reported in Appendix Table A.28, Panel B.



A. Pre-Land Reform

B. Post-Land Reform

C. 2000

Figure A.10: This figure displays Gini coefficients across Chinese counties. Darker color indicates higher within-county inequality. Panel A: Gini coefficients in land ownership prior to the Land Reform; counties with missing observations are imputed using prefecture averages (province averages if all counties in a prefecture have missing data); provinces with no data are shown in gray. Panel B: Gini coefficients in land ownership just after the Land Reform; same imputation strategy for counties with missing values. Panel C: Gini coefficients in housing size in 2000.

Figure A.11: Measuring land during the Land Reform.

Figure A.12: Students chanting revolutionary slogans at Peking University during the Cultural Revolution.

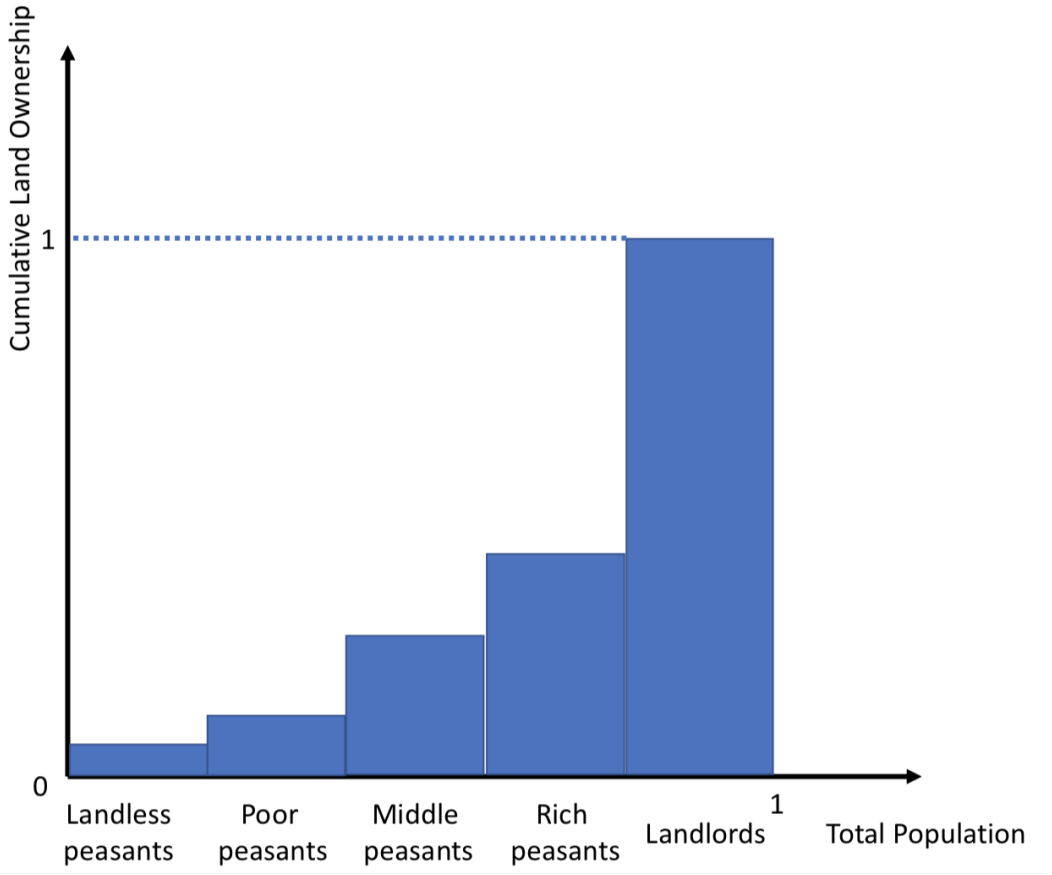


Figure A.13: This figure gives a graphical illustration of the Gini coefficient calculation.

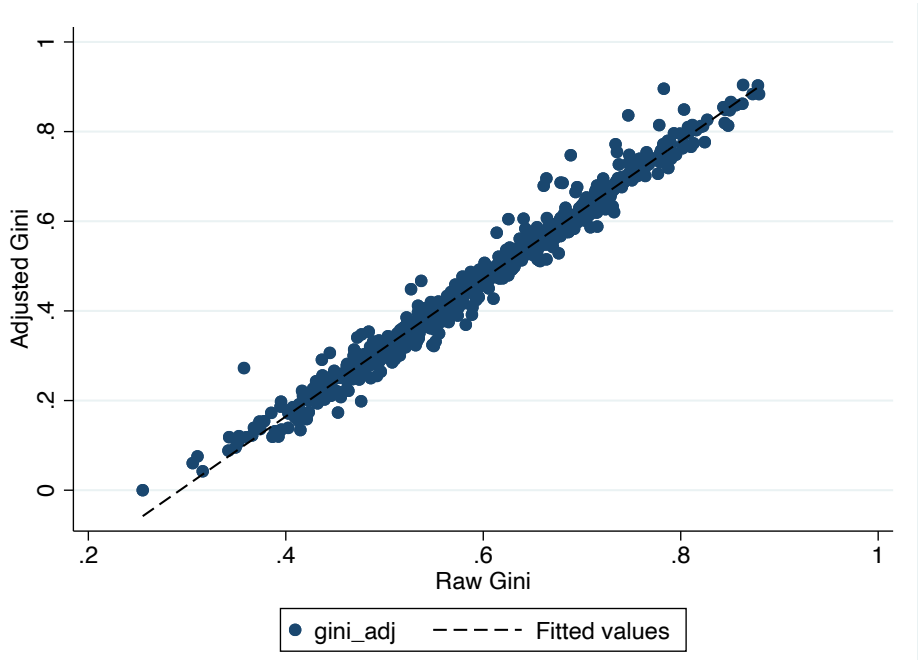


Figure A.14: Comparing land Gini with and without housing amenity adjustments

Table A.1: Land ownership inequality: 1930s vs. 1950s

Panel A: pre-Land Reform					
	Share of land area per landlord (pre-Land Reform)				
	(1)	(2)	(3)	(4)	(5)
Share of land area per owner (1930)	0.078**	0.074*	0.083**	0.082**	0.075**
	(0.037)	(0.040)	(0.039)	(0.039)	(0.036)
# observations	50	50	50	50	41
Panel B: contemporary					
	Gini in 2000 (Amenity-adjusted housing area per capita)				
	(1)	(2)	(3)	(4)	(5)
Share of land area per owner (1930)	0.00041	-0.00012	-0.00015	-0.00017	-0.00045
	(0.00038)	(0.00034)	(0.00033)	(0.00032)	(0.00031)
# observations	138	138	138	138	104
Control for geographic attributes	No	Yes	Yes	Yes	Yes
Control for region FEs	No	No	Yes	Yes	Yes
Control for night light level	No	No	No	Yes	Yes
Control for 2000 GDP	No	No	No	No	Yes

Notes: The land ownership data in 1930 is based on Buck's (1937) agricultural survey. Panel A (B) correlates the share of land area per landlord reported in the gazetteers (the amenity-adjusted housing Gini coefficient in 2000) to the share of land area per landowner reported in Buck (1937). Panel B restricts the sample to counties with at least 80 households in the random 1% extract of the Population Census. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.2: County level summary statistics and balance table

Panel A: Summary Statistics

	Sample 1: Counties with sufficient data			Sample 2: Counties with insufficient data			Sample 3: Counties with no data		
Variable	Mean	SD	Obs.	Mean	SD	Obs.	Mean	SD	Obs.
Distance to Shore	5.203	4.943	576	5.472	3.986	296	5.570	4.884	418
Longitude	112.419	6.968	576	112.56	6.650	296	111.628	8.818	418
Latitude	31.21	4.966	576	32.958	5.815	296	33.184	7.202	418
2000 GDP per capita	5279.456	4171.236	531	4665.502	3309.318	269	4655.372	3279.397	379
2000 Avg. Night lights	2.707	5.306	576	3.274	6.629	296	2.970	6.479	418
2000 Avg. Years of Edu.	6.926	0.908	576	7.051	0.986	296	6.964	1.209	418
2000 Median Years of Edu.	6.979	0.975	576	7.083	1.040	296	6.955	1.396	418
2000 Avg. Y. of Edu. (b. <1950)	4.344	1.195	576	4.438	1.332	296	4.348	1.519	418
2000 Median Housing Area	24.266	7.339	576	21.628	5.482	296	21.239	5.495	418
2000 Median Adj. Housing Area	30.163	10.200	576	26.526	7.248	296	26.123	7.697	418
2000 Housing Gini	0.324	0.029	576	0.315	0.028	296	0.306	0.030	418

Panel B: Balanced Test

	Sample 1 = Sample 2 + Sample 3			Sample 1 = Sample 2			Sample 1 + Sample 2 = Sample 3		
	Diff.	SE	p-value	Diff.	SE	p-value	Diff.	SE	p-value
Distance to Shore	0.030	0.093	0.750	0.055	0.079	0.483	0.07	0.084	0.404
Longitude	-0.044	0.122	0.718	0.053	0.102	0.605	0.132	0.109	0.224
Latitude	-0.125	0.094	0.182	-0.053	0.079	0.498	0.038	0.084	0.653
2000 GDP per capita	-61.583	249.495	0.805	126.573	193.903	0.514	254.603	207.672	0.220
2000 Avg. Night lights	-0.979	0.354	0.006	-0.582	0.327	0.075	-0.078	0.349	0.823
2000 Avg. Years of Edu.	-0.092	0.058	0.113	0.006	0.052	0.901	0.092	0.056	0.101
2000 Median Years of Edu.	-0.049	0.059	0.408	0.061	0.055	0.268	0.127	0.058	0.030
2000 Avg. Y. of Edu.	-0.012	0.079	0.876	0.089	0.068	0.187	0.151	0.072	0.037
2000 Median Housing Area	0.8	0.398	0.045	0.903	0.308	0.003	0.589	0.329	0.074
2000 Median Adj. Housing Area	0.927	0.543	0.088	1.124	0.422	0.008	0.821	0.451	0.069
2000 Housing Gini	-0.001	0.003	0.858	0.002	0.003	0.493	0.004	0.003	0.165

Notes: This table checks potential county selection bias due to partial unavailability of inequality data. Panel A reports summary statistics for three samples: Counties with complete data (Sample 1), Counties with incomplete data (Sample 2), and Counties with no data (Sample 3). Panel B executes three balance tests: Sample 1 = Sample 2, Sample 1 = Sample 2 + Sample 3, Sample 1 + Sample 2 = Sample 3. *2000 Avg. Y. of Edu. (b. <1950)* refers to the average educational attainment for cohorts born before 1950. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.3: Cohort-specific income and education premium

	Income	Education
	(1)	(2)
Pre-revolution elite (1930-1934)	5648.301	0.113
	(6302.214)	(0.078)
Pre-revolution elite (1935-1939)	737.906	0.033
	(1889.718)	(0.040)
Pre-revolution elite (1940-1944)	-769.245	0.012
	(1128.040)	(0.033)
Pre-revolution elite (1945-1949)	-2298.666**	-0.028
	(932.870)	(0.017)
Pre-revolution elite (1950-1954)	558.009	-0.037*
	(1611.404)	(0.022)
Pre-revolution elite (1955-1959)	153.373	-0.054
	(1396.044)	(0.036)
Pre-revolution elite (1960-1964)	-928.707	0.009
	(1169.687)	(0.039)
Pre-revolution elite (1965-1969)	765.423	0.061**
	(1707.940)	(0.027)
Pre-revolution elite (1970-1974)	2848.675*	0.031
	(1668.830)	(0.032)
Pre-revolution elite (1975-1979)	1878.911	0.026
	(2567.674)	(0.043)
Pre-revolution elite (1980-1984)	2589.046	0.090*
	(3904.707)	(0.049)
Pre-revolution elite (1985-1989)	3293.816	0.072
	(2424.814)	(0.051)
Pre-revolution elite (1990-1994)	802.247	0.043
	(1234.105)	(0.041)

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households. The outcome in column 1 is the total annual labor income. The outcome in column 2 is the probability of completing secondary education. Each row represents a separate regression. All specifications include county fixed effects. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.4: Auxiliary outcomes for the parents and children generations of the pre-revolution elite

	Both generations		Parents generation			Children generation		
			Elite class diff.		Overall	Elite class diff.		Overall
	Mean	Std	Coef.	Std. err.	Mean	Coef.	Std. err.	Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: retirement								
Retired	0.105	0.307	-0.050***	0.011	0.161			
Panel B: post revolution elite								
Post-revolution elite	0.123	0.329	-0.072***	0.013	0.175	-0.020**	0.010	0.068
Panel C: famine hunger								
Experienced hunger during famine	0.121	0.326	0.033**	0.017	0.209			
Panel D: remittances from relatives								
Any Remittance from relatives	0.209	0.406	0.033*	0.017	0.203	0.000	0.019	0.215
Amount of remittance from relatives	1,950.308	11723.510	-45.755	217.580	1,535.310	542.955	988.190	2,395.023
Panel E: additional values								
Competition is desirable	3.793	0.747	0.034	0.031	3.806	0.072**	0.033	3.781
Willing to sacrifice material goods for child's education	-7.005	9.478	1.715**	0.808	-6.687	0.981	0.670	-7.193
Panel F: housing								
House value as share of income	249.377	5,575.683	-35.987	75.316	213.024	-247.870**	96.351	281.936

Notes: Columns 3 and 6 (4 and 7) present regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households for the parents and children generations, respectively, controlling for cohort fixed effects and residence county fixed effects. Column 1 (2) presents the mean (standard deviation) across the parents and children generations, while columns 5 and 8 present sample means for the respective generations. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: parents (1940–1965 birth cohorts; number of observations = 12,130) and children generations (1966–1990 birth cohorts; number of observations = 11,321).

