

**Fairness in Time:
An Age-Period-Cohort Analysis of Perceived Fairness of Wealth Distribution
in China, 2013-2023**

Junchao Tang
Department of Sociology and Stone Center for Inequality Dynamics
University of Michigan-Ann Arbor
junchaot@umich.edu

Xiaoguang Fan
Department of Political Science
Zhejiang University
xgfan@zju.edu.cn

Abstract: This study examines how Chinese citizens perceive the fairness of wealth distribution between 2013 and 2023, a decade marked by rapid economic growth, widening inequality, and high-profile redistributive campaigns. Using six waves of nationally representative Chinese Social Survey (CSS) data and applying Age–Period–Cohort–Interaction (APC-I) models, we disentangle the distinct life-course, historical, and generational dynamics shaping perceptions of wealth distributive fairness. Descriptive analyses reveal that perceived fairness of wealth distribution (PFWD) rose steadily from 2013 to 2021 before declining sharply in 2023. APC-I models confirm three patterns: a U-shaped age effect, with youth and older respondents reporting more positive views than those in midlife; period effects aligned with major policy interventions, such as the Poverty Reduction Campaign; and cohort contrasts, with pre-1950s cohorts more positive, 1950s–60s cohorts more critical, and post-2000 cohorts strikingly optimistic. Inter- and intra-cohort dynamics further show that earlier cohorts have grown more negative over time, while younger cohorts display stable or rising fairness perceptions. These findings underscore how perceived fairness of wealth distribution are shaped jointly by policy cycles and generational experiences, extending research on distributive justice from income to wealth and situating the Chinese case within broader debates on inequality and political legitimacy.

Manuscript Prepared for the Annual Meeting of Social Science History Association 2026

March 2026

1. Introduction

Fifty years after its economic take-off, China has become the world's second-largest economy and home to the second-largest population of millionaires. Great prosperity has brought great inequality. With an income Gini coefficient estimated above 0.5, income inequality in China now exceeds that of the United States. Wealth inequality is even more pronounced, with a Gini coefficient surpassing 0.7 (Xie and Jin 2014; Lee et al. 2025). It is often assumed that major redistributive agendas in China like the Poverty Reduction Campaign and the Common Prosperity initiative are reactions to the rising economic inequality. Economic inequality, however, only becomes politically consequential when it is also perceived as socially relevant, and an empirical investigation of changing grievances about wealth distribution fairness has been lacking so far.

This paper fills in the gap by tracing the evolution of the perceived fairness of wealth distribution (PFWD) held by the Chinese population from 2013 to 2023 and identifies various sources of temporal dynamics that contribute to its trend. More specifically, this paper asks how age, period, and cohort dynamics jointly shape perceived fairness of wealth distribution in China. This investigation differs from existing studies on distribution fairness in China in three aspects: first, it shifts the focus from the fairness of income distribution to the fairness of wealth distribution. Second, it introduces an Age–Period–Cohort (APC) perspective to clarify the distinct temporal mechanisms that shape fairness perceptions but are often conflated in existing work. Third, it asks whether the Chinese case, with its distinctive institutional trajectory from state socialism to market reforms and the recent push for common prosperity, offers insights into broader comparative debates about inequality and public opinion. The following paragraphs elaborate each of these goals in turn.

Existing research in China has extensively documented attitudes toward income inequality, often noting a puzzling tolerance for disparities (Lei 2020; Whyte 2010). Much less is known, however, about how people view wealth inequality. This distinction matters because wealth follows very different accumulation patterns than income (Pfeffer and Waitkus 2021) and increasingly determines security and mobility in contemporary China. Whether perceptions of wealth fairness mirror those of income fairness therefore remains an open question. By applying an APC framework, the study disentangles overlapping temporal influences on fairness perceptions. Age reflects individual life-course transitions such as schooling, labor market entry, and retirement; period captures the macroeconomic conditions and policy environment of the survey year; and cohort highlights the formative experiences of groups born into distinct institutional settings. Distinguishing these dynamics allows us to clarify mechanisms often blurred in previous research dominated by macro-level institutional narrative or micro-level sociopsychological explanations, where only one or two of the three APC dimensions are typically discussed while the remaining dimensions are ignored (Elder 1974; Wang and Liu 2023). Finally, the Chinese case provides a unique lens through which to evaluate how distributive fairness is understood. Unlike the relatively stable economic and social environments found in many Western societies, China has experienced

sustained, rapid economic growth accompanied by profound social transition. Consequently, individuals born in different historical periods may have encountered markedly different social environments at comparable stages of their life course. Such differentiated experiences can subtly—but meaningfully—shape their perceptions of distributive fairness. Do younger and older groups diverge in their perceptions, as observed in many Western contexts? Have redistributive policies under President Xi Jinping produced uniform gains in perceived fairness, or do their effects vary across social groups? Do cohorts socialized under market-oriented reforms hold different views from those raised in the Maoist era of egalitarianism and state-controlled redistribution? Exploring these questions situates China not only as a case of interest in its own right but also as a source of insight for broader comparative debates.

Methodologically, we employ Age–Period–Cohort–Interaction (APC-I) models (Luo and Hodges 2022) to disentangle the effects of age, cohort, and period. This approach enables us to assess whether public perceptions of wealth distribution are primarily shaped by structural economic transformations, life-cycle processes, or generational differences rooted in China’s evolving political economy. By integrating a temporal and comparative perspective, the study advances our understanding of the intersection between inequality, social stratification, and political attitudes in contemporary China, a central concern that has so far received limited empirical attention.

We pool six waves of the Chinese Social Survey (CSS) from 2013 to 2023, which constitutes the only publicly available dataset that covers perceived fairness of wealth in the decade. Our analysis reveals that the perceived fairness of wealth distribution in China increased rapidly before beginning to decline. Moreover, distinct U-shaped patterns are observed across different age groups. Although no clear U-shaped pattern emerges among cohorts, both the beginning and the end of the cohort distribution differ significantly from the middle segments.

The remaining part of the paper is organized as follows: we begin with a brief overview of existing studies on perceived fairness of income and wealth distribution, situating our research within the broader literature on distributive justice in China. We then present empirical motivation of the study, highlighting why perceptions of wealth fairness demand renewed scholarly attention in the context of rising inequality and shifting policy agendas. Next, we introduce our data and research design, with particular emphasis on the APC-I framework and its advantages for disentangling temporal dynamics. The results section details both descriptive patterns and model-based estimates of age, period, and cohort effects. Finally, we discuss the theoretical and political implications of our findings, underscoring how perceived fairness of wealth distribution (PFWD) shape and are shaped by China’s structural change in political economy and state-led redistribution policies, before concluding with directions for future research.

2. Documenting Distributive Fairness: From Income to Wealth

Recent developments in social science research suggest that the distribution of wealth follows a pattern that is independent from income (Killewald, Pfeffer, and Schachner 2017; Manduca 2025). Unlike income, private wealth is cumulative and path dependent. Once disparities in wealth emerge, they tend to reinforce themselves through asset appreciation, inheritance, and differential access to opportunities. Compared with income, wealth therefore exhibits a stronger Matthew effect.

The distinction between income and wealth is especially salient in China given its history of state-socialism which gives rise to wealth accumulation through non-income channel. Asset price appreciation in housing is a good example. Prior to 1978, the planned economy prohibited private ownership, and goods and services were collectively produced and bureaucratically distributed on a relatively egalitarian basis (Xie et al. 2009). Very few households could accumulate private wealth during this period. Housing privatization in the late 1990s marked a turning point. Most urban households were able to purchase their state-owned housing units at deeply discounted prices, rapidly expanding homeownership (Song and Xie 2014; Walder and He 2014) and temporarily narrowing urban inequality (Li and Zhao 2008). From the early 2000s onward, however, wealth inequality grew rapidly, driven largely by surging housing prices. The wealth Gini rose from 0.40 in 1995 to 0.55 in 2002 (Li and Zhao 2008), reaching 0.73 in 2012 (Xie and Jin 2015). Between 2002 and 2016, housing prices rose by 17.5 percent annually, far outpacing GDP growth (NBSC 2022). By 2015, more than a quarter of households owned multiple properties, and housing assets accounted for over 70 percent of household wealth and a similar share of wealth inequality (Xie and Jin 2015; Wan et al. 2021; Lee et al. 2025).

Given the cumulative nature of wealth, we have good reason to suspect that the dynamics shaping perceptions of wealth fairness will not mirror those of income fairness. Yet empirical evidence on public perceptions of wealth inequality in China remains rare (Wu 2009; Whyte and Im 2014; Liu and Hu 2023). Existing studies on perceived fairness of income inequality consistently document that despite steadily rising income inequality, public opinion has remained remarkably tolerant of these disparities. Socioeconomically disadvantaged groups often report higher sense of fairness for income distribution (Whyte 2010; Wei, Zhang, and Li 2014; Whyte and Im 2014; Lei 2020), which runs counter to conventional expectations that greater inequality and lower socioeconomic status should erode political trust (Bobzien 2023; Sprong et al. 2019)¹. It remains unclear whether this “tolerance paradox” extends to the wealth dimension.

¹ While explaining the “tolerance paradox” is not the core mission of this project, the phenomenon is compatible with, and could potentially be explained by, “tunnel effects” proposed by Hirschman and Rothschild (1973), in which growing inequality at early stage of economic growth could be seen as signs of meritocracy or mobility opportunities and thus improves the sense of fairness of everyone. However, persistent inequality overtime will lead to collapse of the sense of fairness eventually. In the review of literature on uneven growth, Ray (2010) also emphasized that the

3. Explaining Distributive Fairness: From Institutional to Temporal Dynamics

Attempts to explain patterns of perceived distributive fairness in China generally fall into two strands (Fan 2024). One strand emphasizes the role of institutions, tracing shifts in fairness perceptions to transformations in redistributive arrangements, welfare provision, and state policy. The other focuses on sociopsychological perception formation, highlighting how individuals evaluate distribution through socio-psychological processes like reference group comparison and relative deprivation. Below we briefly review each strand before developing a common critique: neither systematically distinguishes the three temporal processes through which fairness perceptions may change, ageing, periodical shifts, and cohort differences.

The institutional strand has emphasized how transformations in redistributive arrangements, welfare provision, and stratification boundaries shape perceived distributive fairness. Although this work is rarely framed in temporal terms, its core explanations are often period-implied: institutional change and policy shifts are treated as the background conditions under which fairness perceptions are formed. Within this approach, differences in perceived fairness are frequently attributed to institutional positioning. For example, state-sector employees, socialized into redistributive norms, generally perceive less inequality than those in private or foreign-funded enterprises, while urban lower-middle-class workers often express dissatisfaction with both outcome fairness and opportunity fairness (Meng 2012). Perceived fairness is further shaped by welfare institutions: satisfaction with public services and social security is positively associated with viewing distributions as fair (Li and Li 2010; Li 2019; Li, Gui, and Huang 2018). Hukou adds another layer: urban residents tend to evaluate fairness more critically, while rural residents and migrants report more optimistic views, partly due to expanded opportunities and different reference groups (Whyte and Im 2014; Li and Li 2007; Zhang et al. 2018; Wang 2019). Taken together, these studies underscore the importance of institutions and policy environments for shaping distributive evaluations, but they typically do so using cross-sectional designs that do not directly distinguish periodical shifts from compositional change across age groups or cohorts.

The sociopsychological strand, by contrast, focuses more directly on perception formation, highlighting how individuals evaluate distribution through sociopsychological processes. In this literature, age is a recurring empirical axis. Younger cohorts tend to voice sharper concerns about unfairness and emphasize rights and responsibilities (Tian 2009; Lian 2012), while highly educated but underemployed graduates highlight the mismatch between expectations and realized outcomes (Lian and Zhang 2011). Older groups, by contrast, often report lower perceptions of inequality, reflecting their socialization in the egalitarian planned economy (Li and Wu 2012; Li 2020; Wang and Liu 2023). This line of work naturally gestures toward ageing and cohort differences, but it often treats age as a simple demographic correlate rather than a life-course process embedded in

economic gap between developing and developed contexts may either encourage or stifle investment and effort, depending on how large the gap is.

historical context. At the same time, cohort is frequently invoked substantively without a design that can distinguish cohort differences from contemporaneous periodical shifts.

