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Paying for Children's Marriage: Anticipatory Financial Strain and Parental Labor Supply in Rural China^{*}

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Abstract

This study examines how parental marriage payments for children are associated with household financial strain and parental labor supply in rural China. Using data from the China Health and Retirement Longitudinal Study (CHARLS) and subsequent follow-up information, we distinguish between the incidence and intensity of cash marriage transfers and analyze labor-supply responses among rural parents aged 45–75. The results show that the occurrence of a cash marriage transfer is associated mainly with higher labor-force participation, whereas larger transfer amounts are more strongly related to the intensive margin of labor supply. Among households making positive transfers, higher marriage-payment intensity is associated with longer weekly working hours, greater hours among working parents, and a higher probability of working at least 55 hours per week. Larger transfers are also associated with greater non-mortgage debt and other borrowing, consistent with tighter household financial constraints. Further analysis indicates that parental marriage expenditures are substantially larger for sons than for daughters. Before marriage occurs, an unmarried son's cohabitation status strongly predicts subsequent marriage and is associated with higher household borrowing and a higher probability of excessive work among mothers, suggesting anticipatory adjustment. Follow-up evidence further shows that high-transfer households continue to display relatively high parental labor intensity, although marriage transfers do not predict a significantly larger subsequent increase in labor supply. Overall, the findings highlight how children's marriage costs are linked to intertemporal household resource allocation and parental labor adjustment in rural China.

Keywords: marriage payments; parental labor supply; household financial strain; anticipatory adjustment; rural China; CHARLS

JEL Classification: J12; J22; D13; D14

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1. Introduction

Households are not only units of consumption and wealth accumulation but also important mechanisms for absorbing economic shocks and major life-cycle expenditures. When households face income shocks or large and concentrated resource needs, adjustment need not be confined to reducing consumption or drawing down savings; households may also borrow and reallocate labor supply across family members. Family labor supply can itself operate as an insurance mechanism for smoothing wage shocks (Blundell et al., 2016), while labor supply, consumption, saving, and borrowing are jointly determined when households face imperfect capital markets (Apps & Rees, 2010). Collective household models further emphasize that changes in budget constraints affect individual labor choices through intrahousehold allocation and bargaining (Chiappori, 1992; Chiappori & Mazzocco, 2017). Labor and time allocation are also interdependent among older couples (Rogerson & Wallenius, 2019), and debt-service pressure may induce additional household labor and income generation (Zator, 2025). Children's marriage therefore provides a useful setting for connecting household finance, intergenerational transfers, and family labor supply.

Children's marriage constitutes one such major life-cycle event for rural Chinese households. Marriage payments are widespread across societies and can alter household wealth and intergenerational resource allocation (Anderson, 2007; Botticini & Siow, 2003). In China, children's marriage commonly involves parental contributions to bride price, dowry, housing, and other expenses. Marriage-market competition induces households with sons to save more in advance (Wei & Zhang, 2011), and wedding expenditures among rural groom families are also related to status competition (Brown et al., 2011). Housing is another important component of marriage preparation: parental housing wealth is associated with rural sons' marriage prospects (Gao et al., 2023), whereas higher housing costs discourage marriage entry (Wrenn et al., 2019). Children's marriage can therefore be a consequential event for the parental household budget rather than merely a consumption decision of the marrying couple.

Existing studies have examined the economic implications of children's marriage through household saving and wealth accumulation (Wei & Zhang, 2011), wedding expenditures (Brown et al., 2011), housing wealth and marriage prospects (Gao et al., 2023; Wrenn et al., 2019), and parental subjective well-being, debt, and health outcomes (Tao et al., 2021; Chen et al., 2024). Two questions remain insufficiently addressed from the perspective of family labor supply. First, through which labor-supply margin do households respond to marriage-related expenditures? Existing evidence suggests that marriage payments may be associated with longer parental working hours (Chen et al., 2024), but the literature rarely distinguishes systematically between the extensive margin (whether parents work) and the intensive margin (how much they work conditional on working). Second, when does adjustment begin? Previous work documents both anticipatory saving and housing preparation and ex post consequences of realized payments, but rarely links marriage imminence, household financing before marriage, parental labor adjustment, and post-payment labor outcomes within the same framework.

Identifying the anticipatory stage requires distinguishing general marriage eligibility from marriage that is relatively imminent. Reaching the legal marriage age indicates eligibility but provides limited information on whether marriage will occur soon. By contrast, a stable partnership makes subsequent marriage more predictable and may bring expected bride price, housing, and wedding expenses into parents' current budget calculations. Chinese households have been shown to accumulate savings and housing resources before sons marry (Wei & Zhang, 2011; Gao et al., 2023), but there is less direct evidence on whether an approaching marriage is also associated with greater parental borrowing and labor supply. Focusing only on realized payments may therefore understate the period over which children's marriage is associated with parental economic behavior.

We address these questions using the 2018 China Health and Retirement Longitudinal Study (CHARLS) and its 2020 follow-up. We first construct household-level cash marriage transfers—parental cash contributions for bride price or dowry—and match them to individual labor outcomes of observed parents in the same household. Labor supply is measured through participation, average weekly hours, log weekly hours among workers, and excessive work at or above 55 hours per week. For the pre-marriage stage, we use whether an unmarried son has a cohabiting partner as a proxy for

marriage imminence and validate its predictive relevance using actual marital transitions observed by 2020. Because the design is observational, we consistently interpret the estimates as conditional associations and predictive evidence rather than as causal effects identified by exogenous variation.

The empirical analysis yields four main findings. First, among households with positive cash marriage transfers, larger transfers are associated with longer working hours and a higher probability of excessive work, whereas the association with participation is weak. Second, larger transfers are accompanied by higher observed parental non-mortgage debt and other borrowing. Third, adjustment is visible before marriage occurs: having a cohabiting partner in 2018 strongly predicts an unmarried son's subsequent marriage and is associated with greater borrowing observed before marriage and a higher probability of maternal excessive work. Fourth, contemporaneous labor adjustment in 2018 is not systematically concentrated on either parent; by 2020, high-transfer households continue to display higher labor intensity, while the association with overall weekly hours is more pronounced for fathers. These findings connect realized marriage payments with anticipatory household adjustment, distinguish extensive and intensive labor-supply margins, and highlight how the allocation of marriage-related pressure varies within the family.

This paper contributes in three ways. First, it extends the analysis of children's marriage from realized transfers to anticipatory adjustment before marriage and uses subsequent marital transitions to validate a measure of marriage imminence. Second, it connects marriage transfers to distinct margins of family labor supply and shows that transfer intensity is primarily associated with longer hours among those already working. Third, it highlights the intra-household allocation of marriage-related economic pressure by comparing both child gender and parent gender across marriage stages. The remainder of the paper is organized as follows. Section 2 develops the theoretical framework and hypotheses. Section 3 describes the data, variables, and empirical strategy. Section 4 reports the main empirical results and robustness checks. Section 5 provides further analyses of child gender, parental labor allocation, and the 2020 follow-up. Section 6 concludes and discusses implications and limitations.

2. Theoretical Analysis and Hypotheses

2.1 Marriage Transfers and Parental Labor Supply

When households face large expenditures, labor supply is not determined by individuals in isolation but by the joint allocation of family resources, time, and market opportunities. The classic allocation-of-time framework emphasizes substitution across market work, household production, and leisure (Becker, 1965), while collective household models show how changes in household resources can alter individual labor choices through intrahousehold allocation and bargaining (Chiappori, 1992; Chiappori & Mazzocco, 2017). A large and concentrated marriage-related cash requirement may therefore induce parents either to enter work or, if already working, to supply more hours.