Table A.5: Income differences among the parent generation, accounting for retirement

	Total income				
	(1)	(2)	(3)	(4)	(5)
Panel A: Parents younger than 55					
Elite	-800.875	-984.643	-1,008.541	-740.450	-882.467
	(796.785)	(779.842)	(790.638)	(799.690)	(803.254)
Panel B: Parents not retired					
Elites	-531.573	-707.534	-723.504	-472.512	-554.455
	(794.842)	(773.890)	(789.406)	(796.917)	(795.499)
Panel C: Incorporate pension income					
Elites	-469.607	-588.361	-569.877	-383.017	-402.508
	(455.310)	(453.222)	(442.009)	(449.647)	(456.643)
County FE	Yes	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	No	No
Province by sector FE	No	No	Yes	No	No
Migration FE	No	No	No	Yes	No
Birth province FE	No	No	No	No	Yes

Notes: All specifications include cohort fixed effects and county fixed effects. Column 2 additionally includes sector fixed effects; column 3 includes province $\times$ sector fixed effects; column 4 includes a migrant indicator variable, defining migrants as individuals whose current county of residence is different from their birth place; and column 5 includes birth province fixed effects. The mean of the dependent variable is RMB 15,687 (std. dev. 34,362). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: 1966–1990 birth cohorts; number of observations = 11,321.

Table A.6: Decomposing income differences among the children generation: rural and urban subsamples

	Total income				
	(1)	(2)	(3)	(4)	(5)
Panel A: Rural sample					
Elite	2,010.292**	2,112.825**	2,090.280**	2,014.209**	2,218.247**
	(954.426)	(949.534)	(951.655)	(954.471)	(971.896)
Panel B: Urban sample					
Elites	1,462.243	1,574.861	1,296.995	1,468.359	873.632
	(3,238.833)	(3,231.797)	(3,324.240)	(3,238.332)	(3,355.044)
County FE	Yes	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	No	No
Province by sector FE	No	No	Yes	No	No
Migration FE	No	No	No	Yes	No
Birth province FE	No	No	No	No	Yes

Notes: All specifications include cohort fixed effects and county fixed effects. Column 2 additionally includes sector fixed effects; column 3 includes province $\times$ sector fixed effects; column 4 includes a migrant indicator variable, defining migrants as individuals whose current county of residence is different from their birth place; and column 5 includes birth province fixed effects. The mean of the dependent variable is RMB 15,687 (std. dev. 34,362). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: 1966–1990 birth cohorts; number of observations = 9,586 (panel A); 1,405 (panel B).

Table A.7: Robustness of pre-revolution elite's rebound

	Total income			
	(1)	(2)	(3)	(4)
Panel A.1: children's generation as 1963-1987 birth cohort				
Pre-revolution elite	1674.390**	1687.311**	1630.324**	1680.280**
	(804.520)	(801.998)	(802.619)	(806.474)
Panel A.2: children's generation as 1969-1993 birth cohort				
Pre-revolution elite	1733.203**	1834.600**	1805.461**	1733.180**
	(872.031)	(873.133)	(885.469)	(872.102)
Panel B.1: alternate class label definition: parents report elite, self does not				
Pre-revolution elite	3073.463*	3228.461**	3248.218**	3085.823**
	(1560.877)	(1570.552)	(1576.499)	(1559.556)
Panel B.2: alternate class label definition: rich peasant household				
Pre-revolution elite	1949.963	1989.095*	1939.202	1955.799
	(1188.010)	(1185.633)	(1195.201)	(1187.042)
Panel C.1: outcome is log income				
Pre-revolution elite	0.132**	0.137**	0.138**	0.135**
	(0.065)	(0.066)	(0.067)	(0.066)
Panel D.1: spatial autocorrelation for counties within 300 KM				
Pre-revolution elite	1919.225**	1997.858**	2011.327**	1921.305**
	(956.228)	(983.835)	(1017.680)	(965.461)
Panel D.2: spatial autocorrelation for counties within 50 KM				
Pre-revolution elite	1919.225**	1997.858**	2011.327**	1921.305**
	(905.057)	(887.680)	(900.102)	(909.257)
Panel D.3: cluster at province level				
Pre-revolution elite	1840.990*	1925.860*	1928.575*	1846.672*
	(1011.364)	(1053.615)	(1089.061)	(1014.575)
Panel E.1: control number siblings				
Pre-revolution elite	1749.929*	1843.049**	1848.204**	1756.304*
	(890.633)	(886.231)	(892.986)	(891.161)
Panel E.2: control number generations				
Pre-revolution elite	2199.639**	2262.476**	2265.333**	2201.568**
	(912.944)	(906.530)	(908.472)	(911.028)
Panel E.3: excluding Shanghai				
Pre-revolution elite	1924.524**	1924.443**	1988.184**	1966.992**
	(921.504)	(916.976)	(922.830)	(919.032)
Panel F.1: control life cycle				
Pre-revolution elite	1769.138**	1925.860**	1928.575**	1846.672**
	(782.436)	(898.908)	(905.902)	(903.075)

Panel G.1: control province-specific cohort fixed effects				
Pre-revolution elite	1760.854*	1871.643**	1896.244**	1764.863*
	(911.021)	(899.055)	(903.503)	(909.721)
Panel H.1: control parents self-employed				
Pre-revolution elite	1732.947*	1821.097**	1827.771**	1738.813*
	(910.835)	(906.604)	(910.727)	(911.084)
Panel H.2: control parents entrepreneur				
Pre-revolution elite	1832.788**	1915.716**	1920.902**	1838.317**
	(904.914)	(901.511)	(908.703)	(905.603)
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	No
Province×Sector FE	No	No	Yes	No
Migrants FE	No	No	No	Yes

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households for the children generation. Panel A.1 changes the sample birth cohorts from 1966-1990 to 1963-1987; Panel A.2 changes the sample birth cohorts from 1969 - 1993. Panel B.1 defines pre-revolution elites as those for whom either parent reports being an elite but lack a self-reported elite label; Panel B.2 restricts the pre-revolution elite label to only rich peasant households. Panel C.1 uses log(income) as the outcome instead. Panel D.1 accounts for arbitrary spatial autocorrelation at the county level (Colella et al., 2019) assuming any two counties further than 300 KM apart have zero correlation; Panel D.2 accounts for spatial autocorrelation at the county level, assuming any two counties further than 50 KM apart have zero correlation; Panel D.3 clusters standard errors at the province level; Panel E.1 controls for the number of siblings; Panel E.2. controls for the number of generations living in the household; Panel E.3 excludes respondents from Shanghai. Panel F.1 uses Panel data for the years 2010, 2012, 2014, and 2018 (the 2016 data is much smaller than the others) to include both cohort and age fixed effects within the regression. Panel G.1 adds province by cohort fixed effects. Panel H.1 controls for a dummy for whether either parent is self-employed; Panel H.2 includes controls for a dummy for whether either parent is an entrepreneur (runs A.17 a 'getihu'). All specifications include cohort fixed effects and county fixed effects. Column 2 additionally includes sector fixed effects; Column 3 includes province×sector fixed effects; Column 4 includes a migrant indicator variable, defining migrants as individuals whose current county of residence is different from their birth place. The mean of the dependent variable is RMB 15,687 (std. dev. 34,361). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: 1966–1990 birth cohorts; number of observations = 11,321.

Table A.8: Different definitions of total income

	Total income			
	(1)	(2)	(3)	(4)
Panel A: Wage income				
Elite	2,999.801***	2,843.939***	2,901.156***	1,751.998**
	(1,111.364)	(998.198)	(923.340)	(827.986)
Mean of DV	17236	16382	14908	13539
Panel B: Wage income + agricultural income				
Elite	2,888.796**	2,829.313***	3,062.207***	1,840.990**
	(1,196.669)	(1,063.150)	(994.592)	(902.470)
Mean of DV	20713	19408	17003	15687
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Subsample	Employed	(1)+ Job hunting	(1)+(2)+Full-time homemaker	Everyone

Notes: This table explore the elites' income premium of the children's generation across different types in the labor market. In column 1 we only include the employed subset, in column 2 we additionally include those who is unemployed but actively seeking for jobs. Column 3 additionally adds the subsample where people stay at home caring for children. Column 4 shows full sample results. In panel A, we restrict the income definition to include only labor income; in panel B, we assign household level average agricultural income to the household member since more than half of our sample are rural residents. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321

Table A.9: Violence during the Great Famine, Land Reform, and Cultural Revolution

	Famine	Violence during land reform					Violence during cultural revolution			
		Any report			Number of victims		Revolutionary casualties		Violence victims	
	Cohort loss	Death	Struggle	Violence	Death	Struggle	Number	Ratio	Number	Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Pre-Reform landlord share	0.0010	0.0013	-0.0006	0.00003	0.00004	0.0001	0.0663	-0.000004	-23.1104	-0.0002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.0004)	(0.0001)	(1.805)	(0.00001)	(93.588)	(0.0002)
Pre-Reform Gini	-0.0398	-0.0142	-0.0896	-0.0618	0.0002	0.0050	27.8865	0.0001	-3,939.2425	-0.0083
	(0.089)	(0.052)	(0.084)	(0.088)	(0.001)	(0.006)	(68.720)	(0.0002)	(2,665.901)	(0.0066)
# observations	637	639	639	639	639	639	519	533	519	533
Mean of DV	0.237	0.0112	0.0300	0.0321	0.000140	0.00287	97.44	0.000291	4489	0.0130

Notes: In column 1, we regress a proxy of famine severity by abnormal natality rate on pre-reform landlord share and pre-reform Gini coefficient, following Meng et al. (2015). The dependent variables in columns 2–6 capture different types of persecution perpetrated during the Land Reform (death, struggle sessions, and other violence). Each row corresponds to a separate regression. Column 2 regress indicator variables equal to 1 if any persecution of the specified type is reported in the County Gazetteers, and 0 otherwise, on pre-Land Reform measures of land inequality; column 3 additionally sets the dummy to 1 if there's any mention of struggles; column 4 further includes mentions of violence. Columns 5 and 6 use as dependent variables the percentage of victims of the specified persecution type as a share of total population. The dependent variables in columns 7–10 capture different types of persecutions perpetrated during the Cultural Revolution, using data from Walder and Su (2003). Each row corresponds to a separate regression. Columns 7 and 9 regress dummies equal to 1 if any persecution of the specified type is reported in the County Gazetteers, and 0 otherwise, on pre-Land Reform measures of land inequality; Columns 8 and 10 use as dependent variable the percentage of victims of the specified persecution type as a share of total population. Province fixed effects are controlled for across all columns. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.10: Decomposing income differences by famine intensity

	Total income		
	(1)	(2)	(3)
Panel A: Generation 3			
Elite	1,855.392*	1,861.734*	1,916.777**
	(957.923)	(947.463)	(953.848)
Elite × cohort loss	-1,241.080	-1,242.603	-1,249.152
	(987.300)	(979.111)	(982.640)
Panel B: Generation 2			
Elite	-242.072	-318.133	-256.614
	(458.473)	(458.872)	(438.384)
Elite × cohort loss	-383.029	-393.850	-368.366
	(319.471)	(309.473)	(304.944)
County FE	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes
Sector FE	No	Yes	No
Province × sector FE	No	No	Yes

Notes: We follow Meng et al. (2015) to compute the ratio of famine-hit cohort size (1959-1961) over regular cohort size (1954-1957), from the 1990 NBS survey. The difference in natality rates can be seen as a proxy for the severity of the famine. County fixed effects and cohort fixed effects are controlled for across the columns. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321.