Despite these advances, literature remains fragmented. Macro-level analyses emphasize economic growth and policy shifts but rarely link them to generational or life-course perspectives, while micro-level studies typically address age, cohort, or period in partial combinations rather than examining how all three intersect over time (Bishop, Liu, and Qu 2013; Rodon and Sanjaume-Calvet 2020; Hofmann et al. 2025). Age is often treated as a demographic trait rather than a generational marker, while institutional studies in turn overlook biological processes of aging. As a result, the interplay of ageing, periodical shifts, and cohort differences remains largely unexamined. Addressing this neglect is essential for understanding how perceptions of distributive fairness evolve over time, and it is precisely here that our study makes its contribution.

Hereafter, we move from literature to our own understanding of how the temporal dimensions of PFWD may operate in China. The rapid shifts in economic policy over the past decade, from poverty alleviation to the Common Prosperity agenda, provide a natural setting to consider periodical shifts. At the same time, China's generational landscape offers a sharp contrast between cohorts who came of age under Maoist egalitarianism and those socialized in the era of market reforms. These different formative experiences motivate our examination of cohort differences. We also pay close attention to ageing patterns, since perceptions of distributive fairness are known to vary across the life course.

3.1 Age Effects and the Puzzling Image of Chinese Youth

Age is typically included only as a minor control variable and rarely discussed as a central explanatory factor when modeling distributive fairness or related outcomes like redistributive preferences (Johfre and Saperstein 2023; Barrett 2022; Hofmann et al. 2025; Meuleman 2019). If we dig into those documented empirical patterns, however, it is not uncommon to find that young people tend to be more supportive of redistribution, whereas older individuals are often more conservative in their political orientations (Wegener and Liebig 1995; Lin et al. 2018; Meuleman 2019; Grasso et al. 2019). Much of the comparative literature in Western contexts has emphasized this youth–elder divide, and the “radical youth vs. conservative old” image would suggest a low Perceived Fairness of Wealth Distribution at younger age and a high Perceived Fairness of Wealth Distribution at older age.

Recent development in psychological studies, on the other hand, suggests that this pattern might not be universal. Experimental observation has shown that while infants from Western context expect equal distribution in third-party allocations, infants from non-Western context may either expect unequal distribution, or show no preferences between equal and unequal distributions (Meristo and Zeidler 2022). It implies that the aged pattern of how PFWD change over the life course, at least the starting point of PFWD trajectory at young age, will be context-specific and

depend on the local norms of distributive fairness and the local context of interaction that facilitate the formation of perceived fairness.

Following this logic, we have reason to expect that the age pattern in PFWD in the Chinese case may diverge from the conventional wisdom in which young people may have higher sense of perceived fairness. Unlike the United States, where wealth typically rises with age under the life-cycle hypothesis (LCH), China shows a reversed pattern: older adults often hold less private wealth than younger ones (Lee et al. 2025). This outcome reflects limited opportunities to accumulate assets during the planned economy (Xie et al. 2009), difficulties adapting to market-oriented strategies of accumulation (Lu et al. 2021), and the prevalence of downward transfers in which parents finance their children's housing (Chen and Yang 2017; Cui et al. 2020; Zhang and Bian 2021). By the mid-2010s, nearly 70 percent of Chinese Millennials owned homes, compared with only 35 percent in the United States (HSBC 2017).

These contextual factors combine with cultural and institutional features that may further shape how young Chinese perceived fairness. Extended family support eases the immediate economic pressures of youth (Cheng and Zhou 2022); delayed entry into the labor market postpones exposure to income inequality (Dong and Fan 2022); and a regulated media environment tempers critical discourse (Huang and Wang 2021). Research also suggests that post-1980s and 1990s cohorts express relatively strong respect for authority (Gao, Wang, and Tan 2022). Together, these conditions complicate the expectation that Chinese youth should behave like their Western counterparts. Whether they show greater criticism of inequality, or instead greater acceptance of existing arrangements, remains an open empirical question that our analysis addresses.

On the other end of the age spectrum, there is not much reason to expect the elderly in China to behave differently from their Western counterparts. The retirement age in China is set to 60 for male and 55 for female workers for all the time covered in this study (Wang 2024; Gao and Lu 2025), and they are typically included in a pension system that combines Defined-Benefits and Defined-Contributions components (Gao and Lu 2025; Fang and Feng 2018). In the sense that the elderly are exempt from labor market competition, and that they have stable income flow that many young people may not, we expect that the elderly in China to have higher PFWD than their younger peers, and thus behave in a similar way as their western counterparts.

3.2 Period Effects and Changing Economic Policies

China's economic reforms have unfolded in successive stages, each reshaping the social context in which wealth fairness is judged. The early years of Reform and Opening-Up emphasized efficiency over equality under the principle that some groups should "get rich first" (Whyte 2020). This orientation spurred growth but also widened disparities, gradually pushing distributive fairness onto the policy agenda. A major turning point came during President Xi Jinping's second term, when the *Common Prosperity* framework placed wealth redistribution at the center of

economic governance (Li 2023; Dunford 2022). Policies to “lift the bottom, and expand the middle” signaled that inequality had become a first-order political concern.

Redistributive foundations. The pre-reform decades were marked by egalitarian ideology, which made China one of the most equal societies among developing countries (Parish 1981). Yet redistributive institutions also created structured inequalities along urban–rural status, work-unit affiliation, occupational hierarchies, and political standing (Bian 2002). Market reforms replaced these mechanisms with product, labor, and capital markets, fundamentally altering both inequality and the way fairness was perceived.

Housing reforms. Housing policy illustrates these transformations. From 1949 through the early 1980s, urban housing was distributed in kind through work units. This system reduced visible inequality but produced fiscal burdens and chronic shortages. Deng Xiaoping’s late-1970s talks and remarks initiated reforms that permitted public housing sales, rent adjustments, and private construction, creating a dual-track system (Zhao and Ge 2014). The 1998 State Council decision to abolish in-kind distribution launched full-scale commercialization. Rapid price escalation triggered subsequent interventions: the 2007 expansion of low-rent housing, the 2013 merger of public rental and low-rent schemes, and the 2014 introduction of shared-ownership housing. By the 19th Party Congress in 2017, the state endorsed a “multi-channel supply, multi-tiered security, and simultaneous rental–purchase” framework, later reaffirmed in 2019 (Li and Zhong 2022). Each round of housing reform reshaped ordinary households’ sense of distributive fairness by redefining how wealth in the form of housing assets could be accumulated.

Anti-poverty initiatives (2013–2020). A second axis of reform was rural poverty alleviation. Framed within the “three-step modernization plan” and the “two overall situations” approach, large-scale initiatives culminated in 2020 with the declaration of absolute poverty eradication. The state reported lifting 98.99 million rural residents out of poverty, removing 832 designated poor counties, and eliminating 128,000 impoverished villages (China’s State Council Information Office, 2021). These achievements reinforced the sense that targeted state action could dramatically shift distributive outcomes.

Common Prosperity (since 2021). Most recently, the *Common Prosperity* initiative has reoriented policy from addressing individual differences to tackling group disparities, with an emphasis on “starting point fairness” as the foundation of equal basic capabilities (Li 2023). The state pursued this through three channels: reforms to primary distribution aimed at raising low- and middle-income earnings; strengthened redistribution via public transfers and services; and the promotion of a third distribution through philanthropy and corporate social responsibility (Dunford 2022). Concrete measures included optimizing wealth accumulation mechanisms, upgrading healthcare and social insurance, and investing in infrastructure, signaling an attempt to align economic growth with distributive justice.

These evolving priorities give us reason to expect period effects shaping public perceptions of wealth distribution fairness. State initiatives like price control on housing, anti-poverty campaigns, or Common Prosperity programs, citizens may respond with more favorable evaluations of wealth distribution. Yet the direction of this response is not predetermined. For example, redistribution efforts may raise fairness perceptions if they are viewed as effective, but they may also heighten sensitivity to inequality if expectations outpaced actual improvements.

In general, we expect a positive period effect on perceived fairness of wealth distribution between the year of 2013 and 2020, since the price control over housing market and anti-poverty campaigns are highly publicly visible during those periods. These expectations should, nevertheless, not be formally treated as “hypotheses” as our work here is more descriptive and is different from those driven by a theoretical-deductive model.

3.3 Cohort Effects and Generational Transformations

In addition to age and period effects that applies to all individuals, generational experiences may shape PFWD through the interaction of age and period because individuals are socialized under different institutional arrangements and ideological climates. Several studies have theorized that socialization experience in formative years between 18 and 25 – late adolescence and early adult years when most individuals enter the labor market and begin to participate in political life – is critical for the formation of political attitudes and beliefs (Krosnick and Alwin 1989; Roth and Wohlfart 2018). People who experienced recession (Bietenbeck and Thiemann 2022), high inequality (Bietenbeck and Thiemann 2022, Meuleman 2019), or left-oriented political party governance (Roth and Wohlfart 2018) in their formative years are more likely to favor redistribution. These studies suggest a cohort effect on PFWD: people who experience their formative years in different periods (reflected by their birth cohorts) may have different political attitudes, beliefs, or preferences that affect their PFWD.

In China, the contrast across cohorts is especially sharp: economic and political systems have shifted from redistributive allocation to market coordination within just a few decades. As a result, cohorts differ not only in the distributive mechanisms they were exposed to, but also in the amount and certainty of their economic opportunities, the timing of their entry into the labor market, and their ideological preparedness for inequality. In Table 1, we briefly summarize some of the key characteristics of institutional regimes exposed to different birthyear cohorts.

Table 1: Exposure to Institutional Regimes by Birthyear Cohort

Birthyear	Institutional regimes	Main characteristics
1940-1959	Redistributive	Labor market was scare. Housing was the key welfare. Private wealth was scare.
1960-1979	Transitional	Labor market was structuring. Housing market was transiting. Private wealth was accumulating.
1980-1999	Market-oriented	Labor market has been structured. Housing market was working swift. Private wealth was financialized.
2000-	Ascendant	Reforms to the labor and housing markets are ongoing. Policies to narrow income and wealth disparities are being vigorously implemented.

Redistributive cohorts (1940s–1950s). Those who entered the labor market before Reform and Opening-Up were socialized in a redistributive order where employment was secure, housing was allocated as welfare, and private wealth accumulation was limited (Zhao and Ge 2014; Walder and He 2014). Opportunities were narrow but predictable, and distributive fairness was judged against egalitarian standards. Since most of their formative years were spent under relatively low inequality, these cohorts may therefore recall the stability of the redistributive system and thus cast a positive shadow in their fairness evaluation of contemporary wealth distribution.

Transitional cohorts (1960s–1970s). Individuals born in the 1960s and 1970s came of age during the uncertain shift from redistribution to market coordination. They entered the workforce amid repeated policy adjustments in employment, housing, and welfare, which produced instability and inequality in opportunities for wealth accumulation (Walder and Zhao 2006). These cohorts encountered both redistribution and markets but were not fully prepared ideologically for the competitive inequalities that deepened during the 1990s (Fu 2016). Their assessments of fairness may therefore reflect a sense of insecurity and frustration with shifting rules of the game.