The costs of these two adjustments are likely to differ. For middle-aged and older rural parents, labor-force participation is constrained by age, health, and existing employment arrangements, whereas adjusting hours within ongoing work may offer a more feasible margin of response than entering a new employment state. Evidence from China's New Rural Pension Scheme shows that changes in income security substantially alter farm work among older rural adults (Huang & Zhang, 2021). Existing evidence on older couples also documents interdependence in spouses' time allocation (Rogerson & Wallenius, 2019), while household debt pressure can be associated with greater labor supply (Zator, 2025). This suggests that greater marriage-transfer intensity may be reflected more strongly in the intensive margin than in additional labor-force entry.

As hours move further into the upper tail of the distribution, intensive-margin adjustment may also appear as excessive work. We therefore examine participation, average weekly hours, log hours among workers, and work at least 55 hours per week. This outcome structure allows us to distinguish the labor response associated with the occurrence of a marriage transfer from the response associated with transfer intensity.

H1: The occurrence of a parental cash marriage transfer is associated with greater parental labor supply; conditional on a positive transfer, larger transfer amounts are associated primarily with longer working hours and a higher probability of excessive work rather than with further increases in labor-force participation.

2.2 Marriage Transfers and Household Financial Strain

Marriage transfers may also tighten the household budget directly. In life-cycle and consumption-smoothing frameworks, households respond to concentrated expenditures by reallocating saving, assets, borrowing, current income, and labor across periods. Under imperfect capital markets, consumption, saving, borrowing, and family labor supply are interdependent choices rather than separate decisions (Apps & Rees, 2010; Blundell et al., 2016). Marriage-related expenditures in rural China are concentrated in amount and timing and are often reinforced by social norms. Marriage-market competition can also induce households to accumulate savings and housing resources in advance (Wei & Zhang, 2011; Gao et al., 2023), implying that marriage costs can shape household finances before and after payment.

If existing savings are insufficient, households may use outstanding loans, interpersonal borrowing, or other credit channels to bridge the funding gap. Liquidity constraints can alter both financing and labor decisions. Evidence from China's rural pension reform shows that relaxing household credit constraints changes migration and off-farm employment within the family (Eggleston et al., 2018). More generally, borrowing capacity can shape labor-market outcomes under liquidity constraints (He & le Maire, 2023), while debt-servicing pressure can increase family labor supply (Zator, 2025). In the Chinese marriage-payment setting, Chen et al. (2024) likewise document greater parental debt associated with higher bride-price expenditures. A positive association between marriage transfers and debt is therefore informative about tighter household finances.

Debt need not, however, be a statistical mediator between marriage payments and labor supply. Households can respond to the same budget pressure by borrowing and working more at the same time, and the additional link from debt to labor need not be stable. We therefore treat debt as an outcome capturing household financial strain and test whether debt incidence and debt balances rise with cash marriage transfers, rather than imposing a formal mediation structure.

H2: Conditional on a positive parental cash marriage transfer, larger transfer amounts are associated with greater household financial strain, reflected in a higher probability and amount of non-mortgage debt.

2.3 Marriage Imminence and Anticipatory Household Adjustment

Households can adjust before a major life-cycle event if future expenditures are sufficiently predictable. Children's marriage is a natural setting for such anticipatory behavior: a stable relationship, cohabitation, engagement, or housing preparation can make marriage-related expenses increasingly salient before the wedding. Evidence that Chinese households raise savings and accumulate housing resources before sons marry (Wei & Zhang, 2011; Gao et al., 2023) already indicates that marriage expectations can affect current household resource allocation.

The empirical challenge is to distinguish general marriage eligibility from genuinely imminent marriage. Legal marriage age applies to a broad group and is only weakly informative about when marriage enters a concrete preparation stage. Pathways into first marriage have diversified in China, and premarital cohabitation has become an increasingly relevant route into marriage (Ma & Rizzi, 2017). Compared with legal marriageable age alone, an unmarried son's cohabiting partnership contains more specific information about an established match and is therefore more likely to capture the stage at which households begin concrete marriage preparation. We use cohabitation status in 2018 as a proxy for marriage imminence and validate it using actual marital transitions observed by 2020. If cohabitation predicts subsequent marriage and is also associated with borrowing and labor adjustment in 2018, it provides more direct evidence of anticipatory household responses.

The strength of anticipatory pressure may also differ by child gender. Existing work shows that saving and housing pressures in China's marriage market are particularly salient for families with sons (Wei & Zhang, 2011; Wrenn et al., 2019; Gao et al., 2023), while marriage payments and parental support display substantial gender and cohort heterogeneity

(Du, 2025). We do not impose a separate child-gender hypothesis *ex ante*; instead, the further analysis compares realized parental burdens associated with sons' and daughters' marriages.

H3: As an unmarried son's marriage becomes more imminent, households exhibit anticipatory adjustment before marriage, reflected in greater financing pressure and changes in parental labor intensity.

3. Data, Variables, and Empirical Strategy

3.1 Data and Sample Construction

We use the 2018 wave of the China Health and Retirement Longitudinal Study (CHARLS), supplemented by the 2020 follow-up. CHARLS is a nationally representative longitudinal survey primarily covering Chinese adults aged 45 and above and their spouses and contains detailed information on demographics, family structure, employment, income and assets, health, and intergenerational transfers (Zhao et al., 2014). The 2018 wave is used to construct marriage payments, household financial strain, and baseline labor supply, while the 2020 wave is used to validate the marriage-imminence measure and examine subsequent labor outcomes.

The family-transfer module is reported by one designated household respondent, but its information on children's marriage payments refers to the household and its children rather than solely to that respondent. We therefore construct marriage-transfer exposure using the household identifier and assign it to all eligible observed parents in the household. Labor outcomes remain individual-level measures. For the 2020 follow-up, respondents are linked across waves using the individual respondent identifier rather than observation order.

Marriage payments are constructed child by child. We identify children whose marriages occurred between 1978 and 2018 and calculate parental cash contributions for bride price or dowry and parental housing contributions. Historical amounts are converted to constant 2018 prices using annual gross domestic product (GDP) deflator factors and then aggregated to the household level. An explicitly reported nonpayment is coded as zero, whereas a reported payment with a missing amount remains missing. The main sample requires at least one child marriage during 1978–2018 and excludes households with an observed child marriage before 1978, so that cumulative exposure is not mechanically understated by marriages falling outside the reconstruction window. The resulting sample contains 10,715 parent-level observations aged 45–75 from 6,519 rural households, including 5,857 women and 4,858 men. Effective sample sizes vary across specifications according to outcome availability and payment status.

3.2 Variable Definitions

The main explanatory variable is the parental cash marriage transfer, defined as cash contributed for bride price or dowry at children's marriages and measured in units of 10,000 renminbi (RMB) at constant 2018 prices. We distinguish two payment margins. The occurrence margin indicates whether the household made a positive cash transfer for at least one child. The amount margin is estimated among households with a positive observed transfer and uses the natural logarithm, $\ln(\text{CashTransfer})$. Because cumulative transfers mechanically increase with the number of married children, amount specifications control for the number of children married during 1978–2018. Robustness checks use cash transfers per married child and total marriage payments that combine cash and housing contributions.

Parental labor supply is measured at both the extensive and intensive margins. We convert months worked, working days per week, and daily hours in household agriculture and other employment into annual hours and divide by 52 to obtain average weekly hours. Participation equals one when average weekly hours are positive. Intensive-margin outcomes are average weekly hours and the natural logarithm of weekly hours among workers. We additionally define excessive work as at least 55 hours per week and measure excess hours above that threshold. The 55-hour cutoff is consistent with the World Health Organization/International Labour Organization (WHO/ILO) joint estimates on health risks associated with working at least 55 hours per week (Pega et al., 2021); robustness checks use 50- and 60-hour thresholds. For 2020, we reconstruct hours as comparably as possible using household farm work, wage employment, and self-employment, with side jobs added only in an alternative specification.