Table A.11: Decomposing income differences by Cultural Revolution influence

	Total income		
	(1)	(2)	(3)
Panel A: Generation 3			
Elite	2,127.092*	2,268.498**	2,199.059*
	(1,121.690)	(1,128.883)	(1,143.141)
Elite × death ratio	388.010	465.961	405.313
	(772.401)	(778.221)	(778.104)
Panel B: Generation 2			
Elite	-1,127.587**	-1,229.511**	-1,184.937**
	(504.303)	(517.078)	(510.670)
Elite × death ratio	-433.064	-408.715	-425.307
	(402.926)	(413.889)	(411.294)
County FE	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes
Sector FE	No	Yes	No
Province × sector FE	No	No	Yes

Notes: We used data from Walder and Su (2003) to compute a prefecture-level death ratio due to the event during Culture Revolution. County fixed effects and cohort fixed effects are controlled for across the columns. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321.

Table A.12: Emigration to Taiwan

	Income		Completed high school	
	(1)	(2)	(3)	(4)
Elite	-467.417	2,043.449**	-0.016	0.076***
	(596.160)	(865.399)	(0.018)	(0.026)
Elite× % emigration	-362,358.391	-366,239.486	-7.198	-20.667*
	(308,474.209)	(766,318.034)	(8.946)	(11.574)
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Generation	Parents	Children	Parents	Children

Notes: The table presents regression coefficients (standard errors) of estimated differential income (education) among provinces where substantially more people choose to emigrate. All specifications include cohort fixed effects and county fixed effects. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321; mean of dependent variable = 8338, 13539, 0.142, 0.242, for each column respectively.

Table A.13: Work ethics of the pre-revolutionary elite

	Hardwork leads to success			
	(1)	(2)	(3)	(4)
Panel A: Children generation				
Pre-revolution elite	0.075***	0.075***	0.073**	0.076***
	(0.028)	(0.028)	(0.028)	(0.028)
Panel B: 1987-1995 birth cohorts				
Pre-revolution elite	0.103*	0.109**	0.107*	0.102*
	(0.054)	(0.054)	(0.055)	(0.054)
Panel C: Grandparents generation				
Pre-revolution elite	0.092	0.092	0.093	0.095
	(0.062)	(0.061)	(0.063)	(0.062)
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Gender FE	No	Yes	No	No
Control family income	No	No	Yes	No
Migrants FE	No	No	No	Yes

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households. All specifications include cohort fixed effects and county fixed effects. Column 2 additionally includes gender fixed effects; Column 3 includes control for mean family income; Column 4 includes a migrant indicator variable, defining migrants as individuals whose current county of residence is different from their birth place. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: Panel A, children generation ($>$ 1995 birth cohorts, number of observations = 942); Panel B, children born between 1990-1995 (number of observations = 1,391); Panel C, grandparents generation (1919-1939 birth cohorts, number of observations = 1,396).

Table A.14: Elasticity to shocks

	Hardwork leads to success			
	(1)	(2)	(3)	(4)
Panel A: income elasticity, change in self-reported value				
Income difference	0.027*	0.033*	-0.027	0.028
	(0.015)	(0.018)	(0.033)	(0.019)
Pre-revolution elite		-0.039	-0.069	-0.034
		(0.070)	(0.130)	(0.070)
Income difference × elite		-0.032	-0.025	-0.034
		(0.025)	(0.039)	(0.025)
N	3817	3817	431	3143
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Comparison group	N/A	All	Post-revolution elite	High education

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households for the children generation. The income difference interacted with elite status is the standardized difference in income between 2018 and 2010. The outcome is the change in the standardized valuation of hard work between 2018 and 2010. All specifications include cohort fixed effects and county fixed effects. The sample in columns 1 and 2 is restricted to the children's generation, the sample in column 3 only pre- or post-revolution elites in the children's generation, and the sample in column 4 only above median educated (or pre-revolution elite) in the children's generation. The mean of the dependent variable is -0.742 (std. dev. 0.924). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: Children generation (1966–1990 birth cohorts); number of observations = 11,321.

Table A.15: Income premium of high work ethics among the non-elite

	Total income			
	(1)	(2)	(3)	(4)
Panel A: parents with high value for hard work				
Parents value hard work	2192.120	2261.759	2241.802	2193.391
	(1435.526)	(1445.184)	(1438.575)	(1438.770)
Panel B: parents with high hours worked				
Parents worked long hours	2968.179**	3072.794**	3040.089**	2971.995**
	(1297.475)	(1289.544)	(1252.847)	(1335.564)
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Sector FE	No	Yes	No	No
Province×Sector FE	No	No	Yes	No
Migrants FE	No	No	No	Yes

Notes: The sample includes only non pre- or post-revolution elites. The independent variable in Panel A (B) is a dummy for whether one parent is in the top quartile in terms of valuing hard work (hours worked). All specifications include cohort fixed effects and county fixed effects. Column 2 additionally includes sector fixed effects; Column 3 includes province×sector fixed effects; Column 4 includes a migrant indicator variable, defining migrants as individuals whose current county of residence is different from their birth place. The mean of the dependent variable is RMB 15,687 (std. dev. 34,362). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: 1966–1990 birth cohorts; number of observations = 11,321.

Table A.16: Co-residence and vertical transmission of values

	Hard work leads to success			
	All	Parents alive and co-living	Parents alive and not co-living	Parents not alive
	(1)	(2)	(3)	(4)
Pre-revolution elite	0.07534***	0.12837***	0.01845	0.03263
	(0.02782)	(0.03788)	(0.06577)	(0.05238)
# observations	11,321	2,291	3,680	3,873
Mean of DV	3.911	3.924	3.891	3.922
Std. dev. of DV	0.629	0.649	0.628	0.617

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households for the children generation. Column 1 includes the full sample, column 2 restricts to only the children whose parents are alive and co-living with them, column 3 those whose parents are alive and not co-living with them, and column 4 those whose parents are not alive. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: 1966–1990 birth cohorts; number of observations = 11,321.

Table A.17: Decomposing income differences

	Total income			
	(1)	(2)	(3)	(4)
Panel A: children's generation				
Pre-revolution elite	1,840.990**	1,017.974	792.315	231.034
	(902.470)	(863.891)	(997.588)	(955.880)
Panel B: parent's generation				
Pre-revolution elite	-536.008	-777.875	-820.609	-1,056.991*
	(513.742)	(495.240)	(550.525)	(536.513)
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Control ethics	No	Yes	No	Yes
Control social network	No	No	Yes	Yes

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households for the children generation. All specifications include cohort fixed effects and county fixed effects. The mean of the dependent variable is RMB 15,687 (std. dev. 34,362). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321.

Table A.18: Decomposing values differences

	Hard work leads to success			
	(1)	(2)	(3)	(4)
Panel A: children generation of pre-revolution elite				
Pre-revolution elite	0.118***	0.131***	0.117***	0.130***
	(0.044)	(0.046)	(0.044)	(0.047)
Panel B: children generation of post-revolution elite				
Post-revolution elite	-0.049	-0.041	-0.052	-0.044
	(0.039)	(0.042)	(0.040)	(0.042)
County FE	Yes	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes	Yes
Control social network	No	Yes	No	Yes
Control education	No	No	Yes	Yes

Notes: The table presents regression coefficients (standard errors) of estimated differences between members of the elite and non-elite households for the children generation. All specifications include cohort fixed effects and county fixed effects. Outcome variable is the standardized agreement to hard work determining success. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321.

Table A.19: Differential migration decision among the children's generation

	Across-province migration					
	(1)	(2)	(3)	(4)	(5)	(6)
Elite	-0.003	-0.003	-0.014	-0.018**	0.001	0.001
	(0.004)	(0.004)	(0.009)	(0.009)	(0.004)	(0.003)
Elite × push factors			0.018*			
			(0.011)			
Elite × pull factors				0.013*		
				(0.008)		
Elite × clan					-0.004*	-0.004*
					(0.002)	(0.002)
Birthplace FE	Yes	Yes	Yes	Yes	No	No
Cohort FE	No	Yes	Yes	Yes	No	Yes

Notes: Columns 1–2 present the estimated coefficients (standard errors) regressing out-of-province migration on pre-revolution elite status. Column 3 examines the differential response to push factors among elites. We measure push factors by agricultural income shocks as in Imbert et al. (forthcoming), i.e., using innovations in international crop prices interacted with local suitability for growing different crops; we match this measure of push factors with the prefecture of birth. Column 4 examines the differential response to pull factors among elites. We measure pull factors by the weighted average of a shift-share of hourly wage in logarithm, where the weights correspond to shares of emigrants to the different destinations, for emigrants from the respondent's prefecture of birth. Columns 5-6 show interact elite status with clan density at the county of origin. The clan density proxy is constructed as the normalized Hirschman-Herfindahl index of *jinshi* surnames at the county level, during the entire period of Ming and Qing dynasties. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321

Table A.20: Differential migration decision among the children's generation: post revolution elites

	Across-province migration					
	(1)	(2)	(3)	(4)	(5)	(6)
Elite	0.001	0.001	-0.019	-0.015	-0.006***	-0.007***
	(0.006)	(0.006)	(0.015)	(0.014)	(0.002)	(0.002)
Elite × push factors			0.024			
			(0.024)			
Elite × pull factors				-0.010		
				(0.018)		
Elite × clan					0.004	-0.006
					(0.01)	(0.02)
Birthplace FE	Yes	Yes	Yes	Yes	No	No
Cohort FE	No	Yes	Yes	Yes	No	Yes

Notes: Columns 1–2 present the estimated coefficients (standard errors) regressing out-of-province migration on pre-revolution elite status. Column 3 examines the differential response to push factors among elites. We measure push factors by agricultural income shocks as in Imbert et al. (forthcoming), i.e., using innovations in international crop prices interacted with local suitability for growing different crops; we match this measure of push factors with the prefecture of birth. Column 4 examines the differential response to pull factors among elites. We measure pull factors by the weighted average of a shift-share of hourly wage in logarithm, where the weights correspond to shares of emigrants to the different destinations, for emigrants from the respondent's prefecture of birth. Columns 5-6 show interact elite status with clan density at the county of origin. The clan density proxy is constructed as the normalized Hirschman-Herfindahl index of *jinshi* surnames at the county level, during the entire period of Ming and Qing dynasties. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: children generation (1966–1990 birth cohorts); number of observations = 11,321

Table A.21: Decomposing elite income along migration and local kinship network: post revolution elites

	Total income		
	(1)	(2)	(3)
Panel A: Elite income differences due to migration			
Elite	2,097.985*	1,975.070	1,900.204
	(1,197.264)	(1,229.864)	(1,238.306)
Elite × migration	-10,592.285	-9,701.559	-9,507.029
	(7,315.586)	(7,238.400)	(7,410.836)
Migration	1,293.202	1,284.528	1,114.909
	(2,165.521)	(2,148.412)	(2,100.538)
Panel B: Clan network and income differences among non-migrants			
Elite	1,760.023	1,608.731	1,580.961
	(1,266.464)	(1,303.981)	(1,252.452)
Elite × clan	-375.942	-340.602	-360.304
	(717.946)	(763.359)	(742.693)
Birthplace FE	Yes	Yes	Yes
Residence FE	Yes	Yes	Yes
Cohort FE	Yes	Yes	Yes
Sector FE	No	Yes	Yes
Province × sector FE	No	No	Yes

Notes: Panel A decomposes elite income premium among the children's generation by migrants and stayers. We use out-of-province migration, that most often is driven by economic factors instead of marriage decisions and interact it with clan status. Panel B decomposes the income premium among those who don't migrate along local kinship network strength. The clan density proxy is constructed as the normalized Hirshman Herfindahl Index of Jinshi surnames at the county level, during the entire period of Ming and Qing dynasty. Birthplace and cohort fixed effects are controlled for across the columns. Column 2 additionally controls for sector fixed effects, column 3 additionally controls for provincial-specific sector fixed effects. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: Panel A: children generation (1966–1990 birth cohorts); number of observations = 11,321; Panel B: non-migrants among the children generation; number of observations =10,523

Table A.22: Correlation between county-level Gini and Theil indices

	Gini adj.	Gini raw	Theil raw
Gini adjusted	1.0000		
Gini raw	0.9534	1.0000	
Thiel raw	0.9188	0.9598	1.0000

Notes: This table presents correlation coefficients for various measures of land ownership inequality from the *County Gazetteers*. The measures are (1) Gini coefficients with adjustment based on housing amenities, (2) the raw Gini coefficients, and (3) the Theil index.