Market-oriented cohorts (1980s–1990s). Later cohorts grew up in a context where market coordination was dominant and wealth accumulation increasingly depended on education, mobility, and housing investment. They had broader opportunities than earlier generations, but these opportunities were also more stratified (Piketty et al. 2022). Housing privatization in the late 1990s provided a major channel for wealth accumulation (Walder and He 2014), while younger cohorts entering the labor market after 2000 have also been exposed to the dividends of targeted poverty alleviation and the rhetoric of *Common Prosperity*. Ideologically, they were more prepared to accept inequality as the natural outcome of competition, but this preparedness is tempered by expectations that the state will play an active role in limiting disparities.

Ascendant cohorts (2000s onward). The youngest cohorts grew up in a context where China is already the second largest economy in the world with growing global economic and political influence. They had limited opportunities compared to 1980s and 1990s given the slowing down of economic growth in China. Most of them are however still early in their labor market years, or have yet entered the labor market, and thus may not have first-hand experience on how the labor market works. They are the generation growing up with new social media platforms like *Tiktok* and typically have high exposure to the nationalistic online environment, and thus they may have a tendency to support the official narrative that poverty reduction and *Common Prosperity* have been successful and the distribution of wealth is in general fair.

We must keep in mind that cohort effects in PFWD are not simply fixed generational outlooks but emerge from the way age and period interact. The same age group may respond differently to a given periodical change depending on the cohort into which they were born. For example, those who experienced their formative years under redistribution may interpret market reforms at mid-career as disruptive, while later cohorts socialized under market competition may take the same reforms as normal. Similarly, young adults exposed to *Common Prosperity* initiatives may view them as evidence of state responsiveness, whereas older adults may evaluate them against egalitarian standards and remain skeptical. In this sense, cohort effects capture how different generational backgrounds filter the impact of common period shocks across the life course. Our descriptive analysis will explore these interactional dynamics rather than assuming a single direction of cohort influence.

Having established the theoretical relevance of age, period, and cohort dynamics for perceived fairness of wealth distribution, we now turn to the research design of our study. To disentangle interaction between periodical policy shifts, generational backgrounds, and age-related positions in the life course in shaping attitudes. overlapping influences, we employ nationally representative survey data from the Chinese Social Survey (CSS) and apply Age–Period–Cohort–Interaction (APC-I) modeling.

4. Research Design

4.1 Data and Sample Selection

This study draws on the Chinese Social Survey (CSS), a nationally representative household survey conducted by the Chinese Academy of Social Sciences since 2005. The CSS covers 151 counties and 604 villages or urban communities across 31 provinces, offering a comprehensive dataset for analyzing public opinion on economic inequality. Because questions on perceived fairness of wealth distribution (PFWD) are not included in every wave, our analysis focuses on the six surveys conducted between 2013 and 2023. These six waves provide the longest available time series on PFWD in China and constitute the only publicly accessible source suitable for this research. The analytic sample includes all the civic residents, aged 18 to 70. After excluding cases

with missing values, the final sample consists of 57,786 respondents, with annual sample sizes of 9,118, 9,364, 9,200, 9,323, 9,183, and 11,5798 respectively.

4.2 Variables and Measurement

The key independent variables are age, period, and cohort. APC modeling requires that age, period, and cohort groups be constructed in the same unit of time. That is, if age groups are constructed in four-year intervals, period and cohort groups should also be constructed in four-year intervals (Xu and Luo 2022). While we have six bi-annual waves of CSS data (2013, 2015, 2017, 2019, 2021, 2023), using the most granular two-year interval to construct age and cohort groups will make the age-period matrix sparser and we are concerned if we have enough statistical power given the small number of observations in some cells. For that reason, we merged the 2013, 2017, and 2021 surveys into one observation window and the 2015, 2019, and 2023 surveys into another, and adopt a four-year interval for age, period, and cohort group construction. This strategy provides two broader time points for assessing macro-level socioeconomic change across cohorts. Following the APC analytical principle, where $Cohort = Period - Age$, the population was divided into 13 age groups and 17 cohorts, each defined at four-year intervals. We also conduct analysis using 2-year intervals, whose results are available upon request, in which we did not observe substantive deviation from the results based on 4-year intervals.

The dependent variable is perceived fairness of wealth distribution (PFWD). In the 2013–2021 surveys, respondents were asked: “*How fair do you think the following aspects are in current social life?*” They rated fairness across multiple domains, including wealth distribution, using a four-point scale: (1) Very unfair, (2) Somewhat unfair, (3) Relatively fair, and (4) Very fair, with an additional option of –1 for *Hard to say*. Consistent with prior research on perceptions of income distribution fairness (Whyte and Im 2014), we use the wealth distribution item as the dependent variable, coding responses from 1 to 4 so that higher scores reflect greater perceived fairness. Because *Hard to say* responses constituted a small share, these were listwise deleted. When comparing different treatment approaches—such as listwise deletion or recoding as midpoint values (e.g., between “fair” and “unfair”)—the mean level of PFWD shows little variation across birth or survey years (see Figure A1 in the Appendix). Meanwhile, to address scale differences between the 2023 survey and earlier waves, we conducted reliability and validity checks on the relevant items to ensure comparability across waves.

At the same time, two sets of control variables are included. The first set comprises socio-demographic factors: gender (0 = female, 1 = male), age, age squared/100, political affiliation (0 = others, 1 = Communist Party of China (CPC) member), marital status (0 = unmarried/other, 1 = married), household registration (0 = non-agricultural, 1 = agricultural), and workplace type (0 = non-public, 1 = public sector). The second set includes macro-level variables: regional average housing prices, GDP per capita, and the proportion of the tertiary sector. All macro-level measures

were adjusted for inflation using the Consumer Price Index (CPI). Full descriptive statistics can be found in Appendix Table A1.

4.3 Analytical Strategy: Age-Period-Cohort-Interaction (APC-I) Modeling

To disentangle the effects of age, period, and cohort, this study employs the APC-I models (Luo and Hodges 2022). In this framework, period effects capture how macroeconomic conditions and state policies influence attitudes across survey years; age effects reflect how life-course stages shape attitudes independently of broader historical changes; and cohort effects, conceptualized as the interaction between age and period, assess whether formative experiences in distinct economic systems create durable orientations toward distributive fairness. This conceptualization of cohort effect as the interaction between age and period makes the identification of cohort effect possible (though the cohort effect should be understood differently from “an independent linear effect of cohort” that APC accounting model popularizes). We generally follow the procedure developed by Luo, Hodges, and Xu in a series of articles (Luo and Hodges 2022; Xu and Luo 2022) that estimate APC-I using generalized linear models.

The regression equation is as follows:

$$Y_{ij} = \mu + \alpha_i + \beta_j + (\alpha\beta)_{ij} + X'_{ij}\gamma + \varepsilon_{ij},$$

$$\sum_i \alpha_i = 0, \sum_j \beta_j = 0, \sum_i (\alpha\beta)_{ij} = 0, \sum_j (\alpha\beta)_{ij} = 0,$$

where Y_{ij} is PFWD for age group i in period j ; μ is the grand mean; α_i and β_j capture age and period main effects; $(\alpha\beta)_{ij}$ captures cohort-specific deviations via age-by-period interactions; ε_{ij} is the error term; the term $X'_{ij}\gamma$ is a compact notation for a linear combination of observed control variables (e.g., education, income, hukou status, and party membership) which contain categorical and continuous variables. Effect coding implies all coefficients are deviations from the grand mean or the age–period-implied expectation.

Compared with the commonly used Hierarchical Age–Period–Cohort (HAPC) models (Yang 2006; Yang and Land 2013), APC-I puts less constraint on the data structure. While another alternative, APC bounding analysis (Fosse and Winship 2019), estimates plausible ranges of age, period, and cohort effects under relatively coarse theoretical assumptions, bounding analysis is less suited for exploratory research lacking strong theoretical priors (Lee 2024). Another advantage of APC-I modeling is that it allows us to trace the intra-cohort change of outcome over time, which has rarely been done in other approaches.

5. Trends of Wealth Inequality and Perceived Fairness of Wealth Distribution: 2013-2023

Figure 1 presents the trends in mean PFWD² and measured wealth inequality using Gini index. Two cycles of change in the wealth Gini coefficient are evident. Between 2012 and 2016, the Gini rose from 0.66 to 0.73. A decline in 2018 returned it to its 2014 level, marking the start of a second upward cycle in which the Gini increased again, from 0.67 to 0.72. For context, China's wealth inequality today is comparable to the level of the United States in 1992 (Keister and Lee 2025), or to that of Austria and Canada in 2017 (Pfeffer and Waitkus 2021).

Changes in PFWD lag behind these shifts in inequality. Between 2013 and 2017, PFWD rose from 2.23 to 2.48, even as the Gini coefficient increased. PFWD continued to climb, reaching 2.61 by 2021, before declining to 2.50 in the most recent survey. This pattern suggests that perceptions of fairness do not respond immediately to changes in inequality. Instead, the public may take time to register, reevaluate, and adjust their views in response to evolving levels of wealth disparity.

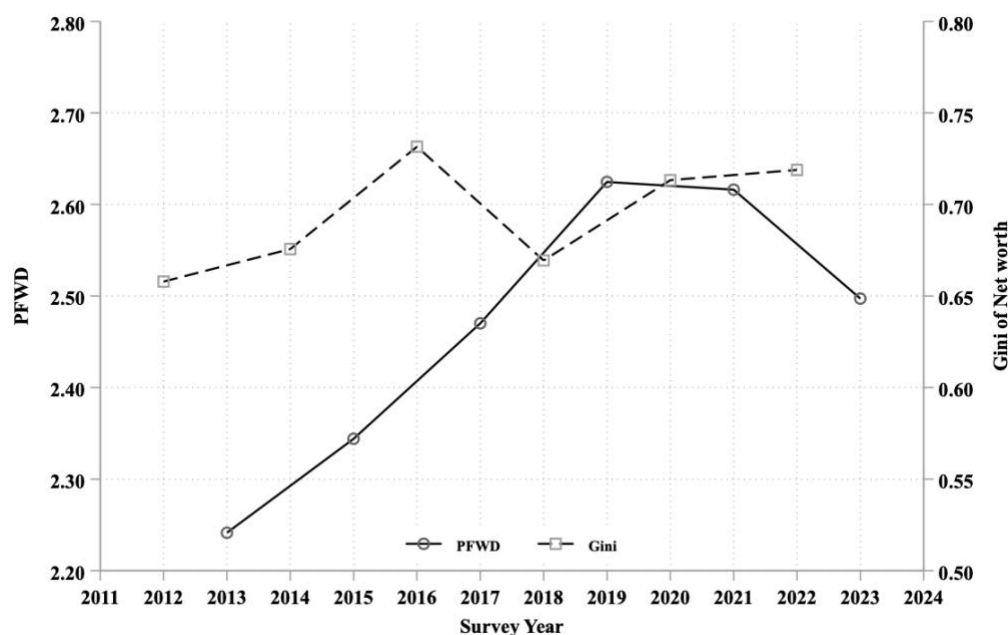


Figure 1: Mean Perceived Fairness of Wealth Distribution and Gini index of Net Worth over Survey Year. The Gini index of net worth is computed based on data from China Family Panel Survey (CFPS) 2012-2022. The perceived fairness of wealth distribution is computed based on data from China Social Survey (CSS) 2013-2023.

² We are aware of the limitations on comparing group average of ordered interval measures, as illustrated in Bond and Lang (2019). We remain cautious about drawing definitive answers from the evidence presented here and we treat this study as an invite to visit the phenomenon. We are open to future revisit once new measurements or methods handling the issue has been developed.

Figure 2 displays the distribution of mean PFWD across age groups and survey years. Consistent with the trends in Figure 1, PFWD rose steadily between 2013 and 2019, then plateaued and declined in 2021 and 2023. Respondents at the extremes of the age distribution—the youngest and the oldest—report higher PFWD than those in the prime working ages (22–61), who consistently evaluate wealth distribution as less fair.