Household financial strain is measured through both debt incidence and debt balances. CHARLS records, separately for respondents and spouses, outstanding loans, credit-card balances, and money owed to other households, individuals, or employers. We aggregate these observed parental liabilities within the household to construct non-mortgage debt and examine outstanding loans and other borrowing separately. Because debt amounts contain a large mass at zero and are strongly right-skewed, we apply the inverse hyperbolic sine (IHS) transformation,

$$\text{IHS(Debt)} = \text{asinh(Debt)} = \ln \left[\text{Debt} + \sqrt{\text{Debt}^2 + 1} \right]$$

The IHS transformation retains zero-valued observations and behaves similarly to a logarithmic transformation for sufficiently large positive values (Bellemare & Wichman, 2020). In the baseline specification, Debt is measured in RMB 10,000. Because IHS regression results can be sensitive to units of measurement (Aihounton & Henningsen, 2021), we also reconstruct the IHS outcomes in yuan and RMB 1,000 and assess unit sensitivity. Since IHS coefficients in samples containing zero debt do not admit a mechanical percentage interpretation, economic magnitudes are based primarily on supplementary log-debt regressions among positive-debt households. These measures exclude housing mortgages and should therefore be interpreted as observed non-mortgage parental debt rather than comprehensive household liabilities; debt is treated as an outcome of financial strain rather than a predetermined mediator.

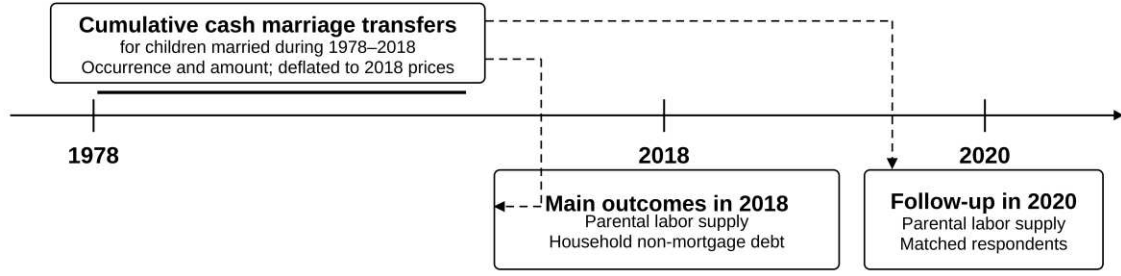
To examine anticipatory adjustment, we define marriage imminence using whether at least one currently unmarried son had a cohabiting partner in 2018. The eligible household sample requires at least one unmarried son, no previously married son, known cohabitation status for all currently unmarried sons, and valid son-age information. Specifications control for the number of previously married daughters, the number of unmarried sons, and the maximum age of unmarried sons and its square. For prospective validation, each 2018-unmarried son is conservatively linked to the 2020 child roster using the same child slot, the same sex, and a birth year within ± 1 year; we then test whether that same son entered marriage by 2020.

Baseline parent-level specifications control for parent gender, marital status, age, education, number of surviving children, Han ethnicity, number of married children, and province fixed effects, with standard errors clustered at the community level. Education is coded in four categories: less than primary school, primary school, middle school, and high school or above. For household-level financial-strain regressions, the control set is aggregated to the household level and includes the number of observed parents, mean parental age, mean parental education, household size, number of surviving children, the share of observed parents who are currently married, the share who are Han, the number of married children, and province fixed effects. Current household income, assets, and upward transfers from children are excluded from the baseline because they may themselves respond to marriage payments or parental labor supply. Robustness checks for the parent-level labor specifications add self-rated health, retirement status, medical insurance, pension coverage, and household size.

Fig. 1 summarizes the timing and sample structure of the two empirical analyses. Panel (a) presents the realized-transfer analysis, in which cumulative cash marriage transfers for children married during 1978–2018 are related to parental labor supply and household non-mortgage debt in 2018 and to parental labor supply in 2020. Panel (b) presents the pre-marriage analysis, in which the presence of a cohabiting partner among unmarried sons in 2018 is related to contemporaneous household debt and parental labor supply, while subsequent marriage transitions by 2020 are used to assess the predictive validity of the imminent-marriage proxy. Dashed arrows indicate conditional associations rather than identified causal effects.

(a) Realized-transfer analysis

Main sample: rural parents aged 45–75 with at least one child married during 1978–2018



(b) Pre-marriage analysis

Restricted sample: families with at least one unmarried son and no previously married sons

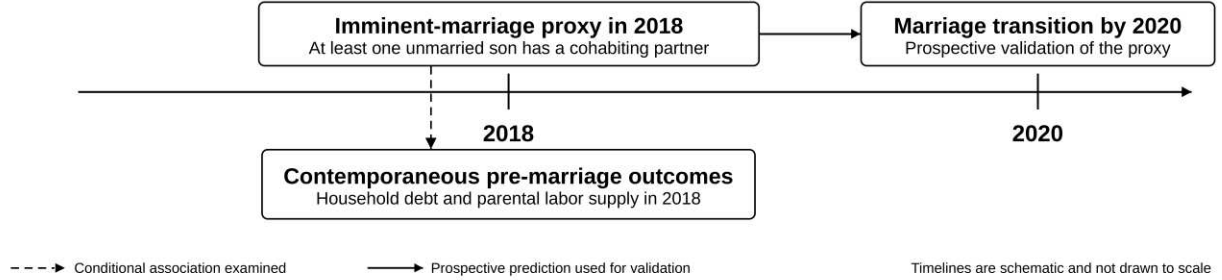


Fig. 1 Empirical timeline and analytical samples

3.3 Empirical Specifications

We first estimate the conditional association between household cash marriage transfers and parental labor supply using ordinary least squares (OLS):

$$Y_{ih} = \alpha + \beta \text{Transfer}_h + \gamma X_{ih} + \mu_p + \varepsilon_{ih}$$

where Y_{ih} denotes a labor outcome for parent i in household h , Transfer_h denotes the household-level marriage-transfer measure, X_{ih} is the control vector, and μ_p denotes province fixed effects. Binary outcomes are estimated as linear probability models. We estimate both the occurrence and amount margins; the amount specification is restricted to households with positive observed transfers and uses $\ln(\text{CashTransfer}_h)$. Accordingly, β is interpreted as a conditional association rather than as a structural causal parameter identified by an exogenous shock.

The household-financial-strain specification uses debt incidence, non-mortgage debt amounts transformed by IHS, and debt components as outcomes:

$$\text{FinancialStrain}_h = \alpha + \beta \ln(\text{CashTransfer}_h) + \gamma X_h + \mu_p + \varepsilon_h$$

This specification tests H2—whether greater marriage-transfer intensity is associated with tighter household finances—rather than a formal mediation effect. Here X_h contains the household-level controls defined in Section 3.2. Binary debt outcomes are estimated as linear probability models. For IHS debt outcomes, we focus on sign and statistical significance and use log-amount models among positive-debt households for more intuitive magnitude interpretation.