Table A.23: Comparison of province and county gazetteer land ownership data

	Province gazetteer				
	(1)	(2)	(3)	(4)	(5)
County gazetteer	1.055***	1.019***	0.976***	1.010***	1.015***
	(0.068)	(0.079)	(0.103)	(0.117)	(0.113)
Weights	No	Yes	Yes	Yes	Yes
Province FE	No	No	Yes	Yes	Yes
Class FE	No	No	No	Yes	Yes
Period FE	No	No	No	No	Yes

Notes: This table regresses average land shares from *Province Gazetteers* on average land shares from *County Gazetteers*. Each observation is a province-period-class, where period can be pre- or post-Land Reform, and class refers to the five class labels. The weights are the number of counties based on which the province-level data in the *Province Gazetteers* are computed (when this information is missing, we assume it is the same as the number of counties available in the *County Gazetteers*). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: all matched province-period-class observations in province and county gazetteers; number of observations = 64.

Table A.24: Summary statistics — 2000 Population Census

Panel A: education and real estate					
	Mean	S.D.	Median	25^{th} Percentile	75^{th} Percentile
	(1)	(2)	(3)	(4)	(5)
Years of Education	7.043	3.342	6.000	6.000	9.000
Years of Education (born before 1950	4.498	3.852	6.000	0.000	6.000
Housing Area per capita	26.293	19.136	21.333	15.000	32.000
Amenity-adjusted Housing Area	33.284	26.004	26.400	17.875	40.000
Amenity Adjustment Factor	0.243	0.148	0.200	0.200	0.300

Panel B: migration			
	Non-migrant or Same County	Other county, Same Province	Other Province
Migration by birth place	94.99%	2.93%	2.09%
Migration by place of registration	98.17%	0.70%	1.12%
Migration in 1995–2000	98.23%	0.73%	1.05%

Notes: Panel A summarizes the distribution (mean, standard deviation, median, 25^{th} percentile, and 75^{th} percentile) of five key variables from the 2000 Population Census in the 410 counties with more than 80 households and valid pre-reform Gini data: years of education, years of education of the population born before 1950, housing area per capita (in m^2), amenity adjustment factor, and amenity-adjusted housing area (see text for details). Panel B summarizes migration by birth place, migration by place of household registration (*hukou*), and migration between 1995 and 2000 among agricultural *hukou* holders. The population is classified into three categories: non-migrants or migrants who moved within their birth county (resp. their county of registration, or their county of residence in 1995), migrants who crossed a county boundary but still reside in their birth province (resp. their province of registration, or their province of residence in 1995), and migrants living in a different province than the one their were born in (resp., their province of registration, or their province of residence in 1995). Sample: random 1% extract of the 2000 Population Census; number of observations = 2,800,769.

Table A.25: Robustness: county-level inequality persistence with urbanization control

	Gini (Amenity-adjusted Housing Area per capita)					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: full specification of Table A.29						
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.019*	-0.020*	-0.024*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
Panel B: with urbanization rate control						
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.019*	-0.020*	-0.024*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
# observations	572	572	572	572	572	411
Control for province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Control for 2000 night light level	No	Yes	Yes	Yes	Yes	Yes
Control for 1950 education level	No	No	Yes	Yes	Yes	Yes
Control for geographic attributes	No	No	No	Yes	Yes	Yes
Control for market access	No	No	No	No	Yes	Yes
Regions	All	All	All	All	All	Non-coastal

Notes: This table reports the relation between the pre-reform land Gini and the 2000 Gini of the amenity-adjusted housing area per capita. Panel A reports the full specification of Table A.29, Panel B introduces the urbanization control. The urbanization rate is defined as the percentage of the county population with a non-agricultural household registration, or *hukou*. Columns are defined as in Table A.29. Standard errors accounting for arbitrary spatial correlation (Colella et al., 2019) within a 300-km radius are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: counties with more than 80 households in the random 1% extract of the 2000.

Table A.26: Robustness: county-level inequality persistence with different amenity adjustments

	Housing Area per capita Gini					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Gini of Unadjusted Housing Area						
Pre-revolution land Gini	-0.017**	-0.017**	-0.017**	-0.018**	-0.020*	-0.025**
	(0.008)	(0.008)	(0.008)	(0.009)	(0.010)	(0.013)
Panel B: Equal-weighted Amenity						
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.019*	-0.020*	-0.024*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
Panel C: PCA-weighted Amenity						
Pre-revolution land Gini	-0.017**	-0.017**	-0.017**	-0.019**	-0.020*	-0.025**
	(0.008)	(0.008)	(0.008)	(0.009)	(0.010)	(0.013)
# observations	572	572	572	572	572	411
Control for province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Control for 2000 night light level	No	Yes	Yes	Yes	Yes	Yes
Control for 1950 education level	No	No	Yes	Yes	Yes	Yes
Control for geographic attributes	No	No	No	Yes	Yes	Yes
Control for market access	No	No	No	No	Yes	Yes
Regions	All	All	All	All	All	Non-coastal

Notes: This table reports different adjustments for housing amenities. We consider six indicator variables from the 2000 Census: 1. multistory house, 2. independent kitchen, 3. fuel or gas access, 4. tap water access, 5. hot bath, and 6. in-unit restroom. Total amenity inflator is assumed to be 0.6. Panel A reports the housing Gini coefficient calculated with the raw housing area per capita (in m^2). Panel B adjusts the housing area for all factors equally. Panel C adjusts the housing area with the following PCA loadings for the six different factors: 19.69%, 8.72%, 22.29%, 18.91%, 21.33%, and 9.05%, respectively. Columns are defined as in Table A.29. Standard errors accounting for arbitrary spatial correlation (Colella et al., 2019) within a 300-km radius are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.27: Robustness: county-level inequality persistence with different sampling criteria

	Gini (Amenity-adjusted Housing Area per capita)					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: all matched counties						
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.018*	-0.019*	-0.023*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
# observations	574	574	574	574	574	413
Panel B: counties with $>$ 50 households						
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.019*	-0.020*	-0.024*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
# observations	572	572	572	572	572	411
Panel C: counties with $>$ 80 households						
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.019*	-0.020*	-0.024*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
# observations	572	572	572	572	572	411
Panel D: counties with $>$ 100 households						
Pre-revolution land Gini	-0.019**	-0.019**	-0.019**	-0.019**	-0.020*	-0.025*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.013)
# observations	568	568	568	568	568	407
Control for province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Control for 2000 night light level	No	Yes	Yes	Yes	Yes	Yes
Control for 1950 education level	No	No	Yes	Yes	Yes	Yes
Control for geographic attributes	No	No	No	Yes	Yes	Yes
Control for market access	No	No	No	No	Yes	Yes
Regions	All	All	All	All	All	Non-coastal

Notes: Panels A, B, C, and D report estimations with county samples including more than 0, 50, 80, and 100 households, respectively (the benchmark in Table A.29 is more than 80 households). Columns are defined as in Table A.29. Standard errors accounting for arbitrary spatial correlation (Colella et al., 2019) within a 300-km radius are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.28: Breakdown of inequality into deciles

	Amenity-adjusted Gini	$10^{th}/50^{th}$	$20^{th}/50^{th}$	$30^{th}/50^{th}$	$40^{th}/50^{th}$	$60^{th}/50^{th}$	$70^{th}/50^{th}$	$80^{th}/50^{th}$	$90^{th}/50^{th}$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel B: Counties with any household									
Gini	-0.0190**	0.0118	0.0119	0.00769	0.00342	-0.0174*	-0.0349**	-0.0636**	-0.152***
	(0.00757)	(0.0130)	(0.0113)	(0.00936)	(0.00755)	(0.00949)	(0.0170)	(0.0282)	(0.0549)
Panel B: Counties with more than 80 households									
Gini	-0.0190**	0.0118	0.0119	0.00769	0.00342	-0.0174*	-0.0349**	-0.0636**	-0.152***
	(0.00757)	(0.0130)	(0.0113)	(0.00936)	(0.00755)	(0.00949)	(0.0170)	(0.0282)	(0.0549)
Panel B: Counties with more than 100 households									
Gini	-0.0191**	0.0112	0.0105	0.00563	0.00384	-0.0139	-0.0310*	-0.0583**	-0.157***
	(0.00760)	(0.0130)	(0.0113)	(0.00933)	(0.00762)	(0.00941)	(0.0168)	(0.0281)	(0.0552)

Notes: This table reports the coefficients used in Figure A.9 (Panel B), along with coefficients using different samples (Panels A and C). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: counties in the random 1% extract of the 2000 Census with available pre-Land Reform land distribution data; N for counties with any household = 574, N for counties with > 80 households = 572, N for counties with > 80 households = 568.

Table A.29: Reversal of county level inequalities between 1950 and 2000

	Gini coefficient in 2000 (Amenity-adjusted housing area per capita)					
	(1)	(2)	(3)	(4)	(5)	(6)
Pre-revolution land Gini	-0.019**	-0.018**	-0.018**	-0.019*	-0.020*	-0.024*
	(0.009)	(0.009)	(0.009)	(0.010)	(0.011)	(0.013)
# observations	572	572	572	572	572	411
Control for province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Control for 2000 night light level	No	Yes	Yes	Yes	Yes	Yes
Control for 1950 education level	No	No	Yes	Yes	Yes	Yes
Control for geographic attributes	No	No	No	Yes	Yes	Yes
Control for market access	No	No	No	No	Yes	Yes
Regions	All	All	All	All	All	Non-coastal

Notes: This table reports the relation between the pre-reform land Gini and the 2000 Gini of the amenity-adjusted housing area per capita. All specifications include province fixed effects. The geographical attributes (Columns 4–6) include distances (km) to the shore, fast-speed road network, and major rivers, as well as the means and standard deviations of elevation and slope. Market access (Columns 5 and 6) include both external and internal market access: external (resp., internal) market access is defined as the weighted sum of the populations (from the 1953 Census) in coastal (resp., non-coastal) counties; the weights are the inverse of the exponential of distance, measured in km; coastal counties are defined as counties in provinces with access to the sea. Standard errors accounting for arbitrary spatial correlation (Colella et al., 2019) within a 300-km radius are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: counties with more than 80 households in the random 1% extract of the 2000 Census (N = 572, except in column 6, where N = 411).

Table A.30: Reversal of inequality at county level – heterogeneous effects

	Gini coefficient in 2000 (Amenity-adjusted housing area per capita)					
	(1)	(2)	(3)	(4)	(5)	(6)
Pre-revolution land Gini	-0.073*	-0.072*	-0.055	-0.075*	-0.075*	-0.073*
	(0.039)	(0.039)	(0.036)	(0.039)	(0.039)	(0.038)
× External market access		-0.005				
		(0.030)				
× Internal market access			-0.084***			
			(0.017)			
× Distance to 1948 railways				0.038**		
				(0.017)		
× Distance to Ming courier stations					0.040*	
					(0.021)	
× Nb. of imperial exam. graduates						0.007
						(0.046)
# observations	572	572	572	572	572	572
Control for province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Control for 2000 night light level	Yes	Yes	Yes	Yes	Yes	Yes
Control for 1950 education level	Yes	Yes	Yes	Yes	Yes	Yes
Control for geographic attributes	Yes	Yes	Yes	Yes	Yes	Yes
Regions	All	All	All	All	All	All

Notes: This table analyzes heterogeneity in the relation between the pre-Reform land Gini and 2000 Gini of the amenity-adjusted housing area per capita (both standardized). Regression (1) reproduces the result from Appendix Table A.29, column 5. In each regression (2)-(6), we interact the pre-Land Reform Gini coefficient with one of five dimensions of heterogeneity: (2) external market access, (3) internal market access, (4) distance to railways before the revolutions, measured in 1948, (5) distance to Ming dynasty (1368–1644) courier stations, and (6) total number of imperial examination graduates (*jinshi*) during the Qing dynasty (1644–1911), normalized by population in 1953. External (resp., internal) market access is defined as the weighted sum of the populations (from the 1953 Census) in coastal (resp., non-coastal) counties; the weights are the inverse of the exponential of distance, measured in km; coastal counties are defined as counties in provinces with access to the sea. All heterogeneity variables are standardized. All specifications include province fixed effects. Standard errors accounting for arbitrary spatial correlation (Colella et al., 2019) within a 300-km radius are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: counties with more than 80 households in the random 1% extract of the 2000 Census.