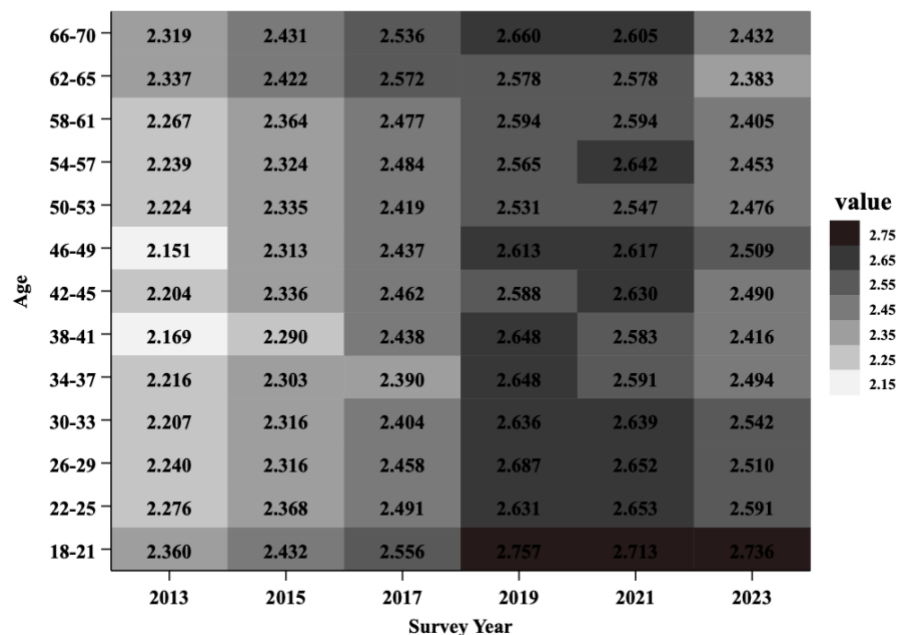


Figure 2: Mean Score in Perceived Fairness of Wealth Distribution by Survey Year and Age Groups.

Figure 3 plots cohort-by-period trends in PFWD. Across survey years, PFWD generally follows a U-shaped pattern with a plateau in the middle, suggesting relative stability in inter-cohort differences. The first inflection points typically appear around the 1961 and 1966 cohorts, with another turning point near the 1981 cohort. Some heterogeneity remains: in 2017, for example, PFWD shows an immediate positive jump between the 1966 and 1969 cohorts. In 2021, the curve is nearly flat, with all cohorts reporting relatively high PFWD values of around 2.6. By 2023, however, the trend resembles a cubic curve—PFWD first increases, then declines, and then rises again among the most recent cohorts.

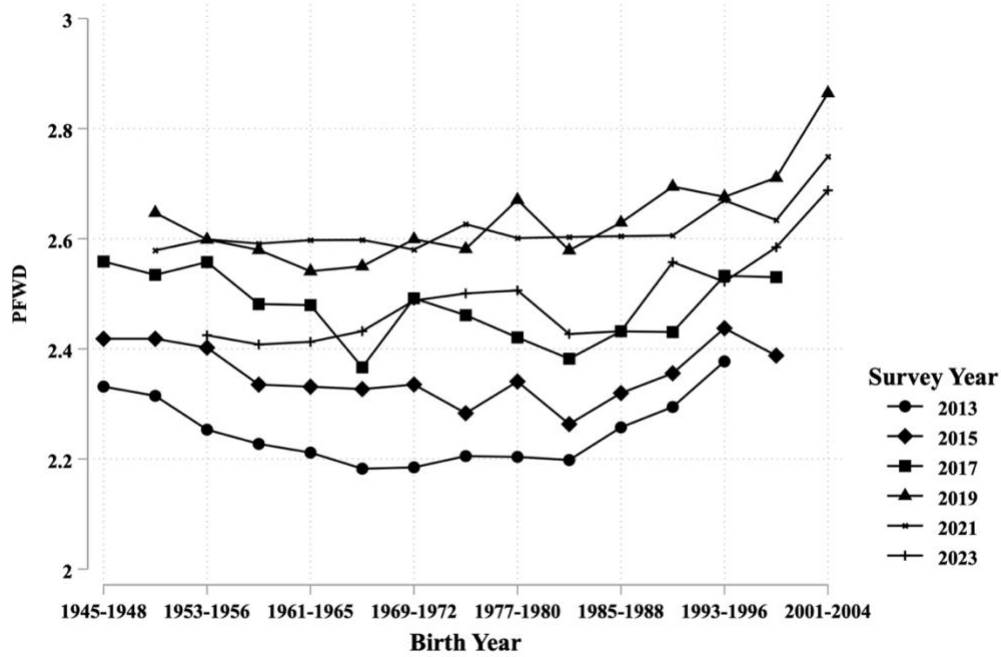


Figure 3: Mean Perceived Fairness of Wealth Distribution by Cohort Groups and Survey Year.

Figure 4 illustrates the cohort-by-age distribution of PFWD averages. For most age groups, PFWD follows an inverse U-shaped pattern across successive cohorts. Two exceptions stand out: among respondents aged 18–21, PFWD rises consistently across cohorts; and among those aged 34–37, PFWD increases beginning with the 1977 cohort. These deviations suggest that periodical change tends to affect cohorts in similar ways at the same age, except for the youngest group and the mid-career group in the labor market.

Taken together, Figures 1–4 indicate a periodical rise and decline in PFWD between 2013 and 2023, as well as a curvilinear association between PFWD and age. Yet descriptive analysis allows us to examine only two dimensions—age, period, or cohort—at a time. Moreover, it implicitly assumes that period effects operate uniformly across all ages. Such an assumption is difficult to sustain given the rapid pace of social transformation in China. For instance, individuals who received their education under state socialism may evaluate wealth inequality differently from those educated after the market transition. In the next section, we turn to APC-I models, which provide a systematic framework to disentangle age, period, and cohort effects and to examine how they interact in shaping perceptions of distributive fairness.

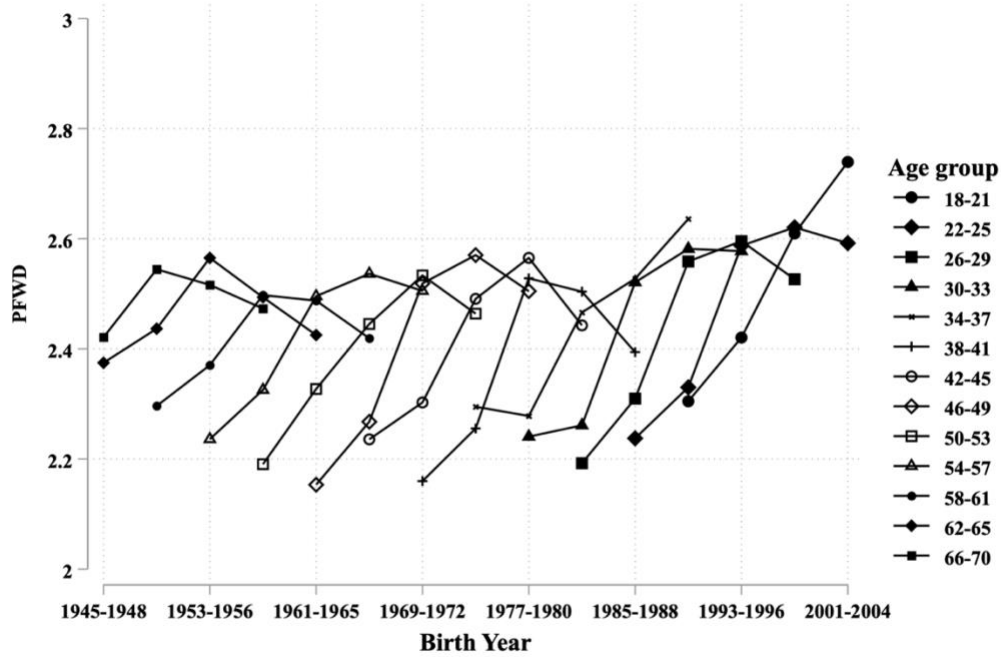


Figure 4: Perceived Fairness of Wealth Distribution by Cohort and Age Groups.

6. Age, Period, and Cohort Effects Wealth Inequality and Perceived Fairness of Wealth Distribution: 2013-2023

As described in the design section, we estimate APC-I models separately for the two observation windows: 2013–2017–2021 and 2015–2019–2023. The models include interactions between all age and period groups. All figures are based on estimates that include controls.

The left panel of Figure 5 presents the predicted values of PFWD when only the intercept and the main effect of age are included, without interactions with period. Consistent with the descriptive analysis, PFWD follows a U-shaped pattern across age groups in both windows. The youngest respondents report the highest levels of PFWD, which then decline sharply between ages 18 and 36 before plateauing at relatively low levels through midlife, and finally rising again as respondents approach retirement around age 54.

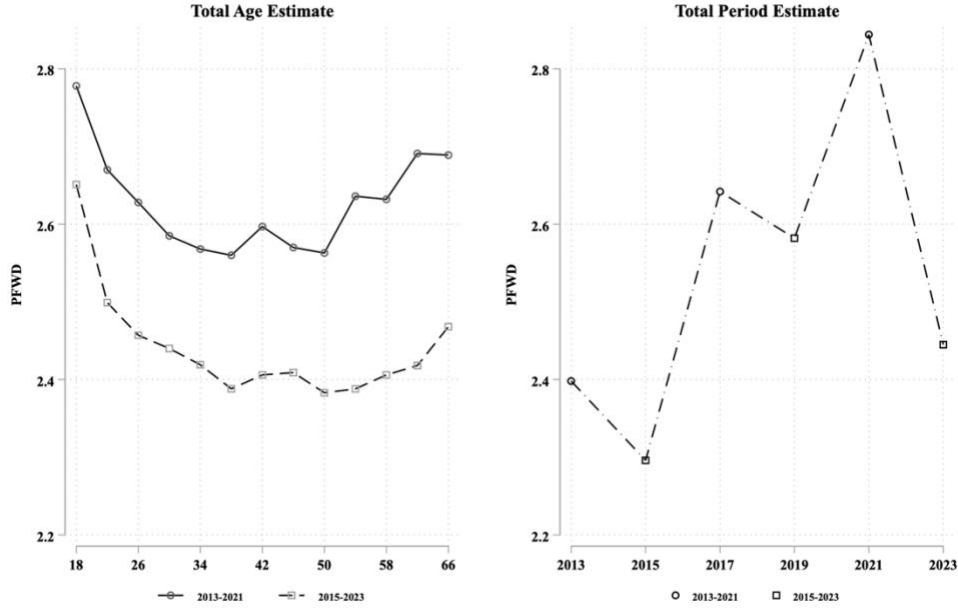


Figure 5: Predicted PFWD based on Intercept and Main Effects of Age and Period.

A modest uptick in PFWD appears around age 42 (and age 46 in the 2013–2017–2021 window). We interpret this as reflecting a life-course stage when individuals in the Chinese labor market combine relatively high incomes with low layoff risk and manageable expenditure burdens, making this an optimal period for wealth accumulation. The more positive evaluations reported by older respondents are also consistent with expectations: approaching retirement, individuals may become less sensitive to distributive processes while beginning to benefit from retirement entitlements.

We observe consistently high PFWD among the youngest respondents. As we have reviewed in section 3, youth in other contexts, historically and comparatively, are often portrayed as more supportive of redistribution and therefore more critical of existing inequality (Gao, Wang, and Tam 2024; Lin, Kamo, and Slack 2018). In the Chinese case, the unusually positive assessments among youth may reflect socialization processes: economic inequality and distributive conflict are not emphasized in the early years of education, and younger cohorts have yet to enter the competitive labor market which limit their capacity to develop judgement based on personal experience.