The anticipatory-adjustment analysis uses:

$$\text{FinancialStrain}_{h,2018} = \alpha + \beta \text{ImminentMarriage}_h + \gamma X_h + \mu_p + \varepsilon_h$$

$$\text{Labor}_{ih,2018} = \alpha + \beta_1 \text{IM}_h + \beta_2 \text{Female}_i + \beta_3 (\text{IM}_h \times \text{Female}_i) + \gamma X_{ih} + \mu_p + \varepsilon_{ih}$$

$$\text{MarriageBy2020}_{jh} = \alpha + \theta \text{ImminentMarriage}_{jh,2018} + \gamma X_{jh} + \mu_p + u_{jh}$$

For the household-financing and parental-labor equations, $\text{ImminentMarriage}_h=1$ indicates that at least one unmarried son had a cohabiting partner in 2018. The first equation relates household marriage imminence to financing conditions observed before marriage in 2018; it does not identify the purpose or timing of each liability. For parental labor outcomes, we additionally include the female indicator and its interaction with marriage imminence: β_1 is the association for fathers, $\beta_1+\beta_3$ is the association for mothers, and β_3 formally tests the mother–father difference. The validation equation is estimated at the child level: $\text{ImminentMarriage}_{jh,2018}=1$ indicates that the same 2018-unmarried son j had a cohabiting partner, and $\text{MarriageBy2020}_{jh}$ records whether that conservatively matched son entered marriage by 2020. Baseline models use OLS or linear probability models with community-clustered standard errors. Robustness checks consider alternative excessive-work thresholds, payment measures, and control sets. We also use five-fold cross-fitted Lasso (least absolute shrinkage and selection operator) residualization within a double/debiased machine learning (DML) framework as a flexible high-dimensional adjustment check (Chernozhukov et al., 2018). DML does not provide exogenous variation in marriage transfers and is therefore not treated as a causal identification strategy.

4. Empirical Results

4.1 Descriptive Statistics

Table 1 reports descriptive statistics for the main variables. The analytical sample contains 10,715 parent-level observations aged 45–75 from 6,519 rural households; 54.7% are women and the mean age is 61.2 years. About 68.0% of parents have positive weekly hours. Including nonworkers, average weekly hours are 16.96, and 9.2% of parents work at least 55 hours per week. Mean excess hours above 55 are 1.29 in the full sample; because zero is assigned to parents below the threshold, this statistic should not be interpreted as the conditional mean among excessive workers.

Among parent-level observations, 72.2% are in households reporting at least one cash marriage transfer. After conversion to constant 2018 prices, cumulative transfers average RMB 31,220 in the full sample. Among households with positive and observed cash transfers, the mean is approximately RMB 43,720 and the median RMB 22,650, indicating a strongly right-skewed distribution. Households have, on average, 2.31 married children; subsequent amount specifications therefore control for the number of married children, and robustness checks also use transfers per married child.

Approximately 23.2% of parents live in households with observed non-mortgage debt. This measure aggregates outstanding loans, credit-card balances, and other borrowing reported by observed parents and excludes housing mortgages; debt amounts use the IHS transformation defined in Section 3.2. Taken together, the descriptive statistics show substantial variation in marriage-transfer intensity, labor supply, and non-mortgage financing, which motivates the multivariate analysis that follows.

Table 1. Descriptive Statistics

Variable	N	Mean	Std. dev.	Minimum	Maximum
Panel A. Parental labor supply					
Any work	10,712	0.680	0.467	0	1
Weekly working hours	10,712	16.964	22.406	0	167.411
Excessive work (≥ 55 hours/week)	10,712	0.092	0.289	0	1
Excess hours above 55	10,712	1.287	6.885	0	112.411
Panel B. Marriage transfers and financial strain					
Any cash marriage transfer	10,715	0.722	0.448	0	1
Cash marriage transfers (RMB 10,000, 2018 prices)	10,552	3.122	5.403	0	73.177
Number of married children	10,715	2.309	1.148	1	10

Any non-mortgage debt	10,702	0.232	0.422	0	1
Non-mortgage debt amount (IHS)	10,702	0.487	1.087	0	6.430
Panel C. Parent characteristics					
Female	10,715	0.547	0.498	0	1
Currently married	10,715	0.887	0.316	0	1
Age	10,715	61.204	7.222	45	75
Education level	10,715	1.867	0.965	1	4
Number of surviving children	10,715	2.649	1.140	1	10
Han ethnicity	10,715	0.921	0.270	0	1

Notes: The unit of observation is the parent. Household-level marriage transfers and debt measures are assigned to observed parents in the same household. Cash transfers are measured in RMB 10,000 at constant 2018 prices. Debt amounts use the inverse hyperbolic sine (IHS) transformation defined in Section 3.2.

4.2 Cash Marriage Transfers and Parental Labor Supply

Table 2 presents the association between cash marriage transfers and parental labor supply. Panel A considers whether the household has ever made a cash marriage transfer, whereas Panel B restricts the sample to households with positive transfers and examines variation in transfer amounts. Outcomes span the extensive margin (participation) and the intensive margin (weekly hours, log hours among workers, excessive work, and excess hours).

Panel A shows that parents in households with any cash marriage transfer are 4.54 percentage points more likely to have positive labor supply and work about 1.58 more hours per week; both estimates are statistically significant at the 1% level. Conditional on working, however, the coefficient for log hours is statistically insignificant, as are the coefficients for working at least 55 hours and for excess hours. Thus, the occurrence of a transfer is associated primarily with participation and overall hours, rather than with a uniform increase in work intensity among parents who are already working.

Panel B shows a different pattern. Among households with positive transfers, transfer intensity is unrelated to participation but is positively associated with weekly hours, log hours among workers, excessive work, and excess hours. Because the transfer amount enters in logs, a doubling corresponds to a change of $\ln(2) \approx 0.693$ in the regressor. Multiplying the Table 2 coefficients by $\ln(2)$, a doubling of cash marriage transfers is associated with about 0.50 additional weekly hours and a 0.62-percentage-point higher probability of excessive work. For log hours among workers, the exact transformation $\exp[0.0625 \times \ln(2)] - 1$ implies approximately 4.4% higher hours. These magnitudes indicate that, conditional on making a transfer, greater payment intensity is primarily associated with the intensive margin.

The contrast across panels therefore identifies two empirically distinct margins. The occurrence of a cash marriage transfer is associated with participation and total hours, while greater transfer intensity among paying households is associated mainly with longer hours among existing workers. This pattern is consistent with H1 and indicates that the amount margin operates more clearly through work intensity than through additional labor-force entry. Because marriage-transfer intensity is not randomly assigned, however, the estimates should not be interpreted as the pure causal effect of transfer amounts on labor supply.

Table 2. Cash Marriage Transfers and Parental Labor Supply

	Any work	Weekly hours	ln(weekly hours), workers	Excessive work (≥55h)	Excess hours above 55
Panel A. Occurrence margin: any cash marriage transfer					
Any cash marriage transfer	0.0454*** (0.0109)	1.5763*** (0.5350)	0.0241 (0.0394)	0.0086 (0.0067)	0.0652 (0.1593)
Observations	10,712	10,712	7,282	10,712	10,712
R ²	0.077	0.079	0.060	0.032	0.014

	Any work	Weekly hours	ln(weekly hours), workers	Excessive work (≥55h)	Excess hours above 55
Panel B. Amount margin: positive cash transfers					
ln(Cash marriage transfers)	0.0011 (0.0042)	0.7170*** (0.2124)	0.0625*** (0.0164)	0.0090*** (0.0026)	0.1510*** (0.0571)
Observations	7,534	7,534	5,213	7,534	7,534
R ²	0.080	0.085	0.064	0.033	0.015
Controls	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	Yes	Yes	Yes	Yes

Notes: Panel A estimates the occurrence margin; Panel B is restricted to households with positive cash transfers and uses the log transfer amount. All specifications control for parent gender, marital status, age, education, number of surviving children, Han ethnicity, number of married children, and province fixed effects. Community-clustered standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

4.3 Cash Marriage Transfers and Household Financial Strain

Table 3 examines cash marriage transfers and household financial strain. The outcomes are the incidence and IHS-transformed amount of observed non-mortgage debt, the incidence and IHS amount of outstanding loans, and the incidence and IHS amount of other borrowing. “Other borrowing” corresponds to money owed to other households, individuals, or employers; the data do not permit us to classify all such liabilities as formal or informal credit.