Table A.31: Historical inequality and contemporary tolerance of inequality

	Tolerance of inequality		
	(1)	(2)	(3)
Pre-revolution Gini	-0.657***	-0.617***	-0.620***
	(0.156)	(0.158)	(0.157)
DV mean	3.025	3.025	3.025
DV std. dev.	0.974	0.974	0.974
Cohort FE	No	Yes	Yes
Income control	No	No	Yes

Notes: This table shows the correlation between the county-level Gini coefficients in land ownership prior to the Land Reform and today's preference toward inequality. All regressions include province fixed effects. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Sample: all birth cohorts; number of observations = 4,612.

B Historical background

In this section, we provide additional information on the Communist Revolution and the Cultural Revolution. Many books have been written about the historical details of these two revolutions (e.g., MacFarquhar and Schoenhals, 2006; Dikötter, 2016); here we focus on the particular aspects of the revolutions that intended to eradicate the advantages of the pre-revolution elite, including confiscating their assets, removing their access to secondary and higher education, and even stigmatizing attitudes and values that they might have held prior to the revolutions.

B.1 The Communist Revolution in rural area: the Land Reform

The Communist Revolution was a series of movements that allowed the Chinese Communist Party to consolidate political power throughout China toward the end of the Chinese Civil War (1945-1949). The most important of these movements was the Land Reform.[1] We complement Section 2 here by briefly describing the land ownership context prior to the Land Reform, how the Land Reform was implemented, and its effect on land distribution and rural China in general.

First, the context of rural China differed from other settings where land reforms have been implemented or considered. Before the Land Reform, landlords owned 6 times more land (per capita, on average) than poor peasants — see Section 4.1. In other words, while land assets were unequally distributed prior to the Land Reform, the Chinese context does not resemble the extreme land concentration observed in Latin America, characterized by the predominance of large plantations or latifundia — e.g., 92% of cultivated land in Bolivia in 1952 before the land reform (Wagner, 1989). Landlords in China owned a relatively small amount of land, working on the land themselves, and sometimes hiring labor (Fei et al., 1992). Thus, Chinese landlords were closer to well-off farmers in small-scale farming economies than rentiers who own huge plots of land. The rules established by the State Council to distinguish between landlords and rich peasants confirms this specific feature of rural China in the 1940s — see the discussion of class labels below.

Second, the Land Reform was designed to apply to the whole country, while adapting to local circumstances. The Land Reform started in 1947 in the newly "liberated" regions under the Communist Party's rule and concluded in 1953 when the reform reached the entire country. It was formalized and implemented as a nationwide policy by the *Agrarian Reform Law* in late 1950. The law was based on *China's Agrarian Reform Law Framework* approved in 1947 and built upon the Party's earlier land reform experiences. Article 1 of the law, quoted in Section 2, emphasizes the Communist Party's commitment to expropriate the class of landlord and rich peasants and advocate the proprietorship of the peasantry. The rest of the law lays out specific guidelines for transferring land ownership from landlords to poor peasants. Section 2, titled "Confiscation and Requisitioning of Land," orders the landlords' land, cattle, "excessive production tools," and real estate properties to be confiscated (e.g., Article 2). Section 3, "Distribution of Land," further instructs that the confiscated land and other assets should be distributed uniformly, fairly, and reasonably among landless peasants and poor peasants who owned very limited assets (e.g., Article 10).

To guide decision-making and the implementation of the Land Reform across China, the *Agrarian Reform Law* establishes a set of uniform principles. The *Agrarian Reform Law* was nationally ori-

[1] Some of the background description here is also shown in Chen et al. (2017). In this paper, we primarily focus on the rural component of the Communist Revolution, namely, the Land Reform. A parallel movement of wealth confiscation and redistribution was carried out in the urban sector, often named the "Socialist Remold of Capitalist Enterprises."

ented in tone and content, so that more detailed rules and explicit regulations pertaining to implementation needed to be provided in the form of supporting documents, including implementation legislation and important speeches by the central government and provincial authorities. To maximize the chances that implementation would go smoothly and efficiently, the central government devolved all land reform responsibilities to local governments, leaving considerable flexibility to interpret, adapt, plan, and carry out the Land Reform in each locality. This heavy emphasis on the informal and often personalized approach of implementing the Land Reform reflects the reality that the core field staff of the reform — local cadres complemented by the Peasants' Association — were technically under-trained but politically dedicated (Wong, 1973a).

The redistribution process typically consisted of two stages. First, the locality formed *ad hoc* committees and teams, mobilizing the rural masses via propaganda and indoctrination, and crucially, assigning *class labels* to families based on investigations of land holdings and discussions in mass meetings (Hinton, 1966). Second, based on the class labels, land and other production tools were confiscated from the landlords and rich peasants, and redistributed to the landless and poor peasants. The expropriation and redistribution were operationally one process, and in the vast majority of the cases, what was expropriated has been entirely redistributed (Wong, 1973b). Appendix Figure A.11 presents a photograph taken during the Land Reform when rural residents were measuring the land in preparation for the redistribution.

The Land Reform was a zero-sum game, and the government made sure that the victims complied and the beneficiaries indeed received asset transfers. Both physical and psychological violence (or the threat of violence) were deployed during the confiscation process to suppress opposition from the expropriated households. A militia was organized for the purpose of the Land Reform, and it is estimated that for every landlord there were 8 organized peasants assisting the Land Reform implementation, among whom one was armed (Wong, 1973a). Forced confessions in small groups and mass trials attended by tens of thousands were also employed to induce submission through intense psychological pressure.

Third, the Land Reform achieved a thorough reshuffling of land assets and durably transformed the Chinese countryside. The Land Reform confiscated land from the landlords and rich farmers, and redistributed the land to the poor and landless. While scholars debate on the exact magnitude of land redistribution during the Land Reform, it has undeniably resulted in a "monumental and profound" socioeconomic revolution that affected almost every rural resident in China (Huang, 1995). In 1953, the central government declared that the Land Reform had achieved its goals in most of China. The landlord class was essentially eliminated, and their asset level brought down to that of middle or even poor peasants. Landless, poor, and middle peasants received farmland for cultivation amounting to 43% of total land acreage in China, according to some estimates (among others, see Wong, 1973b; Guillermaz, 1976; Perkins, 2013), which makes the Chinese Land Reform one of the most extreme examples of wealth equalization in a short period of time in human history (Wong, 1973a). The far-reaching social impact of the Land Reform is described by Schurmann (1971) as follows:

> [...] *as a social revolution, land reform succeeded in destroying the traditional system of social stratification in the rural areas. The old rural gentry, whether based on the village or residing in towns, was destroyed. A social element, which had exercised leadership in the village by virtue of its status, its ownership of land, and its access to power had ceased to exist.*

Subsequent policies reinforced the Land Reform by further compressing the land distribution and reducing inequalities. This can be seen by looking at the evolution of property and use rights

over land. During the Land Reform period, effective private ownership over land was still allowed: the new owners held title deeds and had the right to use, purchase, sell, or rent the land as they pleased (Article 30 of the *Agrarian Reform Law*). In 1954, the first Constitution of the People's Republic of China abolished private land ownership. Individual farmers could lease land from the state and grow crops, although no rents were effectively paid to the state. The endowed land that individual farmers could grow food on was essentially land (re)allocated to them during the Land Reform (Lardy, 2008). The collectivization movement that occurred in parallel and accelerated in the mid-1950s gradually introduced restrictions in land use rights. By the end of 1956, all Chinese peasants were affiliated to a cooperative; however, collectivization was not complete. Cooperatives indeed fell into two categories (elementary or semi-socialist cooperatives and advanced or socialist cooperatives) offering different levels of ownership rights, and even in the advanced cooperatives peasants were allowed to retain small plots of land, some tools, and some animals to raise (Guillermaz, 1976). Collectivization was thus complete only during the Great Leap Forward starting in 1958, but as soon as the fall of 1959 rural trade fairs were reopened, and in the summer of 1960 private plots were restored (Perkins, 1966).

The last major change to land use rights introduced in China was the household responsibility system, which was first experimented in 1979 and included virtually all Chinese peasants in 1983. Under this system, which still dominates Chinese agriculture today, ownership rights over land remain illegal, but private land use rights were reestablished. Importantly, the land confiscated during the Land Reform was not returned to their previous owners — land allocation is determined based on household demographics at the village level, and transfer rights are limited (Kung, 1995; Vendryes, 2010), — and the farming tools that had been confiscated during the Land Reform were typically allocated through lotteries or auctioned off, rather than returned to the their original owners (Unger, 1985).

B.2 The Communist Revolution in urban areas: the Socialist Transformation of Capitalist Enterprises

With the success of the land reform and increasing consolidation of political power in the rural sector, the Communist Party of China initiated the 1st Five Year Plan in 1953, with the full-fledged transition to socialism as a primary goal. The urban sector, which was excluded from many previous reforms and redistributive policies, finally experienced a major episode that fundamentally reshaped its enterprise ownership landscape.

In 1953, the United Front Work Department of the Peoples' Congress Central Committee issued a report titled "Advice on Utilizing, Restricting, and Remolding the Capitalist Enterprises," which marked the beginning of a three year long movement of socialist reform in the urban sector. The report provided principle guidelines to the movement. Mao Zedong, in his comments to this report, asserted that the capitalist class "needs to be eliminated and transformed." He further emphasized the two-step procedure of remolding the capitalist enterprises: first, to turn the unrestricted private enterprises into state capitalism that is characterized by a highly restricted ownership structure; second, to transform the ownership structure of state capitalism into one that is full socialism. These policies have been formalized into the 1st Constitution of China (1954), affirming the goal that "ownership by the public should gradually replace ownership by the capitalists" (Article 10).

Between 1953 and 1956, private enterprises across China went through profound transformations. Following the Central Committee's guidelines, by 1956, the transformation process had

been basically completed in all major urban centers (Teiwes, 1987). Capitalist enterprises were restructured into joint public-private management entities. These newly formed business entities featured three defining characteristics: *(i)* enterprises were jointly owned by public and private capitalists, with the public ownership occupying the leading position; *(ii)* previous owners were gradually deprived of management rights; and *(iii)* enterprises' profits were distributed according to the "dividing the fat among four horses" principle, where previous owners received a fixed rate of 5% annual interest from their ownership shares. By 1956, however, the entire private economy in urban areas had been effectively nationalized. All urban firms were first *de facto* and then *de jure* state- or collectively owned and managed. Interest payments — based on what the government calculated to be capitalists' remaining share of capital — continued to be paid until the Cultural Revolution, but the dividends could be neither freely reinvested nor bequeathed (Meisner, 1986).

B.3 Class labels

In order to facilitate asset confiscation and subsequent redistribution during the Communist Revolution, each household was assigned a class label based on what they owned. The specific class labels (in both rural and urban sectors) are listed as follows:

	Rural	**Urban**
Non-elite	Hired labor	Poor peasants in the city
	Poor peasants	Workers
	Middle peasants	Employees
Elite	Rich peasants	Enterprise owners
	Landlords	Capitalists

More specifically, to supplement the *Agrarian Reform Law* and to aid the implementation of the Land Reform, the State Council issued a document titled "Decisions on Assigning the Class Labels in the Rural Sector" in 1950. It called local reform committees to divide up all rural residents into the broad classes listed above, and these uniform class labels would act as the basis for redistributive decisions during the Land Reform.

The class label was the only criterion used for asset redistribution. Those who were classified as landlords or rich peasants had their "excessive" assets confiscated, and those classified as middle peasants, poor peasants, and hired labor received asset transfers. Landlords and rich peasants were also the joint target of class-based discrimination until the 1980s (see Bian, 2002, for a review). We thus group the landlords and rich peasants as the pre-revolution elite — approximately 9% of the population in the rural sector (National Bureau of Statistics, 1980) — and the rest as non-elite, according to the asset redistribution (during the Communist Revolution) and discrimination (until after the Cultural Revolution) that they faced. We investigate below alternative definitions of the elite. Our baseline results are robust to considering only the rich peasants, namely the "working" elite without the rentiers.

While the exact cutoffs used to categorize the class labels were often left to the discretion of local Land Reform committees, the State Council issued a document titled "Decisions on Assigning the Class Labels in the Rural Sector" in 1950 to provide general guidelines. For example, regarding household labeling as landlord versus rich peasants, the document stipulated that "in

the landlord households, if there were people who regularly worked, and at the same time hired people to work on some of the land, then as long as the land rented out was more than 3 times as large as the land tilled by household members, these households should be classified as landlords rather than rich peasants." Such a rule suggests that landlords working on the land they owned was a common phenomenon in rural China. Importantly, these labels were determined by family asset ownership prior to the reform,[2] and particularly land assets in rural areas: all members of a family shared the same label.