Across the two observation windows, we also find systematic differences in predicted PFWD levels. Values in the 2015–2019–2023 window are generally lower than those in the 2013–2017–2021 window, and the gap between them widens with age. This suggests that while period effects tend to shift perceptions across all age groups in the same direction, their magnitude varies by cohort. We return to this in the cohort analysis below.

The right panel of Figure 5 shows the predicted PFWD values by period when only the intercept and the main effect of period are included. For presentation, the two observation windows are combined to display continuous period effects. The pattern largely mirrors the descriptive findings: PFWD rises from 2013 to 2019, peaks around 2021, and then declines in 2023. The APC-I models, however, sharpen these trends. Whereas the descriptive analysis suggested a plateau between 2019 and 2021, the APC-I estimates reveal a further increase in 2021 once age and cohort influences are controlled. The decline in 2023 is even more pronounced, bringing PFWD back to its 2017 level. Given that the wealth Gini rose steadily from 2012 to 2016, these results suggest that the Poverty Reduction Campaign under Xi Jinping may have bolstered perceptions of distributive fairness during the mid-2010s.

Table 2 reports regression results for the main effects of age and period groups. Note that both are coded using effect coding rather than dummy coding following the convention of APC-I modeling (Xu and Luo 2022): the reference group is coded as -1 instead of 0 . Effect coding allows us to obtain estimates for all groups, including the reference group, and constrains the sum of coefficients to zero. In contrast, dummy coding interprets the intercept as the grand mean and each coefficient as a deviation from that mean.

The estimates in Table 2 largely reproduce the patterns in Figure 5. For age groups, PFWD is above average among the youngest respondents (18–21), followed by older adults (65+). Middle-aged respondents report lower-than-average PFWD, although the specific boundaries differ slightly by observation window (ages 30–53 in 2013–2017–2021, versus 38–65 in 2015–2019–2023). For period groups, PFWD was relatively low in 2013 and 2015, rose in 2017 and 2021, and declined again in 2023. The 2015–2019–2023 window shows a positive jump in 2019, bringing PFWD to a level comparable with 2017. It is worth noting that these model-based estimates also bring us a positive jump from 2017 to 2019 which we already see in Figure 5 and is different from the descriptive trend presented in Figure 1. Adding control variables does not substantially alter these results.

Table 2: Estimated Age and Period Main Effects on PFWD, CSS 2013–2023.

Variable	2013-2021		2015-2023	
	Model 1	Model 2	Model 1	Model 2
Intercept	2.442***	2.6288***	2.490***	2.441***
Control variable	N	Y	N	Y
Age				
18-21	0.104***	0.149***	0.150***	0.210***
22-25	0.031	0.042*	0.038*	0.058**
26-29	0.007	0.000	0.016	0.016
30-33	-0.028	-0.043*	0.007	-0.001
34-37	-0.047**	-0.060***	-0.009	-0.022
38-41	-0.051**	-0.068***	-0.039*	-0.053**
42-45	-0.012	-0.031	-0.020	-0.035*
46-49	-0.040*	-0.058***	-0.012	-0.032*
50-53	-0.053***	-0.065***	-0.042**	-0.058***
54-57	0.008	0.007	-0.042**	-0.053**
58-61	-0.003	0.004	-0.036*	-0.035*
62-65	0.049**	0.062***	-0.030	-0.023
66-70	0.034	0.060**	0.018	0.027
Period				
2012-2015	-0.195***	-0.230***		
2016-2019	0.019**	0.014		
2020-2023	0.177***	0.216***		
2014-2017			-0.140***	-0.145***
2018-2021			0.135***	0.141***
2022-2025			0.004	0.004

Note: Model 2 includes control variables, such as gender, marital status, political status, sector, hukou, GDP per capita, and provincial average price of the asset.

*p < .05. **p < .01. ***p < .001.

As noted earlier, the APC-I framework conceptualizes cohort effects as the interaction between age and period effects. Figure 6 presents the corresponding estimates. The left panel shows the estimated “main effects” for cohorts, derived from the intercept and the average deviation from the linear prediction of age and period for each cohort group. The PFWD curve for cohorts is noticeably flatter in the 2013–2017–2021 window than in the 2015–2019–2023 window, suggesting smaller residual deviations from the linear prediction in the earlier period. A global deviance test confirms this pattern: for the 2013–2017–2021 window, the p-value is 0.26, indicating that adding age-by-period interactions does not substantively improve model fit; for the 2015–2019–2023 window, however, the p-value is below 0.001, indicating that age-by-period interactions significantly improve the fit.

Despite these differences in flatness, the shape of cohort main effects is similar across the two windows. Earlier cohorts (1945–1948 and 1949–1952) report higher-than-average PFWD, while those around the 1957 cohort are the least satisfied with distributive fairness. In the 2015–2019–

2023 window, we also observe a strong positive effect for the youngest cohort (born 2001–2004), whose PFWD surpasses even that of the oldest cohort. In both windows there is a small jump in PFWD for cohorts born between 1977 and 1981.

To put it into context, the earliest cohorts were born under early years of PRC and spent their formative years with moderate economic growth and low inequality. The pattern is thus consistent with existing findings that individuals who experienced economic growth and low inequality are less supportive about redistribution (and thus a higher PFWD) which we briefly discussed in subsection 3.3. Similarly, cohorts with a birth year around 1977 spent formative years in mid-1990s and early 2000s, when economic growth has accelerated while the level of inequality has not been as high as today, which might explain their relatively high PFWD. Cohorts of early state-socialism and early market capitalism are ironically similar in this sense. Cohorts born between 1953 and 1965 have formative years under economic recession and political instability, which contribute to their relatively low PFWD. The decline of PFWD for post-1977 cohorts might be a result of rising inequality that surpass the effect of economic growth, which is the consistent with the “tunnel effect” literature we briefly reviewed in section 2 (Hirschman and Rothschild 1973).

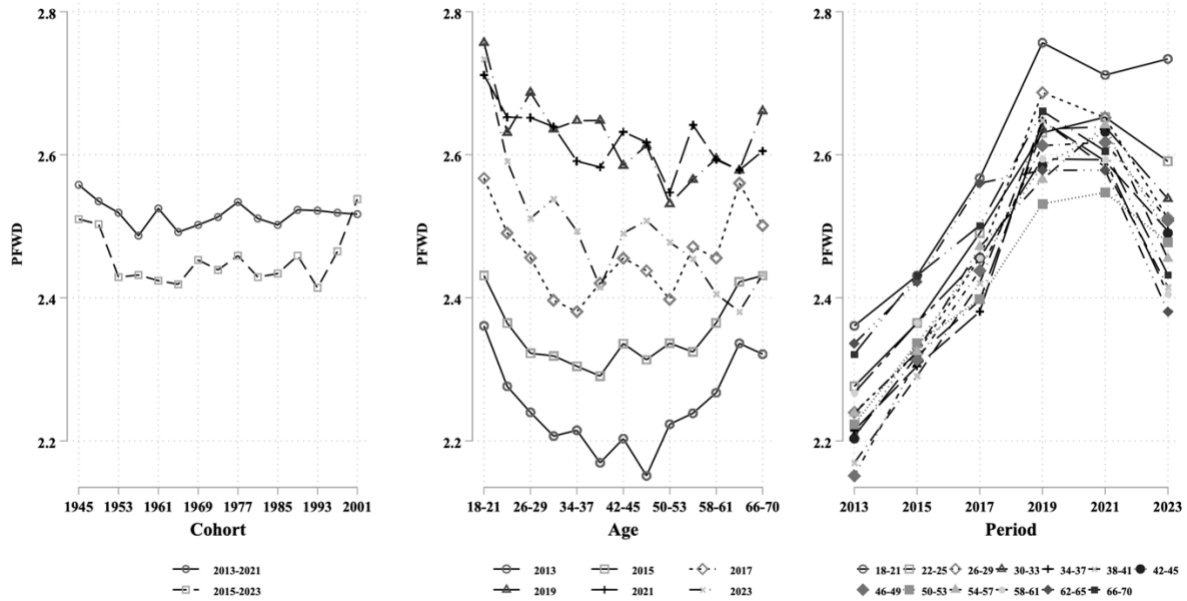


Figure 6: Predicted Perceived Fairness of Wealth Distribution based on the Intercept and Cohort Effect of APC-I.

The middle panel of Figure 6 plots predicted PFWD by age, stratified by period. Most curves follow a U-shaped pattern, consistent with the main age effects. In 2013, 2015, and 2017, PFWD is generally U-shaped and the spacing between curves remains fairly constant. In 2019 and 2021, PFWD levels converge for similar age groups, though the increase at older ages is slower than in

earlier years. In 2023, however, the pattern diverges sharply: PFWD is highest among the youngest respondents, but declines rapidly in midlife to levels comparable with 2015. At older ages, rather than rebounding, PFWD continues to fall, with the exception of a small uptick among the most senior group. These results suggest that period effects operate differently across age groups: in 2023, period effects appear more positive for the youngest respondents but more negative for middle-aged and older groups.

Finally, the right panel of Figure 6 plots PFWD by period, stratified by age. The widening gap in 2023 is the most eye-catching: while PFWD declines across nearly all age groups, the youngest respondents (18–21) remain relatively positive, creating a larger divergence from other groups than observed in earlier years.

Table 3 presents the inter-cohort differences and intra-cohort dynamics in PFWD. Inter-cohort differences represent the average deviation from the linear predictions of age and period for each cohort. Consistent with our earlier findings, we observe more statistically significant deviations from the main age and period effects in the 2015–2019–2023 window. Nevertheless, the overall pattern of coefficients is similar across both observation windows. Pre-1950 cohorts exhibit higher-than-average PFWD, cohorts born in the 1950s and 1960s report lower-than-average PFWD, cohorts of the 1970s and 1980s hover near the average with the 1970s being positive and the 1980s being negative, the 1990s tend to be slightly positive (with the exception of the 1993 cohort in 2015–2019–2023 window), and the 2001 cohort shows exceptionally high PFWD.

The intra-cohort column in Table 3 reports changes in the age-by-period interaction terms for the same cohort over time (recalling that age and period advance together for any given cohort). Here we find that cohorts born before 1961 generally hold more negative views of distributive fairness, and these views grow increasingly negative over time (negative intra-cohort slopes). By contrast, those born after 1965 and in the 1970s display slightly more positive or stable PFWD trajectories, though most of these changes are not statistically significant. More recent cohorts (post-1990s) tend to show rising PFWD over time. The direction of intra-cohort change is broadly consistent across the two observation windows, though the 2015–2019–2023 window exhibits stronger and more statistically significant intra-cohort dynamics.

As documented in Section 4.2, APC-I modeling requires equal distances in age, period, and cohort groups. To ensure that the robustness of our findings, we adopted the same APC-I regression analysis using a more granular 2-year interval for constructing age, period, and cohort groups, which would eliminate the need for two observation windows at the cost of statistical power. The results are presented in Appendix Table A2 and A3. The general patterns are consistent.

Table 3: Estimated Inter-cohort Differences and Intra-cohort Dynamics in PFWD.