Panel A shows that having ever made a cash marriage transfer is positively but not significantly associated with the incidence of non-mortgage debt, while the coefficient for the IHS debt amount is positive and significant. The source decomposition points to other borrowing: households with a cash marriage transfer are about 2.41 percentage points more likely to report other borrowing, and the IHS amount is also significantly higher. The incidence and amount of outstanding loans do not display the same stable pattern. Thus, making a transfer is not associated with all households becoming indebted, but it is associated with higher observed debt balances and greater use of other borrowing.

Panel B provides more consistent evidence for the amount margin. Among households with positive cash transfers, larger transfers are associated with both a higher probability of non-mortgage debt and a larger IHS debt amount. Because the exposure is logged, doubling cash marriage transfers is associated with approximately 0.88 percentage points higher debt incidence and 0.91 percentage points higher incidence of other borrowing. IHS coefficients that include zero-debt households do not have an exact percentage interpretation, so we supplement them with log-debt regressions among positive-debt households. Those estimates imply that a doubling of cash marriage transfers is associated with about 9.1% higher non-mortgage debt and 12.4% higher other borrowing, conditional on borrowing. Outstanding loans again show a weaker relationship.

These results suggest that marriage expenditures are associated not only with whether households borrow but also with the level and composition of borrowing. Because IHS estimates may depend on units of measurement (Aihounton & Henningsen, 2021), we re-estimate the debt-balance specifications after expressing debt in yuan, RMB 1,000, and RMB 10,000. In Panel B, the positive associations with total non-mortgage debt and other borrowing remain statistically significant at the 1% level under all three units, whereas outstanding loans remain weak. In Panel A, the significance of the total non-mortgage-debt balance varies with the unit, while other borrowing remains positive and significant throughout. We therefore do not rely on the Panel A total-debt IHS coefficient as the core evidence for H2 and instead place greater weight on the amount margin, debt-incidence outcomes, and log amounts among positive-debt households. The data do not identify the precise timing or lender for every liability, so Table 3 remains evidence of tighter household finances rather than a formal debt-mediated causal mechanism. The complete IHS-unit and positive-debt log-amount results are reported in Online Resource 1, Table S1. Overall, the results are consistent with H2.

Table 3. Cash Marriage Transfers and Household Financial Strain

	Any non-mortgage debt	Non-mortgage debt amount (IHS)	Any outstanding loan	Outstanding loan amount (IHS)	Any other borrowing	Other borrowing amount (IHS)
Panel A. Occurrence margin: any cash marriage transfer						
Any cash marriage transfer	0.0141 (0.0104)	0.0525** (0.0257)	-0.0036 (0.0070)	0.0021 (0.0196)	0.0241** (0.0094)	0.0654*** (0.0207)
Observations	6,506	6,506	6,503	6,503	6,503	6,503
R ²	0.109	0.118	0.079	0.082	0.085	0.083
Panel B. Amount margin: positive cash marriage transfers						
ln(Cash marriage transfers)	0.0127*** (0.0043)	0.0501*** (0.0119)	0.0031 (0.0031)	0.0159* (0.0088)	0.0132*** (0.0039)	0.0447*** (0.0098)
Observations	4,532	4,532	4,532	4,532	4,530	4,530
R ²	0.120	0.128	0.083	0.087	0.100	0.097
Household-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Non-mortgage debt aggregates outstanding loans, credit-card balances, and other borrowing reported by observed parents and excludes housing mortgages. IHS denotes the inverse hyperbolic sine transformation; the baseline transformation measures amounts in RMB 10,000, and the text reports sensitivity to yuan and RMB 1,000 units. Household-level controls include the number of observed parents, mean parental age, mean parental education, household size, number of surviving children, share of observed parents currently married, Han share, and number of married children; province fixed effects are also included. Community-clustered standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Additional debt-amount and IHS-unit sensitivity results are reported in Online Resource 1, Table S1.

4.4 Marriage Imminence and Anticipatory Household Adjustment

The preceding analysis examines parental labor supply and household financial conditions after children's marriage payments have already occurred. Marriage, however, is not an entirely unanticipated event. In rural households, bride-price payments, housing contributions, and other marriage-related expenditures often require advance preparation. Households may therefore begin to adjust financing and labor arrangements before the marriage is formally completed and before the associated payments are fully realized. Focusing only on completed marriage payments may overlook this anticipatory stage. We therefore use an unmarried son's cohabitation status to identify marriage imminence and examine subsequent marriage realization, household financing before marriage, and parental labor supply.

Rather than relying solely on legal marriageable age, we define marriage imminence by whether an unmarried son had a cohabiting partner in 2018. Age indicates only entry into the potential marriage market, whereas cohabitation contains more specific information about an established partnership and therefore more closely reflects a near-term marriage prospect. To reduce interference from earlier marriage histories, the analysis is restricted to households with at least one currently unmarried son and no previously married son. Panel A of Table 4 validates this measure by following the same son into the 2020 child roster. A son who was unmarried in 2018 and already cohabiting was 46.5 percentage points more likely to enter marriage by 2020. The corresponding marriage rates were 14.7% among sons without a cohabiting partner and 67.4% among sons already cohabiting. The same-child transition therefore provides strong predictive validation of the marriage-imminence proxy.

Panel B examines whether household financing conditions differ before marriage occurs. Marriage imminence is associated with a 17.1-percentage-point higher probability of holding non-mortgage debt, and the IHS-transformed amount of non-mortgage debt is also significantly higher. The decomposition by debt source shows that the probability of borrowing from other households, individuals, or employers is approximately 14.4 percentage points higher, with a

significant difference in the corresponding debt amount. The relationship is more pronounced for other borrowing than for outstanding loan balances. Because the marriage has not yet occurred, these patterns are consistent with advance financial preparation for an approaching marriage, but the debt data do not identify the purpose or precise timing of each liability.

Panel C turns to parental labor supply. For fathers, marriage imminence is not significantly associated with weekly hours, conditional working hours, excessive work, or excess hours. Mothers' average weekly hours are approximately 5.47 hours higher, but the estimate is not statistically significant. In contrast, mothers' probability of working at least 55 hours per week is about 13.5 percentage points higher. Descriptively, the excessive-work rate is approximately 12.9% among mothers without a cohabiting unmarried son and 25.6% among mothers in imminent-marriage households. Formal gender-difference tests show that the maternal association with excessive work exceeds the paternal association by about 13.7 percentage points, significant at the 10% level. In a more flexible specification allowing controls and province fixed effects to vary by parental gender, the maternal coefficient is about 14.8 percentage points and the mother–father difference about 16.0 percentage points, significant at the 5% level.

Overall, anticipatory adjustment operates along two distinct margins. Greater indebtedness is visible at the household level before marriage, whereas labor adjustment is concentrated more clearly in mothers' probability of entering very long working hours rather than in a broad increase in average parental hours. The results suggest that marriage-related financial pressure may begin to coincide with changes in household budgets and labor allocation before marriage payments are actually realized. This pattern is consistent with H3 and provides a natural link to the subsequent analysis of parental labor adjustment after marriage payments have occurred.