Until the *Agrarian Reform Law* was repealed in 1987, the label was stable over time and through generations, making it a major element of family and personal identity: once a label was assigned it was rarely revised (Unger, 1984), and forging class labels was nearly impossible, for three reasons. First, class labels were common knowledge in villages (Wemheuer, 2019), and the new elite with "good" class backgrounds had little incentive to collude with "bad" elements. Second, a double record of class labels was kept: one in individual dossiers, which in rural areas were held by the collective (4,000–5,000 households on average), and another, separate record held by central security organs for Party cadres (Cheng and Selden, 1994; Wemheuer, 2019); both records were inaccessible to the individuals concerned. Third, class background was subject to potential rechecks by external teams during political campaigns (Brown, 2015), and "providing false or misleading information could lead to serious consequences if, for example, a "landlord who had escaped the net" was uncovered" (Wemheuer, 2019). While the initial assignment of the class labels signaled the regime's judgment about the "inherent loyalties of families" (Walder and Hu, 2009), class labels were preserved along patriarchal lines regardless of the actual political inclination and behavior of individuals. Moreover, each citizen was required to know her own class label. The elicitation of class labels thus allows researchers to trace family lineages, in particular the broad level of household assets prior to the revolutions. We describe in greater detail the elicitation of class labels in our data in Section 3.

The motivation behind class labels was to identify and therefore discriminate against the former elite and eliminate any educational or income advantage they might retain over the masses, consistent with the overarching goal of the Communist Revolution and the subsequent Cultural Revolution. Class labels determined in particular the likelihood of admission to high school and college, job assignments, promotions, and access to Party membership (Kraus, 1981; Unger, 1982; Lee, 1991). One unintended consequence of the system was, however, to remind people of who their parents and grandparents were, perhaps making family history and identity more salient.

B.4 The Cultural Revolution

The Cultural Revolution is a massive sociopolitical movement launched by Mao Zedong in 1966, intended to preserve the fruits of the Communist Revolution. While it began as a purge of "disloyal" Communist Party officials, its scope quickly widened to target all elite groups and authority figures, leading to a decade long of chaos and violence until Mao's death in 1976. We focus here on two main aspects of the Cultural Revolution: its stance toward the pre-revolution elite, and its disruptive education policy.[3] In this section, we complement Section 2 by *(i)* providing more de-

[2]Contrary to later political campaigns, no quotas were set during the Land Reform — e.g., in terms of a number or share of landlord labels (Kung et al., 2012). Local leaders may have however felt pressure to identify at least some "targets for class struggle" (Friedman et al., 1991).

[3]The mass mobilization at the core of the Cultural Revolution led to large-scale disorganization. Before the imposition of martial law, the Cultural Revolution caused in less than two years a complete collapse of the state apparatus and severely disrupted production. Industry value added dropped from 44.6 to 12.6 million Chinese yuan (in constant

tails about the motivation behind the Cultural Revolution, *(ii)* comparing discrimination against the pre-revolution elite in their access to higher education during the Cultural Revolution with the rest of the Mao era, and *(iii)* describing briefly the Cultural Revolution's onslaught on pre-Communist culture and beliefs.

First, discrimination against the pre-revolution elite was a key component of the Cultural Revolution. Since its inception, the Cultural Revolution was concerned with status inheritance. One of its primary goals was to prevent the pre-revolution or emerging elite from passing down their privileges to their offspring (Whyte, 1973; Deng and Treiman, 1997; Andreas, 2009) and thus "destratify" Chinese society (Parish, 1984). The initial motivation was to prevent the entrenchment of a bureaucratic elite, whom Mao viewed as a threat to the revolution. He feared that they became "a 'privileged stratum' and take the capitalist road, as allegedly [had] happened in the Soviet Union" (Bernstein, 1977). The scope of the Cultural Revolution quickly widened to encompass all high-status groups. Pre-revolution elite households often managed to secure elite professional occupations in the Communist regime (Rosen, 1982; Unger, 1982; Andreas, 2002; Walder and Hu, 2009). This fact, combined with the view that individuals with a "bad" class background — namely those with elite class labels — were inherently "revisionist," or hostile to the revolution, justified in the eyes of Mao further discrimination and violence during the Cultural Revolution. In an interview given in 1965 to the French Minister of Cultural Affairs, André Malraux, Chairman Mao claimed that there was a broad "revisionist layer" in China, "large not in numbers but in the influence it exerts. This layer is made up of the former landlords, former rich peasants, former capitalists [...], and part of their children" (Andrieu, 1996). The goal then was to completely eliminate any remaining advantage of the pre-revolution elite and their descendants over the masses.[4]

The risk that the elite maintain their influence through education lies behind the radical and disruptive educational policy initiated during the Cultural Revolution (MacFarquhar and Schoenhals, 2006). The revolution severely disrupted higher education in two main ways. First, almost all high schools and colleges were shut down between 1966 and 1968, and most universities remained closed until 1972 (Bernstein, 1977; Unger, 1982). Appendix Figure A.12 presents a photograph of students at Peking University, one of the best universities in China, during the Cultural Revolution, where students gathered to chant revolutionary slogans. Second, merit-based admission into higher education was suspended throughout the Cultural Revolution. When universities reopened in 1972, admission was primarily based on class labels (at the expense of the pre-revolution elite, of course) and political achievements rather than academic credentials (Shirk, 1982). The only eligible applicants were workers, peasants, and soldiers, except for small quotas (below 5%) established for the "educable children [of class enemies]" (Deng and Treiman, 1997). Such a discrimination against the descendants of landlords and rich peasants remained until a meritocratic university entrance exam was reestablished in 1977 (see Chen, 2007; Roland and Yang, 2017, for more details about the resumption of the *gaokao*).

Second, discrimination against the descendants of the pre-revolution elite was the most extreme during the Cultural Revolution, but it characterizes the whole period between the Communist Revolution and the end of the Cultural Revolution. From the outset, the Chinese Communist Party oscillated between promoting mass education and a meritocratic elite with the technical

1990 prices) between 1966 and 1967, and it would not recover until 1980 (Dong and Wu, 2004).

[4]Recent research suggests that all of Chinese society was affected by the Cultural Revolution. While an earlier scholarly consensus regarded it as a mostly urban phenomenon (Baum, 1971), contributions since Walder and Su (2003) have investigated post-Mao sources, including sections in the gazetteers we use in this paper, and suggest an extensive rural impact.

skills and expertise necessary for economic development (Deng and Treiman, 1997; Andreas, 2009; Chen et al., 2015). In some years, admission into higher education was granted by "recommendation only," and priority was given to workers, peasants, and children of "revolutionary cadres and martyrs" (Deng and Treiman, 1997). In other periods, the national college recruitment examination was re-established. Applicants with an undesirable class background were, however, systematically discriminated against (policy of "priorities among equivalents").

Third, besides disrupting education, the Cultural Revolution induced a wide range of disturbances across Chinese society. The inheritance of culture and values from the pre-Communist era was regarded with suspicion: teachers became the targets of "struggle sessions," which included public humiliations, beatings, and torture (Wang, 2001). Children were also often encouraged to expose their parents' counter-revolutionary behaviors, representing a broad effort to weaken the nuclear family structure. An entire generation of urban students was sent to the countryside for political reeducation through manual work and contact with the masses (the "Sent-Down Movement"). Zhou (2004) shows that the probability of being sent down increased with the father's educational attainment. The separation of children and parents during formative years of their lives could have significant implications on the vertical transmission of cultural values. However, this is less of a concern for our study, as most of the Chinese population at the time lived in rural areas, where no children were sent away during the Cultural Revolution since there were already residing in the countryside, and our finding of a resurgence of the pre-revolution elite holds when we focus on the rural sample.

C Additional details on data sources

C.1 *County Gazetteers*: calculating county Gini coefficients in land ownership

We now describe how we calculate the county-level Gini coefficients in land ownership based on the *County Gazetteers* data.

We assume that land ownership among households within each of the five social classes is homogeneous. We assume that land ownership for landless hired peasants is zero if the value is missing. Some counties also list other special classes, for example, small land renters and half-landlord rich peasants; the land owned by these special classes, government, and other organizations is not included.

We define the county-level Gini as 1 minus twice the area under the (discrete) cumulative distribution function of land ownership. Appendix Figure A.13 illustrates the construction of the Gini coefficients, where we normalize total population and total land ownership to 1 and plot the cumulative land ownership for each social class.

Given that land ownership statistics are only available in aggregate (by category), we make the following adjustment to re-scale the Gini coefficient to [0,1]. We define adjusted-Gini = 1 as the unequal world where landlords own all land, and adjusted-Gini = 0 as the equal world where everybody holds the same land share. Specifically, we re-scale the Gini as follows:

$$Gini = \frac{maxCDF - CDF(Land)}{maxCDF - minCDF}$$

where $CDF(Land) = \sum_{Class}(Pop_{Class} \times CumulativeLand_{Class})$ is the cumulative density function of land ownership; $maxCDF$ is the maximum value of CDF (i.e., extreme equality) under discrete distribution of population sub-groups, where everyone owns the same share of land in the society; and $minCDF$ is the minimum value of CDF (i.e., extreme inequality) under discrete distribution, where all land is owned by landlords. The numerator ensures that the Gini coefficients are bounded below by 0, and the denominator scales the Gini coefficients so they are between 0 and 1.

We perform a number of robustness exercises using alternative measurements of county-level inequality: *(i)* using the raw Gini coefficients, without adjusting for the discrete nature of the distribution; *(ii)* using Gini coefficients with and without adjustment based on the amenity of the housing; and *(iii)* using Theil index to measure inequality. We show that the adjusted Gini is basically a linear transformation of the raw Gini *ad hoc*; the correlation is as high as 98.8% (see Appendix Figure A.14). Moreover, the Gini coefficients with and without amenity adjustment are 95.3% correlated, and the adjusted Gini is also 91.9% correlated with the Theil index (see Appendix Table A.22).

C.2 *County Gazetteers*: sample selection

In Section 3.1, we introduce our measure of land ownership distribution based on the *County Gazetteers*. Here, we first describe the methodology we followed to collect the *County Gazetteers*; second, we discuss sample selection by comparing counties along the degree of completeness of the information available on land distribution prior to the Land Reform; and third, we assess selection by comparing the data with a distinct source of information, the *Province Gazetteers*.

First, our data collection effort goes through the following steps to maximize coverage and

ensure that the *County Gazetteers* data can be matched with contemporary counties. We start with all areas named "counties" in the 2000 administrative records. This ensures that all counties can be readily matched to contemporary census data. Next, we expand our efforts to areas named "cities" and add the data to our sample if the pre-Land Reform ownership distribution is available in the *County Gazetteers*. We regard the two as the same if they are documented under the same historical narratives in the most comprehensive Chinese online encyclopedia, Baidu Baike. Urban districts without documentation about the Land Reform are excluded. Note also that we exclude Tibet, Xinjiang, and Inner Mongolia due to different land policies designed for minority groups. Overall, we identify 639 counties in the gazetteers with the pre-Land Reform land distribution data necessary to calculate within-county inequality.

Second, as some *County Gazetteers* contain no or incomplete information on the land distribution prior to the Land Reform, sample selection may affect our findings. To assess this issue, we begin by comparing counties that differ in terms of the availability of the data we need to compute measures of inequality. Appendix Table A.2, Panel A, presents summary statistics for counties in the sample along the following dimensions: geographical characteristics (distance to the coast, longitude, latitude), economic development (contemporary GDP per capita, average nighttime luminosity, average and median years of education, average educational attainment for cohorts born before 1950),[5], average contemporary housing area (adjusted for housing amenities and non-adjusted), and contemporary housing Gini coefficient.

Panel B presents the p-values from three balance t-tests to check for potential sample selection based on observable features: between the counties with complete data and those with either incomplete or no data, between the counties with complete and incomplete data, and between the counties with at least some data and those without any data. Among all the 11 variables that we examine, counties with complete historical land ownership data differ from other counties only along median contemporary housing area (both raw and amenity-adjusted) and the average nighttime luminosity. Importantly, contemporary housing inequality is *not* associated with the availability of complete archival records on land ownership inequality prior to the Land Reform.

Third, to further assess the importance of selection in the *County Gazetteer* data, we compare them with data from a separate source. We collect data from the *Province Gazetteers* on land ownership by social classes, both before and after the Land Reform, as well as the number of counties that the provincial averages are based on. Although province and county gazetteers should draw on the same primary data, the average shares computed from these two sources differ, as they cover different subsets of counties. This allows us to assess the representativeness of the *County Gazetteer* data used in this paper.