Cohort	2013-2021				2015-2023			
	Model 1		Model2		Model 1		Model2	
	Inter-cohort	Intra-cohort	Inter-cohort	Intra-cohort	Inter-cohort	Intra-cohort	Inter-cohort	Intra-cohort
1945	0.041	NA	0.038	NA	0.062**	NA	0.063**	NA
1949	0.023	-0.024	0.024	-0.015	0.060***	-0.059*	0.059***	-0.050*
1953	0.009	-0.050*	0.007	-0.052*	-0.016	-0.092***	-0.016	-0.097***
1957	-0.036*	-0.052*	-0.032*	-0.050*	-0.021	-0.071**	-0.014	-0.075**
1961	0.003	-0.036	0.005	-0.042	-0.015	-0.058**	-0.018	-0.067**
1965	-0.017	0.050*	-0.020	0.041	-0.025	0.019	-0.028*	0.014
1969	-0.011	0.009	-0.012	0.009	0.010	0.014	0.010	0.011
1973	0.006	0.046*	0.004	0.046*	-0.005	0.033	-0.007	0.034
1977	0.017	0.007	0.018	0.009	0.013	0.038	0.013	0.036
1981	-0.010	0.019	-0.009	0.017	-0.016	-0.001	-0.016	0.005
1985	-0.010	0.023	-0.010	0.021	-0.012	0.037	-0.012	0.036
1989	0.012	0.035	0.009	0.038	0.019	0.043	0.016	0.049*
1993	0.011	0.012	0.011	0.013	-0.034*	0.049	-0.034*	0.054*
1997	0.002	0.001	0.000	0.008	0.019	0.054*	0.023	0.062*
2001	-0.012	NA	-0.002	NA	0.089***	NA	0.091***	NA

Note: Table figures in “Inter-Cohort” columns are averaged age-by-period interaction estimates corresponding to each cohort in the weighted OLS APC-I models using the sum-to-zero coding. Table figures in “Intra-Cohort” columns are estimated linear slopes in the age-by-period interaction estimates contained in each cohort in the weighted OLS APC-I models using the sum-to-zero coding. Model 1 does not include covariates. Model 2 includes control variables, such as gender, marital status, political status, sector, hukou, GDP per capita, and provincial average price of the asset. NA is not available.

*p < .05. **p < .01. ***p < .001

7. Conclusion and Discussion

Since the initiation of Reform and Opening-Up, China has combined sustained economic growth with widening income gaps. Advancing common prosperity requires not only adjusting income distribution but also addressing wealth distribution. As household wealth continues to expand, distributive fairness in wealth will become even more central to narrowing inequality. While a large body of research has examined subjective attitudes toward income distribution, far less is known about how people evaluate the fairness of wealth distribution (PFWD). In the current era, wealth—more than income—forms the foundation of long-term security and intergenerational mobility. Understanding perceptions of fairness in wealth distribution is therefore crucial for assessing support for redistribution, the prospects for social cohesion, and the political implications of inequality.

Our descriptive analysis highlights several temporal patterns. PFWD increased steadily from 2013 to 2021 before falling sharply in 2023. These dynamics underscore the importance of analyzing age, period, and cohort simultaneously, as perceptions of distributive fairness are shaped by both structural change and generational positioning.

Across the life course, PFWD follows a U-shaped curve: both younger and older respondents tend to see wealth distribution as fairer, while those in midlife report the lowest levels of fairness. The relatively positive views of young Chinese stand in contrast to Western findings, where youth are often the most redistribution oriented. Several features of the Chinese context help explain this divergence, including limited early exposure to inequality in education, extensive parental support that cushions the school-to-work transition, and intergenerational transfers that sustain high youth homeownership rates. Among older respondents, more positive evaluations may reflect reduced sensitivity to distributive processes and reliance on pensions and retirement benefits.

Over time, changes in perceived fairness did not always move in parallel with measured inequality. During the mid-2010s, PFWD improved even as the wealth Gini rose, suggesting that the poverty reduction campaign bolstered public confidence in distributive justice. A plausible explanation is that the Gini coefficient is more influenced by disparities in the middle of the distribution, while political campaigns were explicitly targeted at the lower tail. After COVID-19, however, PFWD fell sharply, indicating renewed public concerns about inequality.

Generational contrasts reveal further nuances. Pre-1950s cohorts who experienced economic growth and low inequality under early state socialism are generally more positive; those born between 1950 and 1965 under economic recession and political instability are more negative; late-1970s and early 1980s cohorts who experienced economic growth with low inequality under early market capitalism report relatively high PFWD; mid-to-late 1980s and 1990s hold about the average level of PFWD. The most recent cohorts, including those born between 2001 and 2004, report more positive views, shaped in part by their socialization during a period when the state

placed greater emphasis on fairness and common prosperity. These findings point to the ways formative experiences and political campaigns interact to set generational baselines for evaluating distributive fairness.

The theoretical implications are threefold. First, our analysis extends the study of distributive fairness beyond income to wealth, addressing a long-standing limitation that has constrained theoretical innovation. Second, it shifts attention from objective measures of wealth inequality to subjective evaluations, bridging micro-level perceptions with macro-level structural change. Third, by embedding wealth fairness within age and cohort dynamics, the study broadens classical status-determination frameworks and demonstrates how life-course trajectories shape distributive attitudes.

Naturally, this study has limitations. Recent work suggests that attributions of poverty and wealth in China are shifting from individual effort to structural factors such as family background and luck (Alisky, Rozelle, and Whyte 2025). Such changing beliefs may influence PFWD but are not directly captured in our analysis. In addition, wealth is more concealed than income, and online media may shape macro-level perceptions in distinctive ways. In today's digital environment, with diversified information channels and fluid social reference groups, the mechanisms through which people perceive wealth inequality are increasingly complex. Addressing these dynamics and overcoming the micro–macro divide (Steensma 2023) remains an important task for future research. How to properly make group comparison based on Likert-scale interval measures is another topic to work on in future research (Bond and Lang 2019) .

Appendix

Table A1: Descriptive Statistics for All Analytic Variables in the China Social Survey, 2013-2023.

Description	CSS 2013 2017 2021				CSS 2015 2019 2023				Total	
	N	Mean (SD)	Min.	Max.	N	Mean (SD)	Min.	Max.	N	Mean (SD)
PFWD	27,501	2.439(0.805)	1	4	30,285	2.490(0.818)	1	4	57,786	2.466(0.812)
Age at time of survey (AGE)	27,501	40.742(13.749)	18	70	30,285	41.615(13.8370)	18	70	57,786	41.199 (13.802)
Survey year (YEAR)	27,501	-	2013	2021	30,285	-	2015	2023	57,786	-
Birth year (YEAR - AGE)	27,501	-	1944	2003	30,285	-	1945	2005	57,786	-
Gender (1 = Male, 0 = Female)	27,501	0.516(0.500)	0	1	30,285	0.515(0.500)	0	1	57,786	0.515 (0.500)
Marital status (1 = Married/cohabiting, 0 = others)	27,501	0.759 (0.427)	0	1	30,285	0.758 (0.428)	0	1	57,786	0.759 (0.428)
Political status (1 = Communist Party membership, 0 = others)	27,501	0.101 (0.301)	0	1	30,285	0.104 (0.306)	0	1	57,786	0.103 (0.304)
Sector (1 = Public, 0 = others)	27,501	0.124 (0.330)	0	1	30,285	0.121 (0.326)	0	1	57,786	0.122 (0.328)
Hukou (1 = farming, 0 = no farming)	27,501	0.625 (0.476)	0	1	30,285	0.648 (0.478)	0	1	57,786	0.650 (0.477)
Per GDP (RMB)	27,501	58919.0(27001.2)	21,635.6	183,854.3	30,285	70,267.3(32068.1)	25412.9	200278.0	57,786	64,858.2(30,295.4)
Average price of the asset (RMB)	27,501	7,997.7(4,778.1)	3,886.0	40,526.0	30,285	8,904.8(5,472.8)	4111.0	40302.3	57,786	8,472.4(5,173.2)

Table A2: Estimated Age and Period Main Effects on PFWD (by 2 years intervals).

Variable	Model 1	Model 2
Intercept	2.467***	2.525***
Control variable	N	Y
Age		
18-19	0.165***	0.230***
20-21	0.095***	0.147***
22-23	0.048*	0.074***
24-25	0.022	0.031
26-27	0.025	0.024
28-29	-0.001	-0.009
30-31	0.002	-0.007
32-33	-0.021	-0.035
34-35	-0.045*	-0.058***
36-37	-0.012	-0.027
38-39	-0.046**	-0.062***
40-41	-0.047**	-0.062***
42-43	-0.020	-0.036*
44-45	-0.013	-0.032*
46-47	-0.041*	-0.060*
48-49	-0.012	-0.031*
50-51	-0.050**	-0.066***
52-53	-0.047**	-0.060***
54-55	-0.016	-0.025
56-57	-0.019	-0.025
58-59	-0.017	-0.016
60-61	-0.020	-0.016
62-63	0.01	0.016
64-65	0.01	0.021
66-67	0.028	0.041*
68-70	0.023	0.043*
Period		
2012-2013	-0.220***	-0.243***
2014-2015	-0.115***	-0.129***
2016-2017	-0.005	-0.008
2018-2019	0.160***	0.164***
2020-2021	0.153***	0.177***
2022-2023	0.028***	0.040***

Note: Model 2 includes control variables, such as gender, marital status, political status, sector, hukou, GDP per capita, and provincial average price of the asset.

*p < .05. **p < .01. ***p < .001.

Table A3: Estimated Inter-cohort Differences and Intra-cohort Dynamics in PFWD (by 2 years intervals).

Cohort	Model 1		Model2	
	Inter-cohort	Intra-cohort	Inter-cohort	Intra-cohort
1945	0.030	NA	0.029	NA
1947	0.037	-0.041	0.041	-0.041
1949	0.075***	-0.002	0.077***	0.002
1951	0.035	-0.054	0.034	-0.044
1953	0.033	-0.090*	0.031	-0.091*
1955	0.005	-0.109**	0.003	-0.110**
1957	-0.041*	-0.074	-0.039*	-0.083*
1959	-0.018	-0.171***	-0.011	-0.170***
1961	-0.011	-0.036	-0.007	-0.042
1963	-0.018	-0.100**	-0.018	-0.112***
1965	-0.012	0.011	-0.016	-0.006
1967	-0.030*	0.011	-0.032*	0.001
1969	-0.026	0.013	-0.030*	0.011
1971	0.011	0.041	0.01	0.036
1973	-0.005	0.025	-0.007	0.028
1975	0.024	0.107**	0.022	0.108**
1977	-0.008	-0.029	-0.007	-0.031
1979	0.036*	0.067	0.036*	0.071
1981	-0.029	0.010	-0.029	0.006
1983	-0.022	0.045	-0.019	0.051
1985	-0.002	0.032	-0.001	0.035
1987	-0.019	0.018	-0.019	0.015
1989	0.021	0.078	0.019	0.080*
1991	0.001	0.022	-0.004	0.035
1993	0.006	0.096*	0.006	0.111**
1995	0.012	0.032	0.011	0.035
1997	-0.023	0.035	-0.022	0.037
1999	-0.008	0.082	-0.004	0.90*
2001	0.027	0.008	0.03	0.016
2003	0.032	0.111**	0.033	0.119**
2005	0.111**	NA	0.12**	NA

Note: Table figures in “Inter-Cohort” columns are averaged age-by-period interaction estimates corresponding to each cohort in the weighted OLS APC-I models using the sum-to-zero coding. Table figures in “Intra-Cohort” columns are estimated linear slopes in the age-by-period interaction estimates contained in each cohort in the weighted OLS APC-I models using the sum-to-zero coding. Model 1 does not include covariates. Model 2 includes control variables, such as gender, marital status, political status, sector, hukou, GDP per capita, and provincial average price of the asset. NA is not available.