Table 4. Marriage Imminence and Anticipatory Household Adjustment

	(1)	(2)	(3)	(4)
Panel A. Same-child validation of marriage-imminence measure				
Same 2018-unmarried son enters marriage by 2020				
Same son had cohabiting partner in 2018	0.4650***			
	(0.0680)			
Observations	1,028			
Treated sons	46			
R ²	0.185			
Panel B. Marriage imminence and household financing before marriage				
	Any non-mortgage debt	Non-mortgage debt amount (IHS)	Any other borrowing	Other borrowing amount (IHS)
Unmarried son has cohabiting partner in 2018	0.1712**	0.7446***	0.1443**	0.6411***
	(0.0705)	(0.2368)	(0.0697)	(0.2221)
Observations	1,046	1,046	1,044	1,044
Treated households	55	55	55	55
R ²	0.067	0.074	0.061	0.064
Panel C. Marriage imminence and parental labor adjustment				
	Weekly hours	ln(hours), workers	Excessive work (≥55h)	Excess hours above 55
Fathers: son has cohabiting partner	1.9007	0.2314	-0.0022	0.2118
	(3.4787)	(0.1955)	(0.0511)	(1.0615)
Mothers: son has cohabiting partner	5.4704	-0.0426	0.1352**	2.8001
	(4.8161)	(0.2813)	(0.0654)	(2.0917)

Mother – father difference	3.5697 (5.2960)	-0.2739 (0.3152)	0.1373* (0.0811)	2.5883 (2.5390)
p-value of gender difference	0.500	0.385	0.090	0.308
Observations	1,746	1,389	1,746	1,746
Treated fathers / mothers	49 / 43	—	49 / 43	49 / 43
Controls	Yes	Yes	Yes	Yes
Province fixed effects	Yes	Yes	Yes	Yes

Notes: Panel A uses child-level observations of sons who were unmarried in 2018 and are conservatively matched to the 2020 child roster using the same child slot, the same sex, and a birth year within ± 1 year; the outcome records whether that same son entered marriage by 2020. Panel B uses households as the unit of observation. Panel C uses parent-level observations in a pooled model with a marriage-imminence $\times$ female interaction; fathers are the reference group, the mother coefficient is obtained by linear combination, and “Mother – father difference” is the interaction coefficient. The anticipatory household sample requires at least one currently unmarried son, no previously married son, known cohabitation status for all currently unmarried sons, and valid son-age information. IHS is defined in Section 3.2. Community-clustered standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

4.5 Robustness Checks

Table 5 examines the robustness of the amount-margin labor results to four sets of alternative choices. Panel A varies the excessive-work threshold to 50 and 60 hours per week. Cash marriage-transfer intensity remains positively and significantly associated with both long-hours indicators and the corresponding excess-hours measures, indicating that the baseline result is not specific to the 55-hour cutoff.

Panel B changes the measurement of marriage-payment intensity. Using cash transfers per married child rather than cumulative transfers leaves the coefficients for weekly hours, log hours among workers, excessive work, and excess hours positive and significant. We then add housing contributions to construct total marriage payments. The association with log hours among workers and excessive work remains significant, although some hours estimates become weaker. Reported housing amounts show greater unit heterogeneity than cash transfers, so we apply a transparent unit-correction rule and repeat the analysis after dropping all households requiring a correction; the excessive-work result remains significant; these additional payment-measure checks are reported in Online Resource 1, Table S2. This pattern supports the use of cash transfers as the main exposure while treating total payments as a complementary robustness measure.

We additionally examine whether the baseline results are driven by marriage payments made far in the past. Online Resource 1, Table S2 reconstructs cash transfers for children who married in 2008–2018 and, more narrowly, in 2013–2018, and also uses the payment associated with the most recent child marriage while controlling for years since that marriage. In the 2008–2018 window, the excessive-work coefficient remains positive and marginally significant; in the 2013–2018 window, the association with excessive work is significant at the 5% level and the worker-hours coefficient is marginally significant. Using the most recent child marriage yields positive and statistically significant associations for weekly hours, worker hours, excessive work, and excess hours. The corresponding debt results are positive and statistically significant across all three timing definitions. Thus, the evidence is not driven solely by payments made decades earlier, although average-hours estimates become less precise in the narrower event windows as sample size falls.

Panel C expands the control set and changes household weighting. Adding self-rated health, retirement, medical insurance, pension coverage, and household size leaves the core coefficients positive and significant. Because the exposure is household-level but some households contribute both parents to the parent-level sample, we also weight each observation by the inverse number of observed parents so that every household receives the same total weight. The weighted estimates are close to the baseline estimates.

Finally, Panel D uses five-fold cross-fitted Lasso for more flexible high-dimensional adjustment. The weekly-hours coefficient changes from 0.717 in the baseline OLS specification to 0.688, while the excessive-work coefficient changes from 0.0090 to 0.0088. We use this exercise to assess sensitivity to functional-form choices rather than as a new source of identification: Lasso/DML can flexibly partial out observables, but it does not make marriage transfers exogenous. Across specifications, the positive association between transfer intensity and the intensive margin of labor supply remains stable.

Table 5. Robustness Checks for the Amount-Margin Labor-Supply Results

	(1)	(2)	(3)	(4)
Panel A. Alternative overwork thresholds				
Outcome	Excessive work ($\geq 50h$)	Excess hours above 50	Excessive work ($\geq 60h$)	Excess hours above 60
ln(Cash marriage transfers)	0.0095*** (0.0027)	0.1956*** (0.0669)	0.0060*** (0.0019)	0.1183** (0.0493)
Observations	7,534	7,534	7,534	7,534
Panel B. Alternative measures of marriage-payment intensity				
Outcome	Weekly hours	ln(weekly hours), workers	Excessive work ($\geq 55h$)	Excess hours above 55
ln(Cash transfer per married child)	0.7516*** (0.2121)	0.0644*** (0.0164)	0.0094*** (0.0026)	0.1602*** (0.0576)
Observations	7,534	5,213	7,534	7,534
ln(Total marriage payments: cash + housing)	0.3423* (0.1935)	0.0335** (0.0157)	0.0068*** (0.0023)	0.0909* (0.0510)
Observations	7,712	5,330	7,712	7,712
Panel C. Alternative controls and household weighting				
	Weekly hours	ln(weekly hours), workers	Excessive work ($\geq 55h$)	Excess hours above 55
Extended controls	0.7952*** (0.2330)	0.0618*** (0.0169)	0.0096*** (0.0030)	0.1700*** (0.0632)
Observations	6,466	5,024	6,466	6,466
Equal household weighting	0.6914*** (0.1998)	0.0665*** (0.0168)	0.0082*** (0.0024)	0.1452*** (0.0512)
Observations	7,534	5,213	7,534	7,534
Panel D. Five-fold cross-fitted Lasso adjustment				
	Weekly hours	ln(weekly hours), workers	Excessive work ($\geq 55h$)	Excess hours above 55
ln(Cash marriage transfers)	0.6875*** (0.2140)	0.0608*** (0.0167)	0.0088*** (0.0026)	0.1497*** (0.0576)
Observations	7,534	5,213	7,534	7,534

Notes: Panel A varies the excessive-work threshold; Panel B uses alternative marriage-payment measures; Panel C expands controls and applies equal household weighting; Panel D uses five-fold cross-fitted Lasso adjustment. Lasso/DML is used only as a functional-form robustness check, not as a source of causal identification. Community-clustered standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Additional timing-window and marriage-payment measurement checks are reported in Online Resource 1, Table S2.

5. Further Analysis

5.1 Child Gender and Parental Marriage-Payment Burdens

Table 6 documents whether realized parental marriage expenditures differ systematically by child gender and thereby provides an empirical rationale for the son-focused anticipatory analysis. Panel A shows that 62.3% of sons' marriages involve a parental cash transfer, compared with 47.7% of daughters' marriages. In constant 2018 prices, the unconditional mean cash transfer is about RMB 18,770 for sons and RMB 6,950 for daughters. Housing contributions are even more gendered: approximately 13.0% of sons' marriages receive parental housing support, compared with 0.6% of daughters'

marriages. Combining cash and housing, unconditional mean total payments are approximately RMB 37,380 for sons and RMB 7,970 for daughters.

These raw gaps may reflect household resources, local marriage norms, and marriage timing. Panel B therefore includes household fixed effects and marriage-year fixed effects, comparing sons and daughters within the same household. After absorbing all time-invariant household characteristics and common marriage-year differences, sons remain 16.2 percentage points more likely to receive a cash transfer, 12.3 percentage points more likely to receive housing support, and 19.4 percentage points more likely to receive any parental marriage payment. Household fixed effects remove time-invariant family-level confounding but do not eliminate unobserved child-specific differences, so these estimates remain within-household conditional comparisons rather than causal effects of child gender.