We compute average land shares at the province level based on the province and county gazetteers, and plot them against each other, as shown in Appendix Figure A.3. Each dot corresponds to one province-period-class, e.g., it shows the average land share of poor peasants just before the Land Reform in Zhejiang province; we can match 64 such statistics at the province-period-class level. We see from Panel A that there is some variation, but most observations fall on or near the 45-degree line. We can further weight each observation by the number of counties used to compute the average share in the province gazetteer, which we do in Panel B. When a *Province Gazetteer* does not specify the number of counties used in the computation, we assume it is the same as the number of available *County Gazetteers*. This suggests that outliers are mostly due to provincial averages based on few county-level statistics.

[5]Nighttime luminosity as a proxy for regional development level has been widely used: see Alesina et al. (2016) as a recent example and Donaldson and Storeygard (2016) for a review.

Appendix Table A.23 provides similar evidence in regression format. Column 1 regresses the provincial averages from the *Province Gazetteers* on the provincial averages from the *County Gazetteers*; Column 2 introduces the same weights as in Appendix Figure A.3; and Columns 3, 4, and 5 introduce province, class, and period fixed effects, respectively. In all five specifications, the coefficient is statistically indistinguishable from 1 at conventional confidence levels and quite precisely estimated. The similarity between these two separate data sources suggests that the data collected from the *County Gazetteers*, while unable to cover the entire country, are unlikely to suffer from severe distortions due to sample selection.

C.3 Auxiliary data sources

We deploy a number of additional data sources, which we briefly describe below.

C.3.1 Migration push and pull factors

We assess individuals' responsiveness to economic incentives with measures of migration push and pull factors. For push factors, we rely on shocks to agricultural revenues measured as the interaction of innovations in agricultural commodity prices on international markets with local suitability for growing different crops. We borrow this measure from Imbert et al. (forthcoming).

For pull factors, we create a shift-share of nominal hourly wages based on industrial composition for each destination with weights corresponding to emigrant shares across destinations. Formally, we measure pull shocks as $\Sigma_d \Sigma_i \mu_{od} \alpha_{id} w_i$, where w_i is the logarithm of hourly wage in industry i, α_{id} is the share of employment in industry i in destination d, and μ_{od} is the share of emigrants from origin o who go to d. All these variables and weights are computed from a 1% extract of the 2005 1% Population Survey, a nationally representative survey collected by the National Bureau of Statistics.

C.3.2 Clan-based local network strengths

In order to capture the strength of clan-based local networks, we rely on the historical data source of the roster of top imperial examination graduates to construct our measure for clan density. We used the normalized Hirshman Herfindahl index to quantify surname concentration among the highly educated individuals in the past, based on the roster of top imperial examination graduates (*jinshi*) throughout the Ming and Qing dynasties. These data come from the *Index of Jinshi Graduates from the Imperial Examination Stelae of the Ming and Qing Dynasties* (Zhu and Xie, 1980),[6] which records all imperial examination top scorers' names and birthplaces between 1644 and 1905.

C.3.3 Population at the time of the Communist Revolution

In Table A.12, we study the heterogeneous effect of elite status in terms of the share of 1950s émigrés to Taiwan in individuals' birthplaces. To meaningfully capture the intensity of emigration, we need to normalize the raw numbers of émigrés by province from Lin (2018) by total county population at the time. We use data from the 1953 Population Census, recast to 2010 county boundaries (which we use throughout the paper) using the administrative maps corresponding to the 1953 and 2010 censuses.

[6] These data have been used by Hao and Clark (2015) and Chen et al. (2020).

C.3.4 Contemporary wealth distribution at the county level

In order to measure contemporary wealth distribution at the county level (see Appendix F), we use the 1% micro sample of the 2000 Population Census.[7] We use the residential housing area per capita of the household to construct a contemporary inequality measure at the county level. We rely on residential housing area to measure real estate property inequality, because this figure is reported for everyone in the population (both home owners and renters), and it is much less likely to suffer from self-reporting bias than savings and income. Moreover, as long as the same biases exist for all counties, our comparison of the relative differences in inequality across counties is still valid. An important caveat of inequality measures based on housing size is that as rural areas become more urbanized, the upper tail of the population could begin to reside in apartments that are of smaller size but higher value than rural houses. This would underestimate the contemporary local inequality, particularly in more urbanized counties. In Section 5, we take into account the urbanization rate and demonstrate that the results we document are unlikely to be driven by urbanization.

Similar to the land-based Gini coefficients in the 1950s, we construct Gini coefficients based on housing size as one minus twice the area under the cumulative distribution function of the housing size. Specifically, we sort all individuals i by their housing size per capita, compute the cumulative distribution function (CDF) of housing size ownership for each county j, and define the integral of the CDF as the modern housing Gini coefficient as follows:

$$Gini_j(Housing) = 1 - 2\int_{i \in j} CumulativeHousing_i$$

To capture quality differences in real estate, we adjust living size based on reported housing amenities. Specifically, we inflate the living size by 10% for each of the following modern residential characteristics: building has more than one floor, independent kitchen, equipped with gas or electric stove, in-unit tap water available, equipped with hot bath water, or equipped with in-unit bathrooms. The amenity adjustment would take into account structural factors that make smaller living areas more valuable than larger ones (e.g., apartments versus rural houses). Our results are robust to using either amenity adjusted or non-adjusted living size as the basis of the inequality measure, and to adjusting the housing area either for all factors equally or following PCA loadings for the six different factors (see Appendix Table A.26).

[7] We focus on the year 2000 because it is the last census wave before mass rural to urban migration began in China.

D Inequality decades prior to the revolutions

The main analysis that we present in the paper takes land inequality in the late 1940s, just before the Land Reform, as the starting point. To gauge whether land inequality on the eve of the Land Reform reflects the medium-run distribution of land in rural China, we complement our baseline analysis with a data source on land distribution that is independent from the *County Gazetteers*. Specifically, we measure the land ownership distribution in the 1930s, the earliest period for which data on land distribution across Chinese counties exist. The source is *Land Utilization in China: A Study of 16,786 Farmers in 168 Localities, and 38,256 Farm Families in Twenty Two Provinces in China, 1929–1933*, compiled by John L. Buck in 1937. Buck, the head of the Department of Agricultural Economics at the University of Nanking, sent his students to different villages across China to survey land utilization. We aggregate these reports from villages to the county level, which covers 142 counties. The counties are not representative of China, but these reports are the most comprehensive data available on China's agricultural sector prior to 1949.

We first examine whether the land distribution in the 1930s is predictive of that in the late 1940s just before the Land Reform. Overall, 50 counties can be matched to the pre-Land Reform Gazetteer data. As shown in Appendix Table A.1, Panel A, the share of land area owned by landlords in the 1930s is positively, significantly, and robustly correlated with the corresponding measures in the late 1940s. In other words, the land distribution on the eve of the Land Reform reflects an agricultural landscape in China that had prevailed for at least several decades, and potentially for even longer periods.

We then examine whether the pattern of reversal in county-level land inequality in 2000 is robust to focusing on a longer time horizon — from the 1930s to 2000. We match 138 counties in the 1930s reports to the 2000 Census. In Appendix Table A.1, Panel B, we predict real estate inequality in 2000 with share of land area owned by landlords in the 1930s. This share is negatively (albeit not significantly) correlated with housing inequality measured in 2000. This, again, suggests that the Land Reform and Communist Revolution is a shock to China's land distribution, which has been otherwise fairly slow-moving.

E Measures of intergenerational mobility: transition matrix

E.1 Theoretical derivation: the correspondence from transition matrix to regression coefficients

For a transitional matrix,

	Young Top X	Young Bottom 1-X
Old Top X	a	b
Old Bottom 1-X	c	d

We solve b, c, d as functions of a and X first.

$$b = 1 - a$$

$$c = \frac{(1-a)X}{1-X}$$

$$d = 1 - \frac{(1-a)X}{1-X}$$

Consider the following two regressions linking the rank of the young generation to the social status of the old generation. Regression 1: Regress the dummy of being in the top X of the young generation on the dummy of being in the top X of the old generation.

$$D_{young}(Top\ X) = \beta_1 D_{old}(Top\ X) + c + \epsilon$$

The coefficient is the expectation of probability difference of entering in the top X rank.

$$\beta_1 = a - \frac{X}{1-X}(1-a) = \frac{a-X}{1-X}$$

Regression 2: Regress the rank of young generation on the dummy of being in the top X of the old generation.

$$Rank_{young}(TopX) = \beta_2 D_{old}(TopX) + c + \epsilon$$

The coefficient β_2 is the expectation of rank difference. The cohort from top X of the old generation:$a(1 - \frac{X}{2}) + (1-a)\frac{1-X}{2} = \frac{1+a-X}{2}$. The cohort from the bottom $1-X$: $\frac{(1-a)X}{1-X} \times (1 - \frac{X}{2}) + (1 - \frac{(1-a)X}{1-X})\frac{1-X}{2} = \frac{1-X+\frac{X(1-a)}{1-X}}{2}$. The coefficient

$$\beta_2 = \frac{a - \frac{X(1-a)}{1-X}}{2} = \frac{a-X}{2(1-X)}$$

E.2 Empirical implementation

We try to compare our individual-level persistence with the US and Canada. We compute the three-generation decile by decile transition matrix in the US and Canada. There is no data capturing the persistence from grandparents to grandchildren. Thus, we compute the three-generation transition matrix from the parent-child transition matrix.

In the US, we compute the decile by decile parent-child matrix based on the 100×100 matrix

provided by Chetty et al. (2014).[8] Corak and Heisz (1998) report the decile by decile transition matrix with Canadian income tax data. Additionally, we manually compute the decile by decile parent-child matrix using family panel data from Taiwan (Yu, 2019) and Russia (Popkin, 2016).

We further assume that the transmission are independent from generation to generation. Thus, the three-generation matrix M_3 would be simply the squared parent-child matrix M_2:

$$M_3 = M_2^2$$

We reproduce below the three-generation transmission matrix in the US, estimated by Chetty et al. (2014):

	Dec.1	*Dec*.2	*Dec*.3	*Dec*.4	*Dec*.5	*Dec*.6	*Dec*.7	*Dec*.8	*Dec*.9	*Dec*.10
Dec.1	0.1406	0.1191	0.111	0.1055	0.0988	0.0923	0.0871	0.0821	0.0818	0.0815
Dec.2	0.1264	0.1149	0.1095	0.1054	0.1006	0.0955	0.0911	0.0863	0.0856	0.0847
Dec.3	0.1172	0.1112	0.1076	0.1047	0.1013	0.0974	0.0938	0.0898	0.0891	0.0880
Dec.4	0.1094	0.1074	0.1054	0.1036	0.1015	0.0990	0.0964	0.0932	0.0926	0.0916
Dec.5	0.1022	0.1034	0.1029	0.1022	0.1014	0.1002	0.0988	0.0969	0.0964	0.0956
Dec.6	0.0953	0.0991	0.1001	0.1005	0.1010	0.1013	0.1012	0.1008	0.1006	0.1001
Dec.7	0.0882	0.0943	0.0968	0.0985	0.1004	0.1023	0.1038	0.1051	0.1052	0.1053
Dec.8	0.0806	0.0890	0.0930	0.0961	0.0996	0.1033	0.1066	0.1100	0.1105	0.1111
Dec.9	0.0738	0.0839	0.0893	0.0936	0.0986	0.1041	0.1092	0.1148	0.1157	0.1169
Dec.10	0.0663	0.0776	0.0843	0.0900	0.0967	0.1044	0.1120	0.1209	0.1226	0.1252

We reproduce below the three-generation transmission matrix in Canada, estimated by Corak and Heisz (1998):

	Dec.1	*Dec*.2	*Dec*.3	*Dec*.4	*Dec*.5	*Dec*.6	*Dec*.7	*Dec*.8	*Dec*.9	*Dec*.10
Dec.1	0.1117	0.1059	0.1031	0.1003	0.0989	0.0972	0.0963	0.0963	0.0964	0.0967
Dec.2	0.1083	0.1045	0.1025	0.1004	0.0994	0.0979	0.0971	0.0970	0.0968	0.0968
Dec.3	0.1055	0.1035	0.1023	0.1008	0.1000	0.0986	0.098	0.0978	0.0973	0.0970
Dec.4	0.1032	0.1023	0.1017	0.1009	0.1004	0.0995	0.0991	0.0989	0.0985	0.0982
Dec.5	0.1007	0.1009	0.1009	0.1006	0.1004	0.0998	0.0995	0.0994	0.0988	0.0985
Dec.6	0.0988	0.0999	0.1004	0.1006	0.1008	0.1006	0.1005	0.1004	0.0999	0.0998
Dec.7	0.0960	0.0983	0.0995	0.1005	0.1011	0.1013	0.1016	0.1015	0.1011	0.1009
Dec.8	0.0939	0.0967	0.0985	0.1001	0.1011	0.1018	0.1024	0.1025	0.1023	0.1024
Dec.9	0.0911	0.0945	0.0967	0.0991	0.1006	0.1021	0.1034	0.1036	0.1041	0.1045
Dec.10	0.0916	0.0941	0.096	0.0984	0.1001	0.102	0.1038	0.1042	0.1056	0.1069