*p < .05. **p < .01. ***p < .001

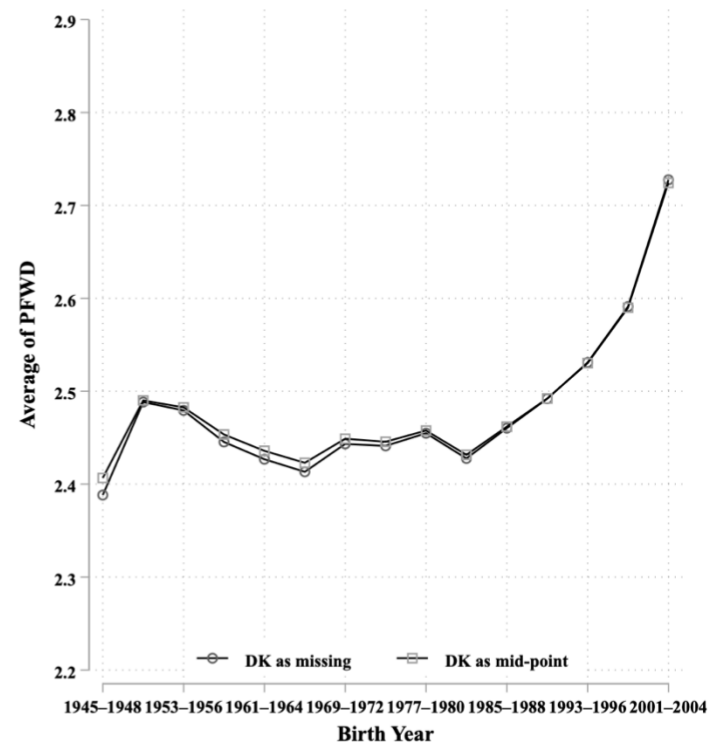
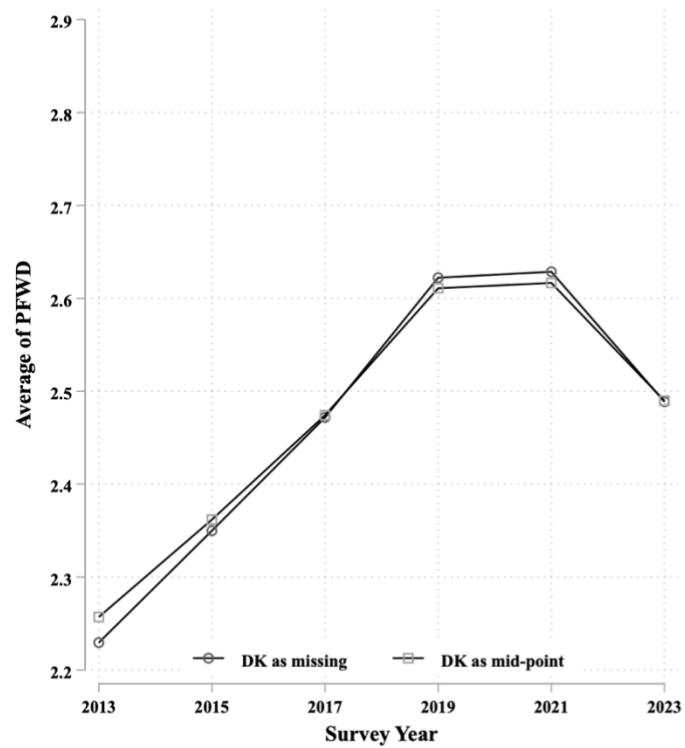


Figure A1: Validity checks on the PFWD across waves

References

- Alisky, Michael, Scott Rozelle, and Martin K. Whyte. 2025. "Getting Ahead in Today's China: From Optimism to Pessimism," *The China Journal*, vol.93. <https://doi.org/10.1086/733178>
- Barrett, Anne E. 2022. "Centering Age Inequality: Developing a Sociology-of-Age Framework." *Annual Review of Sociology* 48(Volume 48, 2022):213–32. doi:[10.1146/annurev-soc-083121-043741](https://doi.org/10.1146/annurev-soc-083121-043741).
- Bietenbeck, Jan, and Petra Thiemann. 2023. "Revisiting the Effect of Growing up in a Recession on Attitudes towards Redistribution." *Journal of Applied Econometrics* 38(5):786–94. doi:[10.1002/jae.2970](https://doi.org/10.1002/jae.2970).
- Bishop, John., Haiyong, Liu. and Zichong, Qsu. 2014. "Individual Perceptions of Distributional Fairness in China." *Comparative Economic Studies* 56, 25–41. <https://doi.org/10.1057/ces.2013.27>
- Bobzien, Licia. 2023. "Income Inequality and Political Trust: Do Fairness Perceptions Matter?" *Social Indicators Research* 169(1):505–528. doi: [10.1007/s11205-023-03168-9](https://doi.org/10.1007/s11205-023-03168-9).
- Bond, Timothy N., and Kevin Lang. 2019. "The Sad Truth about Happiness Scales." *Journal of Political Economy* 127(4):1629–40. doi:[10.1086/701679](https://doi.org/10.1086/701679).
- Chen, Jie, and Zan Yang. 2017. "What Do Young Adults on the Edges of Homeownership Look like in Big Cities in an Emerging Economy: Evidence from Shanghai." *Urban Studies* 54(10):2322–41. doi:[10.1177/0042098016646675](https://doi.org/10.1177/0042098016646675).
- Cheng, Cheng, and Yang Zhou. 2022. "Wealth Accumulation by Hypogamy in Own and Parental Education in China." *Journal of Marriage and Family* 84(2):570–91. doi:[10.1111/jomf.12805](https://doi.org/10.1111/jomf.12805).
- China's State Council Information Office, 2021, "Poverty Alleviation: China's Experience and Contribution." <http://www.xinhuanet.com/english/download/2021-4-6/FullText.pdf>
- Cui, Can, Youqin Huang, and Fenglong Wang. 2020. "A Relay Race: Intergenerational Transmission of Housing Inequality in Urban China." *Housing Studies* 35(6):1088–1109. doi:[10.1080/02673037.2019.1648771](https://doi.org/10.1080/02673037.2019.1648771).
- Ding, Yi, Junhui Wu, Tingting Ji, Xu Chen, Paul A.M. Van Lange. 2022. "Perceptions of having less in the U.S. but having more in China are associated with stronger inequality aversion." *Journal of Experimental Social Psychology* 101.doi: [10.1016/j.jesp.2022.104342](https://doi.org/10.1016/j.jesp.2022.104342).
- Dong, Hao, and Xiaoguang Fan. 2021. "What Enables the 'Meritocratic Power' of a College Degree? Changing Labor Market Outcomes of First-Generation College Graduates in Post-Revolution China." *Chinese Sociological Review* 53(4):382–408. doi:[10.1080/21620555.2021.1888080](https://doi.org/10.1080/21620555.2021.1888080).
- Dunford, Michael. 2022. "The Chinese Path to Common Prosperity." *International Critical Thought* 12(1):35–54. doi:[10.1080/21598282.2022.2025561](https://doi.org/10.1080/21598282.2022.2025561).
- Elder, Glen H. 1974. *Children of the great depression: social change in life experience*. Chicago London: University of Chicago press.
- Fan, Xiaoguang. 2024. "Social Stratification and Subjective Inequality." Pp. 498–519 in *Research Handbook on Social Stratification and Mobility in Contemporary China*, edited by Lulu Li, and Bin Zhu. Beijing: Renmin University Press. [in Chinese]
- Fang, Hanming, and Jin Feng. 2018. "The Chinese Pension System." *National Bureau of Economic Research Working Paper Series* No. 25088. doi:[10.3386/w25088](https://doi.org/10.3386/w25088).
- Fosse, Ethan, and Christopher Winship. 2019. "Bounding Analyses of Age-Period-Cohort Effects." *Demography* 56(5):1975–2004. doi:[10.1007/s13524-019-00801-6](https://doi.org/10.1007/s13524-019-00801-6).

- Fu, Qiang. 2016. "The Persistence of Power despite the Changing Meaning of Homeownership: An Age-Period-Cohort Analysis of Urban Housing Tenure in China, 1989–2011." *Urban Studies* 53(6):1225–43. doi:10.1177/0042098015571240.
- Gao, Haiyan, Peng Wang, & Tony Tam. 2024. "Chinese social value change and its relevant factors: an age-period-cohort effect analysis." *Journal of Chinese Sociology* 11,7. <https://doi.org/10.1186/s40711-024-00209-9>.
- Gao, Han, and Bei Lu. 2025. "Reforming China's Public Pension System: Fiscal Sustainability and the Challenge of Formality-Based Inequality." *Economic Modelling* 153:107336. doi:10.1016/j.econmod.2025.107336.
- Grasso, Maria Teresa, Stephen Farrall, Emily Gray, Colin Hay, and Will Jennings. 2019. "Thatcher's Children, Blair's Babies, Political Socialization and Trickle-down Value Change: An Age, Period and Cohort Analysis." *British Journal of Political Science* 49(1):17–36. doi:10.1017/S0007123416000375.
- Hirschman, Albert O., and Michael Rothschild. 1973. "The Changing Tolerance for Income Inequality in the Course of Economic Development*: With A Mathematical Appendix." *The Quarterly Journal of Economics* 87(4):544–66. doi:10.2307/1882024.
- Hofmann, Julia, Markus Marterbauer, and Matthias Schnetzer. 2025. "Fairness Perceptions of Wealth Inequality in Europe." *Review of Income and Wealth* 71(3): <https://doi.org/10.1111/roiw.70026>.
- HSBC. 2017. *Beyond the Bricks: The Meaning of Home*. London: HSBC Holdings plc. Available at: <https://www.hsbc.com/-/files/hsbc/media/media-release/2017/170227-beyond-the-bricks-global-factsheet.pdf>.
- Huang, Yinxuan, and Lei Wang. 2021. "Political Values and Political Trust in the Digital Era: How Media Engagement Divides Chinese Netizens." *International Journal of Sociology* 51(3):197–217. doi:10.1080/00207659.2021.1881870.
- Huang, Kai-Ping. 2023. "Support for Democracy in the Age of Rising Inequality and Population Aging." *Social Indicators Research* 166(1):27–51. doi:10.1007/s11205-023-03061-5.
- Inglehart, Ronald. 1997. *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton University Press.
- Jiang, Jin, Chunni Zhang, and Xiuming Pan. 2025. Changing pathways in young people's school-to-work transition: evidence from the 2003-2021 Chinese General Social Surveys, *Chinese Sociological Review*, DOI: 10.1080/21620555.2025.2480280
- Johfre, Sasha, and Aliya Saperstein. 2023. "The Social Construction of Age: Concepts and Measurement." *Annual Review of Sociology* 49:339–358. <https://doi.org/10.1146/annurev-soc-031021-121020>.
- Keister, Lisa. A., and Hangyoung Lee. 2025. Global Financial Shocks and American Elites: Income and Wealth of the One Percent in the United States, 1989 to 2022. *American Behavioral Scientist*, doi: <https://doi.org/10.1177/00027642251314628>
- Killewald, Alexandra, Fabian T. Pfeffer, and Jared N. Schachner. 2017. "Wealth Inequality and Accumulation." *Annual Review of Sociology* 43(1):379–404.
- Kluegel, J. R., and E. R. Smith. 1981. "Beliefs about Stratification." *Annual Review of Sociology* 7:29–56. doi:10.1146/annurev.so.07.080181.000333.
- Krosnick, Jon A., and Duane F. Alwin. 1989. "Aging and Susceptibility to Attitude Change." *Journal of Personality and Social Psychology* 57(3):416–25. doi:10.1037/0022-3514.57.3.416.
- Lee, Hangyong, Xiaoguang Fan, Lisa A. Keister, and Peng Lu. 2025. "Top Wealth Households in China and the United States: Wealth Portfolios and Determinants of Top Wealth."

International Journal of Comparative Sociology, doi:
<https://doi.org/10.1177/00207152251332202>.