Panel C restricts the sample to positive payments. The coefficient on the son indicator is 0.785 in the log cash-transfer specification; $\exp(0.785)-1$ implies that positive cash transfers are approximately 119% larger for sons than for daughters within the same household, conditional on marriage year. For total positive payments, the coefficient of 1.109 corresponds to an approximate 203% difference. We do not emphasize conditional housing amounts because very few daughters receive positive housing support; the housing result is therefore confined to the much higher probability that sons receive such support and the resulting larger unconditional burden.

Table 6 should be read as evidence on the gendered allocation of realized parental marriage obligations, not as a separate causal design. The within-household pattern is consistent with Ho (2019), who documents substantially greater parental monetary investment in sons' marriage gifts in CHARLS, and with Du (2025), who shows that marriage payments in China vary systematically by gender and marriage cohort. Our results further indicate that the disparity appears not only in whether parents provide marriage support but also in the amount transferred conditional on a positive payment. The larger incidence and amounts for sons make an unmarried son's approaching marriage a particularly relevant setting in which to study anticipatory household adjustment.

Table 6. Child Gender and Parental Marriage-Payment Burdens

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Descriptive differences by child's gender	Sons	Daughters				
Number of observed child marriages	7,636	7,708				
Any cash marriage transfer	0.623	0.477				
Mean cash transfer (RMB 10,000, 2018 prices)	1.877	0.695				
Any housing contribution	0.130	0.006				
Mean housing contribution (RMB 10,000, 2018 prices)	1.855	0.104				
Any marriage payment	0.654	0.480				
Mean total marriage payment (RMB 10,000, 2018 prices)	3.738	0.797				
Panel B. Within-household estimates	Any cash transfer	Cash transfer amount (IHS)	Any housing support	Housing support amount (IHS)	Any marriage payment	Total payment amount (IHS)
Son	0.1623*** (0.0095)	0.4484*** (0.0152)	0.1226*** (0.0054)	0.2951*** (0.0147)	0.1939*** (0.0094)	0.6510*** (0.0185)
Observations	15,344	15,198	15,344	15,305	15,344	15,164
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Marriage-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Panel C. Positive-payment amounts	ln(Cash transfer)	ln(Total payment)
Son	0.7847*** (0.0372)	1.1093*** (0.0393)
Observations	8,213	8,437
Mixed-sex identifying households	1,408	1,456
Household fixed effects	Yes	Yes
Marriage-year fixed effects	Yes	Yes

Notes: Panels B and C include household and marriage-year fixed effects; household-clustered standard errors are in parentheses. IHS denotes the inverse hyperbolic sine transformation defined in Section 3.2. Conditional positive housing amounts are not emphasized because very few daughters receive positive housing support. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

5.2 Parent Gender and the Intra-household Allocation of Labor Adjustment

Table 7 examines whether labor adjustment associated with marriage payments is systematically concentrated on fathers or mothers. Rather than estimating separate gender subsamples and inferring heterogeneity from differences in statistical significance, Panel A estimates a pooled interaction model and allows age, education, marital status, child structure, and province fixed effects to have gender-specific coefficients. The interaction term therefore provides a direct test of whether the transfer slope differs between fathers and mothers.

Fathers and mothers display a similar pattern in 2018. For fathers, cash marriage-transfer intensity is not significantly associated with participation but is positively associated with weekly hours, log hours among workers, and excessive work. Mothers show the same pattern. Thus, the intensive-margin relationship documented in Table 2 is present for both parents.

Formal mother–father coefficient differences are statistically insignificant for weekly hours, log hours among workers, excessive work, and excess hours, with p -values of 0.470, 0.997, 0.437, and 0.662. Panel B further restricts the sample to 2,996 households in which both parents are observed and regresses the within-couple mother-minus-father labor gap on transfer intensity. The marriage-transfer coefficient is again statistically insignificant across labor outcomes. Both approaches therefore lead to the same conclusion.

The 2018 evidence is more consistent with a shared parental response than with labor adjustment being systematically concentrated on one parent. This result also illustrates why gender heterogeneity should be established through a formal coefficient-difference test rather than by comparing significance levels across separate subsamples.

Table 7. Parent Gender and Labor Adjustment

	(1)	(2)	(3)	(4)	(5)
Panel A. Gender-specific associations from a fully interacted model					
	Any work	Weekly hours	ln(weekly hours), workers	Excessive work (≥ 55 h)	Excess hours above 55
Fathers: ln(Cash marriage transfers)	0.0054 (0.0056)	0.8625*** (0.3164)	0.0643*** (0.0201)	0.0108*** (0.0041)	0.1748* (0.0978)
Mothers: ln(Cash marriage transfers)	-0.0020 (0.0054)	0.6250*** (0.2210)	0.0644*** (0.0221)	0.0075*** (0.0026)	0.1308** (0.0510)
Mother – father difference	-0.0074 (0.0070)	-0.2375 (0.3284)	0.0001 (0.0263)	-0.0033 (0.0043)	-0.0439 (0.1004)

p-value of gender difference	0.296	0.470	0.997	0.437	0.662
Observations	7,534	7,534	5,213	7,534	7,534
Controls fully interacted with gender	Yes	Yes	Yes	Yes	Yes
Province fixed effects fully interacted with gender	Yes	Yes	Yes	Yes	Yes
Panel B. Within-household gender-gap specification					
	Any work	Weekly hours	ln(weekly hours), workers	Excessive work ($\geq 55h$)	Excess hours above 55
ln(Cash marriage transfers)	-0.0066 (0.0072)	-0.4390 (0.3476)	-0.0274 (0.0269)	-0.0062 (0.0047)	-0.0232 (0.1130)
p-value	0.358	0.207	0.308	0.184	0.837
Households	2,996	2,996	1,753	2,996	2,996
Province fixed effects	Yes	Yes	Yes	Yes	Yes

Notes: Panel A fully interacts baseline controls and province fixed effects with parent gender and formally tests mother-father coefficient differences. Panel B restricts the sample to households in which both parents are observed and estimates within-couple labor gaps. Community-clustered standard errors are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

5.3 Follow-up Evidence from 2020

Table 8 uses the 2020 CHARLS follow-up to examine subsequent parental labor supply. Respondents are linked across waves using individual identifiers, and the 2020 labor measure combines household farm work, wage employment, and self-employment to approximate the 2018 definition; side-job hours are added in a supplementary specification. Approximately 93.1% of parents in the positive-transfer sample defined from the 2018 survey are observed in the 2020 work module, and transfer intensity does not significantly predict follow-up status. This reduces concern that attrition is systematically related to the main exposure (Online Resource 1, Table S3).

Panel A shows that historical cash marriage-transfer intensity measured in 2018 remains positively associated with weekly hours, log hours among workers, and excessive work in 2020; excess hours are significant at the 10% level. Because transfer amounts are logged, a doubling is associated with about 0.46 additional weekly hours, 3.0% higher hours among workers, and a 0.55-percentage-point higher probability of excessive work. Adding side-job hours produces similar estimates (Online Resource 1, Table S3). These results show that high-transfer households continue to display higher labor intensity two years later, but they do not by themselves imply that labor intensity kept increasing between 2018 and 2020.

Panel B examines parent gender. The weekly-hours coefficient for fathers is 1.158 and significant at the 1% level, compared with 0.298 and statistically insignificant for mothers; the formal mother-father difference is significant at the 5% level. Thus, the association with overall weekly labor input is more pronounced for fathers in 2020. This should not be read as a complete shift of the burden to fathers: among parents who are working, both father and mother coefficients are positive and significant and their difference is insignificant, and the gender difference in excessive-work probabilities is also statistically insignificant.