We reproduce below the three-generation transmission matrix in Taiwan, with data sourced from Yu (2019):

[8] The 100 by 100 transition matrix can be downloaded from the data library of Opportunity Insights. See: *https://opportunityinsights.org/data/*

	Dec.1	*Dec*.2	*Dec*.3	*Dec*.4	*Dec*.5	*Dec*.6	*Dec*.7	*Dec*.8	*Dec*.9	*Dec*.10
Dec.1	0.1056	0.0979	0.1016	0.1301	0.0671	0.0967	0.1174	0.0872	0.1018	0.0946
Dec.2	0.1056	0.0979	0.1016	0.1301	0.0671	0.0967	0.1174	0.0872	0.1018	0.0946
Dec.3	0.1003	0.0961	0.1030	0.1295	0.0721	0.0973	0.1167	0.0881	0.1012	0.0957
Dec.4	0.0993	0.0981	0.1000	0.1314	0.0681	0.0982	0.1124	0.0904	0.1056	0.0964
Dec.5	0.1037	0.0963	0.1038	0.1283	0.0681	0.0995	0.1116	0.0869	0.1054	0.0963
Dec.6	0.1048	0.0944	0.1042	0.1275	0.0731	0.0982	0.1164	0.0851	0.0991	0.0972
Dec.7	0.0940	0.0973	0.1014	0.1335	0.0768	0.0981	0.1185	0.0898	0.0975	0.0931
Dec.8	0.0996	0.0960	0.1018	0.1313	0.0748	0.0963	0.1184	0.0876	0.0994	0.0948
Dec.9	0.0981	0.0992	0.0988	0.1310	0.0698	0.0988	0.1120	0.0916	0.1035	0.0972
Dec.10	0.1077	0.0893	0.1046	0.1191	0.0731	0.0922	0.1144	0.0857	0.1111	0.1026

We reproduce below the three-generation transmission matrix in Russia, with data sourced from Popkin (2016):

Dec.1	0.1253	0.1127	0.1311	0.1161	0.0877	0.0982	0.0947	0.1000	0.0508	0.0835
Dec.2	0.1207	0.0983	0.1244	0.1158	0.0888	0.1043	0.0992	0.1072	0.0568	0.0844
Dec.3	0.1205	0.0952	0.1177	0.1132	0.0874	0.1063	0.0986	0.1089	0.0614	0.0909
Dec.4	0.1162	0.0840	0.1093	0.1057	0.0842	0.1078	0.0984	0.1170	0.0712	0.1063
Dec.5	0.1149	0.0813	0.1075	0.1060	0.0853	0.1102	0.0994	0.1199	0.0720	0.1036
Dec.6	0.1165	0.0837	0.1123	0.1080	0.0853	0.1083	0.1004	0.1173	0.0677	0.1004
Dec.7	0.1154	0.0800	0.1027	0.1015	0.0808	0.1083	0.0984	0.1235	0.0745	0.1149
Dec.8	0.1143	0.0757	0.1046	0.1026	0.0833	0.1113	0.1003	0.1242	0.0749	0.1088
Dec.9	0.1132	0.0779	0.0987	0.0991	0.0795	0.1114	0.0962	0.1240	0.0809	0.1190
Dec.10	0.1173	0.0680	0.0841	0.0781	0.0719	0.1055	0.0939	0.1331	0.0927	0.1554

In the context of rural China and the pre-revolution elite, $X = 10\%$, $a_{Canada,X=10\%} = 0.1117$, $a_{US,X=10\%} = 0.1406$, $a_{Taiwan,X=10\%} = 0.1012$, and $a_{Russia,X=10\%} = 0.1554$. In the US data, we also compute $X = 5\%$, and $a_{US,X=5\%} = 0.0810$.

$$\beta_{1,Canada,X=10\%} = \frac{0.01117}{0.9} = 0.0124$$

$$\beta_{2,Canada,X=10\%} = \frac{0.01117}{1.8} = 0.0062$$

$$\beta_{1,US,X=10\%} = \frac{0.01406}{0.9} = 0.0156$$

$$\beta_{2,US,X=10\%} = \frac{0.01406}{1.8} = 0.0078$$

$$\beta_{1,US,X=5\%} = \frac{0.0810}{0.95} = 0.0853$$

$$\beta_{2,US,X=5\%} = \frac{0.0117}{1.9} = 0.0426$$

$$\beta_{1,Taiwan,X=10\%} = \frac{0.0026}{0.9} = 0.0029$$

$$\beta_{2,Taiwan,X=10\%} = \frac{0.0026}{1.8} = 0.0014$$

$$\beta_{1,Russia,X=10\%} = \frac{0.0554}{0.9} = 0.0616$$

$$\beta_{2,Russia,X=10\%} = \frac{0.012}{1.8} = 0.0308$$

F Reversal in county-level inequality

In Section 5.1, we discuss explanations for the pre-revolution elite's rebound that our data do not support. One may additionally speculate that the pre-revolution elite rebound simply because they ride the tide of the general resurgence in inequality across China and local conditions that favor inequality. In order to examine the persistence (or lack thereof) in inequality at the aggregate level, we ask whether contemporary inequality (proxied by inequality in housing size) in a given county is associated with land ownership inequality prior to the Communist Revolution.

Figure A.10, Panel C, maps the real estate housing Gini coefficients in 2000 across counties. Relative to the land ownership inequality just after the Land Reform (Panel B), inequality had begun to re-emerge throughout China by 2000. Moreover, regions that were more unequal prior to the Land Reform (Panel A), such as the northeastern provinces, became relatively more equal in 2000; we can also note that inequality seems less spatially correlated in 2000, which may be partly due to the removal of historical determinants of land inequality prior to the Land Reform.

In Appendix Table A.29, we regress the real estate housing Gini coefficients from the 2000 Population Census at the county level on the corresponding land ownership Gini coefficients just prior to the Land Reform.[9] We include province fixed effects throughout. We exclude counties with less than 80 households[10] in the random 1% extract of the 2000 Census to reduce measurement error in within-county inequality, restricting the sample to 572 counties; we carry out extensive robustness checks to show that our results are not sensitive to this cutoff. Column 1 presents the baseline coefficient estimates. We observe a strong and sizable *negative* relationship between the pre-Land Reform inequality and contemporary inequality (measured in 2000). In other words, the Land Reform and Cultural Revolution were successful in the long run at the county level: past inequalities were not only suppressed; the Land Reform reversed the pattern across China and made historically more unequal places relatively more equal today. Note that since this analysis is conducted at the county level, the reversal we document does not suggest that counties more unequal prior to the Land Reform become more equal in 2000 in *absolute* terms, but rather, they become more equal *relative* to other counties.[11]

We next unpack the sources of this reversal and find that much of the movement toward equality comes from the compression of the difference between the above-median and median households. Appendix Figure A.9 decomposes the inequality reversal over time by different parts of the distribution. We estimate the correlation coefficients between the pre-Land Reform land Gini coefficient and the corresponding county's 2000 housing inequality. Instead of the overall Gini coefficient of 2000 housing inequality, we construct a separate inequality measure for each decile as the ratio between the X^{th} and 50^{th} percentiles of the housing size in 2000 in a given county, where X ranges from 10 to 90. We trace out X along the x-axis, and the corresponding correlation coefficient estimates on the y-axis. We reverse the ratios if $X < 50$, so that one can interpret

[9] Combining the *County Gazetteer* data with contemporary counties in 2000 reduces the number of available counties with pre-Land Reform inequality measures to 572. While different bases of the inequality measures (land assets in the 1950s and housing sizes in 2000) could mechanically affect the overall level of inequality due to measurement, such differences would not necessarily affect the relative position of inequality with respect to other counties in the country. Moreover, we find that the baseline pattern we observe is robust to taking into account the differential urbanization rate, which could affect the association between land assets and housing size.

[10] The patterns observed in Appendix Table A.29 are robust to alternative thresholds — see Appendix Table A.27

[11] Appendix Figure A.8 illustrates how seemingly opposite patterns at the county and individual levels could coexist. The reversal of within county inequality captures the relative distribution of inequality patterns *across* counties throughout China. The pattern characterizing the pre-revolution elite over time largely occurs *within* counties.

negative coefficients across the entire spectrum of X as indicating a reversal between historical and contemporary inequality. The estimated coefficients for percentiles below the median are in general indistinguishable from zero, suggesting that the reversal in equality did not occur among the lower half of the distribution in terms of housing size. This does not indicate a resurgence of historical inequality either — coefficient estimates close to zero suggest that the reshuffling of historical inequality is fairly persistent among below-median households. However, one begins to observe an increasingly negative coefficient as X increases beyond 50.

This reversal pattern is robust to taking into account of a variety of factors that could affect inequality. In fact, time invariant factors that would be associated with inequality within county (e.g., geographic or structural reasons that make a county inherently more unequal than others) could not drive this reversal, unless the revolutions triggered a different set of regional characteristics to reshape inequality. Appendix Table A.29, Columns 2-5 test the robustness of the reversal finding. Column 2 controls for the contemporary county development level proxied by nighttime luminosity in 2000; column 3 controls for the historical county development level, proxied by average educational attainment level in 1950; column 4 controls for a variety of geographic attributes that may be associated with either development or within-county inequality, such as land ruggedness and distance to major transport routes;[12] and finally, column 5 controls for county-level access to external and internal markets.[13] The negative relationship that we document in Column 1 remains largely unchanged. It is also robust to excluding coastal regions where rich households may have been more likely to emigrate prior to the revolutions in order to evade confiscation (column 6) — such emigration of the wealthy could generate a reversal in inequality.

In Appendix Table A.30, we further investigate the underpinnings of the reversal in county-level inequality. We interact the pre-revolution land Gini coefficient with various time-invariant county characteristics that we expect, based on the literature, to have affected income and wealth distributions differently before and after the Mao era. This heterogeneity analysis shows that the reversal pattern is observed in counties that have better access to domestic markets.

We must note that the comparison of inequality before the Land Reform and in 2000 is complicated by the fact that the shift from land to real estate as the main source of asset inequality in China coincides with rapid urbanization. Urbanization may induce households at the top of the income and wealth distribution to move to urban apartments that have smaller sizes than rural houses, and lead us to underestimate contemporary inequality and hence overestimate the inequality reversal over time. However, we find that the reversal in county-level inequality is remarkably robust to controlling for the urbanization rate in 2000 (proxied by the share of population in a given locality who hold an urban household registration, or *hukou*), as shown in Appendix Table A.25.

Finally, the Communist and Cultural Revolutions may have had a persistent impact by altering local collective preferences (and norms). We investigate whether the revolutions affected the overall preference toward inequality and redistribution in a given county. Specifically, we examine the county-level average answer to the following survey question related to redistribution and

[12]The geographical controls include distances (km) to the shore, fast-speed road network, and major rivers, as well as the means and standard deviations of elevation and slope.

[13]External (resp., internal) market access is defined as the weighted sum of the populations (from the 1953 Census) in coastal (resp., non-coastal) counties. As is standard in the economic geography literature since Harris (1954), the weights are the inverse of the exponential of distance, measured in km. Coastal counties are defined as counties in provinces with access to the sea; the results are robust to defining coastal counties more narrowly as counties with direct sea access.

inequality, as elicited in the CFPS in 2010:

To what extent do you agree with the following statement: For the economy to thrive, one needs to enlarge income inequality in the population. 1 = extremely disagree 5 = extremely agree

In Appendix Table A.31, we look at the relationship between pre-revolution land ownership inequality (measured by the Gini coefficient) and the contemporary average attitude toward inequality in the corresponding county. One sees that counties that were more unequal prior to the Land Reform display substantially *lower* tolerance toward inequality. This association is robust even controlling for cohort and income at the time of the survey, as shown in Columns 2 and 3. In other words, the Communist Revolution and the Cultural Revolution appear to have generated a lasting impact across Chinese rural counties — rural counties that were more unequal prior to the revolutions have become collectively less tolerant of inequality.

Taken together, these county-level patterns suggest that instead of riding the tide of increasing inequality in recent decades, the pre-revolution elite rebound in spite of the fact that the local environment becomes relatively more equal and more hostile towards inequality.

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