- Lee, Jiwon. 2024. "Age, Period, and Cohort Analysis With Bounding and Interactions." *Sociological Methods & Research*, 1-29. DOI: 10.1177/00491241241266279
- Lei, Ya-Wen. 2020. "Revisiting China's Social Volcano: Attitudes toward Inequality and Political Trust in China." *Socius: Sociological Research for a Dynamic World* 6:2378023120915382. doi: [10.1177/2378023120915382](https://doi.org/10.1177/2378023120915382).
- Li, Guoqing, and Tingjun Zhong. 2022. "The Historical Evolution of China's Housing System and Its Social Effects." *Sociological Studies*, 37: 1-22. [in Chinese]
- Li, Jun, and Xiaogang Wu. 2012. "Income Inequality and Fair Distribution: An Empirical Analysis of Urban Residents' Perception of Fairness in Transitional China." *Social Sciences in China* 3: 45-62. [in Chinese]
- Li, Peilin, and Wei Li. 2010. "Economic Conditions and Social Attitudes of Migrant Workers in Recent Years." *Social Sciences in China* 1: 86-100. [in Chinese]
- Li, Shiyun. 2023. "Understanding China's Road to Common Prosperity: Background, Definition and Path." *China Economic Journal* 16(1):1-13. doi:[10.1080/17538963.2023.2164950](https://doi.org/10.1080/17538963.2023.2164950).
- Li, Wei. 2019. "Social Fairness Perception: Structure and Trends (2006-2017)." *Journal of Huazhong University of Science and Technology (Social Science Edition)* 6: 34-45. [in Chinese]
- Li, Xiumei, Yong Gui, and Ronggui Huang. 2018. "Government Provision of Basic Public Services and Public Perception of Social Equity: A Study Based on CGSS 2010." *Social Sciences* 7: 45-58. [in Chinese]
- Lin, Ya-Feng, Yoshinori Kamo, and Tim Slack. 2018. "Is It the Government's Responsibility to Reduce Income Inequality? An Age-Period-Cohort Analysis of Public Opinion toward Redistributive Policy in the United States, 1978 to 2016." *Sociological Spectrum* 38(3):162-73. doi:[10.1080/02732173.2018.1469443](https://doi.org/10.1080/02732173.2018.1469443).
- Liu, Xin, and Anning Hu. 2023. "Enhancing Happiness under the Vision of Common Prosperity: A Perspective of Dual Justice." *Sociological Research* 1: 1-20. [in Chinese]
- Liu, Chenyingzi, and Lei Zhang. 2024. "Retirement, Confucian Culture, and Household Financial Asset Allocation for Older Adults." *International Review of Economics & Finance* 95:103498. doi:[10.1016/j.iref.2024.103498](https://doi.org/10.1016/j.iref.2024.103498).
- Lu, Peng, Xiaoguang Fan, and Fan Fu. 2021. "Profile of the Super Rich in China: A Social Space Analysis." *The British Journal of Sociology* 72(3):543-65. doi:[10.1111/1468-4446.12848](https://doi.org/10.1111/1468-4446.12848).
- Luo, Liying, and James S. Hodges. 2022. "The Age-Period-Cohort-Interaction Model for Describing and Investigating Inter-Cohort Deviations and Intra-Cohort Life-Course Dynamics." *Sociological Methods & Research* 51(3):1164-1210. doi:[10.1177/0049124119882451](https://doi.org/10.1177/0049124119882451).
- Xu, Jiahui, and Liying Luo. 2022. "APCI: An R and Stata Package for Visualizing and Analyzing Age-Period-Cohort Data." *The R Journal* 14(2):77-95. doi:[10.32614/rj-2022-026](https://doi.org/10.32614/rj-2022-026).
- Manduca, Robert. 2025. "Should Social Insurance Programs Count as Wealth? Augmented Wealth in Research and Policy." *Socio-Economic Review* 1-31. doi:[10.1093/ser/mwaf020](https://doi.org/10.1093/ser/mwaf020).
- Meristo, Marek, and Henriette Zeidler. 2022. "Cross-Cultural Differences in Early Expectations about Third Party Resource Distribution." *Scientific Reports* 12(1):11627. doi:[10.1038/s41598-022-15766-7](https://doi.org/10.1038/s41598-022-15766-7).
- Meng, Tianguang. 2012. "Chinese Public's Perception of Distributive Justice during Transition: Outcome Fairness and Opportunity Fairness." *Society* 6: 24-45. [in Chinese]

- Meuleman, Bart. 2019. "The Economic Context of Solidarity. Period vs. Cohort Differences in Support for Income Redistribution in Britain and the United States." *European Societies* 21(5):774–801. doi:[10.1080/14616696.2019.1616792](https://doi.org/10.1080/14616696.2019.1616792).
- Parish, William L. 1981. Egalitarianism in Chinese Society, *Problems of Communism* 29:37-53.
- Pfeffer, Fabian T., and Nora Waitkus. 2021. "The Wealth Inequality of Nations." *American Sociological Review* 86(4):567–602. doi:[10.1177/00031224211027800](https://doi.org/10.1177/00031224211027800).
- Ray, Debraj. 2010. "Uneven Growth: A Framework for Research in Development Economics." *Journal of Economic Perspectives* 24(3):45–60. doi:[10.1257/jep.24.3.45](https://doi.org/10.1257/jep.24.3.45).
- Piketty, Thomas, Li Yang, and Gabriel Zucman. 2019. "Capital Accumulation, Private Property, and Rising Inequality in China, 1978–2015." *American Economic Review* 109(7):2469–96. doi:[10.1257/aer.20170973](https://doi.org/10.1257/aer.20170973).
- Rodon, Toni, and Marc Sanjaume-Calvet. 2020. "How Fair Is It? An Experimental Study of Perceived Fairness of Distributive Policies." *The Journal of Politics* 82(1):384–391. doi:[10.1086/705788](https://doi.org/10.1086/705788).
- Roth, Christopher, and Johannes Wohlfart. 2018. "Experienced Inequality and Preferences for Redistribution." *Journal of Public Economics* 167:251–62. doi:[10.1016/j.jpubeco.2018.09.012](https://doi.org/10.1016/j.jpubeco.2018.09.012).
- Sprong, Stefanie, Jolanda Jetten, Zhechen Wang, Kim Peters, Frank Mols, Maykel Verkuyten, Brock Bastian, Amarina Ariyanto, Frédérique Autin, Nadia Ayub, Constantina Badea, Tomasz Besta, Fabrizio Butera, Rui Costa-Lopes, Lijuan Cui, Carole Fantini, Gillian Finchilescu, Lowell Gaertner, Mario Gollwitzer, Ángel Gómez, Roberto González, Ying-Yi Hong, Dorthe Høj Jensen, Inga Jasinskaja-Lahti, Minoru Karasawa, Thomas Kessler, Olivier Klein, Marcus Lima, Laura Mégevand, Thomas Morton, Paola Paladino, Tibor Polya, Tuuli Anna Renvik, Aleksejs Ruza, Wan Shahrazad, Sushama Shama, Heather J. Smith, Ana Raquel Torres, Anne Marthe van der Bles, and Michael J. A. Wohl. 2019. "'Our Country Needs a Strong Leader Right Now': Economic Inequality Enhances the Wish for a Strong Leader." *Psychological Science* 30(11):1625–37. doi: [10.1177/0956797619875472](https://doi.org/10.1177/0956797619875472).
- Steensma, Herman. 2023. "On the Road to Justice: Some Selected Suggestions for the Future of Social Justice Research." *Social Justice Research* 36(3):352–70. doi:[10.1007/s11211-023-00422-w](https://doi.org/10.1007/s11211-023-00422-w).
- Walder, Andrew G., and Xiaobin He. 2014. "Public Housing into Private Assets: Wealth Creation in Urban China." *Social Science Research* 46:85–99. doi:[10.1016/j.ssresearch.2014.02.008](https://doi.org/10.1016/j.ssresearch.2014.02.008).
- Walder, Andrew G., and Litao Zhao. 2006. "Political Office and Household Wealth: Rural China in the Deng Era." *The China Quarterly* 186:357–76. doi:[10.1017/S0305741006000191](https://doi.org/10.1017/S0305741006000191).
- Wang, Chuan, and Mingjin, Zhang. 2025. "Market-Oriented Reforms and Wealth Inequality in China." *Economic Modelling* 143:106959. doi: [10.1016/j.econmod.2024.106959](https://doi.org/10.1016/j.econmod.2024.106959).
- Wang, Junxiu., & Yangyang Liu. 2023. "Egalitarianism and wealth in China: Changes in perceptions of fairness." *Acta Psychologica Sinica*, 55(3), 406–420.
- Wang, Vivian. 2024. "China Raises Retirement Age for the First Time Since the 1950s." *The New York Times*, September 13.
- Wang, Yuanteng. 2019. "Reference Groups, Relative Position, and Micro-level Distributive Justice: A Comparative Analysis of Urban Hukou Migrants and Floating Populations." *Society* 5: 67–90. [in Chinese]

- Wegener, Bernd, and Stefan Liebig. "Dominant Ideologies and the Variation of Distributive Justice Norms: A Comparison of East and West Germany, and the United States 1." In *Social Justice and Political Change*, pp. 239-260. Routledge, 1995.
- Wei, Qingong, Yan Zhang, and Hanlin, Li. 2014. "Dual impression" in the Process of Development: A study on Income Inequity among Chinese Urban Residents. *Journal of Social Development* (3): 1-32. [in Chinese]
- Whyte, Martin King, and Dong-Kyun Im. 2014. "Is the Social Volcano Still Dormant? Trends in Chinese Attitudes toward Inequality." *Social Science Research* 48:62-76. doi:[10.1016/j.ssresearch.2014.05.008](https://doi.org/10.1016/j.ssresearch.2014.05.008).
- Whyte, Martin King. 2020. "China's Economic Development History and Xi Jinping's 'China Dream:' An Overview with Personal Reflections." *Chinese Sociological Review* 0(0):1-20. doi:[10.1080/21620555.2020.1833321](https://doi.org/10.1080/21620555.2020.1833321).
- Whyte, Martin King. 2010. *Myth of the Social Volcano: Perceptions of Inequality and Distributive Injustice in Contemporary China*. Stanford University Press.
- Wu, Xiaogang. 2009. "Income Inequality and Distributive Justice: A Comparative Analysis of Mainland China and Hong Kong." *The China Quarterly*, no. 200: 1033-1052. <http://www.jstor.org/stable/27756542>.
- Xie, Yu, and Yongai Jin. 2014. 'Household Wealth.' In *China Family Panel Studies* 2014, 120-135. Beijing: Peking University [in Chinese].
- Xie, Yu, Qing Lai, and Xiaogang Wu. 2009. "Danwei and Social Inequality in Contemporary Urban China." *Research in the Sociology of Work* 19:283-306. doi:[10.1108/S0277-2833\(2009\)0000019013](https://doi.org/10.1108/S0277-2833(2009)0000019013).
- Yang, Yang, and Kenneth C. Land. 2006. "A Mixed Models Approach to the Age-Period-Cohort Analysis of Repeated Cross-Section Surveys, with an Application to Data on Trends in Verbal Test Scores." *Sociological Methodology* 36(1):75-97. doi:[10.1111/j.1467-9531.2006.00175.x](https://doi.org/10.1111/j.1467-9531.2006.00175.x).
- Yang, Yang, and Kenneth C. Land. 2016. *Age-Period-Cohort Analysis: New Models, Methods, and Empirical Applications*. 1st ed. Chapman and Hall/CRC.
- Zhang, Lei, and Yanjie Bian. 2021. "Parental 'Love' on Time: Strength and Timing in Homeownership Transfer." *Journal of Housing and the Built Environment* 36(1):113-29. doi:[10.1007/s10901-019-09688-6](https://doi.org/10.1007/s10901-019-09688-6).
- Zhang, Zhuoni, Jerf W. K. Yeung, and Tae Yeun Kim. 2018. "Rural to Urban Migration and Distributive Justice in Contemporary China." *Asian and Pacific Migration Journal* 27(1):80-100. doi:[10.1177/0117196817752792](https://doi.org/10.1177/0117196817752792).
- Zhao, Wei, and Jianhua Ge. 2014. "Dual Institutional Structure and Housing Inequality in Transitional Urban China." *Research in Social Stratification and Mobility* 37:23-41. doi:[10.1016/j.rssm.2014.02.002](https://doi.org/10.1016/j.rssm.2014.02.002).