Panel C conditions on the corresponding 2018 labor outcome. Once baseline labor supply is included, the coefficients for 2020 weekly hours and excessive work are substantially smaller and only marginally significant, whereas the association with log hours among workers remains significant at the 1% level. This pattern is consistent with part of the 2020 difference reflecting labor-intensity differences already present in 2018, although high-transfer households continue to exhibit higher hours among parents who remain economically active.

To distinguish persistence in levels from faster growth, we also regress changes between 2018 and 2020 on transfer intensity. The coefficients for changes in weekly hours, excessive-work status, and excess hours are all statistically insignificant (Online Resource 1, Table S3). The data therefore do not support the claim that high-transfer households

increased labor supply more rapidly between the two waves. A more precise interpretation is that they remain at a higher level of labor intensity in 2020.

Overall, the follow-up evidence complements the cross-sectional results while placing an important limit on interpretation. We therefore describe the 2020 estimates as persistent level associations rather than as evidence of a persistent causal effect or a continuing labor-supply increase.

Table 8. Historical Cash Marriage Transfers and Parental Labor Supply in the 2020 Follow-up

	(1)	(2)	(3)	(4)
Panel A. Marriage-transfer intensity measured in 2018 and parental labor supply in 2020				
	Weekly hours	ln(weekly hours), workers	Excessive work (≥55h)	Excess hours above 55
ln(Cash marriage transfers)	0.6605*** (0.2262)	0.0429*** (0.0133)	0.0079*** (0.0030)	0.1448* (0.0822)
Observations	7,014	5,213	7,014	7,014
R ²	0.092	0.071	0.032	0.012
Panel B. Gender-specific 2020 associations				
Fathers: ln(Cash marriage transfers)	1.1584*** (0.2813)	0.0475*** (0.0154)	0.0119*** (0.0043)	0.2813** (0.1118)
Mothers: ln(Cash marriage transfers)	0.2982 (0.2955)	0.0406** (0.0187)	0.0049 (0.0037)	0.0384 (0.1073)
Mother – father difference	-0.8602** (0.3572)	-0.0069 (0.0215)	-0.0070 (0.0052)	-0.2429* (0.1447)
p-value of gender difference	0.016	0.747	0.176	0.093
Controls fully interacted with gender	Yes	Yes	Yes	Yes
Province fixed effects fully interacted with gender	Yes	Yes	Yes	Yes
Panel C. 2020 outcomes conditional on corresponding 2018 labor outcomes				
ln(Cash marriage transfers)	0.3578* (0.2093)	0.0356*** (0.0123)	0.0056* (0.0029)	0.1050 (0.0793)
Observations	7,008	5,209	7,008	7,008
Baseline 2018 labor outcome controlled	Yes	Yes	Yes	Yes
Province fixed effects	Yes	Yes	Yes	Yes

Notes: The 2020 labor measure combines household farm work, wage employment, and self-employment. Panel B uses a fully interacted parent-gender model; Panel C controls for the corresponding 2018 labor outcome. Community-clustered standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.10. Follow-up attrition, the alternative 2020 labor measure including side jobs, and 2018–2020 change-score results are reported in Online Resource 1, Table S3.

6. Conclusion and Discussion

This paper uses the 2018 China Health and Retirement Longitudinal Study and its 2020 follow-up to examine how children's marriage payments are associated with parental labor supply and household financial strain among rural parents aged 45–75. The analysis also moves backward in time to the period before marriage is formally realized. Rather than focusing only on whether parents remain economically active, we distinguish participation, total weekly hours, hours among workers, and excessive work, and we separate the occurrence of a cash marriage transfer from its intensity conditional on a positive payment. Within this observational design, the objective is to characterize how marriage-related financial obligations covary with household financing and labor allocation across different stages of the marriage process.

Four findings stand out. First, the occurrence of any cash marriage transfer is primarily associated with a higher probability of work and greater overall weekly hours. Conditional on a positive transfer, however, larger payments are associated with longer weekly hours, higher hours among those already working, and a greater probability of working at least 55 hours per week, while participation itself changes little. This pattern indicates that transfer intensity is mainly associated with adjustment along the intensive margin. Second, larger cash transfers are accompanied by a higher incidence and amount of observed non-mortgage debt, with the most consistent relationship appearing for borrowing from other households, individuals, or employers. We interpret debt as a separate outcome reflecting tighter household finances rather than as a mechanically established mediator.

Third, adjustment is visible before the marriage payment is realized. An unmarried son's cohabitation status in 2018 strongly predicts marriage by 2020 and is associated with higher non-mortgage debt observed before marriage, more other borrowing, and a higher probability of excessive work among mothers. Child-level payment histories reinforce the relevance of this son-focused setting: parental cash and housing contributions are both substantially more common and larger for sons than for daughters. Fourth, contemporaneous labor adjustment after realized payments is not systematically concentrated on either parent in 2018. By 2020, high-transfer households still exhibit higher labor intensity, and the association with overall weekly hours is more pronounced for fathers, but transfer intensity does not predict a significantly larger increase in labor supply between 2018 and 2020.

These findings extend the literature on marriage markets and household resource allocation in several ways. Wei and Zhang (2011) and Gao et al. (2023) show that Chinese households with sons accumulate savings and housing resources before marriage. Our results indicate that marriage imminence is also associated with differences in household financing conditions and parental labor allocation before marriage, extending the notion of marriage preparation beyond asset accumulation while avoiding assumptions about the purpose of observed liabilities. The joint association of marriage-transfer intensity with debt and work effort also complements evidence that borrowing capacity and liquidity constraints shape labor-market outcomes (He & le Maire, 2023) and that debt-servicing burdens can increase family labor supply (Zator, 2025), as well as Chen et al. (2024), who link bride-price payments to parental debt, working hours, and health. More broadly, the results suggest that marriage-related burdens need not be borne by the same family member at every stage: excessive-work responses before marriage are more visible among mothers, realized payments are associated with labor adjustment by both parents, and subsequent overall hours are more strongly related to transfer intensity among fathers.

The welfare implications extend beyond the marrying couple. Marriage-related obligations can spill over to the parental generation through debt accumulation and longer working hours, particularly in rural households where work arrangements are flexible but social insurance and formal financial buffers may be limited. Evaluations of marriage-market pressure and high marriage expenditures should therefore consider parental household budgets and the labor burden of middle-aged and older family members. Reducing rigid or status-driven marriage expenditures, improving access to appropriate financial smoothing mechanisms, and strengthening income and social-protection options for older rural workers may reduce the extent to which families rely on longer working hours as an adjustment margin. Because the empirical design does not isolate an exogenous marriage-payment shock, these implications should be viewed as policy-relevant directions suggested by the observed relationships rather than as causal estimates of specific interventions.

Several limitations remain. Marriage payments are reported retrospectively, and although historical amounts are converted to constant 2018 prices and alternative payment measures produce similar results, long recall periods may generate measurement error. Working hours are annualized from reported months, days, and daily hours and therefore cannot fully capture seasonal agricultural intensity or unpaid household and care work. The debt measures cover observable parental non-mortgage liabilities rather than the complete household balance sheet. Cohabitation strongly predicts near-term marriage but remains a proxy for marriage imminence, and the 2020 follow-up provides only a two-year horizon. Future work combining higher-frequency household expenditure, credit, and labor records—or credible exogenous variation in marriage costs—would allow sharper identification of the dynamic links among marriage expenditures, household financing, and parental labor supply.

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Data availability

The data used in this study are from the China Health and Retirement Longitudinal Study (CHARLS). The 2018 and 2020 CHARLS datasets are publicly available to registered users through the CHARLS data platform, subject to the project's data-use agreement and application procedures. The authors did not generate a new primary dataset for this study.

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